



KORIL Directory of Outstanding Korean Companies

April 2022



KOREA · ISRAEL
INDUSTRIAL R&D FOUNDATION

Korea-Israel Industrial R&D Foundation



About KORIL- RDF

Korea Israel Industrial R&D Foundation (KORIL-RDF) is a bi-national foundation, created by the governments of the Republic of Korea and the State of Israel, whose mission is to promote and support technological collaboration in innovative R&D between commercial companies in both countries.

The Foundation supports industrial R&D projects that lead to potential commercialization and contribute to the economic progress of the two countries; furthermore, to promote and encourage joint R&D collaborations between industrial corporations in Korean and Israel.

KORIL-RDF supports approved joint projects by disbursing cash grants up to 50% of the eligible R&D cost. These grants are subjected to repayment, up to but not beyond the total funded amount, should there be commercial revenues arising from the projects.



KORIL-RDF Funding Programs

Program	Feasibility Study	General	Pilot	Strategic	Lighthouse
Total budget	Up to USD 100,000			Unlimited	
Grant % of total budget	50%		30-50%		66%
Maximum Grant	USD 50,000	USD 2,000,000	USD 1,000,000	USD 3,000,000	USD 5,300,000
Submission (RFP)	All year	Twice a year		Once a year	1 pilot
Project duration	Up to 3 months	Up to 3 years	Up to 1 year	Up to 3 years	2-4 years
Eligibility	1+1 Korean and Israeli industrial companies				2+2 Consortium (1 company + 1 academia from each side)
Academia Participation	as a sub-contractor up to 20%			as a sub-contractor up to 30%	
Sector	All sectors except defense			Yearly selected sector	Robotics
Royalty repayment	none	at least 2.5% of gross sales until 100% of grant received			
Approval authority	Chief Executive				BOD
TRL	Pre-R&D	4-6	6-8		3-8

For more details, please visit www.koril.org



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122	EO Technics
123	Genicom
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125	Global Standard Technology
126	GLOTEC Corp.
127	GOC
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129	GSI
130	Haesung Optics
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202	WINIX
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235	KMW
236	NAONWORKS
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KORIL
Directory of
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Companies

01

Biomedical



Alpinion Medical Systems

Sector : Biomedical
Sub-sector : Therapeutic and diagnostic devices
CEO : Park Hyeon Jong
Founded : 2007. 4. 24
Employees : 200
Homepage : www.alpinion.co.kr
Sales : \$ 47 million
Listed :
Qualified* : Wolrd Class

Introduction

As a company specializing in ultrasound medical devices which contribute to health lives, Alpinion has focused on developing core technologies and delivering the best value to our customers, since its establishment in 2007. As an innovator in the medical device industry, Alpinion plans to progressively expand its business scope.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ Only company in Korea

that has in-house Therapeutic Ultrasound technology



Ultrasonic diagnosis device

Ultrasound in a frequency which is inaudible to the human ears is radiated to the human body and the reflected ultrasound is used to image the internal part of the body for real-time diagnosis. Abnormal symptoms in the hearts, carotid arteries, abdominal organs and muscles can be observed real-time with this medical device



Ultrasound treatment device

Treatment device using ultrasound that connects high intensity ultrasound into the body to necrose tumor

aramhuvis

Sector : Biomedical
Sub-sector : beauty care devices
CEO : Jung Jungil
Founded : 2002
Employees : 38
Homepage : www.aramhuvis.com/en
Sales : \$ 4 million
Listed :
Qualified* : ATC

Introduction

The devices they deliver consistent and accurate images by analysis & diagnosis at the same time. Using the state-of-the-art optical technology, aram huvis analysis devices can take high quality analysed images and share with users. Users can check the customer's current skin condition by comparing actual data measured with the average data of the same age group.

This type of measurement technique has been evolving since 2002, and has succeeded in creating many backgrounds. And Finally we are building up Artificial Intelligent system on the devices based on data accumulated over a period of more than 10 years.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



ASM

ASM is an advanced high-end product line that can be used independently with their own OS(Android) and built-in screen. It has interchangeable magnification lenses with larger screen and longer battery life.

- All-in-one with screen, lenses and its own OS
- Analysis mode changeable by switching lenses
- Analysis available for skin, scalp/hair, skin & hair tone
- Analysis at the same time (time to complete analysis, 15 to 30 seconds for each category)
- Screen mirroring function



ASL

ASL Small, Simple, Smart! The most efficient choice! Aramo Smart Lite Mobile Innovation Analysis System.

- Connect to smart devices with Wi-Fi
- Analysis mode change with switching lenses
- Skin, scalp/hair diagnosis & analysis
- Small, simple, easy to analysis
- Smart to connect to any device



API

API Simple & Ergonomic design Connect to Smartphone or tablet

- Connect to smart devices by Wi-Fi
- Device with mounted and fixed magnification lens
- Analysis of skin, scalp and hair
- A simple professional device
- Smart to connect to any device



ASN2

ASN2 A perfect analysis device just in your grip High portability makes analysis possible anywhere you go ASN II

- All-in-one with screen, lenses and its own OS
- Device with mounted and fixed magnification lens
- Analysis available for skin, scalp/hair, skin & hair tone
- Analysis at the same time (time to complete analysis, 15 to 30 seconds for each category)
- Screen mirroring function



ASW

ASW can be connected with USB or wirelessly to a smart device. It is a high-end product line that is fixed installation with interchangeable lenses to support high magnification.

- Connect to PC, smart devices with USB or Wi-Fi
- Analysis mode changeable by switching lenses
- Analysis of skin, scalp and hair
- Highest-performing, true professional analysis device
- Built-in UV sterilization lamp

BCWORLD PHARM

Sector : Biomedical
Sub-sector : Red bio
CEO : Steve H. Hong
Founded : 1980
Employees : 293
Homepage : <http://en.bcwp.co.kr>
Sales : \$ 49 million
Listed : KOSDAQ
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

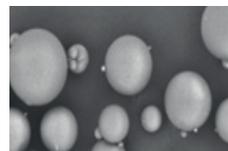
Introduction

BCWORLD PHARM is a technology-driven pharmaceutical company whose expertise in formulation and process development enables it to provide quality generic products as well as value-added novel formulation products. Newly established Global Research Institute (GRI) carries out a number of projects associated with DDS technologies and develops a variety of new drug candidates.

In facilities complied with EU/US GMP standards, liquid and powder injection, lyophilized injection and oral solid forms are manufactured. In 2019, the manufacturing site dedicated to Carbapenem injections has been completed its construction in Wonju city.

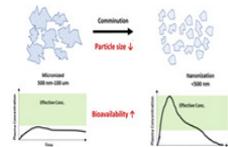
BCWORLD PHARM invests more than 15% of sales to R&D to develop specialty products using cutting-edge platform technologies. We were selected as Advanced Technology Center (ATC) by Ministry of Trade, Industry & Energy. Our ultimate goal is to expand its presence to overseas markets and become a globally respected pharmaceutical company.

Main Product



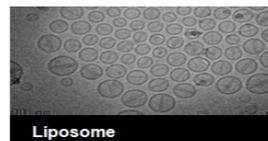
LASTINA Microsphere

- Long-Acting Depot Injection technology that has effectiveness for a few months maximum with single administration.
- Development of the "Global First Generic" based on BCWP's own patent
- Commercialization: Co-development and Licensing-Out Agreement with AET (Germany)



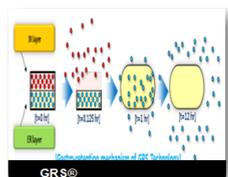
Long-Acting Nanosuspension

- Long acting suspension based on nanosuspension technology
- Nano-scale comminution of BSC Class II APIs allows for accurate release profile adjustments
- Excellent reproducibility and easy to scale up
- Improve the quality of life for the patients with one injection



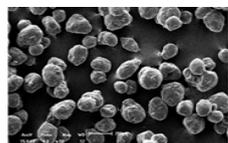
Liposome technology

- Longer circulating stealth liposome (Long half-life & Passive Targeting).
- Same composition to the reference.
- Lower toxicity and enhanced bioavailability



Gastro Retentive System

- Capable of extending gastric retention time due to swelling and floating property at the stomach and increases the absorption of the drugs.
- Capable of combining 2 substances that immediate action and extended action are necessary.
- Increase in convenience and adherence of the patients by enabling once daily formulation.



MPIT-FDT-SR

- The first anti-emetic FDT development in Korea.
- Technology to maximize the convenience of the administration and increasing patients' compliance (Capable of administer once daily without water).

Boditech Med

Sector : Biomedical
Sub-sector : Medical devices and diagnostic devices
CEO : Eui-yeol Choi
Founded : 1998
Employees : 450
Homepage : www.boditech.co.kr/en
Sales : \$ 123 million
Listed : KOSDAQ
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Boditech Med Inc. has always taken one step forward with the rapid changes in the IVD market to meet customer's needs. Founded in 1998, we Boditech Med Inc. have been focusing on developing key technologies of immune-diagnosis and molecular diagnosis. Based on innovative R&D with mutual trust and respect, we are providing reliable in-vitro diagnostic solutions with our clients from over the 130 countries. Boditech Med Inc. is constantly striving to become a global in-vitro diagnostic company realizing the value of respect for life. We wish to finally improve quality of life across the world.

We have the technology to quantitatively diagnose more than 60 diseases using the fluorescence immunodiagnosis system.

Main Product



AFIAS-10

Automated Immunoassay Analyzer with blood collection tube, including all-in-one cartridge system. AFIAS-10 is a unique integrated Sample-to-Answer system that can execute 10 parallel tests for each different parameter. AFIAS-10 provides a quick and simplified operation and reliable test result with automatically collecting a sample from a blood tube.



AFIAS-6

Automated Immunoassay Analyzer with the all-in-one cartridge system. AFIAS-6 is a unique integrated (sample-to-answer) system featuring 6 parallel tests of differing parameters, fast turn-around and high sensitivity, rivaling those of the full-featured systems in commercial labs.



ichroma™ III

High-throughput immuno-analyzer that enables simultaneous testing for various parameters. ichroma™ III accepts cartridges for various biomarkers in random sequence and processes them in a preset temperature, even combines test parameters with differing incubation period. The user will prepare each cartridge before inserting it to the system, one at a time.



ichroma™ II

A compact and easy-to-use, fluorescence based POCT immunoassay analyzer. ichroma™ II is a compact, easy-to-use diagnostic immuno-analyzer to measure the presence of various biomarkers for cardiac, cancer, hormones, infectious diseases, autoimmune diseases, and metabolic diseases.



COVID-19 Ag

A screening test kit that can detect COVID-19 in 12 minutes. The SARS-CoV-2 virus shares common symptoms with other respiratory diseases. It is contagious even in the asymptomatic stage, which makes it imperative to diagnose the virus early to provide timely treatment and to prevent further transmissions. With its fast turnaround time and high sensitivity, COVID-19 Ag tests would help with the screening program against the COVID-19 pandemic.



Boditech Quick™ COVID-19 Ag Nasal

A quick and simplified rapid test kit that determine COVID-19 antigen with nasopharyngeal or nasal swab. Boditech Quick™ COVID-19 Ag Nasal can help to quickly and accurately determine the presence or absence of SARS-CoV-2 antigen at anytime and anywhere. It is very useful as a screening test for SARS-CoV-2 virus infection (COVID-19).

Boryung Pharmaceutical

Sector : Biomedical
Sub-sector : Pharmaceutical bio
CEO : Jang Doo Hyeon, Kim Jeong Gyun
Founded : 1963. 11. 11
Employees : 1,374
Homepage : www.boryung.co.kr
Sales : \$ 523 million
Listed : KOSPI
Qualified* : World Class

Introduction

Boryung Pharmaceutical started from Boryung Pharmacy which opened in Jongno 5-ga in 1957. After establishing Boryung Pharmaceutical in 1963 based on it, it has attained recognition as a credible pharmaceutical company, thanks to its outstanding products such as Gelfos and Yonggaksan Powder. In 2011, it started the sales of 'Kanarb', Korea's first new drug for high blood pressure and since 2014, it is continuously recording 1st place in monthly sales as a single product in the ARB series and it has become Korea's representative new drug, being exported to many countries around the world. Recently, Boryung Pharmaceutical is growing into a global pharmaceutical company by fostering anti-cancer business sector as a new growth engine.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Prescription amount of Kanarb Family exceeded **100 billion in 2020**



Prescription drug, the power of Boryung Pharmaceutical

- Cardiovascular: Kanarb, Dukarb, Tuvero, Dukaro, Akarb
- Anti-cancer drugs: Gemzar, Campto, Megace, Oxalitin
- Antibiotics/general drugs: Stogar, Meiact, Maxipime, Naseron

Excellent efficacy of over-the-country drugs

Gelfos, Yonggaksan Powder, Yonggaksan Cool, DuoDerm, Rohto

Caregen

Sector : Biomedical
Sub-sector : Industrial bio
CEO : Jeong Yong Jee
Founded : 2001. 8. 23
Employees : 161
Homepage : www.caregen.co.kr
Sales : \$ 49 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Caregen Co., Ltd. is a bioengineering company that specializes in researches for realizing healthy future of mankind by using the latest bioengineering technologies. Since its establishment in 2001, it has become a global leader in the R&D field regarding biomimetic peptide. Its internally developed peptide has led to over 400 substance patents across the world and it is engaged in medical device, functional health food, medicine and medical supplies businesses.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



REVOFIL

DRCY-Hair-Filler



Pelo Baum_3 products

Purilux Plus_3 products

CELLBIOTECH

Sector : Biomedical
Sub-sector : Red bio
CEO : Myung Jun, Chung
Founded : 1995
Employees : 133
Homepage : www.cellbiotech.com
Sales : \$ 39 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

Cell Biotech Co. Ltd. is a 27-year-old high-tech bio-venture company that specializes in fermentation and microbial coating technology for Lactic acid bacteria - with a fully integrated supply chain from raw material to finished supplements and owned the specific probiotics brand Duolac® for worldwide market. Cell Biotech has developed a unique double coating system for live bacteria which increase stability and bioavailability. Cell Biotech covers 26 countries in Europe, 12 in Asia, 2 in America, and UAE, Israel, and South Africa with a network of distributors. CELL Biotech plans to launch cosmetics using lactic acid bacteria and focuses on the research and development of colorectal cancer drugs using lactic acid bacteria technology through government support.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Duolac Gold

probiotics product that have been popular for a long time



Duolac care

capsule type of pro biotics



Duolac ATP

probiotics product promoting skin health



Duolac YamYam

chewbale table of probiotics for children

CERAGEM

Sector : Biomedical
Sub-sector : Therapeutic and diagnostic devices
CEO : Lee Gyeong Soo
Founded : 1998. 7. 20
Employees : 984
Homepage : www.ceragem.co.kr
Sales : \$ 445 million
Listed :
Qualified* : World Class

Introduction

Established in 1998, Ceragem is a global home healthcare company pioneering the medical home appliances. Through over 50 overseas companies and over 2,5000 distribution channels in over 70 countries, Ceragem contributes to enhancing the quality of customer's lives in pursuit of healthy and beautiful lives.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Medical home appliance for the spine



Relaxation appliance



Cleaning appliance

Ceragem V6

Medical home appliance for the spine approved for its 4 usage purposes; body traction for treating herniation of intervertebral disc and degenerative stenosis, muscle pain relieve and blood circulation improvement

PAUSE

Massage chair that presents artistic relaxation with its massage functions and stylish design

Cerabot

Mopping robot cleaner equipped with 99.9% sterilization water and 3 rags

CORESTEM

Sector : Biomedical
Sub-sector : Red Bio
CEO : Kyung Suk Kim
Founded : 2003
Employees : 70
Homepage : www.corestem.com
Sales : \$ 2 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

CORESTEM is a bio-pharmaceutical company specializing in the research and development of personalized stem cell therapies for incurable diseases, and it is based on stem cell technology that optimizes cost and stability by focusing on development of incurable diseases. Through more than a decade of research, we are securing the cell technique of Bone marrow-derived Mesenchymal Stem cell, Extracellular Vesicle treatment and Induced Pluripotent Stem Cells (iPSC) for incurable degenerative diseases. Corestem has a vision that establish an integrated innovation engine, combining unparalleled scientific expertise, ushering in a new era of tailored medical products with a suite of curative stem cell therapies and treatments.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Neuronata-R Inj

NEURONATA-R® inj is an Autologous Bone Marrow-Derived Mesenchymal Stem Cell therapy for amyotrophic lateral sclerosis (ALS), and this product that induces a disease-modifying treatment effect in amyotrophic lateral sclerosis, thereby alleviating deteriorating physical functions in patients.

- FDA Orphan Drug (2018) & EMA Orphan Drug designated (2019).
- MFDS Phase 3 & FDA Phase 3 IND approved (2021).



COSMAX NBT

Sector : Biomedical
Sub-sector : Industrial bio
CEO : IL YUN WON
Founded : 2001. 12. 28
Employees : 648
Homepage : www.cosmaxnbt.com
Sales : \$ 241 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

With the mission of "Promoting health life and happiness of customers", it is taking a leap towards becoming a global functional health food company representing Korea. By providing One-Stop process through abundant experience and latest technology, covering extensive stages, from product planning to production of finished products, functional health food is being supplied to over 300 companies around the world.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



★ **Respecta**
1st place in feminine lactobacillus sector



Lactobacillus (Epp-Line)

Probiotics equipped with a dedicated lactobacillus line-up is the main product. Recently focusing on 'Respecta', individually approved probiotics for feminine health.

Personalized functional health food

Personalized functional health food operated as part of regulatory exception trial project for substantiation.



Daewon Pharm

Sector : Biomedical
 Sub-sector : Red bio
 CEO : Seung Ryel BAEK
 Founded : 1958
 Employees : 1,017
 Homepage : www.daewonpharm.com
 Sales : \$ 247 million
 Listed : KOSPI
 Qualified* : ATC

Introduction

Daewon Pharm is a pharmaceutical company that based on its advanced facility & Plant, investment and excellent R&D capabilities, we have developed the 'Pelubi Tab', a new drug for the Korean & Global market. Daewon Pharmaceutical's believe that customers is the most important core value of corporate management.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Pelubi Tab.

The Pelubi tablet, a series of NSAIDs developed from raw materials to end product by Daewon Pharm.Co.Ltd., was certificated as the 12th new medicine by The Korean Food and Drug Administration. It is a NSAIDs that is highly effective for pain relief and has less side effects in comparison with existing NSAIDs products.

Renamezin Cap.

Renamezin Cap. (Spherical carbonaceous adsorbent): Renamezin, indicated for chronic kidney disease, is the IMD (Patented API). Renamezin is the first encapsulated oral adsorptive charcoal in Korea.



Freefol-MCT Inj.

Freefol-MCT Inj., the world's first microemulsion propofol, was developed successfully by Korean technology and demonstrated it remarkable safety through clinical trials. As the only Propofol type for the anti-exogenous infectious bacteria, it sustains its long-term stability even when taken with other medicines.



Daewoong Pharmaceutical

Sector : Biomedical
 Sub-sector : Pharmaceutical bio
 CEO : Jeon Seung Ho
 Founded : 1961. 1. 10.
 Employees : 1,510
 Homepage : www.daewoong.co.kr
 Sales : \$ 961 million
 Listed : KOSPI
 Qualified* : World Class

Introduction

Daewoong Pharmaceutical is a global healthcare group, established in 1945 under the philosophy of 'Developing quality medicine to safeguard the health of the people and to contribute to a healthier society'. It has been leading the development of the domestic pharmaceutical industry as the leader of the healthcare industry equipped with pioneering competence in R&D based on its global network. It aims to achieve the objective of 'Global 2025 Vision' which involves entering the Top 10 in the countries of business, building export networks in over 100 countries and overseas sales surpassing domestic sales by the year 2025.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ NABOTA
 Exported to over **80** countries in the world

★ URSA
 No. **1** sales of hepatic protector in Korea



OTC

Ursa, Impactamine, Bearse, EZN6, EasyDerm, etc.

ETC

NABOTA, OLOSTAR, OLOMAX, EGF, etc.



Dio

Sector : Biomedical
Sub-sector : Medical information and systems
CEO : Kim Jin Baek
Founded : 1988. 1. 25
Employees : 482
Homepage : www.dio.co.kr
Sales : \$ 125 million
Listed : KOSDAQ
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Dio Co., Ltd. is growing into a world-class company by proposing new solutions under the name, digital implant in South Korea which is known to be a developed country for its world-class implants. By launching a digital implant surgery guide system, Dio Co., Ltd. has become South Korea's representative implant company that is leading the realization of digital dentistry which has been considered as a long-sought aspiration in the dental world. It has launched innovative products, such as digital implant system, UV implant system, digital orthodontic system, digital prosthodontic system, pioneering all areas of dental treatment. Through its technology research center located in the head office at Centum City, Busan and its innovation R&D center located in Magok, Seoul, it is focusing on product development and research on IT and based on 15 overseas branches and its global network in over 70 countries around the world, such as Global Dio Navi Center, it is pioneering market expansion. Moreover, it is a world-class company that pursues the happiness and health of mankind by devoting itself to R&D and quality control to achieve the company's vision under the management policy of 'Digital Innovation'.

Main Product

The first digital guide system to exceed **500,000** holes

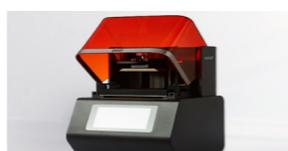
Dental implant

Digital implant system

World's first Full Digital Implant Guide System, 'DIONavi'

Digital edentulous jaw implant system

World's first Full Digital Udentulous Jaw Implant System, 'DIONavi. Full Arch'



UV implant system

UV Active & UV Activator 2

Digital orthodontic system

World's first 3D printing digital orthodontic system, 'DIO Ortho navi'

Digital prosthodontic system

Digital prosthodontic system, 'DIO Ecosystem'
 Ec CAD, 3D printer 'DIO PROBO Z',
 3D printing material 'DIONavi-P.MAX'

Dongkook Pharmaceutical

Sector : Biomedical
Sub-sector : Red bio
CEO : Song Junho
Founded : 1968
Employees : 1,109
Homepage : www.dkpharm.co.kr
Sales : \$ 540 million
Listed : KOSDAQ
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Dongkook Pharmaceutical is a 50-year-old company which is organized into four business sectors: OTC, ETC, Healthcare, and Contrast Medium & Medical Devices. The Company is enlisted on the KOSDAQ in May 2007. DK pharma is well known for branded OTCs and cosmeceuticals continue to skyrocket. For a global market, injectable complex generics (long-acting, liposomal injectable and etc), medical devices and APIs have distributed to over 50 countries.

Main Product



Lorelin Depot Injection

Lorelin Depot Injection contains Leuprolide acetate, LHRH analogue releasing from hypothalamus. Lorelin Depot Injection is developed as a depot preparation of leuprolide acetate using micro-encapsulated formulation demonstrated continuous release of the drug for 4 weeks or 3 months, and the effective suppression of testosterone after monthly injection.

Ingredient:
 Leuprolide acetate 3.75 mg/mL, 7.5 mg/mL, 11.25 mg/mL or 22.5 mg/mL

Indications:
 1. Prostatic cancer
 2. Endometriosis
 3. Premenopausal breast cancer
 4. Reduction of Myoma Nucleus and Improvement of Symptom in uterin myoma accompanied with Hypermenorrhoea, Hypogastrum ache, lumbago, Anemia
 5. Central precocious puberty
How Supplied:
 - 3.75 mg : 1 vial / Box
 - 7.5 mg : 1 vial / Box
 - 11.25 mg : 1 vial / Box
 - 22.5 mg : 1 vial / Box



Pofol Injection

Pofol Injection is an intravenous anaesthetic which is chemically unrelated to other anaesthetics. Induction of anaesthesia with Pofol Injection is rapid, and maintenance can be achieved by either continuous infusion or intermittent bolus injections, with either nitrous oxide or opioids used to provide analgesia.

Ingredient:
 Propofol 10 mg/mL
Indications:
 1. Induction and maintenance of general anaesthesia
 2. Sedation of ventilated patients receiving intensive care
 3. Sedation for diagnostic and surgical procedures
How Supplied:
 - 12 mL / 20 mL : 5 ampoules / Box
 - 50 mL / 100 mL : 1 vial / Box



Teicon Injection

Teicon Injection is a bactericidal, glycopeptide antibiotics, produced by fermentation of Actinoplanes Teichomyceticus. It is active against both aerobic and anaerobic Gram-positive bacteria.

Ingredient:
 Teicoplanin 200 mg/mL or 400 mg/mL
Indications:
 Skin and soft tissue infections, urinary tract infections, lower respiratory tract infections, joint and bone infections, septicaemia, endocarditis and peritonitis related to continuous ambulatory peritoneal dialysis
How Supplied:
 - 200 mg : 1 vial / Box
 - 400 mg : 1 vial / Box



Hyaron Injection Hyaron First Injection

Sodium Hyaluronate is produced by the microbiological fermentation method. These products contain sterile, highly purified and viscous solution. They can provide relief of pain due to osteoarthritis of the knees effectively adding volume over time.

Ingredient:
 Hyaron : Sodium Hyaluronate 25 mg per 2.5 mL
 Hyaron First : Sodium Hyaluronate 20 mg per 2.0 mL
Indications:
 1. Degenerative osteoarthritis of the knees
 2. Shoulder periartthritis
How Supplied:
 Hyaron : 10 prefilled syringes / Box
 Hyaron First : 9 prefilled syringes / Box



Bellast Series

These products are sterile physiological gel of cross-linked hyaluronic acid, of non-animal origin. Each product is designed to rejuvenate by filling wrinkles and folds, and give you immediate but long-lasting effect with less adverse events or complications.

Ingredient:
 Crosslinked HA (HA concentration upto SKU)
Indications:
 Temporal correction of moderate to severe wrinkles(folds), or fine wrinkles/lines
How Supplied:
 1 prefilled syringe with two needles / Box

Firson

Sector : Biomedical
Sub-sector : Medical devices and diagnostic devices
CEO : Kim Dong Jin
Founded : 1957
Employees : 250
Homepage : <http://www.firson.co.kr>
Sales : \$ 41 million
Listed :
Qualified* : ATC

Introduction

Firson offers a platform that provides various of disinfectant, anesthetic. We have many patents and intellectual property by continuous development of new drugs and research projects. Regarding R&D, 6 research projects total 2.24 billion won, new drug development is nearly over 20. Also, Firson has 17 production lines, manufacturing of the safest and highest quality products and manufacturing of total 250 products for external, internal liquid, ointment and plaster so on. Firson is recognized by domestic and overseas pharmaceutical companies for its superior quality.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Opidex OPA

Opidex OPA's intended use is chemical sterilization and disinfection of medical tools. It is designed for reprocessing heat sensitive semi critical medical devices that are unsuitable for sterilization. Surgical operation tool is endoscopes, lens built in tools, anesthesia tools, artificial respiration tools. Its features are rapid disinfection, proven safety and efficacy, high reusability and cost saving.



Beracaine spray

Beracaine spray's indications are

- Dentistry : Before injection, dental impression, x-ray scaling
- Otolaryngology : Maxillary antrum puncture, simple surgical treatment for nasal cavity, pharynx and rhinopharynx, paracentesis
- Obstetrics : Relieving pain during the final stage of childbirth, perineotomy or perineorrhaphy

GenBody

Sector : Biomedical
Sub-sector : Medical Devices and diagnostic devices
CEO : Jinsoo Kim
Founded : 2012
Employees : 75
Homepage : www.genbody.co.kr
Sales : UNDISCLOSED
Listed :
Qualified* : ATC

Introduction

GenBody Inc. was established in 2012 with pursuit for human and global health. GenBody Inc. creates innovative technologies for the development of raw materials for diagnostic use such as ELISA and rapid diagnostic test. GenBody Inc. also have patented technologies including fluorescent immuno-diagnostics, which will be one of major IVD technologies in the future.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

GenBody COVID-19 Ag

GenBody COVID-19 Ag is an immunochromatographic assay kit for the qualitative detection of SARS-CoV-2 antigen in nasopharyngeal, oropharyngeal, and nasal swab from human. This kit is simply used to detect, providing results within 15 to 20 mins. GenBody COVID-19 Ag is one of a few Korea products that has US FDA EUA authorisation.



GenBody COVID-19 Ag Home Test

GenBody COVID-19 Ag Home Test is a lateral flow immunoassay intended for the qualitative detection of antigen from SARS-CoV-2 from individual's nasal specimen. This device is a self-testing device that layperson can perform themselves. GenBody COVID-19 Ag Home Test is authorised to be used in various countries.



HDXWILL

Sector : Biomedical
Sub-sector : Medical devices and diagnostic devices
CEO : Jung Sang-Jin
Founded : 2008
Employees : 115
Homepage : www.hdxwill.co.kr
Sales : \$ 31 million
Listed :
Qualified* : ATC

Introduction

HDXWILL provides dental imaging solutions which are essential in digital dentistry era. X-ray CBCT and intra-oral scanner are our main products. The data from these imaging devices are required at the starting point of all digital dentistry. We also have unique features which incorporate both data for more reliable and accurate diagnosis and treatment. These technologies are patented. The greatest strength of HDXWILL comes from its software technology. Our customers will experience new standard of digital imaging and become digital dentistry more easily.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



eco-x

Ecox is dental X-ray CBCT system. Usually, X-ray CBCT exposes larger amount of X-ray dose than X-ray panoramic system so that it is recommended to limit its use while X-ray panoramic system is routinely used for every patient. However, to enter the digital dentistry era, CBCT data should be allowed to be taken more frequently because it is much more accurate and informative. For this purpose, the X-ray amount of Ecox is greatly reduced and the amount is even smaller than X-ray panorama. Meanwhile, the image quality is fascinating thanks to our AI technology.

- Small size system, fit for small X-ray room.
- Ultra-low dose X-ray CBCT even lower than X-ray Panorama.
- Clear Image quality with AI technology.



Real Arch

Intra-oral scanner is very popular nowadays. However, it is well-known that the accuracy of every system of different manufacturer is not consistent enough, especially when there is blood or metal. RealArch overcome these problems by combining scan data with CBCT data. Our customers will experience 100% reliability.

- Fast scanning.
- Data binding with CBCT, patented.
- 100% consistent accuracy.
- 50um resolution accuracy.

Huons

Sector : Biomedical
Sub-sector : Pharmaceutical bio
CEO : Song SooYoung
Founded : 2016.05.03
Employees : 798
Homepage : www.huons.com
Sales : \$ 364 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Huons Co., Ltd. has fostered its competence by producing exclusive and outstanding essential medications based on endless challenges and transformations over the past 50 years. Having built a stable product portfolio, comprised of prescription drugs, well-being drugs, plastic container injections, local anesthetics and medical devices, Huons Co., Ltd. is preparing to become the Top 10 total healthcare company in 2020.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

- 57% domestic market share
No. 1 local anesthetics
- 70% domestic market share
No. 1 plastic injection

Prescription drugs and over-the-counter drugs

Local anesthetics, plastic injections, obesity medication, vitamin injections, prescription drugs

Eye drop products

Eye drops for dry eyes (Kynix 1, 2, etc.)

Product groups for pain

Medication for degenerative arthritis, Revitalex



InBody

Sector : Biomedical
Sub-sector : Therapeutic and diagnostic devices
CEO : Cha Gi Cheol, Lee Ra Mee
Founded : 1996. 5. 15
Employees : 285
Homepage : www.inbody.co.kr
Sales : \$ 115 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

InBody Co., Ltd. is a trusted global healthcare company ranking 1st place in the world and is considered as a standard of body composition analysis to the extent that 'Body composition analysis=InBody analysis'. There are 7 overseas branches including USA, Japan and Europe and partner companies in over 80 countries. The company continues to undergo 20% growth annually.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

1st place in the world's market share for body composition for experts

1st place in domestic market share for body composition



InBody

The body composition analyzer for experts is used in each professional field, such as hospitals and fitness centers and the analysis result becomes an important indicator for checking the health status



InBody Dial

The body composition analyzer for household use prides in high accuracy. Body composition data sent through the Bluetooth function can be managed through the App

INIST ST

Sector : Biomedical
Sub-sector : Pharmaceutical bio
CEO : Han Ssang-Soo
Founded : 1994. 9. 1
Employees : 153
Homepage : www.inistst.co.kr
Sales : \$ 45 million
Listed :
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

With main business focused on developing ingredients for medicine and synthesis technology, INIST ST is a company specializing in Active Pharmaceutical Ingredients (API) manufactures and distributes Active Pharmaceutical Ingredients and conducts R&D on new drugs and supplies them in Korea and overseas. Founded in 2000, it has contributed to the development of the domestic API market by manufacturing and supplying domestic ingredients with outstanding quality when the ingredients of the domestic pharmaceutical market used to rely heavily on overseas import. It is a hidden champion of API equipped with competitiveness in the overseas market. Through progressive growth which is hard to witness in the domestic medical industry, it is growing into a group specializing in medicine, equipped with all processes, from distribution of medicine, ingredient and finished product. In 2015, it established an API manufacturing facility dedicated to Targeted Agents, conforming to the global GMP regulations in Osong Life Science Complex and is in the midst of FDA approval procedure in order to advance into the US market.

Main Product

Medicine for stomach ulcer

Developed high purity tablet technology with more than 99.9% Rebamipide, highest proportion among the same ingredient that is exported to the Japanese pharmaceutical industry (No. 1 market share in Japan)



Medicine for erectile dysfunction

Sildenafil (main ingredient of Hanmi Pharm's Palpaljeong medicine for erectile dysfunction), Tadalafil (main ingredient of INIST Bio Pharmaceutical's 'Heros' and Hanmi Pharm's 'Gugu Tab.')



Medicine for hyperlipidemia

Rosuvastatin (Main ingredient of Hanmi Pharm's composite modified new drug, 'Rosuzet')



Anti-virus medicine

Oseltamivir (Main ingredient of Korea's first influenza medicine, 'Hanmi Flu')



INTEROJO

Sector : Biomedical
Sub-sector : Medical materials
CEO : No Shi Cheol
Founded : 2000. 10. 25
Employees : 550
Homepage : www.interojo.com/
Sales : \$ 97 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Established in 2000, Interjojo is a specialized contact lens manufacturer that first laid a foundation overseas centered on the European and Middle Eastern markets based on quality and technology. The listing in the KOSDAQ in marked a turning point and the launch of the brand, 'Clalen' in the Korea market quickly led to growth in sales. Through one day color lens, it slowly started to increase the market share and is growing into a global contact lens company.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Clalen O202 Color One Day

The world's first one-day color lens made of silicon hydrogel. New product that offers moist and comfortable feeling for a long period of time with its high oxygen delivery rate.



Clalen Iris Soul Brown

Design that divides pupils and iris and enhances your look with naturally radiant eyes. Product with improved convenience through daily wear.



Bella

As a product exported to the Middle East, it is a premium product targeting the characteristics of the region and thus, has been recognized by the consumers for its unique clear color expression of the Middle East, along with eyesight correction.

Intromedic

Sector : Biomedical
Sub-sector : Medical devices
CEO : Cho Yongseok.
Founded : 2004
Employees : 64
Homepage : www.intromedic.com
Sales : \$ 6 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

Intromedic Capsule Endoscope System is an orally ingested disposable capsule endoscope intended for visualization of the small bowel mucosa as a tool in the detection of abnormalities of the small bowel.

- Capsule: Capsule moves slowly through the small intestine tract, capturing images of the small intestine at 3 frames/sec.
- Receiver: Receiver provides 9 receiving channels through which signals can be received. The pair of channels which have the best signal characteristics are selected and used for the receipt of the of image signals. The Receiver also connects to the Software to upload image data taken of the patient's GI tract.
- Data transmission : Capsule transmits the data from the Capsule via Human Body Communication (HBC). This communication method uses the human body as the medium to transmit signals from internally within the body (from the Capsule) to external sensors (data cable sensor pads).

* Refer to 396p for detailed information about ATC, and World Class

Main Product



capsule captures images of the GI tract, which are sent via Human Body Communication to sensor pads which are affixed to the patient body. The sensor pads are connected to the receiver by the data cables. The image data is stored on the receiver for the duration of the patient procedure. After removing the receiver set from the patient body, the receiver is connected via USB to the Commercial PC and the image data is uploaded.

Specifications

- Image size : 320 * 320 pixel, CMOS Image Sensor
- Operation voltage: 3V
- Image Frame: 3 Frame / sec
- Capsule can operate inside a human body for 12 hour
- 6LED module

- Light and compact design with wide LCD screen not only benefits patients but also enables physicians to easily check capsule location real-time. Images can be captured on the screen during the entire procedure
- For each step, intuitive reminders are displayed to help users properly operate the procedure. A device self-check will be automatically progressed to prevent both technical and user error



i-SENS

Sector : Biomedical
Sub-sector : Therapeutic and diagnostic devices
CEO : Cha Geun Sig
Founded : 2000. 5. 4.
Employees : 771
Homepage : www.i-sens.com
Sales : \$ 194 million
Listed : KOSDAQ
Qualified* : Wolrd Class

Introduction

i-SENS is a global company that develops, produces and sells blood glucose monitoring devices and various blood analyzing devices based on high-tech bio sensors and electrochemical technologies. 'CareSens', the world's best blood glucose monitoring device brand made with cutting-edge bio sensor technology is being exported to over 80 countries, including USA, Japan and Europe. Export accounts for approximately 80% of the sales, indicating how popular it is in advanced countries as well as in the world market.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 domestic market share for blood glucose monitoring device



Blood glucose monitoring device

'CareSens', a blood glucose monitoring device brand with further enhanced accuracy and precision by applying exclusive NeuralSync Sensing Technology. Blood glucose result can be sent to smart phones for convenient blood glucose management



Glycated hemoglobin and albumin/creatinine ratio analyzing device

'A1Care' which measures glycated hemoglobin and albumin/creatinine ratio accurately and precisely by using enzyme reaction. All-in-one cartridge is used for convenient screening preparation



Blood gas and electrolyte analyzing device

'i-SmartCare 10' is compact in size, optimized to POC and enables blood gas and electrolyte measurements to be taken. Integrated cartridge is used so maintenance is not required

JPI Healthcare

Sector : Biomedical
Sub-sector : Medical devices and diagnostic devices
CEO : Kim Jin Guk
Founded : 2021
Employees : 130
Homepage : www.jpi-korea.com
Sales : \$ 28 million
Listed :
Qualified* : ATC

Introduction

JPI Healthcare's mission is to become an innovative imaging solution provider. Since our establishment in 1980, JPI has been contributing to the improvement of the quality of healthcare market by developing new technologies and we are doing so by working closely with key partners globally and help them to develop some of the most unique and innovative x-ray systems that change the way of diagnosis.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Simple Digital Imaging Solution

JPI Healthcare's own Simple Digital Imaging Solution is a very simple and straightforward solution, consisted of Cube50 portable generator, low dose flat panel detector and ExamVue Duo. The software is triggered by "Modality Work List," which was designed to help saving great deal of time and improving the work flow efficiency. Also, JPI Healthcare's own image processing algorithm allows to acquire exceptionally high quality images even in adult chest images, with limited output of Cube50 Thanks to the simplicity and fully functional features, Simple Digital Imaging Solution package is widely used in pop-up clinic.



ExamVue Duo

Examvue Duo Software is a professional image solution software with specialized modules to acquire, adjust, measure, analyze, and manage images acquired from flat panel detector. Not only it's integrated with wide range of flat panel detectors and generators, it's also equipped with tools to enhance the workflow, allowing practitioner to be more efficient and flexible, resulting in better service to end users.



KJ MEDITECH

Sector : Biomedical
Sub-sector : Restoration/assistance and welfare equipment
CEO : Moon Hyuck Ki
Founded : 1980
Employees : 44
Homepage : www.kjmedi.com
Sales : \$ 3 million
Listed :
Qualified* : ATC

Introduction

KJ Meditech Co., Ltd., which has secured original technology through consistent R&D, develops and designs implants of various shapes, bonding methods, and surgical techniques. We have established a smart production line that consists of a multi-axis CNC machining for a more sophisticated and high-quality products, a surface treatment and cleaning that increase the surface area and roughness of the implant surface and inspection and packaging that checks the product quality and sterilizes the products.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Dental implant

The JUST IMPLANT SYSTEM is used in various dental and medical surgeries to restore overall oral function, tooth function and esthetics by implanting artificial replacements in the maxillo-mandibular bone to replace natural teeth that is lost.



Dental milling machine

The dental multi-axis milling machine for the production of patient-customized prostheses



Orthodontic screw & Arch bar

The orthodontic screw system is used for therapeutic procedures to prevent or treat malocclusion by diagnosing abnormalities in tooth arrangement and facial features, the arch bar is used when facial bones are fractured

Korea United Pharm

Sector : Biomedical
Sub-sector : Pharmaceutical bio
CEO : Kang Duk-young
Founded : 1987.12.03
Employees : 834
Homepage : www.kup.co.kr
Sales : \$ 184 million
Listed : KOSPI
Qualified* : World Class

Introduction

Korea United Pharm. is a company that produces specialized pharmaceuticals for treatment. Since the beginning of its establishment, Korea United Pharm. has set its eyes on the global market, setting up local plants in Vietnam, Egypt and others and is dedicated to achieving the dream of 'Multinational pharmaceutical company owned by a Korean'. By mainly focusing on the development of modified new drugs, it is growing into a research-centric pharmaceutical company equipped with international competitiveness.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



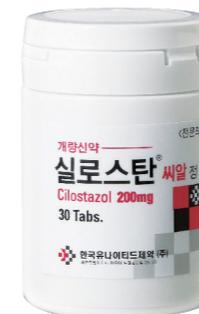
CLANZA CR Tab.

1st modified new drug. Aceclofenac.
 Anti-inflammatory analgesic drug



GASTIIN CR Tab.

Medicine for gastro-intestinal tract system for indigestion



CILOSTAN CR Tab.

Medicine for antithrombosis containing Cilostazol

LUTRONIC

Sector : Biomedical
Sub-sector : Medical devices
CEO : Haelyung Hwang
Founded : 1997
Employees : 311
Homepage : www.kr.lutronic.com
Sales : \$ 145 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

Lutronic, a leading innovator of aesthetic and medical advanced laser and related technology, was established over 25 years ago to bring intuitive, robust, versatile devices which are affordable and efficacious to the worldwide medical community. Committed to improving medicine, Lutronic partners with key opinion leaders to advance science and ensure efficacy of its systems. All systems are versatile and offer multiple setting and treatment options for customized treatments, which optimize outcomes for a wide variety of conditions and treatments including melasma, tattoo removal, soft tissue incision, vascular, hair removal, wrinkle reduction, skin rejuvenation, body/face contouring, chronic pain, healing and more.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Clarity II

A higher-powered 755/1064nm dual wavelength platform laser with breakthrough intelligent capabilities. It has been designed to enable faster more effective treatments for patients of all skin types, while making the treatments easier and more efficient to perform.

Hollywood Spectra

Hollywood Spectra is the world's leading and most advanced ultra-short pulse 1064/532nm laser platform with proprietary capabilities to reduce unwanted skin pigmentation and help stimulate collagen. Its intelligent and user-friendly design enables practitioners to lighten and brighten patient complexions, remove multi-color tattoos, and uniquely perform the popular Hollywood Laser Peel.



Macrogen

Sector : Biomedical
Sub-sector : Medical information and systems
CEO : Su-Kang Lee
Founded : 1997
Employees : 730
Homepage : www.macrogen.com
Sales : \$ 105 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

Macrogen is one of the world-leading genomic sequencing providers and we always thrive to deliver highest standards to our customers. In addition to providing genomic services to individual clients, we have many ongoing collaborative research projects with Government, Universities, and Medical Institutes for the development of precision medicine. We offer a wide range of genomic analysis tools, including Next Generation Sequencing (NGS) and Capillary Electrophoresis Sequencing (CES) which are our main products.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



NGS

Our NGS services produce big data of genomic information according to specific needs such as whole genome, exome, transcriptome, epigenome, metagenome, single cell, and multi-omics sequencing. We also offer highly advanced bioinformatics solutions. For unknown genome of organisms, we provide whole genome de novo sequencing to uncover the entire genome information using multiple platforms.



CES

Our CES services offer various products such as standard sequencing, species identification, fragment analysis, customized sequencing, and human ID. From a personal genetic identification, our experts are able to provide customized services including gDNA extraction, primer synthesis, PCR amplification, purification, sanger sequencing, and medical mutation detection.

Mcubetechnology

Sector : Biomedical
Sub-sector : Medical devices and diagnostic devices
CEO : Jung Hoe Kim
Founded : 1999
Employees : 55
Homepage : www.mcubetech.co.kr
Sales : \$ 18 million
Listed :
Qualified* : ATC

Introduction

Mcubetechnology is a leading company specialized in medical device for voiding dysfunction. We have a variety of solutions especially in urology, and our main product is 3D ultrasound bladder scanner, which has been sold to over 20 countries.

Bladder Scanner is a portable 3D ultrasound scanner to measure the residual urine volume. In various fields related to urination, bladder scanners are used.

Our bladder scanner, CUBEScan™ series, was started with the basic value of Simple, Accurate and Durable. By introducing Pre-scan live image and BladderPoint™ mark, they have played a leading role in establishing the standard of the bladder scanner.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



CUBEScan™ BioCon-700

BioCon-700 is the steady seller of CUBEScan™ bladder scanner series. The world's first application of Pre-scan and bladder point mark is on BioCon-700. Experience mega-hit model based on the user friendly operation.



CUBEScan™ BioCon-900

BioCon-900 is the hand-held bladder scanner. The wireless data transfer and charging is available with docking station. Experience an optimized work flow beyond the limits of time and space with portable bladder scanner.

Megagen Implant

Sector : Biomedical
Sub-sector : Medical information and systems
CEO : Park Gwang Beom
Founded : 2002. 1. 3
Employees : 476
Homepage : www.imegagen.com
Sales : \$ 138 million
Listed :
Qualified* : World Class

Introduction

Megagen Implant, which was established in 2002 with the determination to produce implants suitable for Koreans, has developed various implants systems, such as AnyRidge and Blue Diamond and is exporting more than 70% of the sales to over 100 countries around the world and by promoting the excellent technology of Korea and ultimately contributing to the healthy lives of mankind, it is a step closer to becoming a global company.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 implant exporter to Europe among Korean companies



BLUE DIAMOND IMPLANT

- Uses titanium clinically proven over 20 years
- Higher compressive & fatigue strength with long-term biological stability
- Reduces healing period by securing high initial fixing force with XPEED surface treatment technology and KnifeThread design



R2Solution

- In-house development of CT and STL's data integration/analysis/diagnosis S/W
- Total solution connecting all oral scanners and materials

Meta Biomed

Sector : Biomedical
Sub-sector : Therapeutic and diagnostic devices
CEO : OH SUK SONG
Founded : 1990. 3. 1
Employees : 237
Homepage : www.meta-biomed.com
Sales : \$ 49 million
Listed : KOSDAQ
Qualified* : Wolrd Class

Introduction

Meta Biomed Co., Ltd which exports dental materials, devices and biodegradable surgical sutures through global network equipped with over 250 sales network in over 100 countries around the world and 5 local companies in America, Europe and Asia is a export-based company that generates 95% of the total sales overseas. Based on pioneering technology, it strives to advance into healthcare and medical devices fields and to become a global hidden champion offering world's best products.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Biodegradable suture

- It biodegrades after a certain period of time inside the body after surgery
- Only 7 companies in the world, including Ethicon, which is a subsidiary of Johnson & Johnson own this technology



Dental equipment

- World's No.1 root canal filling material
- Used for dental nerve treatment and restoration
- As a technology that attempts to save the natural tooth as much as possible, all products customized to the user's characteristics are available



Bone graft substitute (artificial bone)

- No biological rejection as it is based on corals with similar form as that of an artificial bone



Cosmetic surgery suture (da:all)

- Highest grade of KFDA and CE certification for lifting thread medical device acquired based on biodegradable suture technology. Products are being launched in different countries around the world. Expanding the cosmetic surgery market with patent for polymer microsphere manufacturing and commencement of clinical and licenses and permits.

MicroDigital

Sector : Biomedical
Sub-sector : Medical devices and diagnostic devices
CEO : Kyungnam KIM
Founded : 2002
Employees : 85
Homepage : www.md-best.com
Sales : \$ 3 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

MicroDigital Co., Ltd. provides total biomedical solutions through innovative and efficient products. It has a wider variety of products ranging from highly precise instruments for quantification through optical technology and single use bioreactor systems with custom disposable bags, to In Vitro Diagnostic kits based on the ELISA method, as well as POCT instruments with exclusive cartridges. MicroDigital Co., Ltd. strives to provide the most precise, trustworthy and efficient solutions, globally.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Nabi - UV/Vis Nano Spectrophotometer

Nabi - UV/Vis Nano Spectrophotometer is an elegant, precise and efficient solution for measuring concentration of Nucleic Acids, Proteins, etc. in a sample using absorbance. Nabi is a stand-alone instrument capable of measuring both microvolume samples and samples contained inside a cuvette.

Specification: Wavelength Range: 190 - 1,100nm / Wavelength Accuracy: ±1nm / Spectral Resolution: 0.3nm / Absorbance Precision: 1% at 100ng/ul / Absorbance Range (Microvolume): 0 - 300 Abs. (10nm equivalent) / Detection Limit (Microvolume): 2ng/ul (dsDNA) / Maximum Concentration (Microvolume): 15,000 ng/ul (dsDNA) / Minimum Sample Size (Microvolume): 1ul / Absorbance Range (Cuvette): 0.002 - 2.0 Abs.



MDGen AB96-COVID-19 SP RBD IgG

MDGen AB96-COVID-19 SP RBD IgG is an Enzyme Linked Immunosorbent Assay (ELISA) for detection of Spike Protein Receptor Binding Domain (SP RBD) IgG to SARS-CoV-2 virus which is the cause for COVID-19. This In Vitro Diagnostic Kit is capable of testing up to 94 samples at once in 75 minutes while only using 1ul of serum or plasma samples. The sensitivity and specificity of the kit is very high at 92.6% and 99.6% respectively.

The kit can be used to test whether a patient has had previous COVID-19 exposure or to test whether a vaccine recipient has developed IgG antibodies to SARS-CoV-2 through the vaccine. Furthermore, the kit is not affected by variants as it detects the whole Spike Protein (Both S1 and S2) while most variants have mutations on limited areas of either S1 or S2.



CELBIC Single Use Bioreactor System

CELBIC - Single Use Bioreactor System is the latest innovative product from MicroDigital Co., Ltd. using the state of the art precision sensing technology, perfected over 20 years of business and the patented orbital rocking motion. CELBIC is capable of 3 Dimensional movement from up, down, left, right, and diagonal.

CELBIC's greatest advantages are:

- It is a single use system, which requires less maintenance and initial investment, while having lower risks of cross contamination.
- CELBIC can be conveniently optimized to suit the user's needs, whether the user requires it for producing antibodies from cell cultures or for protein/cell treatment production.
- CELBIC also comes in various sizes from 12.5L working volume to 500L working volume for easy scale-up.
- MicroDigital also developed and manufactures the 3D Disposable Culture Bags (patented design) specifically for the CELBIC system with numerous customizations available to match the required specifications of the user.

Neo Biotech

Sector : Biomedical
Sub-sector : Functional restoration/Auxiliary and welfare devices
CEO : Heo Young Goo
Founded : 2000. 7. 20
Employees : 308
Homepage : www.neobiotech.co.kr
Sales : \$ 60 million
Listed :
Qualified* : Wolrd Class

Introduction

Neo Biotech is the fastest growing impact manufacturer and distributor in Korea based on innovative technology. By developing and servicing exclusive and innovative new products, it is moving forward towards the vision of becoming a global top-notch dental service company by 2025. Neo Biotech is doing its best based on the belief that teeth gives pretty smiles and joy of eating food to mankind through implants and dental materials made with perspiration and efforts.

* Refer to 396p for detailed information about ATC, and World Class

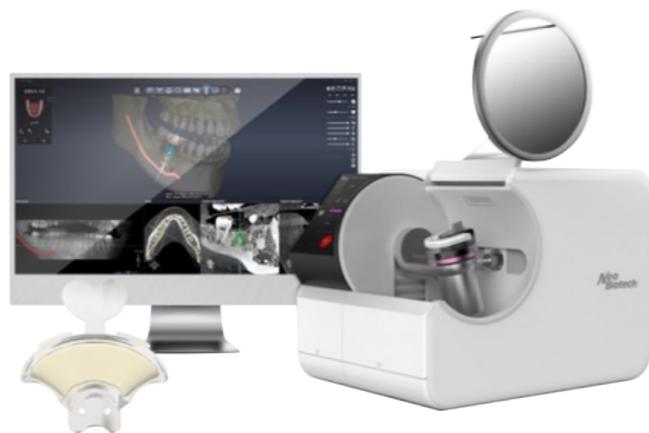
Main Product



Manufactures and sells dental implants which are artificial teeth that replaces missing teeth as well as tools for medical procedures.

Main product includes IS-III Active which is an implant that reduces pain in patients and enhances conveniences by significantly reducing the time taken for the implant to fuse with the bone through unique design and special surface treatment.

In addition, it is comprised of a product recognized for its innovative technologies like the Implant Guide System applied with the technology that completes patient diagnosis to guide production within 3 minutes.



NOVAREX

Sector : Industrial bio
Sub-sector :
CEO : Kwon Seok Hyeong
Founded : 2008. 11. 27
Employees : 373
Homepage : www.novarex.co.kr
Sales : \$ 232 million
Listed : KOSDAQ
Qualified* : Wolrd Class

Introduction

NOVAREX Co., Ltd., specializing in OEM/ODM of functional health food, develops and products functional health food and functional ingredients.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Biggest in Korea
37 cases of individually recognized type



Wheat extract



REXFLAVONE



Lutein Zeaxanthin complex extract
Lutemax 2020



Xanthigen

- Wheat extract (skin moisturizing)
- REXFLAVONE (female menopause)
- Lutein Zeaxanthin (healthy eyes)
- Xanthigen (body fat reduction)
- Milk protein hydrolysate (healthy sleep)
- Contains EPA and DHA (healthy eyes)
- Hyaluronic acid (skin moisturizing)
- Cranberry extract (healthy urinary tract)
- Garcinia cambogia extract (body fat reduction)

Osstem Implant

Sector : Biomedical
Sub-sector : Functional restoration/Auxiliary and welfare devices
CEO : Um TaeKwan
Founded : 1997. 1. 8
Employees : 2,233
Homepage : www.osstem.com
Sales : \$ 687 million
Listed : KOSDAQ
Qualified* : Wolrd Class

Introduction

Osstem Implant has secured the competitiveness edge of implants in a world-class level through precedent technology and outstanding quality control, it is an implant company that proudly ranks first in Asia Pacific and 4th globally. Currently, there are 28 overseas companies in operation with products being exported to 86 countries. Implants as well as total solutions required by dentists and patients alike are provided in the fields of dental equipment/materials/IT/interior. Furthermore, with relentless R&D related to Digital Dentistry, it is leading the development of digital technology required for more accurate and successful dental treatments.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

1st in the world As of sales volume of fixtures

4th place in the world As of revenue

1st place in Asia Pacific As of revenue



Dental implant



Dental materials and equipment



Dental software

saeshin

Sector : Biomedical
Sub-sector : Medical devices
CEO : Lee Jung Ho
Founded : 1976
Employees : 116
Homepage : www.saeshin.com
Sales : \$ 24 million
Listed :
Qualified* : ATC

Introduction

Saeshin identified the importance of the medical field early on, and founded in 1976, succeeded in developing its own dental handpiece, and has expanded into a leading company in the field of super precision medical devices for more than 40 years.

Saeshin advanced its technical development to include devices such as high speed BLDC motor, subminiature reducer, high speed & super precision spindle field. As a result, SAESHIN has become the a leading company in the domestic market and now exports dental implant engine and handpieces brands(TRAUS, STRONG) to many countries around the world.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



ENT surgery system

The Traus system is developed for surgery in the re-sectioning of tissue both soft and solid structures primarily in the area of the spine Due to the precise rotation and cutting power in performance of the Traus unit, the surgeons can complete various procedures.

- 9 programmable memories
- Automatic overload protection possible
- Realtime rpm view system
- Motor Auto-calibration function
- Beep sound function using reverse direction (Drill, Shaver mode)
- Ergonic foot controller
- Setting with SET UP mode



Piezo Bone Surgery System

- Strong and Safe Cutng Procedure
 Less Trauma & Faster recovery
 Modern and Compact design
 LED Piezo Handpiece
- 3 Power Levels
 - Plus 4 Boost Levels
 - 5 Programmable Memory Functons
 - 5 Saline Pump Levels
 - Easy Irrigaton Tube Installaton
 - Clean/Ready Functon for added Reliability
 - Wide LCD Screen for Easy Control
 - Waterproof IPX8 Foot Pedal
 - 6 Piezo Surgery Tips included

Sempio Foods

Sector : Biomedical
 Sub-sector : Industrial bio
 CEO : Park Jin Seon
 Founded : 2016. 7. 4.
 Employees : 753
 Homepage : www.sempio.com
 Sales : \$ 291 million
 Listed : KOSPI
 Qualified* : World Class

Introduction

Since its inception, it has grown in line with the development of citizen's health and food culture for more than half a century based on traditional fermented food, sauce/paste. Sempio Foods which is being loved for its old brand in Korea, 'Sempio' has presented food essence, 'Yeondu', fun food revolution, 'Semie's Kitchen', 'Fontana', 'T-Asia Kitchen', 'For 100 years', 'Ziller' and others, rising to become a global food company.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



1. Sempio Soy Sauce

Developed and owns products with various tastes, fragrances and purposes through research on fermentation technology of 'sauce/paste', the basics of our traditional taste



3. Semie's Kitchen

Product that transforms difficulty of cooking into joy through research on our traditional taste

- ★ No. 1 domestic market share for soy sauce
- ★ No. 1 MS with Fontanna cream/meat pasta sauce



2. Yeondu

100% naturally fermented innovative sauce made with beans, produced with 75 years of know-how on research on fermentation



4. Fontana/T-Asia Kitchen

Fontana and T-Asia Kitchen are brands that have embraced the original local flavors of Europe and Asia

Shin Poong Pharm

Sector : Pharmaceutical bio
 Sub-sector :
 CEO : Yoo Je Man
 Founded : 1986. 7. 23
 Employees : 813
 Homepage : www.shinpoong.co.kr
 Sales : \$ 158 million
 Listed : KOSPI
 Qualified* : World Class

Introduction

Established in 1962 with a managerial philosophy of 'For the health of mankind based on the wisdom and pride of the people', Shin Poong Pharm is devoted to the global new drug development in mid/long-term in order to strengthen competitiveness and to secure future growth power.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ Piramax Tablet

New Drug No. 16 in Korea

★ 'Piramax Tablet, the first in Korea to acquire new drug license by the European Medicines Agency



Hyalforte Injection

As a medicine containing sodium hyaluronate, high molecular HA is an important ingredient of synovialis and has anti-inflammatory effect. It is injected into glenoid cavity for treating knee arthritis. Used once a week for a 5-week treatment

Piramax tablet/granule

As a composite ACT medicine of Artesunate (60mg) and Pyronaridine phosphate (180mg), this medicine is registered as New Drug No. 16 in Korea, used for treating acute malaria infection with oral administration once a day for 3 continuous days



ST PHARM

Sector : Biomedical
Sub-sector : Pharmaceutical bio
CEO : Kim Gyeong Jin
Founded : 2008. 8. 18
Employees : 556
Homepage : www.stpharm.co.kr
Sales : \$ 138 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

After being the first in Korea to develop a synthesis technology of the world's first AIDS medicine, Zidovudine and intermediate thymidine, ST Pharm has focused on developing anti-virus medicine ingredients and intermediate. It is a leader of domestic API that has been supplying APIs to global pharmaceutical companies since the mid-1980s. By participating with renowned global pharmaceutical companies from the initial stage of new drug development, it has secured exclusive ingredient supply right and is currently operating a production system in global standard that has been certified by US FDA as well as cGMP in EU, Japan, Australia and WHO. Furthermore, it is taking a step forward as a global company through internal new drug development and mRNA, other than nucleic acid therapeutics, CDMO which is gaining attention in the field of new medicine.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

1st place in the field of oligo ingredient field in 2022



Oligonucleotide and small molecule new drug API CDMO business



mRNA CDMO and in-house new drug development



R&D on in-house new drug development through open innovation

STARmed

Sector : Biomedical
Sub-sector : Medical devices
CEO : Shin Kyung Hoon
Founded : 2011
Employees : 106
Homepage : www.starmed4u.com
Sales : \$ 13 million
Listed :
Qualified* : ATC

Introduction

STARmed Co., Ltd. is a young and fast-growing company from South Korea, specializing in radiofrequency technology. Passionately working on the best possible RF treatment, STARmed has collaborated with a number of Key Opinion Leaders in developing the most innovative electrodes and leading-edge RF technology for a variety of clinical applications. STARmed is now recognized as the Global Leader in Thyroid RF ablation.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



VIVA RF Electrode has unique and innovative design with adjustable active tip of 0.5 to 4cm.



VIVA RF System offers consistent and predictable ablations, and it has a specialized mode for Thyroid RFA. The VIVA RF System is cost effective and gives reliable results.



Octopus RF Electrode has unique and innovative design with 3 needles that can either be used as cluster of 0.5cm distance from each. It is ideal for patients with large or multiple tumors and produces faster and bigger ablation.



VIVA Multi RF System is uniquely different and powerful compared with all available systems in the market. It effectively generates two electrodes at the same time. VIVA Multi RF System is ideal for large and multiple lesions ablation, as well as small and precise ablation.



VVR&VENISTAR is endovenous radiofrequency ablation system for treatment of varicose veins. VENISTAR is a catheter that is compatible with VVR Generator which has a lot of advantages such as automatic power output control with real-time impedance feedback, visibility with LED guide light, flexibility with spiral active tip, and internal cooling system which prevent thermal damage to normal surrounding tissue.

TDM

Sector : Biomedical
Sub-sector : Medical devices
CEO : Kim, Seon Mi
Founded : 2006
Employees : 74
Homepage : www.tdmkorea.co.kr
Sales : \$ 10 million
Listed :
Qualified* : ATC

Introduction

TDM is medical company established in 2005 and has been producing the bone fixation plate and screw, Intramedullary nails, intervertebral body fusion devices. TDM has been producing 3,500 items and grown to No. 1 in the same korea industrial market share through continuous R&D. TDM had MDD/CE certification, ISO13485, FDA 510K, ANVISA. TDM had 37 patents registration, 4 patents application, 12 designs registration and 60 medical items manufacturing permission.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Plate & Screw system and Inter locking Nail system

Main products in Plate & Screw and Nail

- CHN: Compression Hip Nail
- MINI CABLE SYSTEM: Surgery wire used in conjunction with plates: Hand, Foot, Clavicle, Fibular, Ulna, Patella
- NewColle: Distal radius plates
- NewMalle: Distal fibular locking plates

Spine Fixation System& Other Products

Main products in Spine Fixation System

- TLFC PLIF Cage System: PEEK interbody Cages
- TLFS Pedicle Screw System: Thoracic and lumbar fixation system

Other Product

- INJECTBONE: Injectable synthetic bone substitute



Vatech

Sector : Biomedical
Sub-sector : Therapeutic and diagnostic devices
CEO : Hyeon Jeong Hoon, Kim Seon Beom
Founded : 1992. 4. 4
Employees : 369
Homepage : www.vatech.co.kr
Sales : \$ 282 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Vatech, a global dental imaging company, is South Korea's representative medical device company that specializes in the research, development and manufacturing of dental x-ray and CT equipment. 86% of sales is exported based on 16 overseas company and 100 agents across the world.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

16% market share in the world No. 1

66% domestic market share No. 1



EzRay Air (2016)

The 1st CNT digital portable x-ray in the medical field

Green 16/18 (2017)

Low radiation green CT that considers the patient's health

Green X (2020)

Premium low radiation CT that supports high resolution Endo Mode

VERICOM

Sector : Biomedical
Sub-sector : Restoration/assistance and welfare equipment
CEO : Yun-Ki Kim
Founded : 1998
Employees : 115
Homepage : www.vericom.co.kr
Sales : \$ 14 million
Listed :
Qualified* : ATC

Introduction

Vericom Co., Ltd. is a company which develops dental biomaterials such as CAD/CAM block materials, 3D printing materials, composite resin, bonding system, impression materials, root canal filling materials, preventive and digital dentistry materials. We have accumulated experience and technology for many years of high molecular weight composite resin system and ceramic filler high dispersion technology. Vericom will provide reliable dental materials by continuous research and development, to ensure product effectiveness and stability.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



MAZIC Duro

MAZIC Duro applies to various prosthesis such as inlays, onlays, veneers and single crown with 1-Day treatment and makes sure of higher standard of esthetics than other materials, in spite of easy and simple workings only with CAD/CAM system.

- Natural tooth-like esthetics and elasticity
- High flexural and compressive strength
- Prosthesis treatment in 1-Day

Well-Root ST

Well Root St is a convenient premixed ready-to use injectable bioactive calcium silicate paste developed for permanent obturator of the root canal.

- Premixed injectable paste type
- Zero shrinkage

Well-Root PT

Well-Root PT is a ready to use, capsule premixed paste developed for pulp capping, permanent root canal repair, root-end filling and surgical applications.

- Premixed capsule
- Superior compressive strength

VIEWWORKS

Sector : Biomedical
Sub-sector : Medical devices and diagnostic devices
CEO : Kim Hooshik
Founded : 1999
Employees : 412
Homepage : www.vieworks.com
Sales : \$ 160 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

For the past two decades, Vieworks has developed imaging technologies for the various areas and has offered solutions suitable for the digital X-ray detector, industrial camera, and in vivo imaging system. Based on the accumulated experience, Vieworks has secured its position as a specialized supplier in imaging solutions for the global market.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



X-RAY DETECTOR

X-ray detector is a device that detects X-rays passed through objects like the human body and converts them into a visible image. Providing the integrated solution with not only hardware but also software such as the viewer program powered by advanced image processing technology.

- Various application : general radiography system, dental and surgical C-arm systems, industrial inspection instrument, etc.
- The stable AED (automatic exposure detection) and outstanding image processing technology
- Acquiring various certifications such as FDA and CE
- The user-oriented design : Winning design awards such as Red Dot and iF design



INDUSTRIAL CAMERA

The industrial camera plays the role of an "eye" in the machine vision, which is one of the core areas of industrial automation.

- Pixel shift technology : much higher resolution
- Thermoelectric cooling technology : maintaining uniform image quality
- Hybrid TDI sensor : demonstrating the industry's top performance
- Elegant product design : Winning design awards such as Red Dot and iF design

VISION SCIENCE

Sector : Biomedical
Sub-sector : Restoration/assistance and welfare equipment
CEO : Hwang, Jin Su
Founded : 2007
Employees : 170
Homepage : www.vision-science.co.kr
Sales : \$ 2 million
Listed :
Qualified* : ATC

Introduction

VISION SCIENCE offers Contact lens that following techniques with Color Lock System, Phosphorylcoline, Silicone hydrogel. All products have been produced under the strict regulation of Korean FDA and approved by KGMP, CE, ISO13485, NMPA, US FDA, TFDA, and other certifications from many countries so that we can export our products to over 30 countries in the world. Also, we are producing fully safe and comfort contact lenses with our own technologies, advanced facilities and 100% total inspection.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Color lens

Silicone hydrogel has a high oxygen permeability, allowing more oxygen than water to pass through the lens, making it comfortable to wear for long periods of time.

- Color: 1Tone, 2Tone, 3Tone
- Tone DIA(mm): 1-Day(14.2mm), Dailiy-wear(14.0mm, 14.5mm)
- B.C(mm): 8.6mm, 8.7mm
- Power of range: 0.00 ~ ± 20.00



Clear lens

Phosphorylcoline forms a layer of moisture on the surface of the lens, which is effective in preventing protein and foreign substance.

- Type of lens: Blue Tinted
- DIA(mm): 1-Day(14.2mm), Dailiy-wear(14.0mm, 14.5mm)
- B.C(mm): 8.6mm, 8.7mm
- Power of range: 0.00 ~ ± 20.00

WONTECH

Sector : Biomedical
Sub-sector : Therapeutic and diagnostic devices
CEO : Kim Jong Won, Kim Jeong Hyeon
Founded : 1999. 6. 19
Employees : 164
Homepage : www.wtlaser.com
Sales : \$ 43 million
Listed : KONEX
Qualified* : World Class

Introduction

Wontech, a technology leader that creates dreams with laser, ultrasound and high frequency, is expanding its business into ultrasonic, high frequency and surgical laser and imaging diagnosis equipment after it established a R&D Center on Laser Devices. Through continuous investment and R&D for expanding localization and reducing dependency on imported medical devices, Wontech has positioned itself as a global company recognized for its technologies in 58 countries. With over 150 experts and local companies as well as agents in USA, Japan and China, it is a company that pioneers global growth and market.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Oligio

Aesthetic medical device using high frequency energy



PICO CARE MAJESTY

First in the world to realize the world's first 250ps pulse duration



PICOWON

Korea's one and only picosecond 755nm laser



SANDRO DUAL

Nd:YAG/Alexandrite Long Pulse Laser



Tightan

Aesthetic medical device using HIFU energy



Hair Beam Air

LLLT (Low Level Laser Therapy) medical device for for home cair for hair loss

KORIL
Directory of
Outstanding Korean
Companies

02

Ceramics



CENOTEC

Sector : Ceramics
Sub-sector : Mechanical and structural materials
CEO : Heo Myeong Koo
Founded : 1999
Employees : 124
Homepage : www.cenotec.com
Sales : \$ 30 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

CENOTEC Co., Ltd. is the only company in Korea that manufactures ceramic beads used for pulverization and dispersion of materials for mining, ink, paint, and paper industries. CENOTEC is technologically capable of customizing the chemical composition and the manufacturing method of its products for the applicable industry based on its technological capacity. In particular, CENOTEC has developed ultra-small ceramic beads for grinding raw materials used in the quaternary industry, which were monopolized and occupied by Japanese companies with its own technology.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Ceramic Bead (Cenobead)

Cenobead can create the most optimal grinding environment for milling machines, and can thus reduce costs by enabling users to consume less energy when milling the raw materials to the targeted sizes.

- Density range : 3.2g/cm³ ~ 6.0g/cm³
- Size range : ultra-small (0.05mm) ~ large (10mm or greater)
- Uniform size and shape with excellent sphericity
- High wear-resistance & high grinding efficiency

Ceramic Powder

Ceramic powder has high-quality and low-cost characteristics, as an emulsifying agent, it's widely used to produce tiles, sanitary ceramics, porcelains and the other various products.

- CenoFlour & CenoSilicate (Premium & Ultra Premium) : for casting shell mold, frit, tile, etc application
- CenoFlux (High Functional Welding Flux) : for flux cored wire, Arc welding rod, eta application



DS Techno

Sector : Ceramics
Sub-sector : Ceramic process technology
CEO : Ahn Hak Joon
Founded : 2000
Employees : 282
Homepage : www.dstechno.co.kr
Sales : \$ 52 million
Listed :
Qualified* : ATC

Introduction

DS Techno is a professional manufacturer of parts related to the global semiconductor, display, and solar cell industries. A company that specializes in processing and handling special materials such as quartz glass(QUARTZ), silicon(Si), and silicon carbide(SiC). In addition, the company is concentrating its main capabilities on improving processing and manufacturing technologies related to new materials in line with the rapid changes in advanced technology.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

ETCH, THIN - FILMS, DIFFUSION



WET STATION



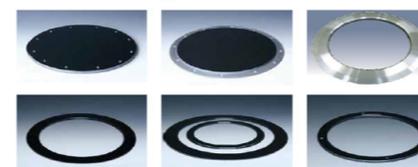
Quartz

DS Techno offers a full range of quartz products based on the customers' specific requirements.

- Available material (Clear Fused Quartz, and Synthetic Quartz)
- Full range of products
 - Oxidation, Diffusion and LP-CVD Process
 - Etch, Thin Film Process
 - Wafer Cleaning, Epitaxial Growth

Si/SiC

Electrodes & Rings



DS Techno offers Silicon and Poly Silicon, RBSiC and CVD-SiC products based on the customers' specific requirements

- Available material (Single/Poly Crystal Si, RB-SiC/CVD-SiC)
- Main Products
 - Semiconductor Dry etch Process
 - CVD, and Epitaxial Growth

CVD-SiC

Electrodes & Rings



STI

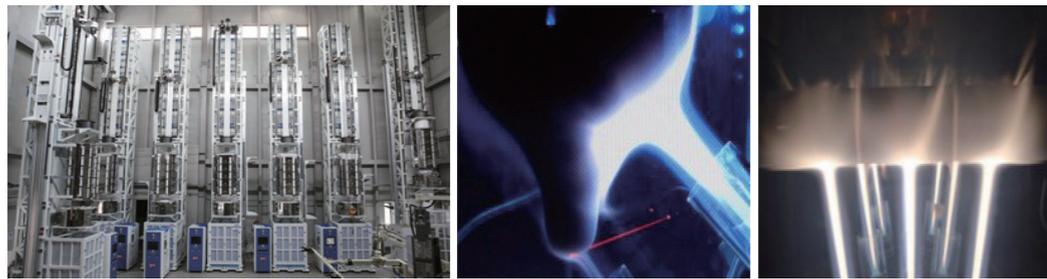
Sector : Ceramics
Sub-sector : Photoelectronic materials
CEO : Lee Woo Seok
Founded : 1997. 7. 10
Employees : 360
Homepage : www.sti.co.kr
Sales : \$ 266 million
Listed : KOSPI
Qualified* : World Class

Introduction

'Leader of ICT material industry, equipped with innovative optical fiber preform equipment technology, advanced technology'
 After successfully developing heat treatment equipment using electricity since 1989, it is initiatively implementing environment business that reduces pollutants by processing animal carcasses with alkali hydrolysis, electrical surface business for calcination of semi-conductor ceramic and electric arc furnace business, led by optical fiber preform manufacturing equipment business with No. 1 global technology.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



No. 1 optical fiber preform manufacturing equipment in the world

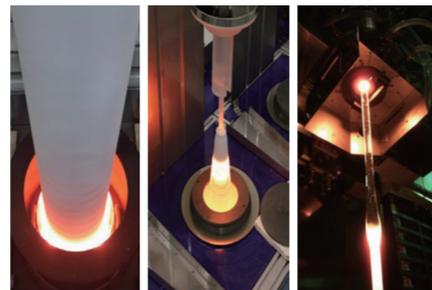
Body sterilizer

- Whole-body sterilizing equipment using dry-type heat sterilization and far-infrared method
- 99.999% virus annihilation effect (COVID-19, etc.)

Optical fiber preform manufacturing equipment

Equipped with the world's only total optical fiber preform manufacturing process and equipment manufacturing technology, the production facility as well as technical training program for engineer and A/S competitiveness are extremely outstanding. The competitiveness superiority lies in being the world's first and only application of VAD+ OVD technology during deposition for excellent price competitiveness and quality, making it the only optical fiber preform manufacturing equipment producer in Korea

* Optical fiber: As glass fiber that delivers light signals, it is essential for building infrastructure for 5G commercialization



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 Directory of
 Outstanding Korean
 Companies

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Outstanding Korean
Companies

03

Chemistry



Advanced Nano Products

Sector : Chemistry
Sub-sector : Fine chemistry
CEO : Park Chang Woo
Founded : 2000. 2. 26
Employees : 313
Homepage : www.anapro.com
Sales : \$ 51 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Advanced Nano Products Co. Ltd. has been supplying nano materials to national industries such as display, semi-conductor and solar power based on nano technologies since its establishment in 2000. The company's new business in secondary battery is expected to become future growth engine for its second leap forward and it is being recognized as a global nano material company leading the advanced industry.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



TCO Target

Core material of display parts, such as LCD, OLED and TSP. Material that forms a transparent conductive layer through sputtering instrument to the front electrode of the thin film type of solar battery

CMP Slurry

Slurry for flattening process of semi-conductor used in the manufacturing of narrow linewidth, multi-layer interconnected semi-conductor

CNT conductor

Material that helps the electron flow applied to secondary battery electrodes (anode, cathode)

Aekyung Chemical

Sector : Fine chemistry
Sub-sector : Chemical products
CEO : Pyo Kyoung-won
Founded : 1982. 03
Employees : 350
Homepage : www.akchemtech.com
Sales : \$ 222 million
Listed : KOSPI
Qualified* : World Class

Introduction

As a company formed from Aekyung Shell Co., Ltd. established in 1982, AK ChemTech is a subsidiary company of Aekyung Group's Chemical division, specializing in the production of synthetic detergent ingredients and chemical admixtures, insulation filler centered on surfactants.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 domestic market share for continuous type anion surfactant (57%)



Surfactant



Detergent, personal sanitizer, etc.

Surfactant

Applied to detergents, personal sanitizing goods, cosmetics, industrial emulsifier



Concrete admixture



Concrete admixture

Plays the role of enhancing concrete intensity, securing liquidity and improving work efficiency



Applied to insulation filler

Insulation filler

Applied to Copper Clad Laminate used in conducting layer of electronic devices such as PCB (Printed Circuit Board)



Applied to inorganic flame retardant

Inorganic flame retardant

Applied to cable sheath to cool plastic and to reduce pyrolysate

AMOGREENTECH

Sector : Polymer materials
Sub-sector : Electrical and electronic parts
CEO : Yang Seong Cheol, Kim Byeong Gyu
Founded : 2004. 1. 6
Employees : 315
Homepage : www.amogreentech.co.kr
Sales : \$ 102 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

AMOGREENTECH was established in 2004 to develop and commercialize materials and components required by the future industry society based on nano technology. It develops and commercializes materials and components required by the IT, mobile, electric vehicle, environment and energy industries based on competitive nano-material technologies and multiple patents at both home and abroad.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ **High efficiency nano crystalline magnetic component: Global top 3 manufacturer**

★ **World's best mass production capacity for nano fiber vent**

★ **World's first mass production of flexible battery**

Nano magnetic component:

High efficiency magnetic material and component using world-class nano magnetic alloy design and rapid solidification technologies

Nano fiber vent and filter:

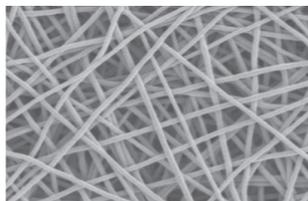
Material and component for waterproof phones, air and water treatment applied with nano membrane manufactured using exclusive hybrid electrospinning technology

ESS and flexible battery:

Lithium ion phosphate battery and flexible battery for wearable devices with high stability and long lifespan based on optimal BMS technology

Heat protection solution:

Low dielectric, high heat resistant film and plastic based on optimal heat protection design and material



Chunbo

Sector : Chemistry
Sub-sector : Chemical products
CEO : Seo Ja Won, Lee Sang Yool
Founded : 2007. 10. 8
Employees : 128
Homepage : www.chunbochem.com
Sales : \$ 226 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Chunbo is the best company in the fields of core super high precision chemical materials that is used in the etching process of semi-conductor and LCD as well as chemical materials that constitute secondary battery electrolyte in Korea. By localizing chemical materials that were dependently on imported products and through accumulated technology, R&D-centric high precision material company, Chunbo strives to develop new products to lead the world market.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ **No. 1 market share in the world for lithium secondary battery's electrolyte additive**

★ **No. 1 market share in the world for semi-conductor's SOH process materials**

★ **1st place in the world for display evaporation additive**

Secondary battery material

Lithium salt and electrolyte additive used in Lithium Ion Battery (LIB) are supplied to domestic and foreign electrolyte companies

Display materials

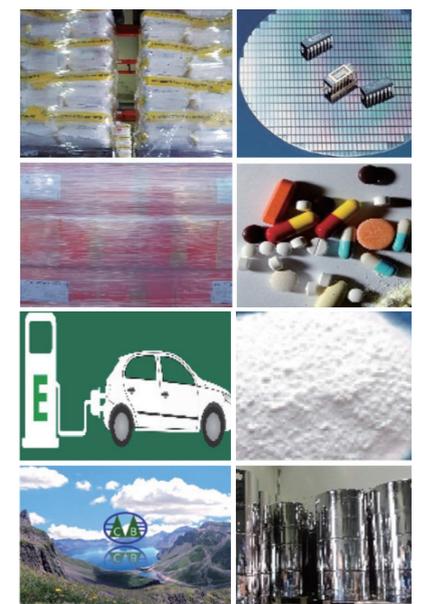
Chemical materials for LCD manufacturing process, core material for OLED display, chemical strengthening materials for Cover glass and others are supplied

Semi-conductor materials

Chemical materials for photoresist process which is the core process of semi-conductor production, evaporation process materials, chemical materials for MLCC and others are supplied

API and pharmaceutical intermediates

Intermediates such as tuberculosis medicine and cancer medicine are produced under GMP standard management and supplied to domestic and overseas pharmaceutical companies



COSMAX

Sector : Chemistry
Sub-sector : Fine chemistry
CEO : Lee WanKyoung
Founded : 1992.11.12
Employees : 5,174
Homepage : www.cosmax.com
Sales : \$ 1326 million
Listed : KOSPI
Qualified* : World Class

Introduction

COSMAX promotes the beauty of Korea to the world without an internal brand. The total number of cosmetics that COSMAX has produced in the world is approximately 600 million in 2016. 1 out of 11 people in the world's population has used cosmetics made by COSMAX. It has also, for the first in the industry, recorded export of US\$ 100 million in over 100 countries around the world, such as USA, France and Japan which are known to be home to the cosmetic industry. Now, the global cosmetic brands made by COSMAX can be found in different parts of the world with 'Made in Korea'.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Skin care

Cosmetic water, emulsion, cream, cleansing, etc.

Make-up

Make-up such as base and foundation

Hair care

Hair care products such as basic and intensive care, gel and wax

Others

Functional cosmetics, quasi-drugs, fragrances, mask sheets, etc.

No. 1 ODM cosmetics in Korea

COSMECCA KOREA

Sector : Chemistry
Sub-sector : Fine chemistry
CEO : Cho Henry
Founded : 1999. 10. 5
Employees : 498
Homepage : www.cosmecca.com
Sales : \$ 330 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Cosmecca Korea is a company specializing in cosmetics R&D and manufacturing & production that provides high quality cosmetics and services to renowned global client companies in the world. Global scholars equipped with excellent R&D competency are developing highly-efficiently, eco-friendly cosmetics by reflecting the market trend and based on manufacturing & production competence that comply with the global standard, high quality products are being delivered timely.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Meringue Pact

New concept of all-in-one base that can be used as make-up base, cover foundation and tone corrector, thanks to its chewy but light texture

DPF (Dust Protection Factor)

Cosmecca Korea's exclusive, anti-pollution technology with low-irritation fluid formulation that perfectly blocks fine dust even with small amount of use and with internally developed measuring device that enables users to check the extent of fine dust blockage

NEW CCP POWDER

Unlike the existing mica with artificial glow, this powder technology presents healthy skin complexion for a natural tone-up effect and coverage



Dongjin Semichem

Sector : Chemistry
Sub-sector : Polymer materials
CEO : Lee Boo Sup, Lee Jun Hyeok
Founded : 1967. 10. 20.
Employees : 1,216
Homepage : www.dongjin.com
Sales : \$ 968 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Dongjin Semichem has built up its reputation and technology in the field of foaming agents by being the first in Korea to develop foaming agents for PVC and has also advanced into the electronic material market by preemptively investing in the fields of semi-conductors and FPD in the early 1980s. Following the recent technological breakthroughs in next-generation display related to OLED and flexible display and printed electronics materials, it is focusing on its commercialization and it is also developing materials related to silicon solar cells, dye-sensitive solar cells and fuel cells in the eco-friendly energy field. As such, Dongjin Semichem is at the forefront of electronic material field as a world-class company based on differentiated core material technologies.

* Refer to 396p for detailed information about ATC, and World Class

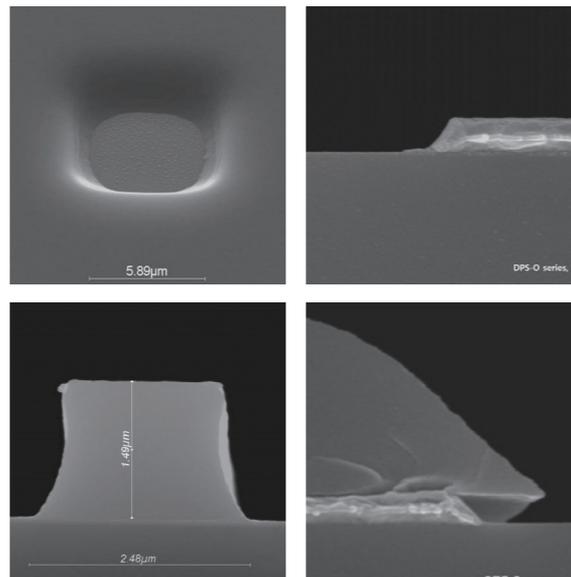
Main Product

★ **1st place in the world's organic insulator**

★ **2nd place in the world's LCD PR**

Organic Insulator

As a planarization layer which enables solution processing used in display process, the previous expensive vapor deposition process can be replaced and the brightness is improved due to its high aperture ratio



Photoresist

Photosensitive resin that is used in display process and semi-conductor lithography technology. When certain chemicals are exposed to light, chemical reaction occurs, changing its properties so by using such principle, mask with desired pattern is used to create the desired pattern

Wet Chemical

Stripper, Etchant, Thinner and others with outstanding productivity are produced through high process selectivity that are used in the display and semi-conductor manufacturing process. Equipped with the technology for manufacturing ultra high purity wet chemicals following scaling

Dongsung Chemical

Sector : Chemistry
Sub-sector : Polymer materials
CEO : Lee Man Woo, Baek Jin Woo
Founded : 2008. 5. 14
Employees : 568
Homepage : www.dschem.com
Sales : \$ 772 million
Listed : KOSPI
Qualified* : World Class

Introduction

Dongsung has been manufacturing and producing chemical materials required over the entire aspects of our lives, such as automobile, fabrics, electronics and medical based on polyurethane technology. It is an eco-friendly chemical material company that is achieving continuously growth by expanding its technological scope with eco-friendly materials.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ **No. 1 polyurethane resin for shoes in Korea**

★ **2nd in the world to develop melamine foam, successful localization**



Polyurethane resin

Resin for in-sole, mid-sole and out-sole of shoes and PU Elastomer, resin for synthetic leather for shoes and car seats

Melamine Foam (VIXUM)

Foam equipped with outstanding self-extinguishing features, excellent sound absorption and great cleaning effect

TPU

Unfading property, transparent, highly elastic, abrasion resistant

DSR

Sector : Chemistry
Sub-sector : Textile products
CEO : Hong Seok Bin
Founded : 1965. 4. 1
Employees : 166
Homepage : www.dsr.com
Sales : \$ 227 million
Listed : KOSPI
Qualified* : World Class

Introduction

DSR, with the objective of leading positive transformation in the world and adding value to human lives, has developed continuously, without stopping transformation and efforts for the overall development of material industry over the past 50 years. Besides pioneering transformation, the products of DSR have been part of the lives of people around the world, from steel wire which is the basic material of spring used in objects found throughout the lives of people, such as ball-pointed pens, mobile phones and cars to special industrial ropes which are used in construction, shipbuilding and marine plants.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 market share in the world in the field of synthetic fiber rope



Super Max rope

Special industrial rope made with a combination of the world-class rope design and coating technology, using super fiber which is stronger than steel but 1/8 lighter. When the super-big typhoon, Maemi struck the south coast in 2003, ships that were anchored using Super Max didn't suffer any damages, gaining global reputation.

Super Max Rounding Sling

Special industrial string applied with DSR's exclusive technology, using the same super fiber as Super Max. It is widely used in various industrial sites as it exhibits the best performance even under harsh working conditions and it holds the record for safely lifting the heaviest object in the world.



Stainless Wire

Used as raw material for producing various parts such as springs and bolt nuts. It is a product that promotes the excellence of Korean material industry in collaboration with renowned spring and electronics, automobile and medical device component companies in the world.

ENF Technology

Sector : Chemistry
Sub-sector : Fine chemistry
CEO : Chi Yong-Seok
Founded : 2000. 5. 1
Employees : 513
Homepage : www.enftech.com
Sales : \$ 435 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

ENF Technology Co., Ltd. has achieved remarkable growth through bold challenges and by procuring new growth engines regarding new fields since its establishment in 2000. In addition, ENF Technology Co., Ltd. creates high added value with differentiated technologies through continuous R&D, for example, operation of R&D (Giheung in Yongin and Ulsan), development of preceding technologies and technical cooperation with world-renowned corporation and as a result, it has quickly positioned itself as the First Mover of electronic materials industry for display and semi-conductor. Now, ENF Technology Co., Ltd. is devoted to achieving the mission of 'Chemicals of convenience and wellbeing, and beyond' based on core values of 'expertise', 'communication', 'convergence' and 'challenge'. In the future, ENF Technology Co., Ltd will stand tall, as a Smart Chemical Provider leading the industry beyond Korea and beyond the world, by providing differentiated solutions based on customers and trust.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

42% market share in the world

1st place in etchants for display

32% market share in the world

1st place in fluoro-based etchants for semi-conductors

DRIVE AHEAD TO GLOBAL ELECTRONIC CHEMICALS



Process chemical used in core processes of semi-conductor and display, fine chemical and color paste are areas concentrated with ENF Technology Co., Ltd's in-depth experience and technology.

FINE

Sector : Chemistry
Sub-sector : Chemical products
CEO : Lee Sang-jun
Founded : 1991.05.01
Employees : 82
Homepage : www.fine-tec.com
Sales : \$ 18 million
Listed :
Qualified* : World Class

Introduction

Since the establishment in 1989, FINE has concentrated on R&D in the field of automation equipment for automotive production lines which used to rely on overseas import and as a result, it has succeeded in progressively localizing the automatic washers for components, Leak Test equipment, engine assembly equipment, post-processing facilities for casting, ultimately contributing to the development of domestic automotive industry while expanding exports to global automobile companies, including GM. Furthermore, business areas are also being expanded to new material business, such as special rubber sheet that are used for centrifuge, electric dehydrator as well as wastewater treatment equipment, shoes, bags and boats.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ 5% market share in the world

5th place in automatic washer for components

★ 80% domestic market share

1st place in automatic washer for components



Automatic washer for components

Equipment that perfectly cleans and dries foreign substances such as cutting oil or chips produced during processing work of automobile parts and various mechanical parts.



Leak test equipment

Equipment that automatically inspects leak defect in automotive parts such as engines or transmissions by using Air Leak Sensor



Centrifuge

Equipment that separates liquid and solid or liquids with different specific gravity using centrifugal force. It is a key instrument for wastewater and sludge treatment.



Electric osmosis dehydrator

Equipment that reduces waste by lowering the sludge content using electrophoresis and electroosmosis.

Special rubber sheet

Special abrasion resistant rubber sheet utilized in shoes, bag, boat, life jacket and various industrial materials

Hansol Chemical

Sector : Fine chemistry
Sub-sector : Chemical products
CEO : Park Won Hwan
Founded : 1980. 3. 13
Employees : 618
Homepage : www.hansolchemical.com
Sales : \$ 641 million
Listed : KOSPI
Qualified* : World Class

Introduction

Hansol Chemical Co., Ltd, a global advanced material company that develops together with customers, is devoted to preemptive localization of core materials in next-generation industries such as semi-conductors and secondary batteries, based on the competence in localizing essential chemical materials.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ 70% domestic market share

No. 1 hydrogen peroxide for semi-conductor

★ 80% market share in the world

No. 1 QD

★ 35% domestic market share

No. 2 anode binder



Hydrogen peroxide for semi-conductors

- Used for removing photo resist and cleaning wafer, it is an eco-friendly product with strong oxidizing power



QD

- As a nano particle that discharges various forms of light depending on the particle size, it is applied to display in order to enhance color gamut



Anode binder

- As a binder specialized for secondary battery anode, it is the first ever developed product in Korea, capable of enhancing the battery lifespan

HAVE & BE

Sector : Chemistry
Sub-sector : Fine chemistry
CEO : Christopher Kindersliwood
Founded : 2004. 12. 24
Employees : 200
Homepage : www.haveandbe.com
Sales : \$ 83 million
Listed :
Qualified* : Wolrd Class

Introduction

HAVE&BE is a derma-cosmetic company that pursues healthy beauty. It has managed to achieve notable high growth after gaining popularity from consumers for its reliable and effective products, such as 'BB Cream', 'Ceramidin Cream' and 'The Mask'. Its value has been recognized not only in Korea but also in markets with high entry barrier, such as USA, Europe and the Middle East and recently, through strategic management partnership with Estee Lauder Companies, it is solidifying its position as a global group.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Ceramidin Cream

Repair cream that quickly soothes skin that has become sensitive due to daily stimulations and stress

The Mask

As a mask made of eco-friendly, biodegradable sheet, it is a highly moisturizing sheet mask that takes care of various skin troubles



HUBIS

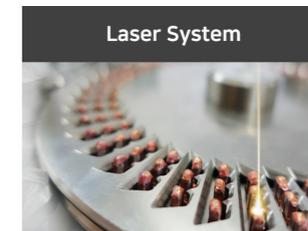
Sector : Chemistry
Sub-sector : Laser & Welding
CEO : Kim Myungjin
Founded : 2009
Employees : 55
Homepage : www.hubis.co.kr
Sales : \$ 14 million
Listed :
Qualified* : ATC

Introduction

HUBIS is specialized in manufacturing the advanced laser welding system. HUBIS has successfully built up the advanced laser equipment in industry of automobile, semi-conductor, mobile and home appliance for many years, and has continued to grow being recognized for its professionalism and technology. In particular, HUBIS is a global market leader in the field of battery and motor laser welding equipment in the E-Mobility industry.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



- | Laser Welding
- | Laser Ablation / Cleaning
- | Laser Notching



- | Welding Monitoring / Quality Inspection
- | Precision Machine & Special JIG
- | Industry 4.0 & Smart Factory



Vision Scan

Vision Scan is a laser welding head facility that combines vision system and scanhead to maximize system stability/quality/convenience, etc.

- Alignment inspection before welding
- Real-time monitoring during welding
- Easy connection with 2D/3D/OCT/plasma sensor for quality inspection after welding

Application of HUBIS's specialized image processing algorithm and deep learning technology for welding process

INNOX Advanced Materials

Sector : Chemistry
Sub-sector : Polymer materials
CEO : Chang KyeongHo, Kim KyungHoon
Founded : 2017. 6. 1.
Employees : 688
Homepage : www.innoxamc.com
Sales : \$ 406 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

INNOX Advanced Materials is a company specializing in polymer IT materials, established centered on research workforce that used to lead the localization of materials for electronic information. After being the first in Korea to succeed in the development and mass production of LOC tape, it entered the IT material market which used to be dominated by advanced companies in the world. Since then, the semi-conductor PKG material business has stood tall as the only company in Korea to be equipped with a full line up and as for the Flexible Printed Circuit Board (FPCB) material business, the company has developed into a manufacturer with the best competitive edge in the world, beyond South Korea. Furthermore, the company has been divided in order to concentrate on the IT material business and the newly established company, INNOX Advanced Materials has taken over the current business.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

60% market share in the world

No. 1 in the OLED material sector

Circuit material (INNOFLEX, SMARTFLEX)

Playing a leading role as the No. 1 maker in the global market by securing a foundation for technological independence in the domestic IT material technology based on exclusive technological capacity and cost competitiveness in the field of Flexible Printed Circuit Board (FPCB)



Semi-conductor PKG material (INNOSEM)

Positioned itself as the only semi-conductor PKG material partner in Korea based on endless technology development and challenging spirit while being oriented towards world standardization, beyond localization



OLED material (INNOLED)

OLED is a light-emitting material when electricity flows and after it has been applied to display devices recently, it is receiving attention as a next-generation display material

Jeil Chemical

Sector : Chemistry
Sub-sector : Polymer materials
CEO : Im Jong Il
Founded : 1994. 1. 1
Employees : 72
Homepage : www.jeilchemical.com
Sales : \$ 69 million
Listed :
Qualified* : World Class

Introduction

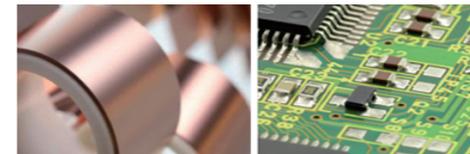
Jeil Chemical, established in 1991, is a company specializing in material, producing epoxy material for PCB, photopolymer material for display and epoxy system products as its main products. The company's mission is 'Sustainable company making employees and society happy' and under the vision of 'Company specializing in global precision chemical materials', it pursues the core values of 'Prioritizing the happiness of employees' and the company is developing continuously.

* Refer to 396p for detailed information about ATC, and World Class

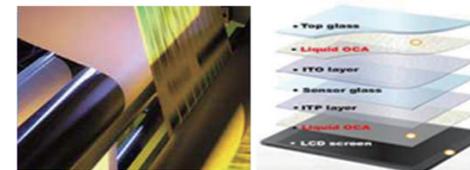
Main Product

1st place in the world for epoxy material for PCB
 2nd place in Korea for photopolymer material for display

1st place in Korea for epoxy material for PCB
 1st place in Korea for hotopolymer material for display



- CCL Insulation material for CCL (Copper Clad Laminates) which is the basic material of PCB, insulation material for MCCL (Metal Copper Clad Laminates)



- Coating material for LCD optical film



- Molding material for automotive parts, molding material for indoor and outdoor heavy electric machine, highly heat resistant insulation component material

JINYANG OILSEAL

Sector : Chemistry
Sub-sector : Chemical products
CEO : Lee MyungSoo
Founded : 1991.05.01
Employees : 232
Homepage : www.jy-oilseal.com
Sales : \$ 89 million
Listed :
Qualified* : World Class

Introduction

JINYANG OILSEAL, as the only indigenous seal company in Korea, has developed continuously in the market dominated by global companies based on exclusive technology. By substituting imported sealing rubber parts which are core mechanical elements that seal water and oil required for lubrication and operation of mechanical devices, it has achieved more than 20% sales growth annually, transforming into a global company in the field of sealing parts.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

30% market share in the world

No. 1 water seal

15% market share in the world

No. 1 electronic NVH component



Rubber and resin component groups, such as water seal and oil seal that seal off water and oil inside mechanical devices, NVH components that prevent noise and vibration generated during operation of mechanical devices, multiple function sensing parts with integrated sealing material and counterpart are few of its main products



KC

Sector : Chemistry
Sub-sector : Ceramic materials
CEO : Park Joo Jung
Founded : 2001.03.21
Employees : 206
Homepage : kc.daejookc.com
Sales : \$ 461 million
Listed :
Qualified* : World Class

Introduction

KC was newly created when Korea General Chemical Company, founded in 1996 was privatized in 2001. It succeeded in localizing aluminum hydroxide which was 100% dependent on products imported from Japan. With more desire for success, R&D was conducted repeatedly, leading to the development of high value added materials such as Super Fine and Boehmite and these are now being sold not only in Korea but also exported to advanced material companies like Japan and Europe, putting KC on a par with global companies.

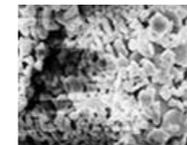
* Refer to 396p for detailed information about ATC, and World Class

Main Product



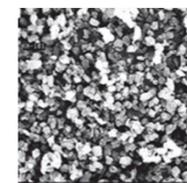
Aluminum Hydroxide (ATH)

Obtained from bauxite by Bayer technique. Reacts easily with acid and alkali, making it soluble and it is stable until 200°C. At a higher temperature, crystalized water gets dehydrated, absorbing much of the heat so it is widely used as flame retardant.



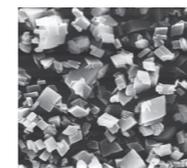
Alumina

Made by calcining aluminum hydroxide. Has high melting temperature, MOHS hardness and electrical resistibility and has stable reactivity to acid and alkali as well, so it is widely used as fireproof material, insulating material, spark plug, IC boards, abrasives and polishing agent.



Super Fine Aluminum Hydroxide

Has high whiteness, low electrical conductivity, and low oil absorption. In case it is used as flame retardant, temperature increases and only water molecules are emitted so toxic gas or exhaust gas is not generated and it has excellent resistance to electrical arcing and tracking so it is widely used as electrical insulating material.



Boehmite

It is used as eco-friendly halogen-free flame retardant which can be used in high processing temperature and toxic gas or exhaust gas is not generated and it has excellent resistance to electrical arcing and tracking so it is widely used as printed circuit board or secondary battery separator material.

Kolmar Korea

Sector : Chemistry
Sub-sector : Fine chemistry
CEO : Choi Hyeon Gyu
Founded : 2012. 10. 2.
Employees : 958
Homepage : www.kolmar.co.kr
Sales : \$ 1322 million
Listed : KOSPI
Qualified* : World Class

Introduction

Kolmar Korea is a global beauty & healthcare company that has been the first to adopt the ODM process in the domestic cosmetics industry and currently provides a systematic total service, from trend analysis to merchandize planning, development, shipping and management based on outstanding technology and quality standard. As a reliable supporter of brand companies, assistance is offered so that K-Beauty can spread out across the world.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Atomy Absolute Selective Skin Care

- Application of technology for designing peptide specialized to bonding per skin cell receptor and realization of anti-aging function
- First in Korea to acquire NEP certification from the Ministry of Trade, Industry and Energy's Korean Agency for Technology and Standards

AHC Real Eye Cream

- Formulated with collagen, elastin and peptide similar to human body
- Steady seller, with 1 sold every 2 seconds



Kum Yang

Sector : Chemistry
Sub-sector : Fine chemistry
CEO : Ryu Kwang-Ji
Founded : 1955. 11. 17
Employees : 90
Homepage : www.kyc.co.kr
Sales : \$ 181 million
Listed : KOSPI
Qualified* : World Class

Introduction

As the No. 1 company in the field of blowing agents in the world, it is targeting the world market through its brand, CELLCOM. It is supplying OBSH for weather strips to automobile manufacturers, gaining recognition for its exclusive technology and is growing into a global leader in the advanced material industry through eco-friendly blowing agents, secondary battery materials and hydrogen fuel cell business.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

1st world's market share in the field of blowing agent



Eco-friendly blowing agent

As a chemically engineering product that is added to manufacture sponge products that is mixed to polymer materials such as synthetic resin and rubber to produce gas by pyrolysis, it is an eco-friendly product without hazardous substances like ammonia and formamide



Capsule blowing agent

Encapsulated in microspheres with thermoplastic shell structures of 10~60µm in size, they are thermally expandable physical blowing agents. When heated, the micro capsule expands and exhibits the function of a blowing agent.

Kyung-In Synthetic Corporation

Sector : Chemistry
Sub-sector : Chemical products
CEO : Sung Yong Cho
Founded : 1971
Employees : 602
Homepage : www.kisco.co
Sales : \$ 243 million
Listed :
Qualified* : ATC

Introduction

The Kyung-In Synthetic Corporation (KISCO) develops and produces dyes, inks and fine chemical materials used in textiles, electronic products over 50 years. Based on organic synthesis technologies, which are a core competency, KISCO's business has been expanded to include inks and fine chemicals, including photosensitive materials, display/semiconductor materials. All products are developed and produced at the highest quality.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Synolon EXW

Synolon EXW dyes, a disperse dye, are the market leader in dyeing performance and wet fastness properties for polyester. This range will meet most retailers' specifications for wet fastness properties including domestic and commercial laundering.

- Excellent wet and overall fastness levels
- No staining on other fibers during the dyeing process
- No bleeding on other fibers during laundering
- Satisfies retailers' requirements
- Environmentally sustainable



PAPIJET

Papijet inks as an ink for Digital Textile Printing (DTP) are an alternative to conventional printing dyes that offer superior technical performance at a competitive cost.

- Wide color gamut to comply with various color management requirements
- Excellent compatibility of digital sampling with conventional production
- Excellent printing performance
- High fastness level, color yield, brightness and brilliancy
- Fewer nozzle blockages or print head failures

Miwon Commercial

Sector : Fine chemistry
Sub-sector : Chemical products
CEO : Hong Chang Sik, Son Eung Joo
Founded : 1959. 11. 3
Employees : 621
Homepage : www.mwc.co.kr
Sales : \$ 819 million
Listed : KOSPI
Qualified* : World Class

Introduction

Miwon Commercial Co., Ltd. is a chemical manufacturing company that has grown continuously for more than 60 years since its establishment in 1959. Starting with the manufacturing of basic chemicals such as sulfuric acids and sulfur powders, it continues to produce and supply many kinds of high value added fine-chemical products through continuous R&D and investment.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

PIBU:

Surfactant and polymer for cosmetics/personal care/home care

★ No. 1 market share in Korea

Surfactant for cosmetics/personalcare

ECBU:

Material for core process of display (TFT-LCD, OLED) panel (PAC, Novolak resin, etc.), materials for semi-conductor lithography process (PAC, photosensitive polymer, etc.), secondary battery material (electrolyte additive, binder for electrode, etc.)

FCBU:

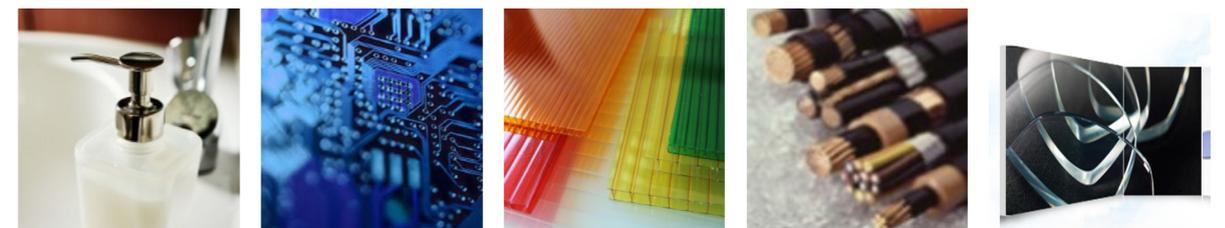
Functional resin for 5G (low-k dielectric, high heat resistant), copolymer material for highly functional special PC (high transparency, flame resistant), high-refractive monomer

PABU:

Polymer stabilizer that suppresses and delays aging of polymer (anti-oxidant, UV stabilizer)

Lens monomer:

Material for high-refractive glass lens





ONECHANG Materials

Sector : Chemistry
Sub-sector : Textile products
CEO : Eric chae
Founded : 1995. 11. 24.
Employees : 156
Homepage : www.onechang.com
Sales : \$ 47 million
Listed :
Qualified* : World Class

Introduction

Since its establishment, ONECHANG has always played the role of leader in the textile market through innovation and new products with development potentials. We have focused on investing in the development and production of high quality fabrics with the objective of become a material specialist while securing cost competitiveness through vertical integration. ONECHANG continuously strives to grow into a global leading company by developing various products including industrial materials grounded on ceaseless research and development.

* Refer to 396p for detailed information about ATC, and World Class



Main Product

★
30% domestic market share No. 1



Ultra-lightweight, functional, vapor permeable, water resistant product which is the main product group is a technology intensive product of ONECHANG Materials and it is a material that simultaneously carries the contradicting traits of vapor permeability. It is gaining attention following the emphasis placed on the need for functional products that

protect the body due to the recently increasing popularity of leisure and sports enjoyed under extreme environment and activities enjoyed throughout the 4 seasons.



PI Advanced Materials

Sector : Polymer materials
Sub-sector : Chemical products
CEO : Kim Tae Lim
Founded : 2008. 6. 2
Employees : 306
Homepage : www.pimaterials.com
Sales : \$ 252 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

PI Advanced Materials Co., Ltd. is a producer of advanced materials, producing Polyimide products that become the foundation for advanced products, covering various fields such as IT devices, electric vehicles, display and semi-conductor. Based on exclusive technology and creative R&D, it has solidified the 1st place in the global PI market since 2014.

* Refer to 396p for detailed information about ATC, and World Class



Main Product

★ 31.2% market share in the world
1st place in global M/S of PI films

PI (Polyimide) Film, PI Varnish

As material that is capable of withstanding extreme temperatures, ranging from -260 degrees to 400 degrees, it is a super engineering plastic with the most outstanding heat resistance and workability. It is being used in IT devices, electric vehicles, display and semi-conductor for FPCB, advanced industries and heat protection material.



Samduk Tongsang

Sector : Chemistry
Sub-sector : Chemical products
CEO : Moon chang Seop
Founded : 1997. 11. 22
Employees : 141
Homepage : www.samduk.net
Sales : \$ 83 million
Listed :
Qualified* : World Class

Introduction

As a company specializing in OEM & ODM of the shoes industry, Samduk Tongsang is leading the shoes industry of South Korea. Samduk Tongsang is enhancing the quality of the Korean shoes industry by promoting quality and price competitiveness through the world's biggest development workforce, its technology and in-house system while achieving accompanied growth with buyers of various brands.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Walking shoes and running shoes

Product focused on enhancing the functionality of walking and the active agility of running shoes



Outdoor shoes

Trekking, walking and urban outdoor style, better than the existing hiking shoes



Samhwa

Sector : Chemistry
Sub-sector : Chemical processes
CEO : Cho Seong-hwan
Founded : 1997. 9. 2
Employees : 236
Homepage : www.samhwaplastic.com
Sales : \$ 88 million
Listed : KOSPI KOSDAQ
Qualified* : World Class

Introduction

Samhwa has played a leading role in the development of domestic cosmetics subsidiary material through R&D and collaboration with suppliers based on craftsmanship over the past 40 years grounded on the company's motto of precision, creativity and modesty. As a result of continuous investment in R&D and education/training to enhance creative thinking which is the root of innovative product development, Samhwa has presented GLOBAL MEGA HIT products. Moreover, in line with the market trend that tends to prefer eco-friendly products, Samhwa devoted itself to the development of INNO-ECO-Product based on 3R (Recycle/Reduce/Reuse) keyword, leading to successful development of innovative product in a refill-structure which maximizes innovative pumping technology and user convenience in consumers. By leveraging on such achievements, Samhwa was able to take a step closer to the development of new products that could fulfill customer satisfaction. Samhwa will endeavor to as close as materializing the brand image and product image desired by the customers. Samhwa's little courage are creating containers of great capacity, embracing the world.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Make-up (Airtight cushion, etc.)

Compact type of cosmetic container designed to minimize evaporation of contents and to prevent leak even under high pressure and container for color cosmetics that has adopted the technology to perfectly protect contents by reflecting airless function to differentiated design



Skin care (Airless pump, etc.)

Pump discharge type of cosmetics container that prevents degradation and oxidation in contents by blocking external air 100% and that is capable of minimizing leftovers



Sustainable (Eco-Pump & Eco Material)

Eco-friendly product that enables the PET container and material to be separated easily, reducing environmental load and enabling convenient recycling



Blow (PCR)

As a container manufactured by using heavy glow technique, it is lighter and stronger than glass but has the same effect as it, adding a competitive edge in terms of price



Samil Spinning

Sector : Chemistry
Sub-sector : Textile products
CEO : Ro Hee Chan
Founded : 1983. 9. 1.
Employees : 80
Homepage : www.samil-sp.co.kr
Sales : \$ 69 million
Listed :
Qualified* : World Class

Introduction

Samil Spinning is the first company in Korea that has developed the air jet spun yarn in 2001. In 2012, it was the first in the world to mass product 100% functional synthetic fiber spun yarn with stabilized peeling and is currently a company specializing in the supply of fiber materials. In 2002, Plant 2, the world's first plant dedicated to modal, in 2008, Plant 3, dedicated to MicroModal and ProModal, in 2012, Plant 4 dedicated to high quality Ring Spinning were constructed. Through continuous investment in cutting-edge equipment and sales growth as such, it is leading the world market with unprecedented quality.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Fabric for flame-resistant industrial safety clothes

As a fabric made with super fiber material, Aramid, Modacrylic and hydrophilic fiber material, flame-resistant Cellulose composite material, it is human-friendly and heat resistant



★ **2nd place in the world**

★ **1st place in the world**

High strength rayon yarn

Fabric that offers high strength compared to cotton, great absorption and softness, luxurious gloss and silky texture

Super fiber material yarn

As the core material in future material industry, it is used in various fields such as aerospace, automobile, shipbuilding, steel, electronic, architecture and civil engineering

SANG-A FRONTEC

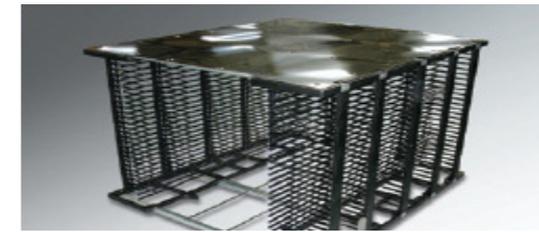
Sector : Chemistry
Sub-sector : Polymers & Chemical products
CEO : Lee Sang-Won
Founded : 1974
Employees : 505
Homepage : www.sftc.co.kr
Sales : \$ 147 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

For the past 40 years, SANG-A FRONTEC has developed a variety of industrial key materials and parts on the basis of such independent product commercialization technologies as the synthesis and compounding of raw materials, product design, process design, and processing process design by using such high-functional super-engineering plastic raw materials as fluorine resins. This enterprise has contributed to the national economy through export together with the enhancement of customers' added value through successful domestic production of the key materials and parts for such national base industries as semiconductor, LCD, automobile, secondary battery, and medicine.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



LCD Cassette

The tray product for fixing, transfer and storage of circular glass panes and LCD modules during the production of LCD TV's.



Laser Printer Electronic Belt

The key part to electrically spray toner into paper in the form of letters or images during the drive of laser printers and copiers.



Secondary Battery Cap Ass'y

The Packaging material part of lithium secondary battery, The key part of medium/large battery for Electric Vehicles (EV) and Energy Storage Systems (ESS).



Automobile PTFE Material

High-sealing high-wear resistance PTFE part fabricated in the form of tubes and rings for installation at the shock absorber, brake, air compressor of automobiles.

SIONTECH

Sector : Chemistry
Sub-sector : Water quality/soil
CEO : Kang KyungSeok
Founded : 2000
Employees : 32
Homepage : www.siontech.com
Sales : \$ 0.3 million
Listed :
Qualified* : ATC

Introduction

Capacitive desalination technology is a technology to adsorb and desorb ions in water using the principle of electric double layer. It is applied to products such as water purifier, water softener and water station to remove ionized substances including heavy metals in water, Can be used A water purifier and a water softener are made using an electrochemical filter made of a capacitive desalination technology, which is desorbed by adsorbing ions on the electrode surface by applying a voltage as low as 1.5 V or less
 A carbon electrode is used to adsorb ions as much as possible, and the adsorbed ions can be discharged separately by concentrating them by applying short and reverse potentials

* Refer to 396p for detailed information about ATC, and World Class

Main Product



CDI module, E400

The CDI module based on capacitive desalination technology is a technology that adsorbs and desorbs ions in water using the principle of an electric double layer. By removing it, you can use clean and safe water.
 Water purifiers and water softeners are made using electrochemical filters made with capacitive desalination technology, which are desalted by applying a low voltage of 1.5V or less to adsorb ions to the electrode surface.

CDI module, SDI

The CDI module based on capacitive desalination technology is a technology that adsorbs and desorbs ions in water using the principle of electric double layer. By removing it, you can use clean and safe water.
 Using electrochemical filters made with capacitive desalination technology, water purifiers and water softeners are made and desalted by adsorbing ions to the electrode surface using a voltage of 300V or less and low current.



TSR

Sector : Chemistry
Sub-sector : Chemical products
CEO : LEE Min Hyuk / RYU Han Kwang
Founded : 1967. 7. 28
Employees : 157
Homepage : www.tsr.co.kr
Sales : \$ 59 million
Listed :
Qualified* : World Class

Introduction

TSR Co., Ltd., which began as Taeseong Rubber Chemical in 1967, contributed to localizing the rubber market which used to be dominated by imports at the time. In 1975, TSR participated in the development of the vehicle type, steering, suspension, brake, motor and device parts for 'Pony', Korea's first car model and since then, it has become a global premium automotive rubber components company ranking 1st place in Korea and 2nd place in the world for the propeller shaft coupling sector.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Propeller shaft coupling

Based on highly durable and high heat resistant manufacturing method, the propeller shaft coupling has achieved 2nd place in the market in which 90% used to dominated by German S company

Steering coupling

Through cord winding, rubber adhesion technology, highly durable and downsizing technology development and others, the steering coupling accounts for 31.7% of the world's market share



Steering damper coupler

The steering damper coupler takes up 15% of the world's steering damper coupler through the development of highly durable and high heat resistant HNBR material



UNICOH Specialty Chemicals

Sector : Chemistry
Sub-sector : Chemical products
CEO : Song Bang Cha Rang
Founded : 1976. 1. 1
Employees : 120
Homepage : www.unicoh.co.kr
Sales : \$ 56 million
Listed :
Qualified* : World Class

Introduction

Company that provides chemicals for oil and gas industry, chemicals for metal surface treatment, functional precision chemicals and services. Starting from its advancement into the Vietnamese market in 2004, it is expanding the export proportion and growing into a global leader in the field of chemicals for oil and gas industry based on exclusive technology.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

The only company in Korea exporting chemicals for oil and gas industry



Chemicals for Oil and Gas Industry

Chemicals for oil and gas industry

Chemicals for Metal Surface Treatment

Chemicals for metal surface treatment



Industrial Films & Adhesives

Eco-friendly films and special adhesives

Process Chemicals

Functional chemicals, along with products that prevent environmental pollution

Unitech

Sector : Chemistry
Sub-sector : Fine chemistry
CEO : Lee Seong Ho, Park Ik Soon
Founded : 1999. 5. 7
Employees : 107
Homepage : www.unitechcorp.com
Sales : \$ 47 million
Listed :
Qualified* : World Class

Introduction

Unitech is as a company that specializes in chemical materials in the field of automobile and vessel. Main products include adhesives for automobiles and LNG vessels and in case of automobiles, clients include Hyundai and Kia Motor, GM Korea, Volkswagen and in case of vessels, clients include Samsung Heavy Industries, Daewoo Shipbuilding & Marine Engineering, Hyundai Heavy Industries, Hyundai Samho Heavy Industries, Imabari Shipbuilding in Japan and Hudong Shipbuilding in China and Kangnam Shipbuilding. Unitech is dedicated to new businesses in the field of fiber-reinforced plastic and green energy by applying source technologies.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

85% domestic market share
1st place in automobile products

90% market share in the world
1st place in vessel products



Vitzrocell

Sector : Chemistry
Sub-sector : Chemical products
CEO : Paul Jang
Founded : 1987
Employees : 360
Homepage : www.vitzrocell.com
Sales : \$ 98 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

Vitzrocell was established in 1987, and was first lithium primary battery company to be listed on KOSDAQ. As a global high-end tech company, Vitzrocell focuses on lithium primary batteries and special batteries. With 35 years' experience and superb technology, Vitzrocell now stands as the global leader in lithium primary battery solutions, providing portable energy solutions for over 250 companies in more than 40 countries. Our battery solutions serve multiple customer segments for specific applications such as smart grid & metering, defense, IoT, asset tracking, oil&gas, marine, medical, security etc.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Lithium Primary Battery

- Lithium SOCl₂ Battery - Power source of AMR for Smart Meters(Electricity, Gas, Water)
- EDLC(Supercap) - Power source of Smart Meter, Renewable Energy(wind, solar) & various electronic devices
- High Temperature Battery - Power source of MWD & PIG for Oil & Gas Exploration
- Ampoule Reserve Battery - Power source for Electronic Fuze
- Thermal Battery - Power source for guided missile, bomb, torpedo, decoy, aircraft ejection system etc
- Lithium MnO₂ - Power source of Security, Fire detector and other Electronics

WONIK QnC

Sector : Chemistry
Sub-sector : Ceramic materials
CEO : Baek Hong Joo
Founded : 2003. 11. 12
Employees : 992
Homepage : www.wonikqnc.com
Sales : \$ 520 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

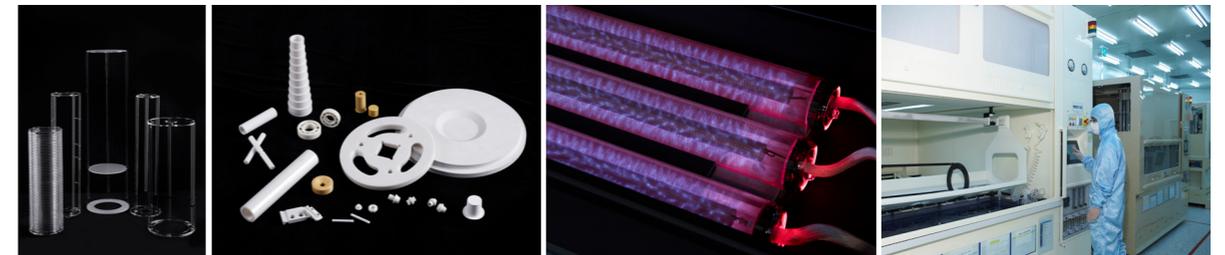
WONIK QnC is a company specializing in composite material parts that manufactures and supplies Quarts Ware which is essential for the production of semi-conductor wafer as well as Ceramics Ware used in the production of semi-conductors and TFT-LCD. As the world's 2nd Quartz Ware manufacturer, WONIK QnC supplies products to domestic companies as well as global semi-conductor equipment companies. In addition, it has established local companies in Taiwan, Germany, USA and China based in global technological capacity.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

World's No. 1 quarts for semi-conductor

Korea's No. 1 quarts for semi-conductor



Quarts Ware

Quarts product for protecting, transferring and fixing wafer in semi-conductor/LCD manufacturing process

Excimer Lamp

Processes LCD Panel surface reforming and removes organics

Ceramics Ware

Consumable part of semi-conductor/LCD manufacturing process (High intensity, high durability, erosion resistant)

Cleaning

Cleaning such as semi-conductor diffusion parts

Yonwoo

Sector : Chemistry
Sub-sector : Fine chemistry
CEO : Ki Joong Hyeon
Founded : 1994. 9. 30.
Employees : 1,368
Homepage : www.yonwookorea.com
Sales : \$ 239 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Starting from the development of dispense pump for cosmetics, Yonwoo has pioneered the cosmetics packaging material business. It is in business with over 40 Top 100 cosmetics companies in the world and has experience in business with all the Top 10 cosmetics companies in the world. It has solidified its top position in the domestic industry with endless technology advancement and is developing into a global packaging company through stringent quality control and new market pioneering.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ **10th market share in the global**

★ **1th domestic market share**



Pumps

Contents are maintained in vacuum state, preventing deterioration and the airless system reduces the contents that are left



Tubes

Affordable cost, easy to carry, prevents oxidation in contents due to outstanding barrier quality, various caps available, offering extensive selection range to customers



Colors

Owens multiple products applied with independent technologies, such as compact applied with vacuum pump and slim cushion compact

KORIL
Directory of
Outstanding Korean
Companies

KORIL
Directory of
Outstanding Korean
Companies

04

**Electrical
and
electronics**



ABOV Semiconductor

Sector : Electrical and electronics
Sub-sector : Semiconductor devices and systems
CEO : Choi, Won
Founded : 2006. 1. 11
Employees : 220
Homepage : www.abov.co.kr
Sales : \$ 140 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

As a fabless semiconductor company, ABOV Semiconductor provides competitive solutions for not only various types of Micro Controller Unit (MCU) but also Logic Integrated Circuit (Logic IC). The general MCU portfolio of ABOV provides profit and satisfaction to customers from the perspectives of price, quality and prompt technical support by top engineers.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

1st supplier in domestic MCU market

1st place in domestic MCU market share in the field of remote controller

4th place in the world's MCU market share Household appliances

MCU (Micro Controller Unit), key sensors (light sensor, touch sensor) for information input and LED BLU, Voice IC, LED Driver IC are being developed and produced. The application scope of MCUs and key sensors are extremely wide and they are mostly applied to electronic products and automobiles

Key products

Battery Charger MCU/Remote control MCU/LED BLU MCU light sensor, touch sensor, Voice IC, LED Drive IC, 3D Glasses MCU, Motor MCU/Rice Cooker MCU/Voice MCU/ Touch IC/TV Sub MCU



Amosense

Sector : Electrical and electronics
Sub-sector : Electrical and electronic parts
CEO : Kim In Eung
Founded : 2008. 11. 1
Employees : 299
Homepage : www.amosense.co.kr
Sales : \$ 47 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

A global leader producing material components in the fields of wireless charging and sensors for automotive electronic devices based on new materials. As a global leader providing products sought after by customers in the best quality and leveraging on its technical leadership, Amosense strives to achieve World First, World Best.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Electromagnetic wave, magnetic field shielding sheet

As a material that shields electromagnetic waves and magnetic field produced in electronic device, optimal shielding conditions have been designed for stable operation



Module for electronic devices

Module for wireless charging of electronic devices in cars and for communication



Ceramic substrate

AMB substrate for power semi-conductor, LTCC ceramic substrate, ceramic substrate for molecular diagnosis

UWB module

Module for UWB Tracker, UWB Antenna and UWB electronic devices



Autonics

Sector : Electrical and electronics
Sub-sector : Optical equipment
CEO : Park Yong Jin
Founded : 1977. 6. 1.
Employees : 838
Homepage : www.autonics.com
Sales : \$ 134 million
Listed :
Qualified* : World Class

Introduction

Autonics is a leading automation company that provides a total solution by developing and producing key products in the field of industrial automation. It is a technology-centric company that invests more than 12% of sales in R&D cost and a global company with 12 international offices in South Korea as well as China, Japan, Vietnam, Turkey, Russia, USA and Brazil and with its network stretching out to over 100 countries around the world.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Machine vision

Vision sensor, smart camera

Controller

Temperature controller, counter, timer, display unit, industrial PC, panel meter, HMI, etc.



Safety

Light curtain, controller, switch

Field instrument

Temperature sensor, thermometer, temperature transmitter, pressure sensor, pressure gauge, pressure transmitter, etc.

Sensor

Photo sensor, proximity sensor, displacement sensor, LiDAR, encoder, fiber optic, area sensor, etc.

Laser marking system

UV, Fiber, CO2

Motion device

Closed loop stepper system, 2-phase/-phase motor, driver, controller

BASS

Sector : Electrical and electronics
Sub-sector : Electrical and electronic components
CEO : Taeho Park
Founded : 2002
Employees : 73
Homepage : www.basscom.net
Sales : \$ 12 million
Listed :
Qualified* : ATC

Introduction

We have developed, manufactured and supplied both Glass powder, which is used in a wide range of goods such as Solar Cells, Displays, electronic component, etc., and Optical electronic component which is used in areas such as color conversion of LEDs.

With over 20 years of experience developing glass powder, we are still continually making improvements to our products. With our efforts focused on upgrading our products, we are able to produce increasingly higher quality goods.

As a result, BASS has been able to be recognized as a global leading company which creates new values for customer. Customer satisfaction is our foremost priority as well as transparency and honesty. We are a company that knows the true value of sharing.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Glass frit & Ceramic powder for LTCC

LTCC is a ceramic that can be fired at a low temperature (below 1000°C) and is mainly composed of Glass Frit and Ceramic Powder.

- Material design with diversity of dielectric properties: Dielectric constant and loss optimization for Various customers' requirement application, especially in High frequency communication
- Excellent strength: High strength due to Material composition and Particle size control
- High chemical durability



Glass Paste for OLED

Low-temperature local heating sealing using IR-Laser absorbing glass powder.

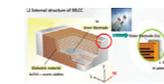
- Excellent Sealing Strength
 - Low CTE and High absorption of infrared ray
- Production Cost Initiatives
 - Air atmosphere firing available, Optimal paste viscosity → Low pressure printing available → Increases screen mask life
- Excellent Reliability in High Temperature/High humidity



Glass frit for Solar cell

Material of front & back electrodes paste for solar cell.

- ARC layer(SiNx, Al2O3) etching function
- Good contact formation with Wafer
- Excellent sintering properties with Silver(Ag) Powder
- Adhesion function with Bus Bar & Wafer
- Wide firing window



Glass powder for Electrodes of MLCC

Glass Powder for laminated ceramic capacitor electrode

- Excellent terminal electrode's integrity
- Excellent Metalization characteristics :
 - Material design for adhesion force and good compatibility with Ag
- Control Sealing strength :
 - Flow behavior control through glass composition design
- High Chemical Durability



PIG(Phosphor In Glass)

High reliability PIG for Automotive LED lamp

- Excellent thermal/Chemical stability
 - No degradation of performance during operation
 - Long lifetime with high reliability
- Easy to adjust color coordinates
 - by the mixture ratio of phosphors and glass
 - by PIG thickness

BIXOLON

Sector : Electrical and electronics
Sub-sector : Home appliances and electronic applications
CEO : Roh HyounChall
Founded : 2002.11.14
Employees : 110
Homepage : www.bixelon.co.kr
Sales : \$ 84 million
Listed : KOSDAQ
Qualified* : Wolrd Class

Introduction

The mini-printer business sector which involved designing by Samsung Electronics and manufacturing and sales by Samsung Electro-Mechanics was spun off into BIXOLON Co., Ltd. in 2002. After being acquired by IDIS Holdings in 2017, the label printer business capabilities are augmenting. BIXOLON seeks for your continuous interest in BIXOLON that is heading towards becoming a global company specializing in industrial printers.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ Approximately 6.8% market share in the world

No. 2 POS printer in the world

★ Approximately 32.9% market share in the world

for mobile receipt printer, for 7 consecutive years



Mobile printer

Mobile printer

Light and compact for exceptional mobility, prints receipts and labels through wireless communication with mobile devices



POS printer

POS printer

Printer that prints the customer's purchase statement in receipts by connecting to the POS System



Label printer

Label printer

Printer used in factories, parcel companies, medical institutions and others that saves key information in barcode and others and prints it

CREVIS

Sector : Electrical and electronics
Sub-sector : Meter
CEO : Jun Heoun, Hwang
Founded : 2000
Employees : 113
Homepage : www.crevis.co.kr
Sales : \$ 35 million
Listed :
Qualified* : ATC

Introduction

CREVIS is a specialized company for the industrial network(FieldBus) having technologies for the factory automation. There are various and sliced compact I/O modules. CREVIS develops, manufactures and sells all network products for the industrial standard networks such as Device NET, PROFIBUS, CANopen, CC-Link, Ethernet, PROFINET, MODBUS, EtherCAT, Powerlink and etc. And the remote I/O product with the FnIO brand regarding the industrial standard networks above is being sold to the domestic and overseas market and exported to the global company as ODM or OEM.

* Refer to 396p for detailed information about ATC, and World Class

CREVIS products and technologies provide the convenient user interfaces with high reliable and competitive price, and can provide the fast and stable technical support based on various and accumulated experiences. CREVIS also believes that the competitiveness and real technology is like the long-accumulated development ability and delivery on time, and is managing the SMT process, manufacture, quality process and delivery based on those belief above.

CREVIS hopes to be a best company in the factory automation field including semiconductor, automobile, marine, ocean and plant industries by having the better quality assurance system and successful business result.

Main Product



FnIO Series

CREVIS Remote I/O is applicable to different industries including Marine. It is highly compatible with existing systems as Fieldbus solutions based on industrial standards. More than 100 compact I/O Products like Loadcell, 3-phase measurement, High-Speed Counter, PWM, HART, Temperature controller etc.

It can support users to customize and optimize automation system depending their own application and environment.

Especially M Series recently released is the optimal Remote I/O solution for shipbuilding, ship, process automation. Support for redundancy and hot-swap, allows us to keep each part of the critical tasks essential for process automation stable without impacting the external environment.

With support for redundancy and hot-swap, It can be maintained reliably without affecting the external environment each part of the critical work required for process automation.



FA Camera

CREVIS distributes technologies with specialized expertise in Area can, Line scan, other customized cameras. Resolutions range from VGA to 67MP with the most interface like GigE, CameraLink, CoaXPress, USB3.0.

CREVIS gives utmost importance to attentive listening and clarifying the customer's demands to save time and increase productivity by specifying minor or major changes tailored to the requirements and applications.

Polarization camera, Short wave Infra-Red(SWIR) camera, and CoaXPress2.0 interface camera are added to provide a large selection of cameras to customer constantly lookout to deliver truly innovative products and technologies.

Cammsys

Sector : Electrical and electronics
Sub-sector : Electrical and electronic parts
CEO : Park Young-Tae
Founded : 1993.01.30
Employees : 147
Homepage : www.cammsys.net
Sales : \$ 439 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Cammsys, by advancing its business into the camera module for mobile phones, is taking a leap forward as a Worldwide CM Leader based on the best technology and quality. Its new business of micro electric vehicle has recorded 1st place in domestic sales and the company aims to achieve "e-mobility Service, Asia No.1".

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Mobile camera module



- Extensive spectrum of product groups available, such as Single (FF, AF, UW), Multiple and OIS
- Mounted in numerous Samsung mobile phones, such as Galaxy S Series and Fold

Micro electric vehicle



- Micro electric vehicle and key components
- 1st place in domestic sales of micro electric vehicles (2020)



Fingerprint recognition module

- Fingerprint recognition sensor, ultrasonic distance measurement sensor, application available

CAS

Sector : Electrical and electronics
Sub-sector : Measuring instruments
CEO : Kim Tae In
Founded : 1983.04.19
Employees : 350
Homepage : www.cas.co.kr
Sales : \$ 4~8 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

CAS is a company leading the standard of industrial and commercial weighing system centered on electronic scales. Since its establishment in 1983 under the slogan, 'We Weigh the World', it has acquired key weighing standards in each country and is exporting its products to 120 countries worldwide through 10 local companies overseas, its value further being recognized outside Korea.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

1.4% market share in the world

No. 4 commercial product

32.7% domestic market share

No. 1 commercial product



CI-600A Weighing Controller

Characterized by high-speed, high solution A/D performance, user-friendly interface and convenient functions, it can be used in tough industrial environments in connection with various products such as Truck, Hopper, Packer and Check Scale



DAEJOO ELECTRONIC MATERIALS

Sector : Electrical and electronics
Sub-sector : Electrical and electronic components

CEO : Il-Ji Lim
Founded : 1981
Employees : 296
Homepage : www.daejoo.co.kr
Sales : \$ 174 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

Daejoo Electronic Materials has grown into a hidden champion of electrical and electronic materials that develops, produces, and sells the core materials for the electrical and electronic industry. Starting with the production of materials such as insulating materials and electrode materials for white home appliances, we are now reborn as a key component material manufacturer for next-generation automobiles through products such as silicon anode materials for secondary batteries, LED phosphor materials for automobiles, and MLCC conductive pastes for automobiles.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Conductive paste/powder

Conductive paste

- Used in internal/External electrode in electronic components such as MLCC, Inductor, Varistor and in solar cells

Conductive powder

- Conductive metal powders used in conductive paste which are applicable to electronic components and solar cells



Polymer

Polymer based product

Our polymer based products are used for electrical insulation in electronic devices or components. They have excellent mechanical strength, moisture resistance, heat resistance, and electrical properties.



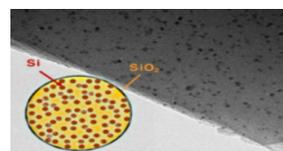
Phosphor

Phosphor

- High-efficiency phosphors are most commonly used in LEDs. The products are customized the light emission wavelength and particle distribution according to customer needs.

Phosphor Plate

- It is provided that DPP-G, DPP-C, DPP-S, DPP-O series.



Silicon anode

DMSO (Daejoo Metal Silicon Oxide) is a silicon-based anode material applied to negative material for secondary lithium batteries, and it is the world's first mass-produced high-capacity silicon oxide material applied to electric vehicle (EV) batteries.

Daesung Eltec

Sector : Electrical and electronics
Sub-sector : Video/audio equipment

CEO : Park sang kyu
Founded : 1979. 6. 5
Employees : 464
Homepage : www.dseltec.co.kr
Sales : \$ 278 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

As South Korea's representative company specializing in car infotainment system (IVI System : In-Vehicle Infotainment System), it has been developing and supplying IVI systems to global automobile companies since it was established in 1979. Recently, it has developed and produced Advanced Driver Assistance System (ADAS), contributing to adding positive impact on the society by reducing traffic accidents and others. Oriented to becoming a 'Innovative Infotainment Global Partner' that develops and supplies products by converging IVI system and ICT technology, Daesung Eltec continues to promote the convenience and safety of customers.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

AVNC: Multiple functions including multimedia system for vehicles, audio/video playback, GPS, etc.

Display audio: TFT LCD audio device for cars

Car audio: Audio device for cars

Monitor: Display device mounted on ceiling and rear seat

Amp: Audio amplifier for cars

MCH: Multimedia Connectors Hub

ADAS: Advanced Driver Assistance System, Front Collision Warning System (FCWS), AVM (Around View Monitoring System)

ADR/DVRS: Accident data recorder, autonomous vehicle sensor, vehicle, image data storage device



Daeyang Electric

Sector : Electrical and electronics
Sub-sector : Home appliances and electronic applications
CEO : Seo Young Woo
Founded : 1977. 5. 2
Employees : 364
Homepage : www.daeyang.co.kr
Sales : \$ 114 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Since its foundation in 1977, Daeyang Electric has paved the way on its development by localizing shipbuilding and marine lighting, distribution panel and communication equipment. By converting to a corporation in 1988, Daeyang Electric has expanded its scale and is proactively supplying products in shipbuilding, marine, defense, railway and automotive industries. By spending 7% of the annual sales in R&D cost and through relentless R&D, it is expanding the business areas into the global market by leveraging on the localization of electronic products that used to rely on imports in various industrial fields such as shipbuilding.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 domestic market share for lighting for ships

No. 1 domestic market share for integrated communication system for naval ships



Lighting for ships



Integrated communication system for naval ships



Pressure sensor for cars

First successful localization in Korea



UUV (Unmanned Underwater Vehicle)

Forth in the world to develop 6000m unmanned underwater vehicle

Dawonsys

Sector : Electrical and electronics
Sub-sector : Displays
CEO : Park, SunSoon
Founded : 1996. 1. 9
Employees : 627
Homepage : www.dawonsys.com
Sales : \$ 246 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

The core values of Dawonsys Co., Ltd are future management, family management and knowledge management. As a manufacturer of industrial electric power supply device, Dawonsys is oriented towards 'World Wide Business' under the vision of 'We're oriented to becoming world-class' and Dawonsys is moving forward to becoming a global world-class company with the passion and effort to provide 'World Best Product' and 'World First Process'.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Korea's first wireless low-floor tram project awarded in 2020 for 'Busan Tram Project'



Emu-150



Wireless low-floor tram

Continuously securing order competitiveness through Seoul City's Line No. 7 Seoknam extension, 196 cars for Daegok ~ Sosa double track subway, Seoul City's Line No. 2-3, 358 EMU150 cars for KORAIL, Korea's first wireless low-floor tram project, etc.

Expanding participation in overseas railway projects such as in Bangladesh, India and Indonesia

Dongwoon Anatech

Sector : Electrical and electronics
Sub-sector : Electrical and electronic parts
CEO : Kim Dong Chul
Founded : 2006. 7. 1
Employees : 112
Homepage : www.dwanatech.com
Sales : \$ 42 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

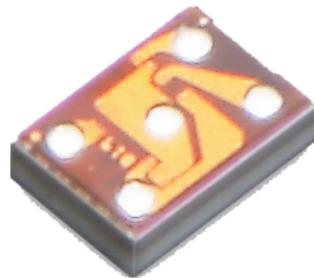
As a fabless company established in 2006, Dongwoon Anatech is mainly developing AF Driver IC for smartphone cameras among numerous applications fields of system semi-conductors and has maintained the largest market share in the global AF market sales for several years. In addition, Dongwoon Anatech's technologies are recognized in the global market with OIS Controller IC, Haptic Driver IC and ToF Driver IC.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 global market market for AF Driver IC

35% global M/S, **50%** M/S in China (Based on quantity)



Auto Focus Driver IC

IC operating the lens that enables it to clearly focus on the filming object when using the camera

Haptic Driver IC

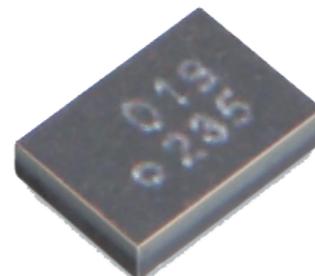
Technology that enriches the user's sense by making the user feel the vibration when touching the screen or pressing the button

OIS Controller IC

Function that detects the external hand shake to move the lens when taking photos, so that the camera can make a clear shot

ToF Driver IC

3D sensing technology that measures the flight time of light to calculate the distance and depth between objects



DOOLIM-YASKAWA

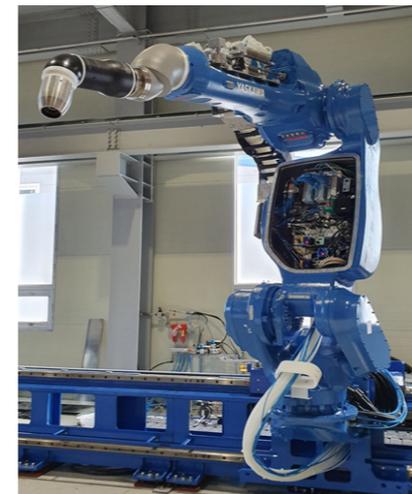
Sector : Electrical and electronics
Sub-sector : Robot/Automation machine
CEO : PARK SANG BEAK
Founded : 1993
Employees : 120
Homepage : www.doolim-yaskawa.com
Sales : \$ 67 million
Listed :
Qualified* : ATC

Introduction

DOOLIM-YASKAWA, Robot Automation System Provider, guarantees best qualities by cooperating with YASKAWA Electric, global industrial robot provider. We provide high-quality software and advanced technology services along with the best robot quality to provide the best solution for improving customer productivity. We represent the field of painting robot automation within the YASKAWA Group. Furthermore, recently provide robot automation system with the highest quality in more diverse industries and fields.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Painting system

DOOLIM-YASKAWA offers manufacturers a wide range of robotic painting products and technology. Our flexible, high-performance paint robots increase finishing quality, consistency and throughput, while dramatically lowering operating costs and decreasing wasted material.

- Reduce commissioning time with pre-painting tests
- Control various painting equipment
- Highest quality software and vision system

Production Automation System

We provide differentiated solutions and services to increase productivity, improve quality, and reduce costs at manufacturing sites.

- Improve process productivity with real-time robot control
- Optimized design of facility movements in the factory
- Well qualified technical training and maintenance supports



DS GLOBAL

Sector : Electrical and electronics
Sub-sector : Home appliances and electronic applications
CEO : Jeong Ik-Sung
Founded : 2010. 1. 12
Employees : 75
Homepage : www.dsgl.net
Sales : \$ 46 million
Listed :
Qualified* : Wolrd Class

* Refer to 396p for detailed information about ATC, and World Class

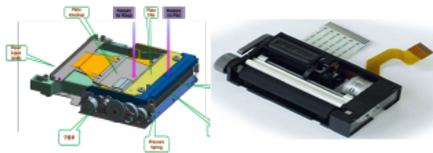
Introduction

As a company specializing in ODM (development and production) services by adopting ZINK (Zero ink) method of printing papers, more than 20 people out of the total 77 employees belong to the R&D workforce (head office). By establishing a plant in Hanoi Haiduong Industrial Complex in Vietnam, DS Global is equipped with 250 manufacturing workforce and a mass production system with 5 million capacity per year. It is focused on overseas export to representative global photo printer and polaroid camera companies such as Polaroid, hp, Canon and Kodak. It is also running additional businesses utilizing micro mobile photo printer R&D technology such as new nail sticker printer (Nail POP) beauty products which are considered as smart phone peripheral devices.

Main Product

No. 1 market share in the world for mobile photo printer development

No. 1 market share in the world for ZINK method printer manufacturing



ZINK method engine

Core component for photo printing and transferring print papers

ZINK method micro photo printer

Product that prints photos by connecting to smart phones



ZINK method micro polaroid

Product that saves photographed images and prints on the spot



Dye-sublimation based micro nail sticker printer

Nail art sticker printing device (Nail POP)

ECOPRO BM

Sector : Electrical and electronics
Sub-sector : Batteries
CEO : Joo Jae-hwan, Choi Moon-ho
Founded : 2016. 5. 2
Employees : 1151
Homepage : www.ecoprobm.co.kr
Sales : \$ 1238 million
Listed : KOSDAQ
Qualified* : Wolrd Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

As a company growing together with the electric vehicle market, ECOPRO BM produces cathode materials which are key materials of lithium ion batteries. It was the first in Korea to mass produce high-nickel NCA cathode materials with high output and is pioneering high capacity cathode material market not only in Korea but also in the world.

Main Product

NCA Series

- Korea's only Ni-Rich, High-end material
- Best reversible capacity among LIB cathode materials that currently exists
- Various customized NCA Modeling according to the customer's demand



CSG Series (Core Shell Gradient)

- Realizes high capacity + stability with concentration gradient technology
- Next-generation new material with capacity and long lifespan equivalent to NCA that is optimized to EV



Edison EV

Sector : Electrical and electronics
Sub-sector : Semiconductor & FPD equipment
CEO : Youngkwon KANG
Founded : 2000
Employees : 96
Homepage : www.edisoneve.com
Sales : \$ 24 million
Listed : KOSDAQ
Qualified* : ATC

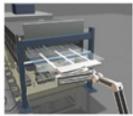
Introduction

Starting with the semiconductor/display inspection equipment business, we have been conducting the electric vehicle business as a future growth engine business since 2016. The semiconductor/display division's product lines can be broadly divided into plasma inspection equipment and glass substrate inspection equipment. The electric vehicle division has been generating sales since 2018.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

EGiS™



EGiS

Inspection systems for FPD glasses — EGiS(Eagle eye Glass Inspection System)
 Since 2005, we started research to develop EGiS systems. The purpose of EGiS series is to inspect cracks, chipping, particles and waviness on glasses, and to provide information in real time and whole. The series is covering from glass manufacturer's bare panels to FPD maker's in-process panels. And also this technology is applicable to flexible device manufacturing processes.

Smart EPD™



Smart-EPD

Plasma monitoring system — Smart-EPD(plasma etching end-point detector)
 Smart-EPD is plasma diagnosis for LCD and OLED manufacturing processes. Plasma processed are the most critical steps for FPD manufacturing, and so Smart-EPD monitors the plasma conditions on manufacturing by optical analysis in real time. From the beginning, we made serious efforts to localize the equipment. As a results, we achieved 100% supply domestically and are exporting to overseas.

Smart HMS™



Smart-HMS

Plasma monitoring system — Smart-HMS(in-situ leak detection system)
 Smart-HMS diagnoses inflowing ambient air to vacuum plasma chamber automatically. This technology was the world first approach to leak diagnosis so that's the first commercialization based on OES(Optical Emission Spectroscopy) tech. The main function of this equipment is to monitor process chamber to detect defective manufacturing, which as a result prevent process malfunctions and enables panel makers to increase product yield.



EV Z

The only compact electric vehicle in Korea, 'EV Z', is a two-seater mini electric vehicle that opens up a new world of driving in highways and automobile-only roads with solid driving performance and advanced safety performance.

ENTEC Electric & Electronic

Sector : Electrical and electronics
Sub-sector : Heavy electric machinery
CEO : Ko In Seok
Founded : 1996. 12. 10.
Employees : 332
Homepage : www.entecene.co.kr
Sales : \$ 91 million
Listed :
Qualified* : World Class

Introduction

ENTEC is a company that produces electric power devices for power distribution and transformer in the fields of medium voltage devices, DC system for electric railway and electric power devices for nuclear power plants. The electric power devices for power distribution and transformer, applied with eco-friendly technologies that prevent global warming has been selected as world-class products, contributing to active exports while elevating the Korean type of distribution automation electric power device technology based on electric power IT technologies to a world level, having the honor of being selected as the 'Top 100 technologies of South Korea' by the National Academy of Engineering of Korea.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ 15% market share in the world

No. 4 in eco-friendly power distribution devices

★ 50% domestic market share

No. 1 in eco-friendly power distribution devices

★ 10% market share in the world

No. 5 in power devices for subways

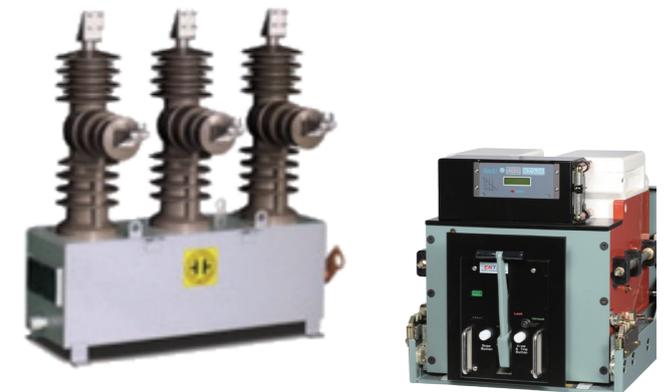
★ 60% domestic market share

No. 1 in power devices for subways



Eco-friendly solid insulation distribution and transformer

Eco-friendly solid insulation electric power devices that do not use SF6 gas which causes global warming, such as switchgear and circuit breaker for processing, switchgear and circuit breaker for underground line, switchgear for substation



DC devices for subway and nuclear power

DC electric power devices for subways and nuclear power plants such as DC Switchgear and DC circuit breakers for nuclear power

EO Technics

Sector : Electrical and electronics
Sub-sector : Optical equipment
CEO : Sung Kyu-Dong
Founded : 1989. 4. 1
Employees : 602
Homepage : www.eotechnics.com
Sales : \$ 326 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Technics Co., Ltd. is a company that specializes in laser, developing and producing laser equipment for semi-conductor, Display, PCB manufacturing process. It is taking a leap towards becoming a World Total Laser Solution Provider by pursuing endless innovation and effort as a first mover of the laser equipment market and through a more diverse product group.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

70% market share in the world

1st place in semi-conductor marker equipment sector

90% domestic market share

1st place in semi-conductor marker equipment sector



Semi-conductor

Marking, Grooving & Dicing, Cutting, Drilling, Annealing

Display

Flexible, FPD, Glass, TSP

PCB

Drilling, Marking

Macro

Notching/Cutting, Welding, Bonding, Soldering, Marking

Laser

Fiber, DPSS, DDL

Genicom

Sector : Electrical and electronics
Sub-sector : Semiconductor devices and systems
CEO : Son Jeongwhan
Founded : 2000
Employees : 28
Homepage : www.geni-uv.com
Sales : \$ 3 million
Listed :
Qualified* : ATC

Introduction

We are developing and manufacturing UV sensors with nitride-based semiconductor epitaxial growth technology using MOCVD equipment, and we are manufacturing UV sensor component that detect the entire range of UV including VUV. We are supplying TO-CAN type products, various types of SMD type UV sensors and CSP (Chip Scale Package) type small UV sensor component. In the field of application systems, we are researching and developing system products that are suitable for the application environment, and are developing products including portable meters, UV sensors for industrial and marine use, and consumer-type products. With the goal of "Total UV solution UV Technology", we provide UV-related technical services in addition to products.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



AlN/AlGaN template

Epitaxy wafer template

- Based on III/V material epitaxy growing
- High Temperature MOCVD machine
- AlN / AlGaN template, 2"



UV sensor component

UV sensor component

- Schottky photodiode, Photovoltaic operation
- Package type : TO-CAN type, SMC.(COB, CSP, Metal body,..)
- Detection Range : VUV, Far-UVC, UVC, UVB, UVA, Visible



UV detection system

UV system product

- Application : UV cure, UV exposure, Water treatment system, UV sterilization, BWMS, UVI and other UV application
- Product type : Portable UV meter, Stationary UV system, High temperature UV detection, Water proof

Gigalane

Sector : Electrical and electronics
Sub-sector : Electrical and electronic parts
CEO : Choi InGweon, Kim Hyunje
Founded : 2000.01.31
Employees : 171
Homepage : www.gigalane.com
Sales : \$ 60 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Gigalane is a 'future innovative company' that is preparing underlying technology for future society based on RF communication and semi-conductor equipment technology. Gigalane is producing components and high frequency antenna of over 10Ghz for global 5G telecommunication infrastructure and has ranked 1st place in the global LED Etcher market. Gigalane aims for being "No. 1", "the first", and "the only" in all business areas and is committed to delivering the best value to customers.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ **Korea's one and only No. 1 LED Etcher**

★ **Korea's one and only No. 1 RF coaxial cable**



Semi-conductor process equipment

High quality Etching equipment for enhancing LED luminance efficiency and Nano imprinter that is utilized in next-generation Nano LED Display semi-conductor technology

RF communication component

Component that plays the role of transmitting RF signals of 5G mobile communication base station antennas and high frequency bandwidth without loss and others, used in mobile devices such as smart phones, telecommunication base stations, aerospace/defense industries



Global Standard Technology

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Kim Deok Joon, Jang Gwang Soo
Founded : 2001. 10. 12
Employees : 657
Homepage : www.gst-in.com
Sales : \$ 254 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

GST is a company that has developed with energy specialized technology under the belief of becoming a global leader of environmental equipment industry. GST which pursues to become a world-class company with environmentally conscious technologies focuses on environmental system and temperature control system. Through ceaseless transformation and innovation, it strives to become a global company leading the environmental industry-related technologies.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



★ **No. 1 domestic market share for scrubbers**

★ **No. 2 domestic market share for VOCs**

★ **No. 4 domestic market share for chillers**



Scrubber

Burn-wet Scrubber, Plasma Scrubber
 (Core technology: Non-CO² processing technology)

VOCs concentration equipment

VOCAS
 (Core technology: VOCs concentration reducing technology)

Chiller

Freezer type, electric type
 (Core technology: Temperature control technology)

GLOTEC

Sector : Electrical and electronics
Sub-sector : Electrical and electronic parts
CEO : Won Bin Choi
Founded : 2010
Employees : 217
Homepage : WWW.GLOTEC.CO.KR
Sales : \$ 154 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

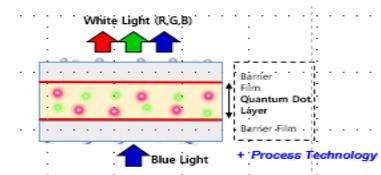
Introduction

Based on new material technology, we produce multi-function film for various products such as electricity, electronics, display and electronic components.

The following are field of application.

- Quantum Dot Film for improving color purity
- Ultra-Low Reflection film for natural black (natural darkness)
- Transparent conducting film for low-resistance
- Graphene added film for improving electromagnetic wave shielding and heat dissipation
- Composite optical films for enhancing brightness and viewing angle.

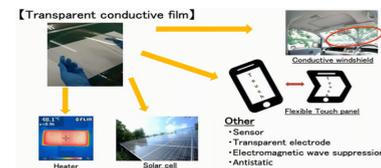
Main Product



Q/D(Quantum Dot Film)

Nanoparticle technology using quantum dots to express various colors by adjusting the particle size of inorganic substances.

- Improving color purity
- Efficiency improvement



Transparent Conducting film

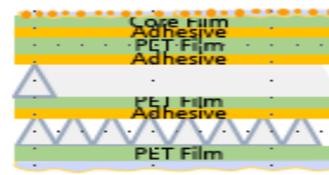
- Multi-Layered Technology
- The world best for low-resistance
 - Planar heating element



Electromagnetic Shielding

Blocks malfunctions and harmful waves through electromagnetic shield such as electric and electronic products, automobiles, and medical devices.

- Heat dissipation using graphene and composite materials



Multi Function Film

Multi-functions are applied according to the characteristics of the product as a composite film.

- Brightness enhancement
- Wide viewing angle



Ultra-Low Reflection film

Using low-reflection film to prevent eye fatigue and accidents with bright ambient

GOC

Sector : Electrical and electronics
Sub-sector : Optical equipment
CEO : Park In chul
Founded : 2001. 3. 2
Employees : 145
Homepage : www.glights.com
Sales : \$ 39 million
Listed : KONEX
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Established in 2001, GOC is a manufacturer specializing in optical cable, optical parts and optical sensors that has the biggest optical cable production equipment in Asia. Since its establishment to this present day, the focus of business was mainly on general cables for telecommunication companies and GOC is preparing to advance into the markets of optical cables for special purposes such as nuclear and hacking prevention with high future growth potentials, and optical applied sensors by securing new source technologies. Currently, besides the head office situated in Gwangju Metropolitan City, there are overseas branches in Indonesia, France and Uzbekistan. In 2012, GOC started to strength its business with its internal brand and after successfully pioneering the overseas market, overseas export surpassed the domestic proportion in 2015. GOC's goal is to becoming a leader of optical cable manufacturing industry in Asia and to become the world's Top 10 leading company in the field of mining industry.

Main Product

FTTH cable for outdoor/ indoor and special purposes

By shifting away from the manufacturing of the existing optical cable for outdoor and FTTH, the optical cable for nuclear which was recently localized acquired international quality standard certifications such as UJV.



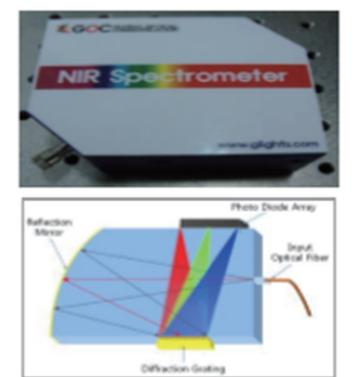
Optical water quality monitoring sensor system

The optical water quality monitoring system not only enables accurate dissolved oxygen of the seawater to be measured but also self-power supply through solar power for stable, long-term monitoring



Near-infrared spectrometric sensor

The near-infrared spectrometric sensor irradiates near-infrared ray to objects and by measuring the optical spectrum that is absorbed/ reflected, the substance of the subject can be detected and analyzed.



Green Power

Sector : Electrical and electronics
Sub-sector : Heavy electric machinery
CEO : Cho Jung Goo
Founded : 1998. 10. 27
Employees : 195
Homepage : www.egreenpower.com
Sales : \$ 90 million
Listed :
Qualified* : World Class

Introduction

Since 1998, Green Power has successfully developed Wireless Power Transmission (WPT) devices for logistics equipment in the semiconductor and display clean room plants and is supplying them to global companies, including Samsung Electronics, LG Display and BOE. Based on the Wireless Power Transmission technologies for logistics equipment, areas of application have expanded to the fields of electric vehicle, Micro Mobility, port logistics equipment and railway. Currently, it has developed Battery Cell, Pack testing equipment and is expanding its business into the field of battery.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 domestic market share in the field of plant automation

No. 2 market share in the world in the field of plant automation

Wireless Power System for plant automation

Provides a solution for wireless power transmission without electrical or mechanical contact to logistics transfer equipment within the clean room plant, such as semi-conductor, LCD and OLED



Wireless charger for electric vehicle

Provides a solution for wireless charging of electric vehicle without using dangerous and inconvenient charge plugs



Battery manufacturing process equipment

Manufactures Formation, Cell Cycler, Module/Pack Tester for secondary cell battery and performance test and provides an comprehensive solution



Only company in Korea that has commercialized the wireless charging of electric vehicle

GSI

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Lee Gi Hyeon, Lee In Ho
Founded : 2011. 3. 25
Employees : 268
Homepage : www.gsi2008.co.kr
Sales : \$ 57 million
Listed :
Qualified* : World Class

Introduction

Founded in 2011, GSI Co., Ltd, specializing in manufacturing system, manufactures and supplies high-tech industry's manufacturing equipment lines for display and semi-conductor based on the best manufacturing process technology, with the vision of becoming a "Top-Tier Company in the fields of manufacturing equipment and logistics automation".

* Refer to 396p for detailed information about ATC, and World Class

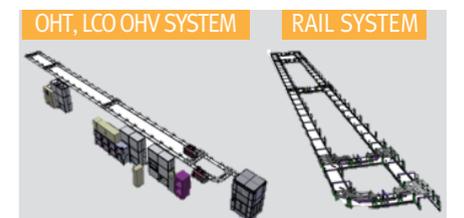
Main Product

Top-Tier company for building semi-conductor logistics infrastructure

1st Mover in FA automation

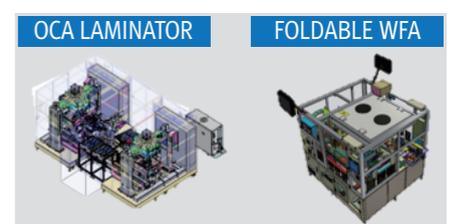
OVERHEAD TRANSFER SYSTEM

Manufacturing and installation of FOUP OHT System for automatically transferring semi-conductor wafer between processes



DISPLAY LAMINATION SYSTEM

OCA (Optically Clear Adhesive): Transparent adhesive film for optics
 OCR (Optically Clear Resin): Transparent resin adhesive and others for optics
 Manufacturing and installation of lamination equipment, which is the core equipment in display module process



FACTORY AUTOMATION SYSTEM

Manufacturing and installation of automation equipment applied with technologies such as robot, vision and motor control, such as MLCC CHIP grinder and TRAY STOCKER



Haesung Optics

Sector : Electrical and electronics
Sub-sector : Electrical and electronic parts
CEO : Jo Cheol
Founded : 1988. 2. 10
Employees : 49
Homepage : www.hso.co.kr
Sales : \$ 117 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

The hidden similarity of those representing the high-tech industries in the 21st century is 'light' and the 21st century is the 'new era of light'. The changing functions and quality of lens – from spherical to aspheric surface, from glass to plastic hybrid and from micron to nano, light exists where precision is all the more required. It is the key to the functions of seeing, listening, speaking and memorizing, through the message of light. Haesung Optics lies at the center of light control.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

- ★ **Mobile lens module**
Market Leader with **2.3%** market share
- ★ **Mobile camera module**
Market Leader with **1.4%** market share
- ★ **AutoFocus Actuator (VCM)**
Market Follower with **1.0%** market share

Representative application products



Item	Lens Module	AF actuator	Camera module
16M	•	• (IOS)	•
13M	•	•	•
8M	•	•	•
5M	•	•	•

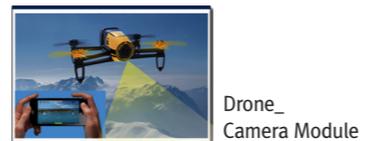
Lens Module for Mobile



OIS (Anti-shaking) AF Actuator for Mobile



Camera Module for Mobile



Hana Micron

Sector : Electrical and electronics
Sub-sector : Semiconductor devices and systems
CEO : Lee Dong Cheol
Founded : 2001. 8. 23.
Employees : 845
Homepage : www.hanamicon.com
Sales : \$ 558 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

As a company specializing in semi-conductor packaging and testing, technologies and products are provided based on the best manufacturing competitiveness and know-how, at the delivery time desired by customers. Hana Micron continues to develop through strategic partnerships with renowned global companies such as Samsung Electronics and SK Hynix. Furthermore, it is expanding the global market and customers through overseas production companies in Vietnam and Brazil.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

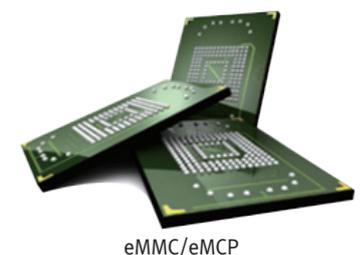
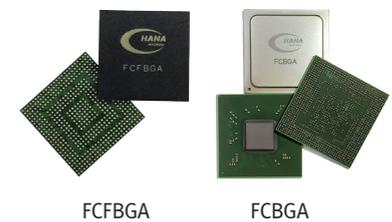
★ **Company specializing in semi-conductor package and testing**

Production is concentrated on memory semi-conductor and non-memory semi-conductor packages. High Capacity and High Performance semi-conductor packages are being developed.

- Flip-chip
- Flipchip BGA
- WLCSP (Wafer Level Chip Scale Package)
- SiP(System in Package)
- FOWLP (Fan-out Wafer Level Package)
- 3D Package
- FBGA-Stack(eMMC/eMCP)
- Fingerprint Package
- Wafer Bumping

Provides Beacon-based devices and services that are in demand following the expansion of Internet of Thing (IoT) market

hanabee O2O Retail Solution



HANLA IMS

Sector : Electrical and electronics
Sub-sector : Video/audio equipment
CEO : Ji Seok Jun, Kim Yeong Gu
Founded : 1989. 1. 4
Employees : 178
Homepage : www.hanlaims.com
Sales : \$ 47 million
Listed : KOSDAQ
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

HANLA IMS Co., Ltd. was founded as a company specializing in the production of level instrumentation products under the founding ideology of 'Contributing to the society through technological development'. It contributed to South Korea becoming a shipbuilding powerhouse in the world by taking the lead in localizing level instrumentation which used to rely on overseas imports, through creative technological development and quality advancement. Currently, as a world-class company in level monitoring system field, it is on a par with global renowned companies across the world. In addition, by leveraging the competitiveness in product, quality and price through experience in R&D accumulated consistently since its establishment, product improvement, and management innovation, it is providing high quality products and services to shipbuilding companies, heavy industry companies, power plants and factors at both home and abroad.

Main Product

1st place in level monitoring system for vessels in the world

1st place in level monitoring system for vessels in the domestic market

World's first and only 3 BALLAST producer

World's first and only company capable of producing, supplying and maintaining monitoring control equipment and supply related to Ballast Water Treatment System (BWTS)

Vessel equipment

Level Monitoring System, Valve Remote Control System (VRCS), Ballast Water Treatment System (BWTS)

Ship repair work (Gwangyang business premise)

Shipbuilding and ship repair, fabrication of large-scale structures



HBSOLUTION

Sector : Electrical and electronics
Sub-sector : Displays
CEO : Lee Heung-geun, Lee Jae-won
Founded : 2001. 9. 5
Employees : 255
Homepage : www.hb-solution.co.kr
Sales : \$ 39 million
Listed : KOSDAQ
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Korea Materials & Analysis Co., Ltd., as a company that manufactures and sells analysis devices, FPD and semi-conductor process inspection equipment based on property analysis technology was established in November 1996 with the motto of 'Company specializing in property analysis'. It is engaged in the manufacturing and sales of products based on analysis technologies accumulated through advanced analysis equipment and professional analysis experiences regarding various specimens. While concentrating to localize analysis device, it is stepping up its efforts for globalization of domestic devices by pioneering overseas sales channels in USA, Japan, China, Europe and others.

Main Product



OV-LI

Lighting inspection device for large-screen inspection of mid/large-sized OLED display devices



ST8000-MAP

High precision, super-sensitive thin film thickness measuring device that can make multi-point measurements simultaneously



STER

Equipment that measure OLED thickness and refractive index by using polarized light



MEIS-K120

Super thin film surface analyzing equipment that analyzes the composition thickness distribution of a surface with thickness resolution of one layer



HB Technology

Sector : Electrical and electronics
Sub-sector : Displays
CEO : Moon Sungjoon
Founded : 1997. 9. 2
Employees : 336
Homepage : www.hbtechnology.co.kr
Sales : \$ 132 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Since its establishment in 1997, HB Technology Co., Ltd., started from semi-conductor back-end process equipment and it was the first in Korea to localize the LCD AOI inspection equipment. Recently, it was the first in the world to develop 0.4μm Flexible OLED sub-Micro AOI equipment, demonstrating its leading role in OLED AOI technology and it is also expanding its business areas into display component materials (LGP, DP), Laser System and PCB AOI.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



AOI System

Equipment that automatically inspects fine circuit defects and process defects that occur during the display manufacturing through optical system and advanced algorithm

★ **1st in the world for OLED AOI**

★ **2nd in the world for LCD AOI**



LCD Display component materials (LGP, DP)

Important component and material that enhances uniform brightness and optical efficiency of BLU (Back Light Unit) used in LCD TVs and monitors



Repair System

Equipment that automatically repairs defects detected in Display BP process and EVEN process by applying Laser fine processing, Metal Inkjet and fine grinding process.

HUROM

Sector : Electrical and electronics
Sub-sector : Home appliances and electronic applications
CEO : Kim Jae Won
Founded : 1979. 10. 26
Employees : 194
Homepage : www.hurom.co.kr
Sales : \$ 65 million
Listed :
Qualified* : World Class

Introduction

Since its establishment, Hurom has been engaged in R&D only in the field of juice extraction and it is a company specializing in healthy kitchen appliances that has developed the world's first slow juicer. Since Hurom's first export of juicer in 2008, the total cumulative sales has surpassed 10 million products with cumulative sales amount exceeding US\$ 1.5 billion at both home and abroad.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ Euromonitor, 2016

1st place in sales of juicers in the world

★ 80% domestic market share

No. 1 juicer



H300 1



H300 2

'H300E' juicer

Hurom is an original brand of juicers that maximizes the preservation of nutrients in vegetables and fruits by applying the world's first Slow Squeeze technology that uses an auger to squeeze out juice. H300E launched by Hurom in 2021 is equipped with a 'multi-screw' which is a combination of Slow Squeeze technology's core component and a filter in a built-in form. When the whole ingredient is added, this 'one-stop extraction motion' takes care of cutting, extraction and stopping

Huvitz

Sector : Electrical and electronics
Sub-sector : Optical equipment
CEO : Kim Hyeon Soo
Founded : 1999.04.27
Employees : 194
Homepage : www.huvitz.com
Sales : \$ 79 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Huvitz, an optics medical device manufacturer has developed into a company specializing in optics medical device ranking 1st in Korea and 3rd in the world by securing world-class competitiveness through advanced technology and outstanding quality control. Besides the eye inspection device which has the largest market in Korea, business areas have been extended into all fields of optics medical devices such as lens processing device and diagnosis devices. With products being exported to more than 114 countries, the products and technologies of Huvitz are also being recognized in the global optics market.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ 50% domestic market share

No. 1 for automatic eye inspection device

★ 15% market share in the world

No. 3 for automatic eye inspection device

HRK-9000A (Keratometer)

Automatic eye inspection device that offers accurate data by comparing objective refraction measurements and subjective refraction measures



HOCT-1/1F (All-in-one OCT)

All-in-one optical coherence tomography with 3D OCT, Fundus Camera, Angiography, Optical Biometry, Topography and built-in PC

Hyoseong Electric

Sector : Electrical and electronics
Sub-sector : Heavy electric machinery
CEO : JUNG JIN GUN
Founded : 1973. 10. 23
Employees : 274
Homepage : www.hyoseong.co.kr
Sales : \$ 162 million
Listed :
Qualified* : World Class

Introduction

Since its establishment in 1973, Hyoseong Electric has been devoted to the production of motors which are key components in automobiles. Besides in Korea, it is building up a global network in countries, such as Europe, North America China and India and by successfully securing exclusive technological capability, quality management system and environmental management system, it now deals with 55 overseas companies. The 2025 Vision of Hyoseong Electric is to "Achieve sales of KRW 1 trillion in commemoration of its 50th anniversary".

* Refer to 396p for detailed information about ATC, and World Class

Main Product

"Hyoseong makes the power of the Future"

Blower Motor

As a core component of the automobile's HVAC (Heating Ventilation and Air Conditioning), it has developed T-Series by integrating over 30 parts into 20 parts

EPS Motor

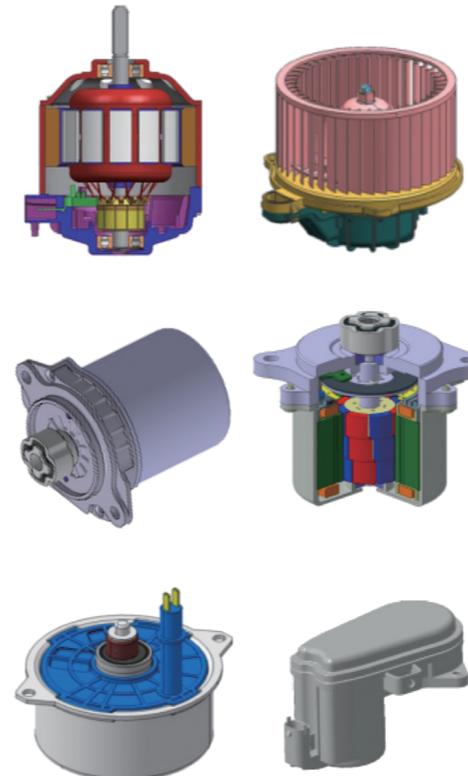
Motor that drives the Electric Power Steering. Hyoseong Electric was the first to develop EPS Brushes Motor in Korea and now offers exclusive supply

ABS Motor

As a functional component for safety that is attached to the car's brake system (Anti-Locking Brake System), Hyoseong Electric successfully localized it in 1994

EPB Motor

Motor that drives the system which fixes and stops the wheels automatically (Electric Parking Brake) when parking or driving the vehicle



ICD

Sector : Electrical and electronics
Sub-sector : Displays
CEO : Lee Seung Ho
Founded : 2000. 2. 26.
Employees : 303
Homepage : www.icd.co.kr
Sales : \$ 96 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

As a manufacturer of processing equipment for AMOLED, LCD, the main products include HDP Etcher, Dry Etcher, Plasma Asher and Evaporator. ICD Co., Ltd. that has seized 1st place in this sector by being the first in the world to develop 5.5 generation HDP Etcher based on exceptional technology is currently in business with domestic display manufacturers such as Samsung Display and LG Display. It is a top-ranking company that is also engaged in businesses with foreign display companies such as BOE in China, Century, CSOT and AUO in Taiwan.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



First in the world to develop 5.5G HDP Etcher

Display equipment manufacturing sector

ICD Co., Ltd., being the first in the world to develop 5.5 generation ICP Plasma source, owns technologies applied to mass production of 2nd generation to 8th generation Dry Etcher. It is equipped with various line-ups, such as Dry Etcher, PT, Evaporator, etc.



Core component business sector

With technologies for internally producing core components of AMOLED, TFT-LCD, semi-conductor equipment, it develops and manufactures not only hardware but also components with high added value

Inkel

Sector : Electrical and electronics
Sub-sector : Video/audio equipment
CEO : Choi Hyeong Gyu
Founded : 1978.03.25
Employees : 320
Homepage : www.inkel.co.kr
Sales : \$ 27 million
Listed :
Qualified* : World Class

Introduction

Inkel, South Korea's representative audio company. By setting the 'Implementation of cutting-edge technology for humans' as its primary goal, Inkel has secured its global competitiveness, accumulated technological know-how through aggressive investment and technological innovation in the field concerned. It is continuously developing into a new innovative company based on home audio, car audio, voice recognition and AI technologies.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 market share in the world for A/V receiver



AV product

- Product line-up includes 'Inkel', the representative audio brand in South Korea and 'Sherwood', its export brand
- Smart & network audio, AV receiver, sound bar



AI Speaker

- Produces and supplies AI Speaker
- Supplies to telecommunication business operators (KT, SK BB) and Internet portals (Kakao)



Car audio product

- Develops and produces car audios and amplifiers
- IVI (In-Vehicle Infotainment) system, dashboard cameras

INTER ELECTRIC

Sector : Electrical and electronics
Sub-sector : Electrical and electronic components
CEO : Lee Goon-Seop
Founded : 2007
Employees : 32
Homepage : www.inter-elec.com
Sales : \$ 3 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

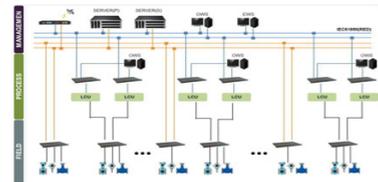
Introduction

Since established in 2007, Inter Electric has been specialized on Power IT for oil & gas, chemical, power plant field. With the competitive design and technical engineering capability, Inter Electric has supplied Power SCADA solution and DCS/PLC automation solution to the global industry market.

On the base of Power IT solution, Inter Electric is developing the key value to solve the global issue of energy and climate change. AMP (Alternative Marine Power supply) for the control of the marine power source, EMS (Energy Management System) for the energy monitoring and analysis, BMS (Building Management System) for the efficient control of the building heating and cooling system are the next generation value adding solution of Inter Electric.

As the specialized engineering provider, Inter Electric is always trying to meet the customers' satisfaction.

Main Product



SCADA (Supervisory Control And Data Acquisition)

- 1) real time monitoring and remote control for the power supply network
- 2) fault analysis, trend analysis and report of the power system
- 3) formation : IED + Network device + HMI software



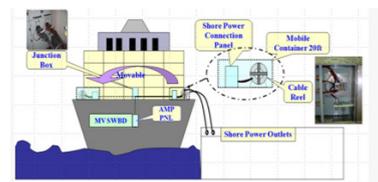
BMS (Building Management System)

- 1) real time control for HVAC (Heating, Ventilation and Air-Cooling)
- 2) real time fault monitoring of the facilities like fan, pump, water level
- 3) formation : Senser + Valve + Controller + HMI software



EMS (Energy Management System)

- 1) real time monitoring and analysis of the energy consumption
- 2) energy source : electricity, water, gas, steam, air
- 3) formation : Metering device + Network device + HMI software



AMP (Alternative Marine Power supply)

- 1) control the optimal power transfer process to the on-shore power source
- 2) power managing for the stable power supply and frequency of the marine
- 3) formation : Controller + Cable reel + HMI software

IONES

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Park In Rae
Founded : 1993. 3. 10
Employees : 542
Homepage : www.iones.co.kr
Sales : \$ 136 million
Listed : KOSDAQ
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Since its establishment in 1993, IONES has achieved endless technological development and continuous growth in the high precision localization and component processing business for semi-conductor and display. In 2006, IONES established a dedicated semi-conductor cleaning and coating plant, expanding the business area into a company specializing in general components equipped with integrated solutions from the processing-cleaning-coating of parts. By building an exclusive process control system, all systems from sales plan to production performance, process control and supply prediction are being managed integrally and simultaneously upon the Anseong Campus transfer in 2016, Smart Factory, FMS line was set up and preparations for intelligent manufacturing process, capable of maximizing production, quality and customer satisfaction are being made.

Main Product

Provision of One-Stop Solution from designing to processing, cleaning and coating of high precision parts in the fields of semi-conductor and display

Semiconductor Manufacturing		Display LCD		Surface Convergence Semiconduct	
		OLED			
		Equipment Manufacturing		Display	

ISC

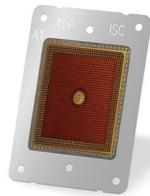
Sector : Electrical and electronics
Sub-sector : Semiconductor devices and systems
CEO : JR KIM, SW KIM
Founded : 2001
Employees : 200
Homepage : www.isc21.kr
Sales : \$ 120 million
Listed :
Qualified* : ATC

Introduction

ISC is a global No.1 company aiming at rapid creation through innovation. It develops and produces test sockets needed to test semiconductor IC chips used in semiconductors, IT, BT, automobiles and various electronic parts. As an outgoing technological innovation company, We develop various products that are optimized according to the semiconductor package type in a short time, and provide the best solution to customers who need products of small quantity production.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Memory Test Socket

ISC Provides optimized solution for all memory device/PKG and different test environments from the smallest pitch ~ normal pitch (0.2P~1.0P).

Specifications

Package Type	BGA, LGA, POP etc.
Available Pitch	0.2P~
Characteristics	<ul style="list-style-type: none"> - Long life span. - Low Cres, Low Contact force (Multi-PARA) - High Speed, Low Powder, High Voltage Test Solution - No Ball Damage - Available For ESD



Logic Test Socket

logic device/PKG test in accordance with the application, including long test time, short test time, high speed, large area, etc.

Specifications

Package Type	BGA, LGA, QFN, QFP, CSP, SOP, TSOP etc.
Available Pitch	0.25P~
Characteristics	<ul style="list-style-type: none"> - AP, CPU, GPU, PMIC, RF, Sensor, Mixed signal - Validation, SLT, ATE - Low Cres, High Speed, High Voltage Test Solution - No Ball Damage - Customizing Test

Jusung Engineering

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment Display / New and renewable energy
CEO : Chul Joo, Hwang
Founded : 1993
Employees : 458
Homepage : www.jusung.com/eng
Sales : \$ 329 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

Jusung leads 3 main businesses for Semi-Conductor, Display and Solar equipment.

We are the first developer in the industry to innovative SDP CVD(Space Divided Plasma Chemical Vapor Deposition) to be able to make high semi-conductor manufacturing performance under lower temperature. Not only that, our display equipment has also world's first technology for TSD CVD(ALD) that can have better performance than existing technologies expected to gain a competitive advantage over rival companies.

Our solar energy harvesting efficiency has reached 25%. We will work to expand our performance up to 35% for the first.

We have proved our strong competitiveness with many award-winning technologies.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

SDP CVD(CVD & ALD)

- World's First Technology
- To maximize unit production rate with space-divide and semi-batch technologies
- The new innovative concept of plasma technology
- High qualities of thin film formation under lower temperature

[KEY BENEFITS]

- New concept semiconductor manufacturing equipment that can handle the entire deposition process
- Form the best film quality at temperatures lower than 300 degrees centigrade without substrate damage due to plasma
- Handle all CVD and ALD processes of silicon oxide film, silicon nitride film, metal film, and the High-K process at fine semiconductor process below 20nm



Space Divided Plasma Chemical Vapor Deposition

OLED Encapsulation(CVD&ALD)

- World's first and best large-area mass-production ALD
- New concept zero-damage plasma technology
- High-quality thin film forming technology at low temperature

[KEY BENEFITS]

- CVD/ALD two-way encapsulation system suitable for large-area encapsulation
- Large-area encapsulation using new concept plasma technology for the first time in the world TSD- CVD/ALD



Crystal form(PE CVD / RIE)

- PE-CVD for antireflection coating (ARC)
- Dry etching device for texturing (RIE)
- Highest efficiency / lowest cost system

[KEY BENEFITS]

- High-efficiency and high-productivity system
- Improved solar cell conversion efficiency
- Easy Control Surface Reflectance
- Excellent NanoTexture Shape, Passivation
- Process technology optimized for low temperature



Kiturami

Sector : Electrical and electronics
Sub-sector : Home appliances and electronic applications
CEO : Song Gyeong Seok
Founded : 1992. 2. 26
Employees : 109
Homepage : www.krb.co.kr
Sales : \$ 779 million
Listed :
Qualified* : Wolrd Class

Introduction

Kiturami, the history of boiler in South Korea has always satisfied the needs of the times. Following the energy diversification policy, Kiturami has played a major role in the heating industry by producing oil-fired boilers, gas-fired boilers, electric boilers, wood-fired boilers, renewable boiler, ondol mat and water heater. Recently, Kiturami is engaged in proactive R&D for the development of future heating industry, such as Internet of Things (IoT) and cogeneration system (m-CHP) and is growing into a global group specializing in energy devices offering total heating/cooling/air conditioning solutions.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 household boiler

*No. 1 brand power in the household boiler sector in the Korean industry for 23 consecutive years by the Korea Management Association Consulting (1999-2021)



NEW condensing plus gas boiler

- Energy Efficiency Grade 1
- Eco-friendly low-NO-x Grade 1
- Abundant hot water quantity

Top 100 technologies of South Korea and No. 1 leader

*Manufacturing technology of gas boiler in low temperature structure which is a Korean type of ondol boiler



ECO condensing gas boiler

- Energy Efficiency Grade 1
- Eco-friendly low-NO-x Grade 1
- Abundant hot water quantity

IN-eco plus gas boiler

- Ministry of Environment's Type 2 certification
- Abundant hot water quantity
- Utmost safety

KOREA Innotech

Sector : Electrical and electronics
Sub-sector : Battery and Display
CEO : Huh-Hyuk
Founded : 2005
Employees : 150
Homepage : www.kinno.co.kr
Sales : UNDISCLOSED
Listed :
Qualified* : ATC

Introduction

Korea Innotech is in the battery material business, which is an existing business, and the functional electronic material business using mobile display material as a new business. Although our main products are tab and insulation film parts, we are expanding our flagship products through a new business, electronic material (mobile display) business. Core technologies include parts design and processing technology, and hard coating manufacturing technology. Based on the technical know-how accumulated over a long period of time, we are continuing to strive for world-class products.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



TAB

Used as the electrode within the li-ion battery. Al-tab is used as the anode and Ni, Cu-tab is used as the cathod.

Insulation Film

This insulation product can be attached on the upper/lower section of the battery for Insulation and impact absorption.



Mobile Display Hard coating solution and Film

High flexibility, high hardness, high abrasion resistance and high scratch resistance for mobile display Hard coating functional coating solution and coating film.

KTE

Sector : Electrical and electronics
Sub-sector : Heavy electric machinery
CEO : Goo Bon Seung, Goo Ja Young
Founded : 1980.01.01
Employees : 238
Homepage : www.kte.co.kr
Sales : \$ 80 million
Listed :
Qualified* : World Class

Introduction

KTE, established in 1979, has shared the joys and sorrows throughout the history of in the shipbuilding industry in South Korea. It produces various distribution boards and control panels used in shipbuilding and marine plants, such as main switchboards and power controllers. Furthermore, it is expanding the business areas into the field of thruster for vessels, such as Side Thruster, based on the competitive edge of its electronic systems.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Main switchboard for ships

- Switchboard for shipbuilding and marine
- Shipbuilding and marine SI
- Side Thruster



KwangMyung Electric

Sector : Electrical and electronics
Sub-sector : Heavy electric machinery
CEO : Lee Jae Gwang, Jo Gwang Sik
Founded : 1955. 7. 1
Employees : 187
Homepage : www.kmec.co.kr
Sales : \$ 114 million
Listed : KOSPI
Qualified* : World Class

Introduction

Established in 1955, KwangMyung Electric Co., Ltd. is a company that specializes in total heavy electric equipment, manufacturing and producing switchgears, solar power generation system, integrated monitoring control system, switches and circuit breakers. Its products are being supplied to domestic and overseas power plants, as well as plants, railway, electricity division and construction companies. There are 200 experts in the company and after a labor union was set up in August 1987, there has been no labor and management disputes in the past 32 years.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Eco-friendly switchgear
(EGIS, EC-GIS)



Eco-friendly railway system
(29kV EGIS, 29kV load break switch, electric rail control panel, smart control and data acquisition device)



Eco-friendly switches



Solar power generation system
(CIGS thin film solar power module, solar power for bicycle road)



Switchgear
(Low pressure switchgear high pressure Metal Clad switchgear)



DC System
(Rectifier, circuit breaker)



Busway System



Cloud integrated solar power control system, energy management system (ESS)

L&F

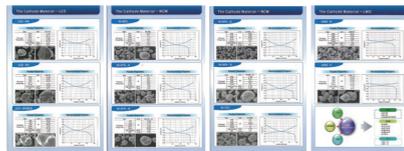
Sector : Electrical and electronics
Sub-sector : Batteries
CEO : CHOI SU AN
Founded : 2000. 7. 27
Employees : 1,021
Homepage : www.landf.co.kr
Sales : \$ 809 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

L&F is a company that develops and produces cathode material for lithium ion secondary batteries which is an essential power source used in smart phones, power tools, electric vehicles, Energy Storage Systems, robots and others. The market of cathode material which is one of the 4 major components of lithium ion secondary battery is expected to grow more than twofold, to KRW 60 trillion in 2025 and L&F aims to achieve sales of KRW 3 trillion within the next 5 years.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

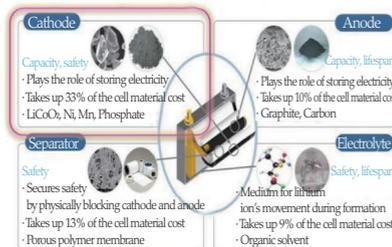


Cathode active material
(Product catalogue Scan)

Types of lithium ion secondary battery



이중번역
확인필요



Main uses of secondary battery

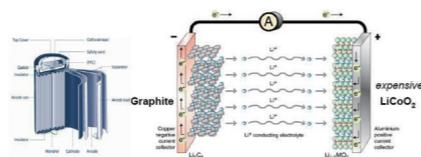


Cathode active material produced by our company



8th place in the world's market share NCM cathode material sector

Cathode material is the core material that has the biggest impact on performance and cost among the 4 major materials used in lithium ion secondary battery and accounts for 30~40% of the manufacturing cost. It is manufactured by creating a chemical reaction by applying heat at high temperature to metallic materials, such as lithium (Li), cobalt (Co), manganese (Mn), and nickel (Ni).



Definition of cathode active material

Cathode active material (cathode material) is the main material that accounts for approximately 30%~40% of the manufacturing cost of lithium ion batteries and it plays the role of storing electricity. It is usually available in cobalt and ternary battery (Nickel, manganese, cobalt) and there is a difference in the main place of use depending on the application used. Usually, the demand for secondary batteries used in small IT devices (smart phones, etc.) is expected to lead to a significant growth of cathode active material based on the growth of Energy Storage System for Electric Vehicles and robots. Our company has been marked as Top Class in the world market of cathode active material.

LEENO Industrial

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Lee Chae Yoon
Founded : 1978. 12. 30.
Employees : 595
Homepage : www.leeno.com
Sales : \$ 233 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Since its establishment, LEENO has undergone growth and is growing into a medium-sized enterprise with balanced domestic sales and export. By prioritizing delivery to domestic and overseas global semi-conductor companies and semi-conductor tests houses based on quality, LEENO is responding to the market for mobile devices and various semi-conductor inspection. By further boosting customer diversification activities, it aims to expand relationships with global semi-conductor companies in Korea, America and Europe and to increase market share and sales in the world.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Coaxial Probe for 100GHz

Specification
 Frequency : 80GHz(BGAL), 100GHz(QPL, LGA)
 Pitch : 0.25mm ~
 Crosstalk : -60dB
 Impedance : 50Ω±10%

RFD012AT-DGPC(0.25P) S-Parameter & Impedance

13% market share in the world

No. 2 socket for semi-conductor inspection

35% domestic market share

No. 1 pin for semi-conductor inspection

Pin for semi-conductor inspection

(Brand name: LEENO PIN)
 Used for inspecting defects in semi-conductor products used in various electronic devices such as smart phones. Plays the role of an interface that sends and receives electrical signals through direct contact with semi-conductors

Socket for semi-conductor inspection

As an engineering plastic structure where pin for semi-conductor inspection is mounted, it is divided into socket for memory semi-conductor inspection and socket for logic semi-conductor inspection

Secondary cell test pin

Secondary cell which is represented by lithium ion battery is used comprehensively in IT products such as smart phones, tablet PCs and laptops and in the fields of electric vehicles and energy storage.

RF Socket Solution for 5G

- 0.25mm Pitch
- 50Ω Impedance Matching
- >80GHz Bandwidth

High Speed Socket

Bandwidth: 80GHz (160Gbps)
Impedance: 50Ω ± 10%

High Isolation Socket

Isolation: -60dB@2.5GHz
Impedance: 50Ω ± 10%

LMS

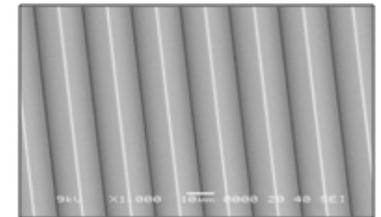
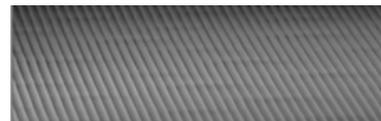
Sector : Electrical and electronics
Sub-sector : Electrical and electronic components
CEO : Sung-min Cho
Founded : 1999
Employees : 249
Homepage : www.lmsglobal.com
Sales : \$ 78 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

LMS is a global leading manufacturer of core optical components & materials such as films for display devices and Infrared absorption filter for mobile phone, respectively. One of key products is a prism sheet which is a core component of a back-light unit that goes into LCD display for Mobile phones, AR/VR devices, Tablet PC and Notebook PC. In addition, LMS manufactures and develops specialized optical films to be used in automotive applications such as Head-up display, center information display and passenger display. Also LMS offers Infrared absorption filter that can make or assist high-resolution photo for camera application.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

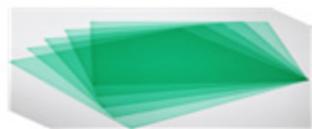


Prism Array

PRISM SHEET

Prism sheets are used as a backlight unit for liquid crystal display module. Lights from backlight are evenly distributed on a diffuser panel and prism sheets enhance the brightness by concentrating them

- High luminance
- High durability
- High reliability



IR CUT Filter

Infrared absorption filter which is located on the image sensor can enable high-definition quality through transmitting visible and blocking infrared light.

- High transmittance for visible light
- High absorbance for infrared light
- High durability for environment



LOT Vacuum

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Oh HeungShig
Founded : 2002.03.23
Employees : 380
Homepage : www.lotvacuum.com
Sales : \$ 216 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

LOT Vacuum Co., Ltd. was the first in Korea to localize 'dry vacuum pump' which is essential in the manufacturing process of semiconductor, display, solar and secondary battery equipment and its expertise and competence stretch out over the entire Product Life Cycle from development to manufacturing, sales and after-service. LOT Vacuum is South Korea's only 'Vacuum Total Solution Provider' competing close to foreign companies in world-class technology and service level.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



HD Series

Low-power pump applied with Hybrid Screw
(Pumping Speed: 2,000L/min ~ 100,000L/min)

DD Series

Screw Pump suitable for HARSH Process
(Pumping Speed: 1,700L/min ~ 100,000L/min)

RD Series

Multi Stage Pump suitable for Load Lock Process
(Pumping Speed: 3,000L/min ~ 70,000L/min)

GHD Series

Large capacity Screw Pump suitable for the FPD, Solar, General Industry market
(Pumping Speed: 10,000L/min ~ 100,000L/min)



LT Materials

Sector : Electrical and electronics
Sub-sector : Electrical and electronic parts
CEO : Lee Joo-Dong
Founded : 2005. 6. 20
Employees : 254
Homepage : www.ltml.co.kr
Sales : \$ 143 million
Listed :
Qualified* : World Class

Introduction

LT Materials, as part of the LT Group, produces the OLED material which is considered as a display of the dream as well as Solder and MCCL which are core materials of electronic parts. In addition, LT Materials continue to be engaged in researches to develop new products. Under the management philosophy, "To pursue the happiness of customers, members and society through people and technology", the company develops best products to meet the customer's needs based on the technologies accumulated to date.

* Refer to 396p for detailed information about ATC, and World Class

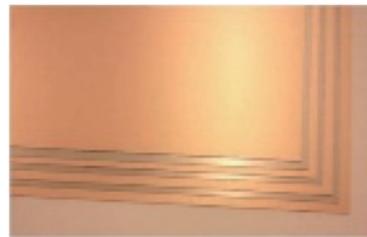
Main Product



Solder



OLED material



MCCL



Silicone Pad



Insulation Tape



Side Seal



Al Paste

Representative company in the fields of electronic parts and eco-friendly automotive materials, satisfying customers with the best technology

LTR

Sector : Electrical and electronics
Sub-sector : Electrical and electronic components
CEO : CK Lee
Founded : 1998
Employees : 137
Homepage : www.lattron.com
Sales : \$ 22 million
Listed :
Qualified* : ATC

Introduction

- **NTC Thermistor :** Traceable, Wide range, High speed, Optimum structure for automation
- **Temperature Sensing :** Data based manufacturing, Safe from emi noise, Low profile
- **IATF 16949, AEC-Q200, QS, UL certification,** Reliable quality for automotive, battery, and aerospace application, Number 1 manufacturer in Korea.
- **Flexible Heating :** Control of surface temperature, Skinny heating, Instant tab water heating, Temperature sensor integrated inside the flexible heater
- **More than 25 years of temperature related technology,** with mass production facilities

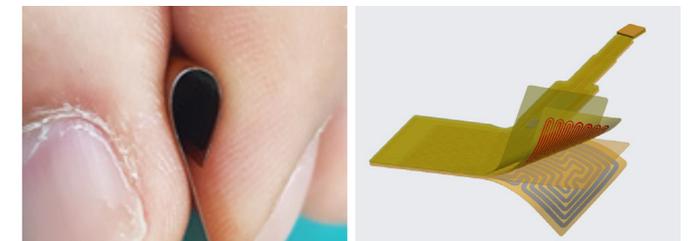
* Refer to 396p for detailed information about ATC, and World Class

Main Product



Temperature sensor of fast response

- Frame type thermistor with lot number marked
- Small thermistor head for high response
- Robust mechanical strength with relatively enough frame width, in connected region
- Thermistor element or temperature sensor, with T range of $-40^{\circ}\text{C} \sim 150^{\circ}\text{C}$, or $-45^{\circ}\text{C} \sim 250^{\circ}\text{C}$



Film heater with temperature sensor

- Stable quality for flexible application
- Segmented heat control
- Instantaneous heating tab water
- Battery, Automotive, Home appliance, E-ciga

Lumens

Sector : Electrical and electronics
Sub-sector : Optical equipment
CEO : Lee Gyeong Jae
Founded : 1996. 6. 17.
Employees : 101
Homepage : www.lumensleds.com
Sales : \$ 144 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Based on technologies and know-how accumulated in the fields of LED light source for mobile and display, Lumens has developed into a global company specializing in LEDs and finished products of lighting by accelerating the development of new concept of next-generation LED and efficient intelligent finished products of lighting. As a representative LED manufacturer in Korea, it continues to launch the world's first and the world's best products annually while reinforcing its competitiveness edge, led by patents related to LEDs as well as by minimizing manufacturing process and cost reduction through internal vertical integration.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



- Manufactures and sells various application product groups such as LED, LED using modules and general lighting
- Owns a comprehensive product portfolio in all light source fields, from LED for mobile to LED BLU for LCD TV, LED for laptop, internal and external lighting for vehicles, existing factory lighting and street lamp lights, flat lighting, LED fluorescent light as well as various applications using Micro LED, based on excellent development competence and mass production technologies

MECARO

Sector : Electrical and electronics
Sub-sector : Electrical and electronic components
CEO : Lee Jae Jeong
Founded : 2000
Employees : 300
Homepage : www.mecaro.com
Sales : \$ 67 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

- Core competency to become a leading company in semiconductor parts and material
- Production of Heaterblocks and precursors for semiconductors
- Engineering technology of valve parts know-how
- Solar cell (CIGS etc)
- Smart Factory based automation securing product quality and maximizing productivity

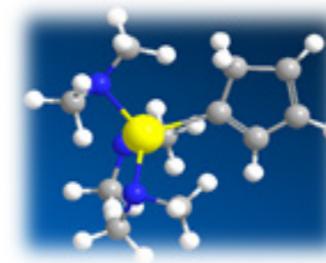
* Refer to 396p for detailed information about ATC, and World Class

Main Product



Heaterblock

- Core parts inside chamber : Thermal managing parts, deposition material, ceramic, valve
- Customer Process Total Solution
- Engineering technology and know-how



Precursor

- The only company with High-K precursor IP possessing utmost development capability and infrastructure in Korea.
- Korea's sole patented Zr / Hf Precursor
- Won Technical patent prize (Zr Precursor) in 2018: Chungmugong

MK Chem & Tech

Sector : Electrical and electronics
Sub-sector : Electrical and electronic components
CEO : Hyukseok Kwon
Founded : 1996
Employees : 125
Homepage : www.mkchem.co.kr
Sales : \$ 76 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

The top company that contributes to the development of electronics, electric industry with better value and higher trust, and that pursues happiness through coexistence!

MK Chem & Tech is a leader, serving the specialty chemicals & technology for package substrate and electronic components used in the electronics industry such as smartphones, wearables, laptops, PCs, displays, automobiles, and communication equipment.

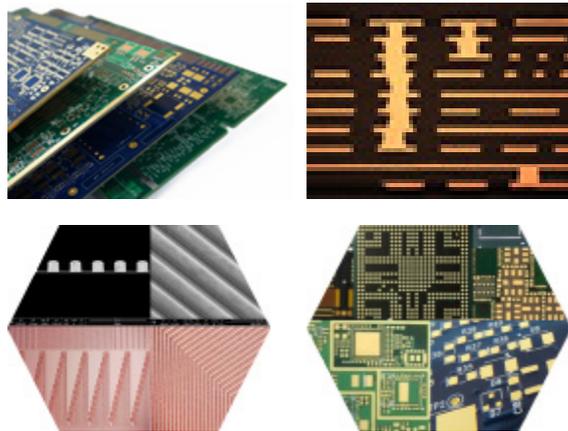
The best of specialty chemical industry in Korea as we operated 3 factory in Korea and 4 branches overseas, and established the industry's biggest PCB(circuit board) surface treatment line.

We have technological competence to research and develop electronic chemicals and currently we are sincerely responding a step ahead to the requests of industry that change every year by actively investing the largest state-of-the-art R&D equipment in the industry and regularly upgrading them.

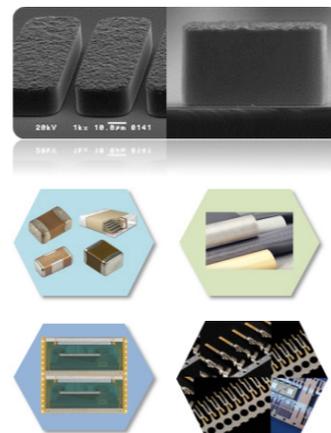
As a result, we have 70% market share of the domestic chemicals for packaging substrate and are honored to be a partner for win-win development with customers.

- Chemicals for various electrical and electronic components
 - Chemicals for Au Bump Process of Wafer
 - Chemicals for Chip Process (MLCC, CR, CV, CI)
 - Chemicals for EMI Process of Fabric
 - Chemicals for Connector Process, etc

Main Product



- Chemicals for PCB Process
 - Micro Cu etchants
 - Horizontal Desmear Chemicals
 - Horizontal Electroless copper
 - Via Fill Plating Chemicals
 - ENIG Process (Ni-P/Au) for Rigid PCB
 - Soft ENIG Process (Ni-P/Au) for FPCB
 - OSP Process
 - ENEPIG Process (Ni-P/Pd/Au)
 - Hard Gold Process (Ni/Au-Co Alloy)
 - Soft Gold Process (Ni/Au) for Wire Bond



Moda-InnoChips

Sector : Electrical and electronics
Sub-sector : Electrical and electronic components
CEO : Park Inkil
Founded : 2000
Employees : 276
Homepage : www.innochips.co.kr
Sales : \$ 40 million
Listed : KOSDAQ
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Since our foundation, we have been continuously researching and developing key ceramic-based electronic components that meet the needs of our customers. We focus on EMC and RF parts, constantly developing technology and self-innovation.

The company's main products are the EMI/ESD complex components Common mode noise filter/Common mode ESD filter, ESD/EMI filter, Chip Varistor, and Metal Power Inductor.

Main Product



Product Image	Series	L x W Size [mm]	Height [mm]	Inductance [µH]	Rated Current [A]
Metal / Thin Film	MP180905	1.8 x 0.8	0.8	0.24 - 1.0	2.0 - 3.4 2.0 - 3.2
	MP201206	2.0 x 1.2	0.65	0.24 - 0.56	Data sheet 참조
	MP201209	2.0 x 1.2	0.8	0.24 - 1.5	2.3 - 4.8 2.1 - 4.1
	MP201210	2.0 x 1.2	1.0	0.47 - 1.0	3.5 - 5.4 3.0 - 4.5
	MP201806	2.0 x 1.8	0.65	0.47/1.0	Data sheet 참조
	MP201808	2.0 x 1.8	0.8	0.24 - 2.2	2.0 - 5.0 1.9 - 4.2
	MP201810	2.0 x 1.8	1.0	0.24 - 2.2	2.2 - 6.0 2.1 - 5.2
	MP252008	2.5 x 2.0	0.65	0.47/1.0/2.2	Data sheet 참조
	MP252008	2.5 x 2.0	0.8	0.47/1.0	
	MP252010	2.5 x 2.0	1.0	0.33 - 4.7	1.9 - 6.8 1.8 - 5.8

Metal Composite Power Inductor

- Amorphous/Nano crystal Fe-alloy composite Power Inductor
- Thin film Technology
- High precision & high aspect ratio coil → Low DCR
- Low core loss & high efficiency
- Small & Low Thickness
- High power Efficiency
- Downsizing, Low thickness
- Core loss ↓, DCR ↓, High saturation current

NEEDS	LINE UP
Size Small	2012mm 1210mm 0806mm 1206mm 4CH 0605mm 2CH
CH. Multi	Single Type Dual Type 3008mm Triple Type
Trend	Small Size / Multi CH. / Variable Application

Common Mode Noise Filter

Industry's first multi-filter product with common mode noise filter function and ESD defense function.

Low capacitance of 1.5pF or less, differential signal modes such as USB 3.1/3.0/2.0, HDMI, MDDI, MIPI, etc.

The best solution for simultaneous EMI&ESD resolution for your communication interface.

- Cost & space-saving solution
- Application : MIPI, USB, HDMI, MHL, MIPI, e-SATA

NAMUGA

Sector : Electrical and electronics
Sub-sector : Electrical and electronic parts
CEO : Won Tae Yeon
Founded : 2004. 10. 14
Employees : 133
Homepage : www.namuga.co.kr
Sales : \$ 419 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Since its establishment in 2004, NAMUGA has developed and produced cameras and 3D sensing modules that are mounted on various IT products, such as laptops, smartphones and smart home appliances. Based on our production base in Vietnam, products are being supplied to leading domestic and overseas customers.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Mobile camera module

- Camera module mounted on smartphones and IT devices
- Fixed Focus Camera
 - Auto Focus Camera
 - Ultra Wide/Multi/Macro /Bokeh, etc.

3D Depth Sensing camera module

- Measures distance between imaging object and camera through 3D sensing
 Mounted on AR/VR, autonomous driving vehicle, robot and various 5G devices
- ToF (Time of Flight) type
 - Stereo type



OIS (Optical Image Stabilization Actuator) module

Essential camera component that prevents trembling & shaking of user's hands when taking photos using smartphone

NanoSystem

Sector : Electrical and electronics
Sub-sector : Meter
CEO : HyungSeok Lee
Founded : 2003
Employees : 45
Homepage : www.nanosystemz.com
Sales : \$ 1 million
Listed :
Qualified* : ATC

Introduction

NanoSystem's technologies in metrology using ultra-precise optical solutions are utilized for measuring micro-patterns and roughness on the nano-level surface in the semiconductor and IC substrate industries, contributing to quality control, yield improvement, and R&D at manufacturing sites.

Our main product is a non-contact 3D surface metrology system, and we are building networks with more than 300 major domestic and foreign customers (Semiconductor, PCB, display and etc.) based on the following four core technological competitiveness.

- Non-contact nano/micro-shape measurement technology
- Independent optical system design technology
- Large area measurement technology
- Automation Integration

* Refer to 396p for detailed information about ATC, and World Class

Main Product



NV-Series (Bench-top 3D Profiler)

- Non-destructive measurement and no need preprocessing
- Measure height and step-height, and roughness at once (height resolution 0.1nm)
- High repeatability and reproducibility (based on 0.1%@1σ / VLSI specimen)
- Provides roughness parameters that meet international standards (ISO25178/4287, etc.)



NSF & NSH Series (Automated 3D Surface Measurement System)

- A variety of patterns on PCB boards are measured and hundreds of measuring parameters are available (For all kind of PCB such as BGA, FCBGA, CSP, and etc)
- Automatic measurement by making recipes and efficient data management
- Provide efficient configurations in hardware and customizing options (clamping, vacuum stage, etc.)
- Hybrid measurement (3D&2D) options are available (NSH-Series)

Sector : Electrical and electronics
Sub-sector : Semiconductor devices and systems
CEO : Choi Jonghyun
Founded : 1997.05.26
Employees : 95
Homepage : www.nc-and.com
Sales : \$ 96 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

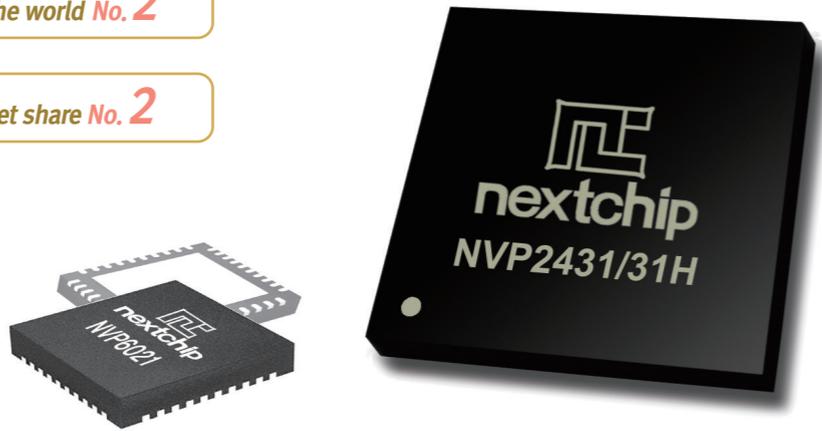
nc& has always been devoted to technology development after setting forth clear objective of becoming the world's best image processing company. Equipped with core technologies for image processing, key products are dashboard cameras for cars and image processing semi-conductors.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

20% market share in the world No. 2

20% domestic market share No. 2



AHD (Analog High Definition)

AHD product satisfies the requirements and needs of the market with its innovative solution that enables Full HD image transmission without degradation in image quality while using the existing CCTV system infrastructure such as coaxial cable. It is more effective compared to the competitor's products, gaining the interest of CCTV manufacturers and end users

Sector : Electrical and electronics
Sub-sector : Semiconductor devices and systems
CEO : Lee Byung-koo
Founded : 1990. 12. 27
Employees : 663
Homepage : www.nepes.co.kr
Sales : \$ 349 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

NEPES, as an advanced post-process foundry company, holds WLP (Wafer Level Package) technology which packages semi-conductor in chip size and it has positioned itself as a global company with cutting-edge semi-conductor package solutions such as next-generation packaging technology, FOPLP (Fan-Out Panel Level Package) and SiP (System in Package).

* Refer to 396p for detailed information about ATC, and World Class

Main Product

WLP (Wafer Level Package) assigned as world-class, next-generation products



New Power Plasma

Sector : Electrical and electronics
Sub-sector : Electrical and electronic parts
CEO : Wi Sunim
Founded : 1999
Employees : 400
Homepage : <https://www.newpower.co.kr>
Sales : \$ 78 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

New Power Plasma Co., Ltd. manufacturing Remote Plasma Generator(RPG), RF Generator and Matching Network which are essential in RF plasma application process of equipment in the Semiconductor, LCD and OLED industries. NPP is a proven RF power supplier with leading technology and business experience in RF semiconductor & display fields. We are targeting to achieve reliable & environment friendly and RF Plasma sources to meet customers' needs and specifications.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



RPG

The environment-friendly Remote Plasma Source (Remote Plasma Generator) to improve the productivity of semiconductor and LCD manufacturing is a product generating high-density plasma that supplies F (fluorine) radicals to clean chemically the Si (silicone) accumulated in the chamber after the deposition process in a semiconductor and LCD manufacturing process. In the chamber to execute a deposition process, it is inevitable that Si powder is accumulated on the inner surface of the chamber as a process is executed, so the current chamber cleaning technology uses a technology to etch it by supplying a lot of active fluorine radicals through remote plasma with the chamber vacuum maintained.

- Eco-Friendly, reducing PFC gas by 95%
- Non-necessary vent (Down time minimization)
- Particle free
- Wide Pressure range operation



RF Generator

The RF Generator is a device to supply high-frequency power to the process chamber to form process plasma in the process equipment(CVD, Dry Etcher) which is a core for production of thin solar cells and LCDs. This is a converter device to receive the AC power of 3P 220V, 400V, 440V or 480V which is the commercial power(frequency: 50/60Hz) supplied generally from the LCD production factory and convert it into high frequencies of usually 13.56MHz or higher, and is used as a RF power source.

- VFG(Variable Frequency Generator)
- Pulse function added
- Arc detection
- Low distortion wave from at miss match status
- Perfect protection on unlimited load Impedance
- Stable power regulation

NUC Electronics

Sector : Electrical and electronics
Sub-sector : Home appliances and electronic applications
CEO : Kim Jong Boo
Founded : 1997. 1. 20
Employees : 233
Homepage : www.nuc.co.kr
Sales : \$ 54 million
Listed :
Qualified* : World Class

Introduction

Founded in 1978, NUC Electronics is a manufacturer and seller of small kitchen electric appliances, such as juicers, blenders and yoghurt makers, exporting its products to 89 countries through 4 overseas branches in USA, Germany, Japan and China. The juicer with a wide feeding chute is the world's only original patented product and with that as the main product, NUC Electronics owns over 900 intellectual property rights, through its technology/bio/design research center.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



IoT Smart Juicer

82mm wide feeding chute, 7 types of body composition measurements taken through mobile App connection, provides personalized juice recipe and work-out methods, patented technology, Low compression juicing method (J.M.C.S)

Super high speed vacuum blender

Up to 32,000RPM, 1,500W super powerful motor, vacuum noise-proof cover applied to minimize noise, BPA-Free eco-friendly tritan container, 6-layer blade applied with 3D moving system

ODTech

Sector : Electrical and electronics
Sub-sector : Optical equipment
CEO : Park ByoungKeun
Founded : 1996.02.26
Employees : 267
Homepage : www.od-tech.com
Sales : \$ 45 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

ODTech was founded as a sensor company based on optical semi-conductor. The semi-conductors and sensors developed and manufactured by ODTech are being applied to various industries, such as household appliances, IT devices, industrial equipment, medical devices, automobiles and defense equipment. Based on semi-conductor chip design, package process, module manufacturing assembly, product evaluation technology and others, a total solutions system from product development to production has been built.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ 12% market share in the world

5th place in zener diode

★ 58% domestic market share

1st place in zener diode



Main products include silicon semi-conductor chips, optical sensors, sensor modules and LED applied products. Zener diode which is used for protecting LED chips has the largest market share in Korea.

OE Solutions

Sector : Electrical and electronics
Sub-sector : Optical equipment
CEO : Park Yong Kwan
Founded : 2003. 8. 7.
Employees : 381
Homepage : www.oesolutions.com
Sales : \$ 82 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

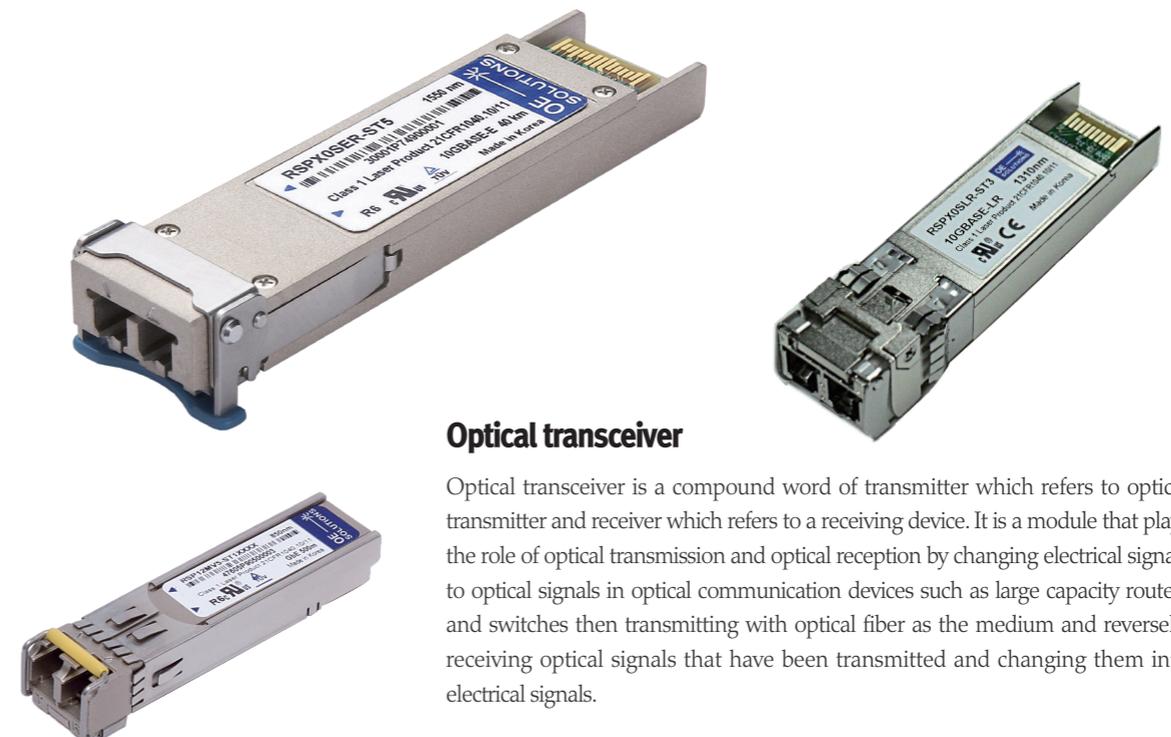
The key business areas of OE Solutions Co., Ltd. include research and development, manufacturing and sales of products related to electronics, electrical, ICT. Optical transceivers are manufactured and sold as the main product. It has become a global IT mid-sized enterprise through continuous investment in R&D and market pioneering in order to diversify business and it aims to prepare a foothold for becoming a conglomerate and to achieve sales of more than KRW 100 billion by 2023.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ 1% market share in the world

★ 30% domestic market share



Optical transceiver

Optical transceiver is a compound word of transmitter which refers to optical transmitter and receiver which refers to a receiving device. It is a module that plays the role of optical transmission and optical reception by changing electrical signals to optical signals in optical communication devices such as large capacity routers and switches then transmitting with optical fiber as the medium and reversely, receiving optical signals that have been transmitted and changing them into electrical signals.

OKINS ELECTRONICS

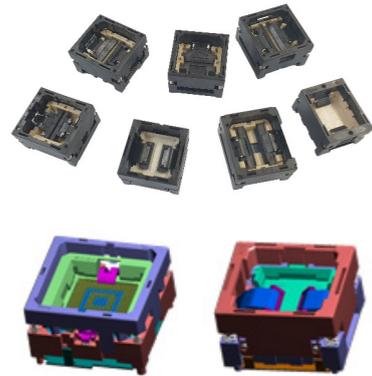
Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : JinKook - Jun
Founded : 1998
Employees : 134
Homepage : www.okins.co.kr
Sales : \$ 48 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

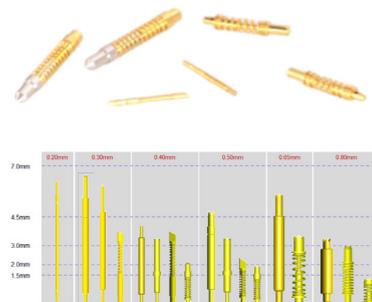
Proven socket solutions for your burn-in testing!
 Okins offers an extensive range of sockets that is able to fulfill burn-in testing, failure analysis, and reliability test requirements for the packages, including BGA, CSP, QFN and LGA. We control and produce the entire sockets for high quality and cost-effective solution

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Buckling Beam Contact has been used widely and successfully for finer pitch packages, 0.5mm pitch and below, and especially good for lower ball height packages. The buckle beam contact has been proven its stable and reliable contact to ball interconnection. For socket mounting, OKins buckling beam contact burn-in socket is available in both through hole and compression mounting.
 One of the biggest challenges in burn-in sockets would be the super fine pitch solution, OKins is now able to support volume production of 0.3mm pitch sockets and even 0.25mm pitch.



The Okins spring probe technology is based on test socket engineering, which makes the spring probes work better and stable.
 Okins offers a broad range of spring probes, addressing device pitch of less than 200µm, through 1.0mm and beyond.
 We provide proven solutions to customers who are looking for better and more stable solutions.

PARU

Sector : Electrical and electronics
Sub-sector : Heavy electric machinery
CEO : Kang Moon-sik
Founded : 1993. 7. 15
Employees : 37
Homepage : www.paru.co.kr
Sales : \$ 41 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

After developing new technologies for 25 years, such as photovoltaic power generation system which is a renewable energy and printed electronics which is an advanced electronic technology, PARU is a global company, exporting its products to over 40 countries around the world, including USA, Canada, Japan, China and Europe. It has achieved sound corporate management through various business portfolios under the management philosophy of 'Providing a better life through technology'.

* Refer to 396p for detailed information about ATC, and World Class

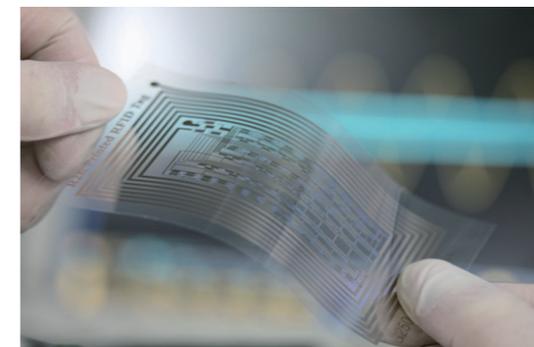
Main Product



Photovoltaic tracking generation system



Electronic ink



Printed element



Bio-environment

Philoptics

Sector : Electrical and electronics
Sub-sector : Optical equipment
CEO : Han Ki-su
Founded : 2008. 2. 5
Employees : 302
Homepage : www.philoptics.com
Sales : \$ 192 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Philoptics is a company that manufactures optics-based automation system and equipment, such as OLED display laser cutting and lift-off equipment, laser notching equipment for automobile secondary battery and exposure equipment for PCB/TSP. Among them, as for the OLED display laser equipment, Philoptics, with its unrivaled optical and system design and control technologies, has developed multiple laser equipment that has become the standard for flexible OLED manufacturing process. In addition, it is the only company in Korea that has independently developed and applied optical system design technology applied to laser lift-off equipment.

* Refer to 396p for detailed information about ATC, and World Class

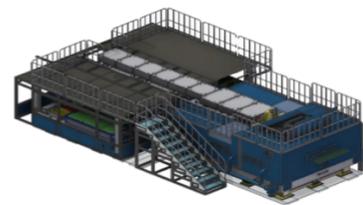
Main Product

65% market share based on client companies

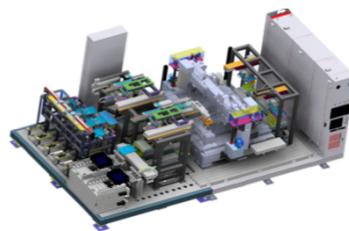
No. 1 flexible laser cutting equipment

70% market share based on client companies

No. 1 OLED laser lift-off equipment



Flexible OLED processing equipment



Rigid OLED processing equipment



Cover Glass processing equipment



Laser Notching



Exposure



DI Exposure

Point Engineering

Sector : Electrical and electronics
Sub-sector : Semiconductor devices and systems
CEO : Bum Mo Ahn
Founded : 1998
Employees : 213
Homepage : www.pointeng.co.kr
Sales : \$ 35 million
Listed : KOSDAQ
Qualified* : ATC

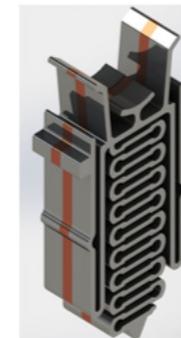
Introduction

Point Engineering offers a new type of wafer test pins, which outperforms pre-existing wafer test pins, and provides solution to the problems of wafer testing derived from miniaturization trend of semiconductor devices, such as, narrow pitch array, high current capability, steady performance in high frequency, and etc.

Application of high expertise in AAO ceramic material and differentiated MEMS technology allow customized design of wafer pins with precise structure ($\pm 0.5\mu\text{m}$ dimensional accuracy) and high aspect ratio of up to 20:1, not to mention the cost merit of the manufacturing process and advantages for mass production.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

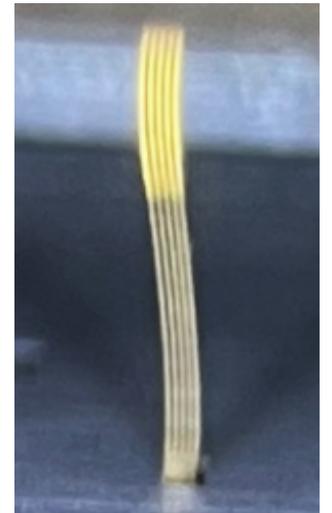


Socket pin

- Low insertion loss (100GHz @-1dB)
- Narrow pitch array (under 270um)
- High aspect ratio (30:1), durable one piece leaf spring type
- Low resistance (0.1 ohm), Excellent C.C.C.

Probe card pin

- Finer MEMS product fabricated with a high aspect ratio(30:1)
- Excellent dimensional accuracy($\pm 0.5\mu\text{m}$)
- Controllable C.C.C. and contact forces.
- Diverse plating materials – Au, Cu, PdCo, Rh, etc.



PSK

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Lee Gyeong Il
Founded : 2019. 4. 1.
Employees : 310
Homepage : www.pskinc.com
Sales : \$ 372 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Based on technology accumulated over 30 years, PSK Group is a representative global company that has continuously ranked 1st place with the largest market share worldwide in plasma dry strip which is a semi-conductor manufacturing process. Under the future vision of 'Becoming a global leader in total processing equipment', it strives to become a global Top 10 semi-conductor equipment provider by 2025.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 market share in the world for Dry Strip

Dry strip

As a product with the world's best technology competitiveness and largest market share currently, selections have been made per model and development is currently in progress.



Dry Cleaning equipment

Plasma Oxide Cleaning (POC) is a dry cleaning equipment that removes unnecessary oxide films such as natural oxide film on silicon surface before the vapor deposition process. It is playing a pivotal role in opening the DRAM semi-conductor 10 nano era and as the No. 1 competitive product in the world, its market dominance is currently expanding further.

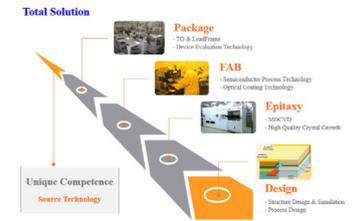


QSI(Quantum Semiconductor International)

Sector : Electrical and electronics
Sub-sector : Semiconductor devices and systems
CEO : Cheongdai Lee
Founded : 2000
Employees : 220
Homepage : www.qsilaser.com
Sales : \$ 27 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

QSI is a Laser Diode specialist company that provides a total solution that can perform all processes of design, epitaxy growth, fabrication & package for Laser Diode production.



QSI is a competitive company that can respond quickly to rapid market changes by establishing a total solution system.

QSI has the ability to develop customized products from design to finished products to meet customer needs.

QSI supplies more than 120 products to 180 customers worldwide.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Laser Diode

QSI has Laser diode with wavelength ranges from red to Infrared and various optical output power, which are used in various markets such as AR/VR/MR, Lidar, FA Sensor, Laser printer, Barcode scanner, Particle sensor, Medical, etc.

- Wavelength : 635nm ~ 940nm
- Optical power : 3mW ~ 125W
- Operating Temp. : -40°C ~ +85°C
- Package : TO-33, TO-56, TO-90, Lead frame

Rayence

Sector : Electrical and electronics
Sub-sector : Measuring instruments
CEO : Kim Tae-Woo
Founded : 2011. 5. 2
Employees : 229
Homepage : www.rayence.com
Sales : \$ 112 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Rayence has built the world's first full line-up of dental, medical, veterinary and industrial x-ray detector products. Rayence has solely developed TFT panel using CMOS Wafer design technology and is the only company in Korea that has the core technology of scintillator which is used for detecting radiation. In 2015, Rayence was the first in the world to develop 'bendable intra oral sensor' which materializes great image quality, and thus owning 3 world-class products items. Rayence strives to become South Korea's representative company specializing in core component materials for medical devices in the global market, to invest in R&D in order to develop products that would benefit both the customers and patient and to enhance competitiveness.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ **1st place in the world market and North American market for Medical Detector for Horse**

★ **1st place in the world market for industrial security**



Mammography

Mounted with high performance CMOS sensor for mammography. Sizes available in 17x24 and 24x30



Medical

Next-generation low radiation wireless detector. Offers the same level of image quality even when radiation is 40% lower compared to the existing products. Premium detector that supports accurate diagnosis with clear images



Industrial x-ray detector

World's first single wafer large-scale CMOS detector, enabling Fine defects can be detected even at fast speed

S&S Tech

Sector : Electrical and electronics
Sub-sector : Displays
CEO : Jeong SooHong
Founded : 2001.02.22
Employees : 218
Homepage : www.snstech.co.kr
Sales : \$ 82 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

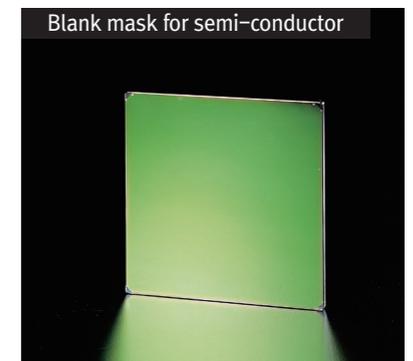
S&S Tech is the only company in Korea that has succeeded in localizing 'Blank Mask', a key raw material for photo mask that is essential for the manufacturing process of semi-conductor and Flat Panel Display (FPD) and is a Top 3 blank mask company in the world. S&S Tech is expanding its business area with high value added products centered on ever changing technical demands through experiences and expertise accumulated over the years while striving to realize the vision of 'The World Best Blank Mask Global Leader'.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ **2nd market share in the world for blank mask for semi-conductor**

★ **1st market share in the world for blank mask for display**



S&S Tech is focused on high value added high-end products applied with materials such as mass production of Phase Shift Mask (PSM) which is applied to all semi-conductors and displays following an increased demand in photo masks applied with the latest fine pattern technology, blank masks for hard masks which are being used in high-tech semi-conductor manufacturing process and blank masks for displays with improved thin-film characteristics

SAMHWA P&T

Sector : Electrical and electronics
Sub-sector : Industry/General machine
CEO : Kang Hosang
Founded : 2006
Employees : 180
Homepage : www.samhwakorea.com
Sales : \$ 36 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

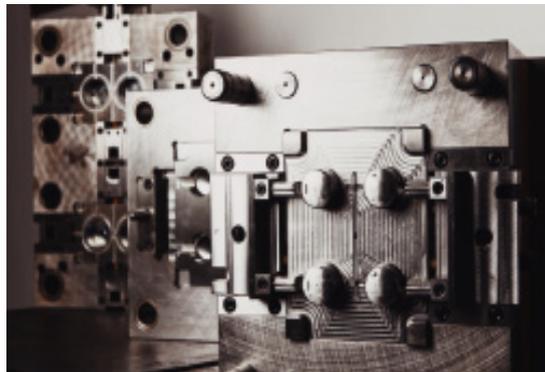
Introduction

Samhwa P&T Co., Ltd is a mold manufacturing and plastic injection company which started as a family business 45 years ago and officially established in July 2006.

With 45 years of mold manufacturing know-how, Samhwa P&T Co., Ltd aim to expand its mold and plastic injection business to enter in packaging injection manufacturing and packaging assembly for the beauty and household products market. Taking pride in the company's 45 years of history and know-how, each employee is committed to excellence through continuous innovation of new technology to improve productivity, capacity.

Samhwa P&T Co., Ltd is putting a top priority on craftsmanship and systematic quality management to deliver each mold or products with the best quality for every customers.

Main Product



- Based on 45 years of know-how, Samhwa P&T is designing, manufacturing and assembling mold for beauty and household plastic packaging.
- From conception to part injection, each manufactured mold are strictly controlled and validated on site with international quality standard to deliver the best mold quality for every customers.

Airless Bottle

Packaging for storing and pumping liquid contents of various viscosities



- Airless Bottle packaging for storing and pumping liquid contents of various viscosities
- Core Technology:
 - 100% protection from external air
 - Minimize the remaining amount of contents

Samjin LND

Sector : Electrical and electronics
Sub-sector : Home appliances and electronic applications
CEO : Lee Gyung-jae
Founded : 1987. 1. 6
Employees : 122
Homepage : www.samjin.co.kr/kor
Sales : \$ 185 million
Listed : KOSDAQ
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Starting from precision molding and injection parts, Samjin LND has been committed to developing root technologies for 28 years. Owing to the fact that it has been devoted to the advancement of technologies and localization of countless number of parts such as TFT-LCD mold frame, secondary battery gasket and case, dual injection cabinet for TV, it has stepped up as a No. 1 global supplier.

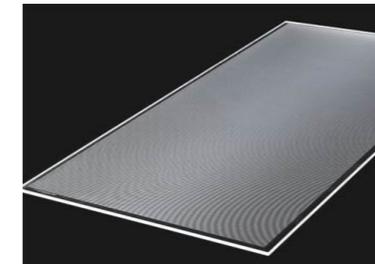
Main Product

★ Based on head office

85% ↑ in market share for finisher

★ Based on head office

35% market share for Gasket and ESS



Display parts
(Mold Frame, light guide panel)



Secondary battery parts (Gasket, ESS)



OQ combination printer/
peripheral devices



LED lighting

Samwha Electric

Sector : Electrical and electronics
Sub-sector : Electrical and electronic parts
CEO : Oh Young Joo
Founded : 1973. 10. 1
Employees : 503
Homepage : www.samwha.co.kr
Sales : \$ 206 million
Listed : KOSPI
Qualified* : World Class

Introduction

Since its establishment in 1973, Samwha Electric is developing into a "Leading Global Capacitor expert" through relentless challenges and technological innovation amidst endless transformations of the market and technologies. It endeavors to become a "Company generating values for mankind and environment" by providing, expanding and developing optimized products in the fields of smart living appliances, eco-friendly energy, 5G, electric vehicles, AI and ICT.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Green-Cap(EDLC : Electric Double Layer Capacitor)

Rapid charging/discharging, Unlimited charging/discharging Environment-friendly product, Wide operating temperature range(-40~+85℃), Customize design modules



Hybrid Cap(Conductive Polymer Hybrid Aluminum Electrolytic Capacitor)

Low impedance at high frequency(10kHz~100MHz) High ripple current due to reduced ESR, Excellent noise-absorbent characteristics, High voltage (80WV), Hybrid Cap series available in chip & lead type



Surface Mount Aluminum Electrolytic Capacitor

Chip type with higher capacitance in large case sizes Designed for surface mounting on high density Automotive Compatible to SMT equipments



Miniature Aluminum Electrolytic Capacitor

High reliability and long life (20,000hrs), High ripple current at high frequency For display slim PSU(∅ 8×40~ ∅ 12.5×50), Excellent smoothing ability



Large Aluminum Electrolytic Capacitor

High reliability and long life (10,000hrs), High voltage (600WV), Suitable in industrial power supplies for inverter Available in stud type

Samyang Optics

Sector : Electrical and electronics
Sub-sector : Video/audio equipment
CEO : Hwang Choong Hyun
Founded : 2013. 8. 2
Employees : 129
Homepage : www.samyanglens.com
Sales : \$ 48 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Samyang Optics is a company that develops, manufactures and sells camera exchange lens for images, video and movies. There are over 140 experts equipped with global competence. Samyang Optics, a global company that has been exporting its products to 58 countries including USA and Europe through 38 overseas clients, aspires to achieve the objective of advancing into new business fields, such as automotive lens and medical lens, in the future.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

PHOTO (AF) lens

AUTO FOCUS lens offering bright and exceptional image quality with maximized user convenience



PHOTO (MF) lens

Exchange lens that is compatible with various cameras(9 mounts)

PRO-CINE lens

Lens for movie and video experts



CINE lens

Exchange lens optimized for filming videos

Sangbo

Sector : Electrical and electronics
Sub-sector : Displays
CEO : Kim Sang Geun
Founded : 1977. 7. 15.
Employees : 180
Homepage : www.sangbogroup.com
Sales : \$ 111 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

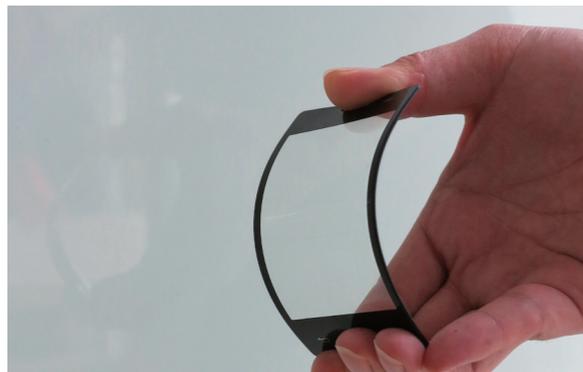
Sangbo, with key products ranging from display optical films and highly functional films for cars and construction, is a company specializing in advanced materials, recognized for its competitiveness in the global market. Since its establishment in 1977, Sangbo has led continuous growth through endless self-innovation and transformation and based on "technology-oriented" management philosophy, it strives to achieve the vision of 'Global No. 1 advanced nano material company oriented towards becoming a centennial company'.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 optical film for display in the domestic market

No. 1 optical film for display in the world market



Window film for cars and architecture

Highly functional film considering the health and safety of people that enhances energy efficiency and protects privacy as it enables selective obstruction and penetration of UV rays, infrared rays and visible light by installing on windows of cars and buildings



Display optical film

(Display optical film as main product)
 Key component of display device (TV, monitor, etc.) that brightens display screens and saves energy by minimizing loss of light through refraction and reflection control

Sanil Electric

Sector : Electrical and electronics
Sub-sector : Heavy electric machinery
CEO : Park Dong Suk
Founded : 1987. 8. 1
Employees : 253
Homepage : www.sanil.co.kr
Sales : \$ 54 million
Listed :
Qualified* : World Class

Introduction

As the representative company in South Korea specializing in special transformers and reactors, Sanil Electric aims to achieve the vision of becoming a 'Global company with the world's best product items' in 2020 through development of new products and global marketing.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Oil immersed transformer

As a general transformer, it is a reliable and economic product as insulation oil is used for cooling/insulation
 * Main place of use: Power plant, substation and power transmission and distribution system

No. 1 in special transformer sector in Korea



Dry type transformer

Adopting a cooling method using nature/fan without oil, it is a safe, economic and eco-friendly product
 * Main place of use: Vessel and special purpose

Mold transformer

Transformer with less explosion risk and environmental pollution
 * Main place of use: Building, shipbuilding company, etc.

Reactor

Usually used to filter harmonics in power conversion devices such as converters and inverters
 * Main place of use: Solar power and renewable energy



SDA

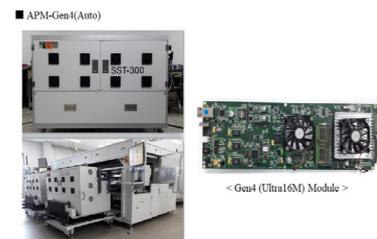
Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Shim, SangBum
Founded : 2006
Employees : 130
Homepage : www.sda-t.co.kr
Sales : \$ 18 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class



Main Product

SSD Module Tester



< Gen4 (Ultra 6M) Module >

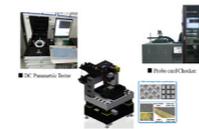
Introduction

- SDA(Sensational Design Association) established in 2006.
 - 130 employees, 30M USD of 2021 Sales
 - Located on Uiwang City, Korea
- SDA has 16 year technology leading history on PCB design & manufacturing of P/C.
- Business Area.
 - PCB Design & Manufacturing.
 - Probe card solution for DDI, SOC, CIS, RF, PMIC.
 - Machinery
 - Probe card total Test Machine
 - Laser Micro Hole Drilling Machine.
 - Maskless Type Exposure Equipment.
 - SSD Module Tester.
- Others.
 - Laser micro hole drilling
 - FPGA-based optical application module
 - Package verification socket solution
- Material(Polyimide-FCCL-FPCB-Module-Set Maker)
 - ODA(Oxydianiline) & TFMB(Trifluoromethyl Benzidine)I

Probecard PCB



Machinery



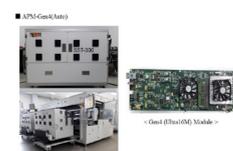
Probecard



Maskless Type Exposure



Transparent Polyimide Monomer



Transparent polyimide film is a dream material in the display industry. It is hard, but it is used as a substitute for cover glass when manufacturing flexible smartphones (foldable phones) and displays because it is not scratched even when folded and opened hundreds of thousands of times and has excellent physical properties. In order to increase the transparency of the transparent polyimide and maintain the peculiar physical properties of the polyimide, the role of the main raw material, diamine monomer, is most important.

SEC

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Kim Jong-hyun
Founded : 1991
Employees : 222
Homepage : www.seceng.co.kr
Sales : \$ 25 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

The Best Solution For Quality Improvement
 Off-line X-ray Inspection System, In-line Automated X-ray Inspection System
 SEC Co., Ltd. spent over 30 years of automation technology for precision parts production facilities, 20 years of design experience of x-ray inspection systems, and 15 years of accumulated know-hows for developing the only x-ray tube in Korea by selling and developing the world's best x-ray inspection system.
 The x-ray inspection system inspects product's defects that may occur in products of various industries including SMT, semiconductor, automotive application components, EV battery, smart devices, and die-casting, which contributes to improving the reliability and quality of products.
 By having more than 20 steam line of products, SEC recommends a system suitable for customers. The In-line automated x-ray inspection system is especially suited for Industry 4.0 - Smart factory, that help our customer productivity and quality improvement which makes SEC possible to become world's best inspection company in the fields of speed and detectability.

Main Product

X-eye 6300AXI (3D In-Line)



In-line AXI with high speed 3D CT. Able to inspect double-sided PCBA & BGA mounted component precisely by solving overlapped X-ray image issue. Inspection speed is 4 sec/FOV from loading to automatic Good / NG judgement.
 • High Speed 3D In Line Inspection System (4 sec)
 • Best Solution for The Inspection of Both Side Layered PCB
 • Detection of Various Types of Defects : BGA , Chip Component, Lead Filling

X-eye SF160 Series



Detecting the fine defects and producing high-quality image with micro-focus open tube with 0.9µm focal spot size. Dual CT function can be added anytime upon customer's needs. The exact location & size of defects can be analyzed with CT function.
 • Non Destructive Inspection System for Semiconductor Automotive Package
 • 10K Hours Lifespan of Filament with Hybrid Tube • High Quality CT Image with Dual CT Module

X-eye EVB-CT Series



High speed In-Line X-ray CT inspection system for rechargeable battery of automobile. Able to check various type of defects in secondary cell mass-production line.
 • 3D AXI system offers 99.9% inspection accuracy • 10 ~ 30ppm inspection speed
 • 240kV In-Line Open Tube offers high quality X-ray Image • LaB6 Filament have a long life-span

SEKONIX

Sector : Electrical and electronics
Sub-sector : Optical equipment
CEO : Park Won-hee
Founded : 1988. 12. 24.
Employees : 887
Homepage : www.sekonix.com
Sales : \$ 369 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

SEKONIX is an optical electronic components manufacturer that operates on the basis of its plastic optical technology. Since its early days, SEKONIX has operated on the basis of its technology for producing optical pickup lenses and in 1988, the company was the world's third and South Korea's first developer of CRT projection TV lens, successfully implementing its domestic production and thus, positioning itself as a medium-size enterprise leading the optical electronic components industry.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 smart phone camera lens in Korea

No. 1 camera lens for cars in Korea



Mobile camera lens

Optical lens of cameras that is mounted on the front and rear of smart phones and that enables images and videos to be taken



Automotive camera

Functional camera that is mounted on the front and rear of automobiles



Pico projector

Micro projector in module size of less than 1 inch that uses LED as light source

SEMICS

Sector : Electrical and electronics
Sub-sector : Measuring/ Inspection equipment
CEO : Yoo Wan Sik, Kim Ji Seok
Founded : 2009. 6. 24
Employees : 170
Homepage : www.semics.com
Sales : \$ 55 million
Listed :
Qualified* : World Class

Introduction

SEMICS Co., Ltd. has successfully localized the Wafer Prober inspection equipment which is used to inspect if wafer chips produced in the semi-conductor process operate normally. Since its establishment in 2000, SEMICS Co., Ltd. has achieved cumulative sales of KRW 301 billion and cumulative sales quantity of 1,730 units as of March, 2018. With the goal of achieving sales of KRW 1 trillion by 2028, it is focused on providing the best solution to the global semi-conductor world. The corporate objective is to produce the 'best products' satisfying customers, to create a 'Good environment and a good corporate culture where dreams of employees could be unfolded' and to become a 'infinitely developing and sustainable company' for stakeholders.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Wafer Prober

Equipment that determines the defective status of chips by placing the pad inside wafer loaded by chuck from the asset with the Probe Card that is connected to the tester



Seoul Semiconductor

Sector : Electrical and electronics
Sub-sector : Optical equipment
CEO : Lee Chung-hoon
Founded : 1987. 3. 5.
Employees : 751
Homepage : www.seoulsemicon.com
Sales : \$ 1084 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

By being equipped with a production process from LED chip to packaging and module production and having secured various product portfolio in all fields of IT and lighting, Seoul Semiconductor provides total LED solutions. Seoul Semiconductor with its greatest patent portfolio comprised of exclusive patents such as Acrich, nPola, SunLike and over 14,000 patents such as materials, design, system and manufacturing, it is investing approximately 10% of its sales in R&D annually, leading the LED industry.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ Seoul Semiconductor
3rd market share in the world

★ Seoul Viosys (affiliate)
1rd market share in the world



SunLike

SunLike is the world's first LED solution to have reproduced the natural light's spectrum (light array) curve exactly like that of the sunlight

Violeds

It is a technology that has been perfected after 20 years of development from 2002 by 3 companies; SeoulViosys, Nitride Semi-Conductor in Japan and SETI in USA. Effect is obtained by shining UV LED made by using specific wavelength range UV ray with powerful sterilizing function. It is characterized by the fact that there is no chemical substance that is harmful to the human body and that the production and propagation of germs can be suppressed only by light.

ShinHeung Precision

Sector : Electrical and electronics
Sub-sector : Electrical and electronic parts
CEO : Jeong Woo Seok, Jeong Yoo Seok
Founded : 1968. 6. 26
Employees : 255
Homepage : www.shc.co.kr
Sales : \$ 127 million
Listed :
Qualified* : World Class

Introduction

Since its establishment in 1968, Shinheung Precision, a total precision component company that has been developing and manufacturing EV and automotive material components based on high precision mold business which is the root industry, for half a century, is a reliable partner company of domestic and overseas global groups. It has undergone continuous growth and amidst the rapidly changing industrial structure, its outstanding technology and quality management has been recognized by global electronic product and automobile manufacturers and is currently operating 4 domestic companies, along with 17 business premises in 9 countries. With accumulated know-how on product design to production, relentless R&D, global management organization and human resource development, it is developing into an expert that would lead the EV and automotive material components in the 4th industrial revolution era.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



POS terminal

- Various product line-up offering diverse performance and design
- 10 POS models available
- Excellent design and reasonable pricing



Industrial PDA

- 90% market share for PDA in large domestic department stores
- 7 models available
- Compatible with Windows & Android OS



ECR

- No. 1 market share in the world's ECR field
- Expertise in FISCAL project
- 18 FISCAL models available



POS Printer

- Owns 30% of POS printer market share in Korea
- Holds 6 receipt printers and 5 printer mechanism models
- User-centric interface



KIOSK

- Option composition that can respond to various environment
- Outstanding user convenience and maintenance
- Sold in 20 countries



EFT POS TERMINAL

- 5 models available
- Compact design and excellent esign
- Color LCD model available

Shinheung SEC

Sector : Electrical and electronics
Sub-sector : Batteries
CEO : Hwang Man-Yong, Kim Gi-Rin
Founded : 1979.05.16
Employees : 2,705
Homepage : www.shsec.co.kr
Sales : \$ 305 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Shinheung SEC vibration motor parts for mobile phones, lithium ion battery parts for mobile phones and laptops as well as high precision parts which require high precision mold design and manufacturing technologies. Shinheung SEC has become a leading company in the field of safety devices for preventing explosion of lithium energy secondary battery that has achieved an annual average sales and employment growth of 46% while producing electric vehicles, Energy Storage System mid/large secondary battery parts through R&D capabilities and technologies accumulated over 30 years from such.

* Refer to 396p for detailed information about ATC, and World Class

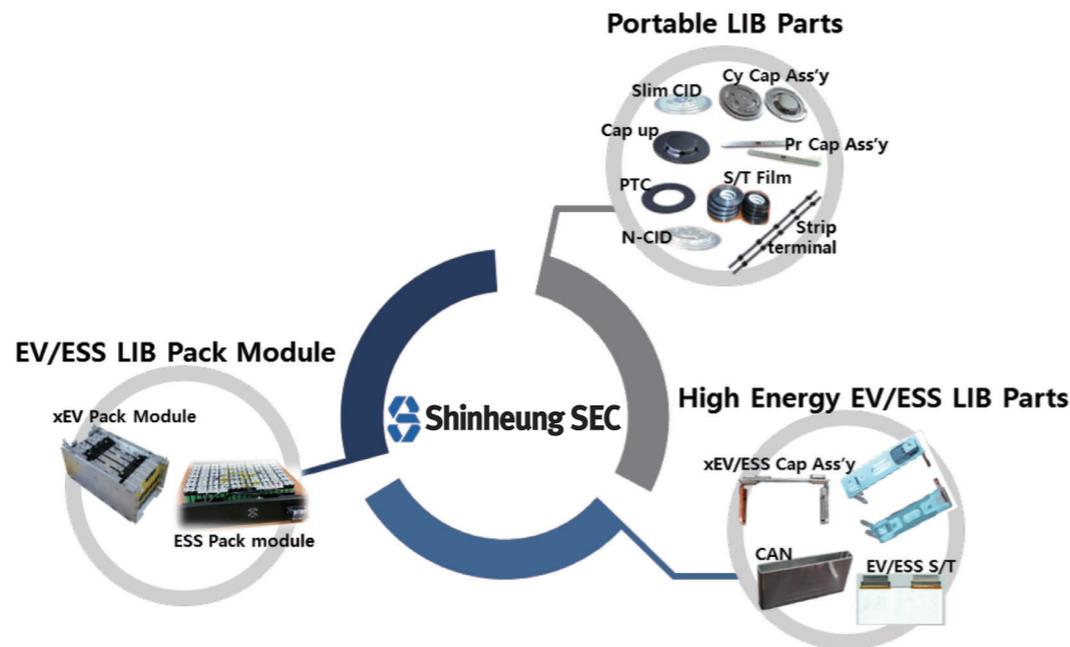
Main Product

★ 25% market share in the world

1st place in Pr. Cap Ass'y

★ 100% domestic market share

1st place in Pr. Cap Ass'y



SMART Electronics

Sector : Electrical and electronics
Sub-sector : Electrical and electronic components
CEO : Kang Sin Wook
Founded : 1994
Employees : 96
Homepage : www.smart-ele.co.kr
Sales : \$ 34 million
Listed :
Qualified* : ATC

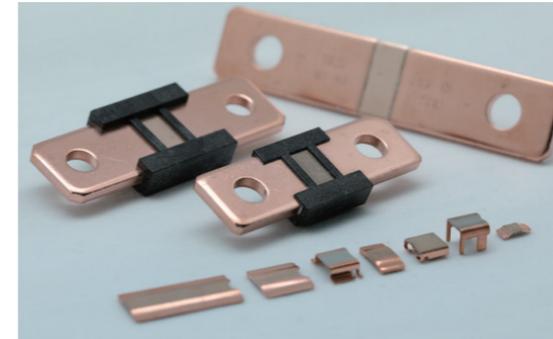
Introduction

SMART ELECTRONICS supply resistors, circuit protection devices, and temperature sensors. SMART ELECTRONICS has a certificate of a company with excellent technology evaluation for the manufacture of high current shunt resistors for electric vehicles.

The SMD surge protection device has a lower capacitance value and a higher insulation resistance value than the existing ones by applying a discharge body in which a microgap is formed on a conductive film, and thus has excellent response and fast energy processing capability.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



HCS

This specification covers the High Power Current sensing Resistor for use in Car BMS(Battery Management System), EV/HEV/PEV Battery Pack, ESS(Energy Storage System).

- High power to resistor size ratio
- Proprietary processing technique produces extremely low resistance values
- AEC-Q200 qualified
- Further versions with various dimensions upon request

BSA

Electronic component absorbing surge by discharge because conductive film cut at a definite rate and glass-tube is sealed in inert gas.

- Small size(4532 & 6842)
- High insulation resistance
- Fast response time
- Excellent Durability
- Great Surge Current Capacity
- Low Capacitance(<0.5pF)
- Wide Application

Solueta

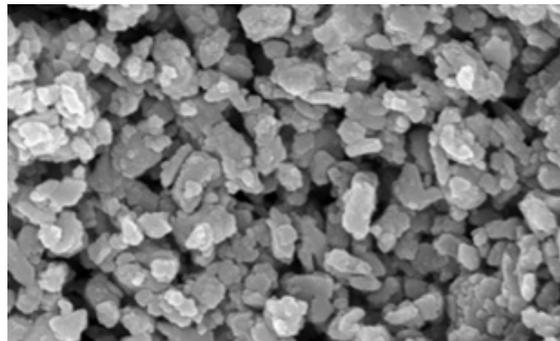
Sector : Electrical and electronics
Sub-sector : Materials
CEO : Lee Sang Hoon
Founded : 2003
Employees : 140
Homepage : www.solueta.com
Sales : \$ 37 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

Our company's core business area of electromagnetic wave shielding materials can be applied to all electronic equipment. Since the rapid growth of smart devices, various products are evolving into the age of IoT based on communication, and our company has positioned itself as a leader in the field of electromagnetic wave shielding in the current trends of IT technology advancement and popularization of high-speed wireless communication. Through continuous efforts, we are challenging development and innovation of new materials and diversification of products. We will continuously move forward by swiftly responding to the changing trends such as electric cars and IoT beyond the age of smart devices.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Nano Powder

For the superior properties and miniaturization of MLCC, the thickness of the dielectric substances and internal electrode layers which comprise the MLCC need to be thinner, and for this purpose, it is essential to reduce the particle size of the dielectric materials and internal electrode materials.

- Product Group – Ni Nano Powder, Cu Nano Powder



Alloy Materials

Flexible alloy materials which maintain the same electric conductivity as natural Cu and high tensile strength properties were manufactured through hot rolling of Cu-Ni-Zn complete solid solution alloy, and through low temperature melting, oxide impurities were minimized.

Sungho Electronics

Sector : Electrical and electronics
Sub-sector : Electrical and electronic parts
CEO : Park Seong Jae
Founded : 1973. 5. 13.
Employees : 98
Homepage : www.sungho.net
Sales : \$ 111 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Main products of Sungho Electronics include display, LED lighting, film condenser for consumer electronics, printers, set-top box, Switching Mode Power Supply (SMPS) for LED lighting and others. Sungho Electronics has laid grounds for taking a another leap forward, following the development of LED lighting industry and in order to take the next step for becoming a world-class company, it is actively leading the development of future growth industry of renewable energy, high voltage condenser with long lifespan that is used in advanced medical devices and motors, and SMPS.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

38% market hare in the world

No. 1 condenser for display

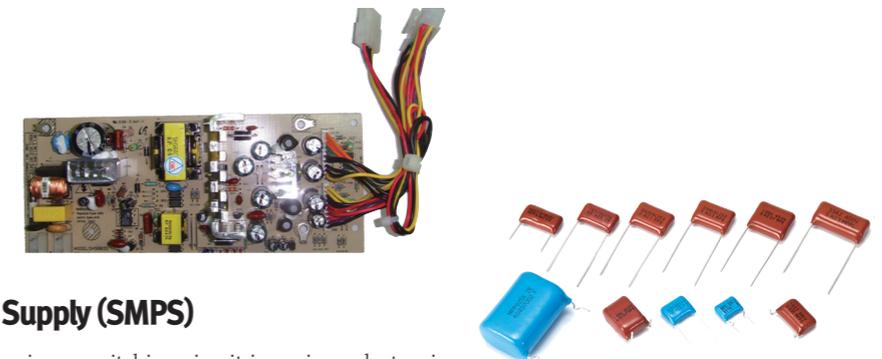
90% domestic market share

No. 1 condenser for display



Film Capacitor

Film capacitor which is a bowl for carrying electricity by using film as a dielectric is a universal part that is utilized in electronic products and devices operated by power and is characterized by high voltage and long lifespan



Switching Mode Power Supply (SMPS)

Device that supplies power by using a switching circuit in various electronic product systems. Along with high efficiency, strong durability and lightweight characteristics, it is also equipped with fire and electric shock prevention features



Sungil Innotech

Sector : Electrical and electronics
Sub-sector : Home appliances and electronic applications
CEO : Lim Min Ja
Founded : 2005. 11. 2
Employees : 69
Homepage : www.sungilinnotech.com
Sales : \$ 48 million
Listed :
Qualified* : World Class

Introduction

Sungil Innotech Co., Ltd. has simultaneously achieved market expansion and sales increase by directly producing its main products; deco plate as well as household product door and furniture that use it the most and by developing many eco-friendly home appliances, it is unfolding active marketing under the name 'Nevou Art', not only in Korea but also overseas.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Glass Table Mat/Dessert Mat



Interior Glass



Furniture



SUNIC SYSTEM

Sector : Electrical and electronics
Sub-sector : Display
CEO : Kim Haedong
Founded : 1990
Employees : 175
Homepage : www.sunic.co.kr
Sales : \$ 52 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

Sunic System is the world's only corporation that manufactures and sells equipment systems which produce ultra-high resolution pixels whose quality has been guaranteed.

The device is more commonly known as an OLED evaporator but in reality, it is a Sub Pixel Delineation System (SPDS) which precisely creates R, G and B pixels, into which countless elements of more than 25 years of experience with analog technology at Sunic are seamlessly dissolved.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Small-Sized Cluster Type Evaporation Equipment System

- For 1GH 200 * 200 material evaluation and QC
- For material development and verification
- For device product development and research



Medium-Sized Cluster Type Evaporation Equipment System

- For 2GH 370 * 470 panel equipment system
- Pilot/Mass OLED Equipment
- Multi Cluster Type

Large-Sized Cluster Type Evaporation Equipment System

- For 6GH 925 * 1500 panel equipment system
- For high-resolution mobile product
- For smartphone and flexible display

Telechips

Sector : Electrical and electronics
Sub-sector : Semiconductor devices and systems
CEO : Lee Jang Gyu
Founded : 1999. 10. 29
Employees : 303
Homepage : www.telechips.com
Sales : \$ 114 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Telechips is a representative fabless company leading the system semiconductor market in Korea with products and technologies that are always one step ahead in the multimedia semi-conductor market. The application processor for cars which is the main product of Telechips is expanding its application area from IVI to digital cluster and cockpit system based on the latest technology, high security and outstanding power efficiency. Moreover, it strives to pioneer the future growth engines in the field of automotive semi-conductor industry through endless development and research on next-generation automotive technologies such as Advanced Driver Assistance Systems (ADAS) and Artificial Intelligence (AI).

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Semi-conductor for cars

Car audio and display audio processor,
 ANV (Audio/Video/Navigation) processor
 for cars, digital cluster processor for cars, MCU for cars, etc.



TLB

Sector : Electrical and electronics
Sub-sector : Electrical and electronic parts
CEO : Baek Seong Hyeon
Founded : 2011. 3. 25
Employees : 390
Homepage : www.tlbpbc.com
Sales : \$ 148 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

TLB Co., Ltd, standing at the center of the 4th industrial revolution, supplies PCB for SSD, for memory module and semi-conductor test equipment to the world's best semi-conductor companies. It holds the world's best zero-defect quality technology and export accounts for more than 80% of sales. With the objective of achieving corporate value of 1 trillion, It is developing into a company specializing in PCB that would lead the 4th industrial revolution era.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



TOP ENGINEERING

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : KWON OH JOON
Founded : 1993
Employees : 415
Homepage : www.topengnet.com
Sales : \$ 142 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

TOP ENGINEERING is engaged in the test and measurement business, and its main products include semiconductor wafer test equipment. We have precision measurement technology for electrical characteristics of semiconductor wafer. It is possible to inspect the electrical characteristics of TEG(Test Element Group) semiconductor wafer and display backplane. For example, Transistor(V_{th}, I_{off}, I_{on}), Resistance, Capacitance

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Electrical Parameter Analyzer, S3000

The S3000 series accelerates R&D of semiconductor and electrical material, and can evaluate electrical parameter in various fields such as semiconductors.

- Provides precision measurement such as Current-Voltage (I-V) and Capacitance-Voltage(C-V).
- Supports manual and full automatic measurements in R&D industries.
- Install up to 12 slots with various Instrument modules based on customer's interests. Especially, MPSPMU can be installed up to 12ch.

Electrical Parametric Test Equipment, E4800

This equipment completely supports 8 parallel test, and inspects electrical property of a wafer faster.

World Class wafer characteristic inspecting function, compose of 8 sub-frame, Each sub-frame maybe controlled independently, Total 64 SMU can be installed.

- Support Guarded Switching Matrix Measurement Pins(96 to 208 pins)
- May combine with various external inspection.



TOVIS

Sector : Electrical and electronics
Sub-sector : Displays
CEO : Kim Yong Beom, Ha Hee Jo
Founded : 1998. 9. 8
Employees : 235
Homepage : www.tovism.com
Sales : \$ 219 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

TOVIS, listed in KOSDAQ in 2004, is a company specializing in industrial monitors. TOVIS is growing into a global display leading company, offering Total Display Solution, encompassing TFT-LCD module which is the basic unit of display, touch panel which is a convenience component, tempered glass which is a core material and industrial monitor which is a finished product.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

40% market share in the world
No. 1 industrial monitor

*As of 2014



Industrial monitor

Used as core component in special devices such as gaming device for casino, advertisement monitor and amusement monitor

TFT-LCD module and electronic display

Used as display for IT devices such as mobile such as mobile phone, smart phone and tablet and automotive display



Touch panel

Various touch panel solutions available, such as resistive type as well as capacitive type and LCM integrated type



TSE

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Kim Cheol Ho, Oh Chang Soo
Founded : 1994. 3. 1
Employees : 599
Homepage : www.tse21.com
Sales : \$ 256 million
Listed : KOSDAQ
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

TSE, as a company specializing in semi-conductor and OLED inspection device, was established after successfully localizing semi-conductor inspection equipment which used to be dependent on overseas products. In particular, it gained its reputation as a standard maker when the Test Interface Board product used in memory semi-conductor packaging took up the largest market share in the world's market. Immediately after its establishment, it started opening agents across the world, including branches in US and China through bold overseas marketing, enhancing its global competitiveness. TSE exports to 16 countries, along with renowned global semi-conductor manufacturers and has achieved an average export proportion of 38% in the past 5 years. In 2011, it was listed in KOSDAQ and its R&D on MEMS technology-based products has led to great achievements by diversifying technologies. TSE aims to gain the largest market share in the world's market of semi-conductor inspection equipment.

Main Product

TIB designated as world-class product

TIB (Test Interface Board)

Interface product that is used in back-end package inspection among semi-conductor manufacturing process

Probe Card

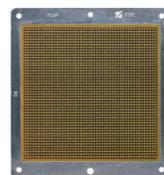
Product that is used in front-end wafer inspection among semi-conductor manufacturing process

Test Socket

Product that electrically connects the interface board and rod board with the semi-conductor package

MEMS Component

As a component for inspection that is used in high speed I/O loopback test, it is a super small product with TSE's intensive MEMS technology which is a high precision mechanical technology



UNISEM

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Kim Hyeong Gyun, Lee Yang Goo
Founded : 1996. 2.15
Employees : 725
Homepage : www.unisem.co.kr
Sales : \$ 247 million
Listed : KOSDAQ
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

UNISEM Co., Ltd., is a manufacturer specializing in eco-friendly semi-conductor and display equipment, leading the market through independent R&D and customer satisfaction since its establishment in 1988 when the localization of semi-conductor equipment was scarce in South Korea.

Main Product

No. 1 domestic market share for POU scrubber

No. 3 market share in the world for POU scrubber

No. 2 market share for chiller

No. 2 market share in the world for chiller



SCRUBBER

Equipment that purifies and discharges toxic gas created during production processes, such as semi-conductor/display/solar cell

CHILLER

Equipment that improves process efficiency by stably controlling the temperature around the main equipment chamber in production processes such as semi-conductor/display/solar cell



UniTest

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Kim, Jong-hyeon
Founded : 2000. 3. 21
Employees : 213
Homepage : www.uni-test.com
Sales : \$ 95 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

UniTest has professionally developed semi-conductor inspection equipment since its establishment and its main business involves manufacturing and selling memory module testers, memory component testers and burn-in testers. Led by its firm DRAM and NAND tester-based technologies, it has increased the market share, striving to become the world's best total test solution provider equipped with non-memory testers, relevant products and material technologies. In addition, UniTest has also been acknowledged for recording the world's highest efficiency in the area of perovskite solar cell modules even in the green energy business field and is engaged in R&D for its commercialization.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ First to develop semi-conductor tester in Korea



UNI5900 (High-speed package tester)

- DRAM, LPDDR, GDDR
- 9Gbps
- Up to 512 DUT



UNI620 (Wafer test)

- NAND wafer
- 200Mbps
- Up to 768 DUT



UNI940A (High-speed burn-in tester)

- DRAM, LPDDR
- 400Mbps
- Up to 6,144 DUT



UNI940FL (NAND burn-in tester)

- NAND
- 100Mbps
- Up to 12,288 DUT



UNI92K (SSD tester)

- SSD (M.2, U.2, AIC)
- BGA SSD (PCIe, UFS)
- 16Gbps
- Up to 1,024 DUT

Viatron

Sector : Electrical and electronics
Sub-sector : Displays
CEO : Kim Hyoung June
Founded : 2001. 12. 26.
Employees : 127
Homepage : home.viatrontech.com
Sales : \$ 67 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Viatron is a producer of heat treatment equipment which is a core element of manufacturing recent displays such as AMOLED, LTPS LCD, Oxide TFT and flexible display. It was the first company in the world to develop and present the heat treatment technology and equipment for manufacturing poly-Si without using laser. In addition, in 2012, it developed the world's first pre-compaction heat treatment equipment which is an essential equipment for manufacturing high resolution panels, gaining recognition for its excellence. It has also developed high precision heat treatment equipment that materializes Oxide TFT display and is supplying products to key display companies, such as LG Display, Samsung Mobile Display, Samsung Electronics as well as overseas major panel companies, such as BOE, CSOT, AUO, Innolux, Tianma, Royole and dpiX.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ 87% market share in the world

No. 1 inline RTA heat treatment system (system activation equipment)

★ 30% market share in the world

No. 1 batch furnace system (oxide TFT sector)



Next-generation display heat treatment system

(In line RTA system and multi-substrate Batch Furnace system)
 Heat treatment equipment, as key equipment in the processing stage before TFT substrate manufacture which is the most high-tech field among panel manufacturing processes, is a process equipment that determines the characteristics of TFT device. As a product that has been verified by panel manufacturers at both home and abroad, its technological excellence has been recognized from major display companies. Majority of Viatron's heat treatment equipment required for LTPS-TFT backplane manufacturing process, IGZO heat treatment equipment required for manufacturing large surface oxide TFT, polyimide curing heat treatment equipment required for manufacturing flexible display panels are followed by the words 'first to be developed in the industry'

VINATech

Sector : Electrical and electronics
Sub-sector : Electrical and electronic components
CEO : Sung, Do Kyong
Founded : 1999
Employees : 270
Homepage : www.vinatech.com
Sales : \$ 43 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

VINATech Co., LTD., a manufacturer of Supercapacitor, Hybrid Capacitor and Fuel Cell components based on carbon composition technology in Korea.

Supercapacitor and Hybrid Capacitor are eco-friendly energy storage device that has long life cycle and high power density.

Also, VINATech has been providing in-house its carbon support, catalyst, Membrane Electrode Assembly (MEA) and Bipolar Plate featuring excellent corrosion-resistant characteristics.

VINATech has certificate such as ISO, IATE, UL and so on.

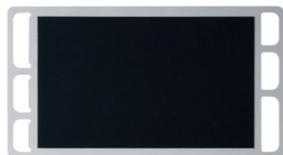
* Refer to 396p for detailed information about ATC, and World Class

Main Product



VPC

Recently VINATech development a VPC series, an eco-friendly Hybrid Capacitor, has been developed to reduce costs and improve efficiency. They offer lower leakage current and improved ESR with longer life, wider temperature ranges, and higher discharge currents than batteries of similar sizes. VPCs are utilized for a number of industries such as new renewable energy, data centers, electronic parts, etc.



MEA

VINATech is the only company that manufactures core materials of supporters, catalysts and MEAs, mainly focusing on the production of supercapacitor and fuel cell MEAs based on its carbon composition technology (fiber, sphere).



Its MEA is using for various application and industry such as automotive, Unmanned Aerial Vehicle (UAV), and Combined Heat Power (CHP) for Low-Temperature Proton-Exchange Membrane Fuel Cell (LT-PEMFC) and Direct Methanol Fuel Cell (DMFC).

Wellang

Sector : Electrical and electronics
Sub-sector : Semiconductor devices and systems
CEO : D. H. Lee
Founded : 2002
Employees : 30
Homepage : www.wellang.com
Sales : \$ 24 million
Listed :
Qualified* : ATC

Introduction

Wellang has been working for digital and analog mixed semiconductor design area with high expertise of digital signal processing and power electronics since 2002. With this competitiveness in digital and analog semiconductor design and engineering support to the customers, Wellang has been doing great achievement in digital audio amplifiers and AC direct LED lighting systems. Wellang has lots of IP of core technologies, which would have to provide great contribution of customer's success.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

LED drivers for lighting

LED lighting necessarily requires a driver in addition to LED chips. Wellang has concentrated in AC direct type drivers.

- Less weight, less space, less thickness, longer lifetime
- Human centric lighting systems with BLE, Zigbee

Digital audio amplifiers

Fully digital audio amplifiers for TVs, monitors and portable audio systems.

- Embedded audio signal processing functions including PEQ, DRC
- Higher efficiency, better audio quality, less weight and space

LNBP for satellite receivers

LNBP (low noise block power) ICs supply power to and communicates with satellite receivers in dish antenna.

- Less number and size of the passive components
- Supports DiSEqC 1.x and DiSEqC 2.x

WINIX

Sector : Electrical and electronics
Sub-sector : Home appliances and electronic applications
CEO : Yoon Hee Jong, Yoon Cheol Min
Founded : 1973. 9. 1
Employees : 449
Homepage : www.winix.com/kr
Sales : \$ 334 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

WINIX Co., Ltd. is a company specializing in environmental home appliances with the vision of 'Promoting the health of mankind through clean and pleasant environment'. After solidifying the foundation of manufacturing industry through source technology of heat exchange system since its establishment, it continues to achieve technological development. In the 2000s, it has witnessed development through KOSDAQ listing and brand businesses. Based on outstanding technologies such as plasma wave, clean cell, noise wall technology, it is expanding the areas of business into all fields of home appliances, from WINIX Pposong, the best-selling dehumidifier in Korea to air washer, air purifier, water purifier and fan heater.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 sales in dehumidifier in Korea



- Tumble washing machine & dryer
- Air purifier Tower Prime
- Air purifier Master S
- Air purifier Zero S
- 'Pposong' dehumidifier
- Olbareun humidifier

WONIK PNE

Sector : Electrical and electronics
Sub-sector : Batteries
CEO : Park Dong Chan
Founded : 2004. 3. 16
Employees : 402
Homepage : www.wonikpne.com
Sales : \$ 147 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

WONIK PNE provides solutions customized to client companies based on secondary battery back-up equipment business that is comprised of Formation equipment and secondary battery inspection and testing equipment among the production processes of secondary batteries, green energy industry through EV charging infrastructure, EV electronic devices and EV charging infrastructure, electronic products and battery pack and ESS, new and renewable energy conversion device business, PCR for power plant's excitor and rectifier for various industries. In 2020, it came part of WONIK Group, strengthening business competence such as R&D with the objective of becoming global world-class company.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Leading company in Korean secondary battery charge/discharge equipment



Secondary battery charge/discharge equipment

Formation and inspection equipment for the production of secondary battery

ESS

Energy Storage System

Power supply device

Power supply device for power plants and industries

Wooriro

Sector : Electrical and electronics
Sub-sector : Optic device
CEO : Park, Se-chul
Founded : 1998
Employees : 135
Homepage : www.wooriro.com
Sales : \$ 88 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

WOORIRO supplies optical devices for the use of long-distance LRF/LiDAR, quantum cryptography, FTTx, high-speed optical communication all over the world. WOORIRO successfully developed single photon detection technologies with very low DCR noise and high SPDE, based on InGaAs APD technologies to detect SWIR wavelength. WOORIRO also offers various InGaAs PD/ROSA and PLC-Splitters essential for fiber optic networks.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Solid-State Photo-Multiplier



Wooriro's InGaAs SSPM(Model WSSPM - Wooriro Solid-State Photo-Multiplier) consists of an array of hundreds of Negative Feedback Avalanche Diode(NFAD) chips as the pixels of SSPM. This device can be used as a photon number resolver(PNR) because each pixel detects single photon. By these reasons WSSPM can be used as a receiver for very long-range LiDAR/LRF or ultra-sensitive receiver sensor such as gas or bio sensor.

- Made by self-designed and manufactured InGaAs SSPM chip
- Very high SPDE(Single Photon Detection Efficiency) higher than 20%
- Very low DCR(Dark Count Rate) Noise less than 25MHz (@ 20% PDE)
- High fill factor(FF) reaches up to 80% and 800um light-receiving diameter.
- 6-pin TO8 package with built-in 3-stage TEC

LRF receiver

Wooriro's Laser Rangefinder(LRF) Receiver (Model : WDR110) is eye-safe LRF receiver that provides high sensitivity at eye-safe wavelength range. CMOS IC is launched for more complex performance and compactness. Single FR4 PCB and standard TO8 package provides a low cost solution for eye-safe LRF receiver.

- 5ns ~ 28ns input pulse
- Sensitivity : 10nW (@5ns optical pulse, $\lambda=1550\text{nm}$)
- Wide dynamic range : 1:55,000
- 200um InGaAs APD
- Providing TPG mode



Single Photon Avalanche Dode



Wooriro's InGaAs SPAD(Model : WSPAD - Wooriro Single Photon Avalanche Diode) shows ultra-low DCR(Dark Count Rate) noise and very high single photon detection efficiency(SPDE). A photo-generated carrier is multiplied millions of times through avalanche multiplication processes. By these reason, it can be used as a detector for quantum cryptography, very long-range LRF and ultra-sensitivity gas or bio sensor.

- Self-designed and manufactured InGaAs SPAD chip to detect 950nm~1650nm wavelength
- Single and multi-mode fiber pigtail
- Operable up to GHz Gating frequency
- Built-in 3-stage TEC
- Very high SPDE : 30-40% (DCP/gate < 10ppm)
- Very low dark count rate : DCP/gate \leq 1 ppm (@ 30% SPDE)

PLC Splitter module



Wooriro's PLC Splitter module has one or two input port(s) and multiple output ports for the division of an optical power. Wooriro's Splitter features a highly compact package size and stable optical parameters, making them ideally suitable for Telecom, local area networks(LAN) and cable television(CATV) networks.

- Vertically integrated Manufacturing in-house & core technology
- Superior optical performance in full operating wavelength range
- Flexible and versatile for all application
- Telcordia GR-1209-CORE and GR-1221-CORE qualified.

WORLDDEX Industry & Trading

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Bae Johng Sik
Founded : 2000. 1. 17
Employees : 283
Homepage : www.worlddexint.com
Sales : \$ 158 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Worldex is a manufacture of Si-Parts and Quarts-Parts used in etching process among components for semi-conductor process. Recently, it has expanded its business areas into Fine Ceramics such as Al₂O₃, SiC and AlN with the aspiration of becoming a global Innovation Pioneer & Value Creator in the field of material components for semi-conductor process. Along with production facilities in Gumi, Gyeongbuk and Silicon Valley in USA, it has sales offices (Yongin, Gyeonggi and Wuxi, China) and sales companies (Japan, Taiwan, Singapore), supplying products to over 200 semi-conductor companies in 8 countries around the world.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Si-Parts

As core consumable components of Plasma Etching process, they have direct impact on plasma production, etch rate, uniformity and others



Quartz-Parts

As core consumable components of Plasma Etching process, they play the role of plasma formation, pressure control and position control



Fine Ceramics

(SiC, Al₂O₃, AlN)

Customized products required for various semi-conductor manufacturing processes, considering physical characteristics such as heat, chemical and electricity

XAVIS

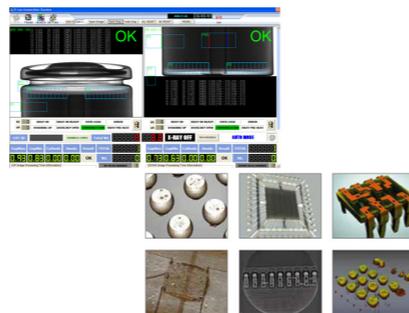
Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Hyeong-cheol Kim
Founded : 2002
Employees : 121
Homepage : www.xavis.co.kr
Sales : \$ 12 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

XAVIS is responsible for industry-wide safety. This is the place to go when you need an internal safety check that is not visible around you. As a pioneer in high-speed in-line X-ray inspection machines, we are a company that manufactures and sells high-speed 2D/3D automatic inspection machines for food, batteries, semiconductors/PCBs, and luggage. We can detect the faulty of EV batteries. We can inspect that food is safe. We can see defects in electronic device. If you want to make sure everything is good and safe, XAVIS is here to help.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



2D/3D Inspection

The XAVIS X-Ray inspection system is capable of high-speed inline 2D/3D inspection for accurate and rapid inspection.

- High-speed 2D inspection process
- 2D/ 3D Hybrid Process
- High Speed 3D Auto Reconstruction

X-ray Inspection System

XAVIS X-Ray Inspection Systems provide automated, high-speed, in-line inspection equipment for industry-wide safety.

- Cylinder/ Pouch Type Battery High-Speed Inline Inspector
- High-speed food inspection machine using dual energy
- Semiconductor package internal defect inspection machine
- PCB SMT internal defect checker
- Die-casting mold injection internal void inspection machine

Yeonhab Precision

Sector : Electrical and electronics
Sub-sector : Other electrical and electronic parts
CEO : Kim In-Sool
Founded : 1980. 6. 2
Employees : 432
Homepage : www.yeonhab.co.kr
Sales : \$ 77 million
Listed :
Qualified* : World Class

Introduction

Since it was established in 1980, Yeonhab Precision has positioned itself as the No. 1 national defense product company with its localization technological competence. Besides being designated as a global hidden champion in the national defense industry in Korea, it has continued to develop into a hidden champion of export, by exporting its products to 30 countries in the world, including USA, France, Israel and Japan. Yeonhab Precision, as an exclusive leader is writing history of growth innovation, loved by its customers.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Cable Assembly

Product that is equivalent to vessels of a weapon, supplying various signals and power to the national defense weapon systems



MIL standard connector

Connector for special military equipment that is used for signal connection of weapon devices and plants

IP type of intercom

As an IP-based intercom, it enables voice communication and data communication, it is a communication device that is connected to other IP-based equipment



YEST

Sector : Electrical and electronics
Sub-sector : Displays
CEO : Jang Dong Bok, Kang Im Soo
Founded : 2000. 3. 6
Employees : 243
Homepage : www.yest.co.kr
Sales : \$ 60 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

YEST is a manufacturer of heat transfer equipment and owns exclusive source technologies regarding heat transfer equipment. Business areas are distributed evenly throughout display, OLED, semi-conductor, environmental material parts and YEST is growing into a total equipment provider by investing in businesses with high added value, such as plasma and laser equipment.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Display equipment

Furnace(FAST, MAST), IR Oven, TFE Bake Oven, TCU, MASK VCD, VDO, Autoclave, Cell Bake



Semi-conductor equipment

PI Furnace, Auto Bake(EDS), Pressurization Cube, Device Tester, Aging Chamber, Chiller



Environmentally safe material parts

Heating Jacket, Clean Hood, Burn-in-Board, Zener Diode

Yujeong System

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Jaehoon, Yi
Founded : 2001
Employees : 90
Homepage : www.yjsys.co.kr
Sales : \$ 35 million
Listed :
Qualified* : ATC

Introduction

YUJEONG SYSTEM is developing equipment to test memory and storage semiconductor devices, and it can be configured in the most similar form to the actual final product environment to detect expected issues with smartphones and tablets in advance.

Aiming to be a global smart device platform technology provider, we provide the best hardware design and mobile OS technology for the development of smart devices, reducing development costs and time to market.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



1-Para Memory Test Board

- Producing specialized boards needed by memory manufacturers based on AP Reference boards. (Provides socket structure, VCC/VDD variable function, etc.)
- After Memory manufacturers conduct AP consistency and preliminary tests in terms of Device margin, they supply them to product manufacturers.
- Reducing defects effect after market launch

128-Para Auto Handler

- Apply handler design so that multiple memories can be tested at the same time (128 memories can be mounted & tested at the same time)
- It is possible to test the operating temperature of the final product considering smartphone, vehicle infotainment, electric system, etc.
- It supports temperature tests at -40 to 125°C as a direct contact type that applies temperature to the memory package



Zeus

Sector : Electrical and electronics
Sub-sector : Semiconductor equipment
CEO : Lee Jong Woo
Founded : 1970. 3. 1
Employees : 664
Homepage : www.globalzeus.com
Sales : \$ 334 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Zeus supplies wet process equipment which is core equipment in semiconductor and industry industries, thermal processing equipment, logistics equipment and SW for centralized control of such equipment. In addition, Zeus is acting as a Total Solution Provider from ingredients that are essential for process to core industry parts and robots.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

1st place in the world market for FDP plate type of heat treatment device (HP/CP)



- Wet cleaning and etching equipment for semiconductor
- Thermal process equipment for FPD
- Industrial robot



ZINITIX

Sector : Electrical and electronics
Sub-sector : Electrical and electronic parts
CEO : JongMan Sohn
Founded : 2018. 6. 26
Employees : 80
Homepage : www.zinitix.com
Sales : \$ 32 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Zinitix is engaged in the development and mass production of various semi-conductors such as Touch Controller, AF Driver, Haptic, Motor, Power Driver IC, Fintech IC based on continuous R&D since its establishment as a System IC expert. Products are applied to various fields, such as mobile devices including smart phones and tablets, Note-PC, Home Appliance and Automotive. Zinitix aims to become a Global System IC Leader, providing the best products and services through relentless innovation and leading technologies.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ Global System IC Leader

1st place in the world market of wearable touch IC

SMART WATCH



KIDS WATCH



BAND



KORIL
Directory of
Outstanding Korean
Companies

05

Energy
and
resources



AVACO

Sector : Energy and resources
Sub-sector : Renewable Energy
CEO : Kim Kwang-Hyun
Founded : 2000. 1. 16.
Employees : 360
Homepage : www.avaco.co.kr
Sales : \$ 150 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

AVACO Co., Ltd. seeks to develop into a manufacturer specializing in core equipment for Flat Panel Display (FPD) through endlessly R&D and technology innovation. Moreover, it is expanding the business areas into solar cell and flexible display which are gaining attention as the next-generation industries, centered on the accumulated knowledge in vacuum thin-film vapor deposition technology and system engineering technology.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 3 in the world

No. 1 in Korea



Sputter equipment

Equipment that forms thin-film for processing dry type of coating work using sputtering technology



FNC Technonology

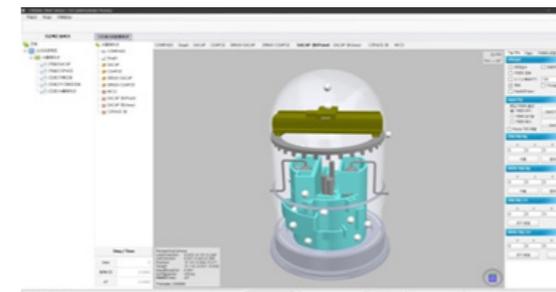
Sector : Energy and resources
Sub-sector : Nuclear power
CEO : Lee, Byung Chul
Founded : 2000
Employees : 109
Homepage : www.fnctech.com
Sales : \$ 17 million
Listed :
Qualified* : ATC

Introduction

Founded in 2000, FNC Technology Co., LTD. is a growing engineering company with bold visions to provide technical services and engineering solutions of the highest level for the Korean nuclear society and beyond. Over the years, FNC has achieved the professionalism and built up experiences in various nuclear engineering, such as safety analysis, severe accident analysis, risk assessment, and the design of safety systems in nuclear power plants. FNC members strive to lead the advancement and innovate ourselves to improve our engineering capability for enhancing the safety and the peaceful uses of nuclear energy.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

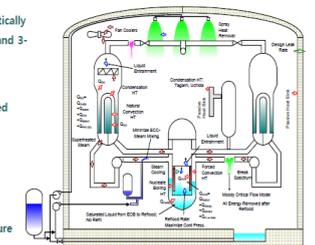


Severe Accident Analysis Service

- Expert competence of severe accident analysis codes
 - MAA, MELCOR, GOHIC, TEXAS-V, LS-DYNA
- Development of severe accident analysis code
 - Unique severe accident code for containment analysis
- Development of Severe Accident Management Guidance (SAMG)

Code Characteristics

- Technique-independent code developed domestically
 - Using state-of-art technique including 3-fields and 3-phases
 - Coupling with SPACE(system code developed in Republic of Korea)
 - Capability of both multi-dimensional and lumped parameter analysis
- Applicable Fields
- Design pressure/temperature
 - ECCS efficiency
 - Subcompartment
 - Long-term containment pressure and temperature



Thermal-Hydraulic Design and Analysis Service

- Thermal hydraulic design and analysis by designing and performing experiments, performing analysis with industry standard codes, and modeling of phenomena in NPP.
- Development of CAP (Containment Analysis Package)
 - code to analyze the thermal-hydraulic behavior of NPP containment.
- Containment integrity evaluation
- Verification test of thermal hydraulic system in NPP

NuriFlex

Sector : Energy and resources
Sub-sector : Smart grid
CEO : Kim Young Duk
Founded : 1994. 4. 18
Employees : 140
Homepage : www.nuritelecom.co.kr
Sales : \$ 71 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

NuriFlex, as Korea's representative company specializing in energy IoT, is engaged in core business in the fields of smart grid and IoT, building national-scale intelligent power network, based on technological competence and business performance accumulated over 30 years and is implementing Green New Deal Projects such as building smart power platform for households.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 market share in Korean AMI market

Advanced Metering Infrastructure, AMI

Solution that measures the amount of energy used and performs statistical analysis based on IoT-based wired and wireless communication S/W

Micro Grid Solution

Offers EMS, ESS and renewable energy convergent solutions



KORIL
Directory of
Outstanding Korean
Companies

KORIL
Directory of
Outstanding Korean
Companies

06

Information
and
communication



Aim System

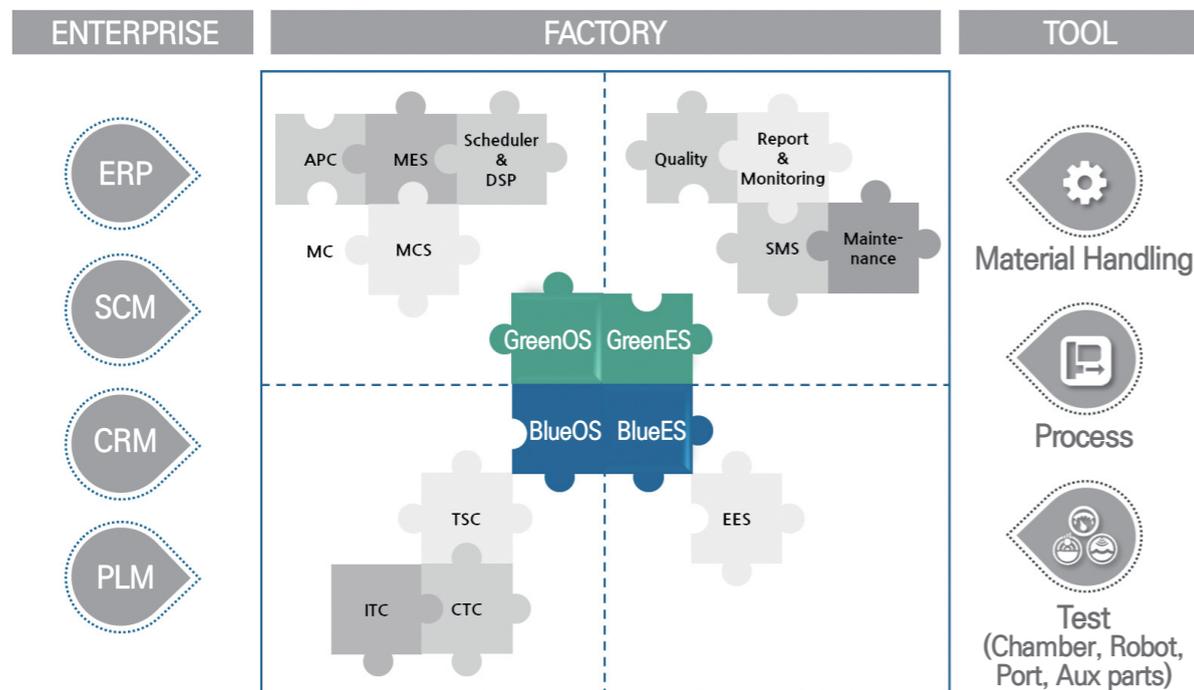
Sector : Information and communication
Sub-sector : Software
CEO : Park Euisu
Founded : 1996. 2. 7
Employees : 274
Homepage : www.aim.co.kr
Sales : \$ 42 million
Listed :
Qualified* : World Class

Introduction

Aim System, as a company with national core technology designated by the Minister of Trade, Industry and Energy, is a Global No. 1 automation solution provider in the fields of semi-conductor and display plant and equipment. By developing automation solutions for semi-conductor and display fields as well as general small and medium sized manufacturing plants and service industries, it is leading the national 3.0 project for innovation in manufacturing industry. Following the expansion of application scope of automation solutions, it has set the development of intelligent solutions for plants by applying technologies like AI and Big Data as the main development direction, paving its path to becoming a global company leading the new industrial revolution.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Provision of industry automation solutions and services

Semi-conductor, display, LED, solar power, PCB, chemical, electronic assembly, electronic parts, automobile parts and others

Alticast

Sector : Information and communication
Sub-sector : Software
CEO : Kim Tae Hoon
Founded : 1999. 2. 1.
Employees : 135
Homepage : www.alticast.com
Sales : \$ 30 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Since its inception in 1999, Alticast has pioneered the most developmental and innovative broadcasting service in the world as a global leader of TV software field. Alticast provides set-top box that is being used by 2.5 billion viewers around the world, along with a software solution equipped with digital broadcasting device, as well as total service and its numbers are on the rise continuously.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

- 3.2% market share in the world
4th place in CAS sector
- 83% domestic market share
1st place in middleware sector
- 60% domestic market share
1st place in CAS sector

Alti Platform

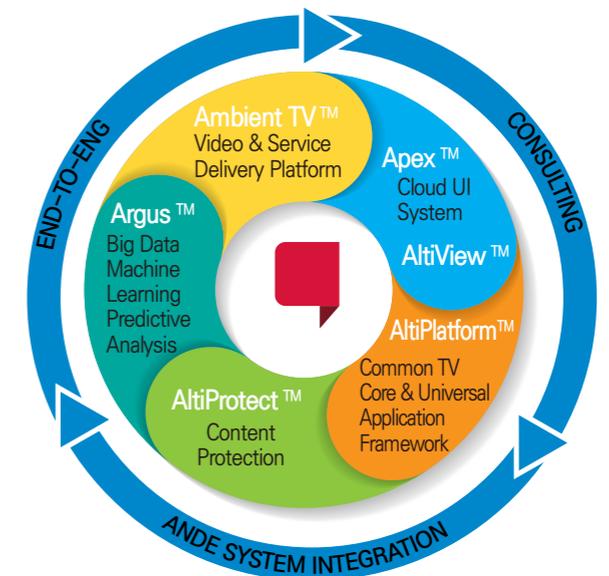
Owns key products of media service security and leading technology in various fields such as CAS, DRM Multi-DRM, UHD-HDR contents protection, IoT security, AI-based hacking detection technology

Alti View

Provides UI-UX solution that designs the graphic screen and composition reproduced in TV

Alti Protect

Provides security solutions such as CAS·DRM which are essential for contents security management for pay broadcasting business operators



Aurora World

Sector : Information and communication
Sub-sector : Digital contents
CEO : Hong Gi Seon, Noh Jae Yeon
Founded : 1981. 9. 1
Employees : 148
Homepage : www.kor.auroraworld.com
Sales : \$ 148 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

As an exporter of character stationeries, Aurora World has undergone transformations under the motor of pursuing first-class quality and globalization. Based on the slogan of 'Gift of Smile', it is oriented towards becoming a global character and contents company.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Global toy brand

Luxe Boutique, Eco Nation, Teddy Pet, Miyoni, Palm Pals, Ebba, PomPom, Sea Sparkles, etc.

Domestic toy brand

Shinbi Apartment, Molang, Snap Ships, Bururu, TOMONCAR, Tish Tash, Jurassic Cops, Miyoni, etc.

Contents brand

YooHoo and Friends, YooHoo to the Rescue

No. 2 brand awareness in USA in 2011 (USA Gift Best Magazine)



Bluebird

Sector : Information and communication
Sub-sector : Mobile communication
CEO : Lee Jang Won
Founded : 1996. 12. 16.
Employees : 207
Homepage : www.bluebirdcorp.com
Sales : \$ 44 million
Listed :
Qualified* : World Class

Introduction

Bluebird, as a Global Top 3 and the representative company in Korea that provides total solution in all fields of industrial mobile devices since its establishment in 1995, is the only company in the world that simultaneously offers automatic recognition, payment, industrial tablet PC fields simultaneously. Currently, the products are being used in all the industries in all the countries around the world, through more than 10,000 work programs of over 3,000 client companies, over 600 partner companies in over 120 countries in the world, enhancing work efficiency and performance.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Secured more than 600 partner companies and 3,000 client companies in **120** countries around the world



Mobile computer

Supports accurate data collection and management required for improving productivity and efficiency

Payment terminal

Guarantees quick and safe credit card payment anytime, anywhere



Business tablet

As a corporate tablet designed for business, it contributes to innovating customer services

ChemOptics

Sector : Information and communication
Sub-sector : Information and communication /modules and parts

CEO : Hyung-Jong Lee

Founded : 2005

Employees : 137

Homepage : www.chemoptics.co.kr

Sales : \$ 34 million

Listed :

Qualified* : ATC

Introduction

ChemOptics Inc. designs, manufactures and markets high quality optical components for the optical communications on the basis of advanced waveguide technology and innovative process. Since the establishment in April 2005, we have been continuously presenting unique products, which exhibit indisputable advantages on cost effectiveness, reliability, highly integration, and scalability.

The current products are Variable Optical Attenuator(VOA), Tunable SFP and integrated devices based on these components. All of these products are electrically controlled and have no moving parts resulting higher reliability and agility control. Moreover, we have been continuously improving and simplifying design and manufacturing technology to satisfy the needs of our customers in terms of cost, quality, and delivery.

* Refer to 396p for detailed information about ATC, and World Class



Main Product



VOA

ChemOptics VOA is a compact variable optical attenuator that provides low insertion loss, a small footprint, and extremely high reliability. Based on polymer planar lightwave circuit(PPLC) technology and unique operating principle, this VOA delivers more than 25 dB of dynamic attenuation range with less than 20 mW of power consumption per channel and can be easily scaled to multi-channel VOA. With outstanding features and excellent price-performance ratio, it provides special advantages in metro and DWDM networks.



Tunable SFP

ChemOptics tunable optical SFP transceiver is the most cost effective tunable pluggable transceiver for both C and L bands in the market. It supports data rate up to 10 Gb/s required in the NG-PON2(TWDM-PON or WDM-PON) for the next generation optical access networks.

COMMAX

Sector : Home Network

Sub-sector : Home Network

CEO : Byeon Woo Seok

Founded : 1968. 4. 1

Employees : 181

Homepage : www.commax.com

Sales : \$ 118 million

Listed : KOSDAQ

Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class



Main Product

Introduction

COMMAX, the first company in Korea to be certified as 'Time-honored Business' was also the first venture company established in 1968. It has been leading the global standard in the smart home industry for the past 53 years. From the first export in its initial stage in 1973, it is currently exporting products to over 120 countries around the world. Currently, it is generating the new industrial category and market by launching A.I.Home products and systems.

Domestic

No. 1 Home Network No. 1 Videophone

A.I. Home Solution:

Provides the smartest living services to all living environments in South Korea

Home security system:

Provides remote monitoring from smart phones and high image quality monitoring for homes, industrial sites, commercial facilities and financial facilities

Video phone series:

World-class product for 16 consecutive years designated by the Ministry of Trade, Industry and Energy

Interphone series:

Global best-seller offering internal communication and access management in detached houses, villas, offices and commercial facilities



DOCTORSOFT

Sector : Information and communication
Sub-sector : Software
CEO : Hong Yunhwan
Founded : 2000
Employees : 56
Homepage : www.doctorsoft.co.kr
Sales : \$ 5 million
Listed :
Qualified* : ATC

Introduction

DOCTORSOFT is a software asset management developing company. It centrally manages and operates the entire life-cycle from introduction to disposal of various software (Installed, Floating, SaaS, Node-lock etc).

* Refer to 396p for detailed information about ATC, and World Class

Main Product



NetClient

NetClient is the best suitable integrated PC management solution for enterprise IT environment.

Based on the integrated platform, We provide asset management, patch management, and security management modules and add-ons.

- For a 1:1 match of real assets, asset management using Unique Key System(S-KEY)
- Illegal software management / Software installation pre-blocking
- PC equipment and hardware management
- Helpdesk and remote control

SLIMsystem

SLIM is design & engineering Software analysis management solution. Analyze the actual usage of network licenses and Stand-alone licenses. We reduce TCO by reclaiming unused licenses and eliminating software that is not required.

The following are management functions by type of software.

- Installed SW : Control an illegal SW, Block off an unauthorized SW
- Subscription, SaaS : Analyze a SW usage & current status
- Dongle, Node-Lock : Return a dormant license
- Floating : Retrieve a idle license (Non-operating)



EMW

Sector : Information and communication
Sub-sector : Home appliances and electronic devices
CEO : Seung-Jun Lee
Founded : 1998
Employees : 95
Homepage : www.emw.co.kr
Sales : UNDISCLOSED
Listed :
Qualified* : ATC

Introduction

- RF and antenna design technology optimized for products
- Various processing techniques – LDS (Laser Direct Structure) / LCA(Laser Direct Structuring on Case) / IMA(Insert Molding Assembly) Ferrite Sheet / Nano-Sheet / DPA(Direct Printing Antenna) / LTCC / PCB / FPCB
- Nano Platinum Sterilization System technology for removes viruses, bacteria and allergens in the air

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Antenna & RF

Mobile Antenna Division
 : NFC / WPC / MST / UWB / LTE / 5G / Wifi etc.

Electrification Division
 : Vehicle Antenna & RF Solution / Wireless Transceiver / Radar Antenna & RF Module etc.

Military / Aerospace Division
 : Multiband Antenna / Nosecone Antenna / Satellite Antenna / Broadcasting Antenna / Low RCS Antenna / Conformal antenna etc.

CLARO DUO Air Sterilizer

1. Nano Platinum Sterilization System
 Our technology removes viruses, bacteria and allergens in the air using the Nano Platinum Sterilization Filter
2. 3 Step Air Cleaning System
 A complex air purifying system with 3 filtration level (Free Filter - Deodorizing filter - Dust Collecting Filter)
3. Automated Pollution Sensing System



ENGSOFT

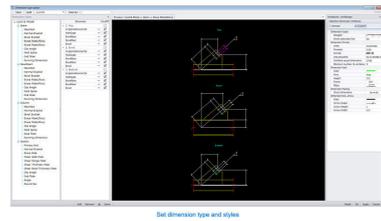
Sector : Information and communication
Sub-sector : R&D/Engineering service
CEO : SEONG GON KIM
Founded : 2011
Employees : 15
Homepage : www.engsoft.kr
Sales : \$ 11 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

In July 2011, ENGSOFT Co., Ltd. has developed a proven system that can satisfy various service requirements in the design, manufacturing, construction, and maintenance fields of the overall domestic and global construction industry. And through this, it has been leading the IT informatization in the field. In addition, in line with the rapidly changing technological change of the 4th industrial revolution, we are dedicated to the development of construction ICT convergence technology that combines BIM, GIS, and ERP technologies. Recently, through various R&D research, various products using CNT materials are being developed, and a building monitoring system is being developed through RFID.

Main Product

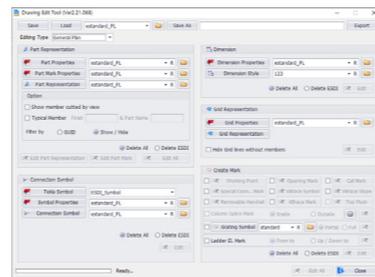
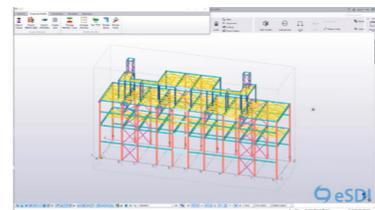
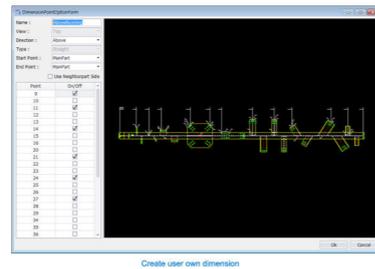


DAS(Drawing Automation System)

DAS was developed to automate the drawing editing task, which takes the most time and manpower, in the production of steel structures using Tekla. It is a system that reduces the drawing editing time by automating all the drawing editing tasks in the steel frame production process and guarantees perfect drawing quality and reliability by standardizing the drawing editing style.

eSDI(enhanced Structural Design Integration)

As a 3D design automation system for plant structures, it is possible to 'automatically create 3D structural models' and 'automatically edit structural drawings' using structural analysis information (Staad.Pro, Sap2000, Midas Gen). In addition, it provides an advanced structural design process and design change management system (analysis data ↔ 3D structural model ↔ structural drawing) by providing a user environment that reflects practical experience and an automation function for resolving repetitive design tasks. User's convenience is enhanced by providing automatic 3D model generation and PDS, PDMS, SP3D and model data interfaces.



ESSYS

Sector : Information and communication
Sub-sector : ITS/Telematics
CEO : Kim Yong Beom
Founded : 2005. 8. 31
Employees : 459
Homepage : www.essys.co.kr
Sales : \$ 105 million
Listed :
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

ESSYS is enhancing its status as a manufacturer specializing in electronic communication systems, researching, developing and producing automotive electronics, such as car multimedia, telematics and ITS.

Main Product

- Committed to becoming a mid-sized company that develops/produces future components in 5 sectors; eco-friendly, autonomous vehicle, shared car, wireless communication and FOTA, in line with the future of cars

Electrified

ECF and VCU products are eco-friendly automotive products developed for electrification and electric vehicles

Autonomous

Technologically developed products in association with autonomous driving that does not require people's interference

Connected

Product developed to enable bilateral communication in network and traffic infrastructure at all times by converging automobile and IT technology



Hancom

Sector : Information and communication
Sub-sector : Software
CEO : Byeon Seong Jun, Kim Yeon Soo
Founded : 1990. 10. 11
Employees : 365
Homepage : www.hancom.com
Sales : \$ 326 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Based on the world's one and only native language-based 'Hancom Office', a significant contribution has to be made to the development of domestic software industry through R&D on software products. It aims to develop into a total ICT convergent company through never-ending investment in R&D, business diversification and synergy effect with group companies.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Hancom Office

From Korea's No. 1 Office to worldwide Office and beyond

Hancom Office Mobile

Fast and convenient document creation, anytime, anywhere

Hancom Office Web

Web Office Solution optimized to Cloud environment

Hancom Cloud

Linux-based open OS

HNT Electronics

Sector : Information and communication
Sub-sector : Information and communication modules and parts
CEO : Song Young Sik
Founded : 2008. 10. 6
Employees : 19
Homepage : www.hntelec.com
Sales : \$ 3 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

The main products of HNT Electronics, a manufacturer specializing in camera modules, include camera modules for entry-level smartphones, such as Samsung Galaxy A, J series and camera modules for tablet PCs, offering a wide variety of ranges, from low-resolution camera modules for front and rear to high resolution camera modules. There is a local production base in Dongguan, China and Hoa Binh, Vietnam respectively and HNT Electronics is growing into a market leader, along with continuous growth based on cost competitiveness through equipment automation and others as well as continuous growth based on stable yield through high manufacturing technical excellence.

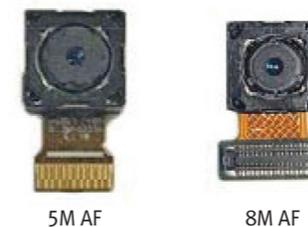
* Refer to 396p for detailed information about ATC, and World Class

Main Product

Front camera module



Rear camera module



INFAC Electrics

Sector : Information and communication
Sub-sector : Information and communication modules and parts
CEO : Choi Oh Gil
Founded : 2004. 11. 1.
Employees : 170
Homepage : www.infac.com
Sales : \$ 105 million
Listed :
Qualified* : Wolrd Class

Introduction

INFAC Electronics Co., Ltd. was the first to localize various automotive antennas, such as micro antennas, GLASS antennas and LF antennas which the domestic automobile manufacturers used to rely 100% on overseas and is currently mass producing the products. It has also taken a firm position as a domestic market leader in the field of automotive antenna through continuous research and development. Our dedication to market diversification, new product development and expert fostering has contributed to becoming the best beyond Korea, proudly ranking TOP 5 in the world's antenna field and is striving to develop into a system and module company.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



5% market share overseas **8th place**

45% domestic market share **1st place**



As a manufacturer of automotive antennas, the company is focused on developing and producing not only antennas for radio reception such as full type loop antenna and glass antenna but also integrated type of antennas equipped with antennas that can receive various signals such as DMB, GPS, XM and HSDPA, besides AM/FM

Intellian Technologies

Sector : Information and communication
Sub-sector : Satellite-Radio
CEO : Seong Sang Yeob
Founded : 2004. 2. 5
Employees : 352
Homepage : www.intelliantech.com
Sales : \$ 115 million
Listed : KOSDAQ
Qualified* : Wolrd Class

Introduction

Intellian Technologies Co., Ltd is a KOSDAQ listed company that develops and manufactures satellite communication antennas and solutions. Through over 10 global offices in USA, UK and Netherlands, products are being supplied to over 550 global customers across the world and currently, more than 70,000 units of satellite antennas have been installed for use.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

1st place in the world for maritime satellite communication antenna sector



Satellite communication and TV antennas are the main products. With sizes varying from as small as 38mm to as big as 2.4m, the product line-up includes products that can be used in frequencies such as Ku, Ka, L band and in multiple orbits such as GEO/MEO/LEO, so the products are being used in various markets, such as merchant ships, cruise ships, energy, fishing ships, leisure, military/government and terrestrial use.



KAON Media

Sector : Information and communication
Sub-sector : Digital broadcasting
CEO : Lim Dong Yeon
Founded : 2001. 5. 11.
Employees : 279
Homepage : www.kaonmedia.co.kr
Sales : \$ 444 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Established in 2001, KAON Media operates media, network equipment/SW, mobile IP/platform businesses based on AI solutions targeting all the countries around the world. Through proactive advancement into the global market, it currently provides AI total solutions to over 150 telecommunication business operators in 90 countries.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Terminal/Middleware/Management solution

End to End solution from hardware for various terminals to maintenance depending on telecommunication services



AI-based Smart Home Platform

Home IoT platform technology based on voice recognition
 Provision of entertainment such as Linear TV, VOD and music

85% domestic market share

1st place in the AI terminal market

3% market share in the world

No. 6 IP/hybrid



Gateway/Service Platform/Solution

Development and provision of next-generation wired/wireless network for 'Connected Home'
 Open Standard platform with unified standard
 5G convergence service (5G + WAN to WI-FI gateway)

KMW

Sector : Information and communication
Sub-sector : Information and communication modules and parts
CEO : Kim DuckYong
Founded : 1988.01.08
Employees : 399
Homepage : www.kmw.co.kr
Sales : \$ 171 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

KMW Co., Ltd. invests more than 10% of its sales in R&D annually and owns the most number of patents among Korean RF companies, with core technologies covering 1st generation analog wireless communication to 4th generation LTE. By building a consistent production system of design-development-manufacturing, KMW developed various wireless communication products, from basic RF Components to Unit-Sub-System, supplying them to global major companies and has become a global player in the field of wireless communication with extensive technical expertise.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



RRH (Remote Radio Head)

As a transmitter-receiver equipment for telecommunication base stations, it offers wireless network and handset connection and control



RRA (Remote Radio Antenna)

Equipment equipped with antenna which is a final end equipment for transmitting and receiving RRH and cable signal as wireless signal

MMR (Massive MIMO Radio Unit)

Radio Unit applied with 5G core technology that enhances transmission capacity and speed by using multiple transmitting and receiving antennas



NAONWORKS

Sector : Knowledge information security
Sub-sector : Software
CEO : June-Kyoung Lee
Founded : 2007
Employees : 37
Homepage : www.naonworks.com
Sales : \$ 4 million
Listed :
Qualified* : ATC

Introduction

NAONWORKS provides connectivity and cybersecurity to industrial control systems (ICS) and OT domains. It offers a unidirectional security gateway, an industrial gateway for data acquisition, and an industrial protocol DPI(Dep Packet Inspection) solution. It specializes in technology for identifying and inspecting industrial network protocols. This strength allows NAONWORKS to provide complete insight into industrial OT networks and secure connectivity within OT/ICS and between OT domains and IT domains.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



CEREBRO-DD (Unidirectional Security Gateway)

NAONWORKS Unidirectional Security Gateway CEREBRO-DD provides unidirectional data transmission from protected networks such as OT networks to less secure external networks. Since there is no return path to the data source, the protected network is safe from external security threats. CEREBRO-DD has various references to data centers, power plants, dams, transportation systems, etc., and supports industrial protocols such as OPC-UA/DA and Modbus as well as media/file/log/event transfer protocols.

CEREBRO-C

NAONWORKS CEREBRO-C provides seamless communication between devices using different industrial protocols. It supports device data collection by converting various protocols to standards. Users can easily adopt standard protocols such as OPC-UA without network changes. It supports almost all OT and IT protocols and can be based on Windows/Linux/Container(Docker).

Innertron

Sector : Information and communication
Sub-sector : Communication Module and Parts
CEO : HakRae Cho
Founded : 2002
Employees : 116
Homepage : www.innertron.com
Sales : \$ 31 million
Listed :
Qualified* : ATC

Introduction

We Innertron are more than 20 years of Global RF & Microwave components and RF systems solutions engineering professionals in the Telecommunications, Digital Broadcasting, Infrastructure, Defense, Measuring Equipments with commitment to "beyond satisfaction for the customers" in Japan, USA and Europe, anywhere. Our RF Components include nearly all types of filter products covering BPF & BRF, Duplexer, Combiner, Power Divider, TMA and others. RF System products cover RF repeater, PSR (Public Safety Repeater) & in-building DAS.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

RF Components

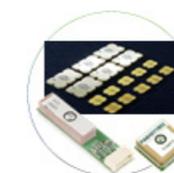
Effectively block interfering signals in complex electromagnetic-wave environments for better call quality. [BPF / BRF / Duplexer / Power Divider / Combiner / Other RF accessories]

- Low-loss and miniaturization technologies
- Optimal solutions to customer's needs for smart designs
- CAPEX and OPEX reduction.



Ceramic Components

Ceramic components mainly used as antenna components for automobiles and network devices, applying to ceramic filters, patch antenna GPS antenna modules, LTCC products (Delay Lines, 3dB Hybrid Coupler, multilayer chip antennas, multilayer filters, directional couplers), and dielectric resonators.



- Patch antenna is a passive antenna enabling to receive GPS satellite signals, applying to automotive shark type antenna. Custom designs available, GPS and GLONASS band, SXM band, etc.
- LTCC process (using low temperature simultaneous firing) is applied to development and manufacturing of communication component couplers, directivity, delay lines, multilayer chip antennas, and multilayer filters
- Antenna module combines GPS satellite signal reception with Low Noise Amplifier (LNA). GPS antenna module for navigation and external GPS active antenna is developed and manufactured.

RF Systems

Innertron RF repeater, providing an effective RF coverage solution for the indoors and outdoors by adopting interference cancellation. Best fit for as below.

- Remote outdoor areas of rural areas, highways, mountains and coastal areas
- Urban areas such as back of buildings and the passageway between buildings
- Harsh indoor areas, such as parking lots, different underground

Innertron's DAS, providing in-building wireless coverage and capacity while deferring costs by deploying what you need today and adding bands or sectors in the future when you need them. Modularity also protects your investment from technological changes like the 4G to 5G migration

Innertron's PSR (Public Safety Repeater), providing a standalone solution for small and medium buildings. In larger venues, the Innertron public safety DAS remotes extend coverage to any size structure.



ONYCOM

Sector : Information and communication
Sub-sector : Software
CEO : Lee Suk Ho
Founded : 1998
Employees : 318
Homepage : www.onycom.com
Sales : \$ 19 million
Listed :
Qualified* : ATC

Introduction

ONYCOM is a company that specializes in the development and distribution of Total ICT Solution & Service in line with the era of Digital Transformation ▶ IMQA (Mobile Performance Management Solution) thoroughly monitors all the layers of a mobile application. ▶ Onycom's big data solution called "ankus" supports easy functions for beginner data analyzers to use. ▶ Onycom provides quality verification and management services based on international standards. (ISO/IEC/IEE 29119)

* Refer to 396p for detailed information about ATC, and World Class

Main Product

IMQA IMQA

'IMQA' is a Mobile performance management solution.

- IMQA MPM is a mobile performance management solution that can be analyzed at the source code level. Monitors all layers of mobile at the source code level, quickly identify and enhances app performance to improve customer satisfaction.
- IMQA Crash can collect data without distortion and quick analysis. When an app has closed unexpectedly, it can quickly identify the cause through real-time data analysis. Unlike other solutions that randomly collect or leak data, IMQA collects and analyzes all data without distortion and accurately analyzes it.

ankus

ankus' is a data mining/machine learning analysis tool for analyzing big data.

- It's possible to use the ankus anytime and anywhere the internet is available.
- The ankus has no need to install separate software because it is based on a web browser.
- It's possible to intuitively analyze without professional development knowledge.

SW Quality Assurance & Certification

"SQA & Ceritificaion" provides quality verification and management services based on international standards

- Onycom is an internationally accredited testing institute by KOLAS.
- Provide testing service throughout the SW Lifecycle (From the Test planning to Test Closure Activities) and automated verification using automatic testing tools.
- Issue a accredited Test report for software accoring to Internatinal Standard (ISO/IEC25023 & ISO/IEC/IEEE29119-4)
- Help our customers reduce costs but also provide customized consulting and outsourcing services as a one-stop solution.



Partron

Sector : Information and communication
Sub-sector : Information and communication modules and parts
CEO : Kim Jong Gu, Kim Jong Tae
Founded : 2003. 1. 28.
Employees : 463
Homepage : www.partron.co.kr
Sales : \$ 1094 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Partron spun-off from Samsung Electro-Mechanics in 2003 with the objective of becoming the Global No.1 comprehensive components company. It was established with the corporate motto to develop with customers by providing competitive and fast supply of products and became the first partner to supply antennas, camera modules and various sensors to flagship smart phone models of Samsung Electronics through continuous technology development. Moreover, it is supplying components to domestic and overseas electronic products and automobile manufacturers.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

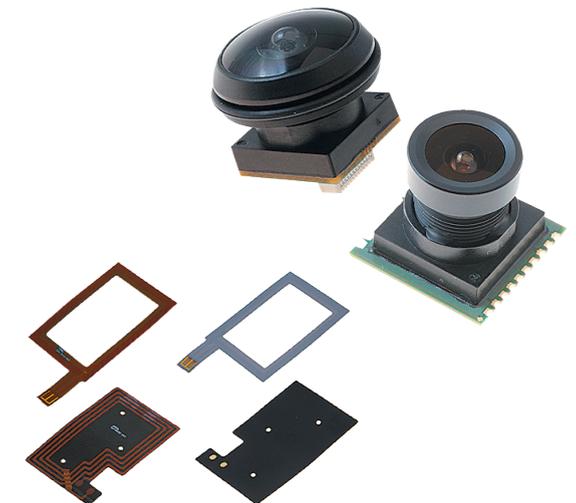
20% domestic market share
2nd place for antennas

7.2% domestic market share
4th place for camera modules



Camera module

Camera module is a device that is applied to devices such as mobile phones to store images or videos. Competitiveness has been secured with differentiated technology development, such as development of 13M high resolution camera module above 13M and development of camera module with anti-shake features using OIS



Antenna

Concentrated development and production of internal antennas for mobile phones. Equipped with the capacity of supplying miniaturized, broadband and multiband, high quality antennas with outstanding performance

Polaris Office

Sector : Information and communication
Sub-sector : Software
CEO : Ji JunGyeong
Founded : 1997. 4. 3
Employees : 128
Homepage : www.polarisofficecorp.com
Sales : \$ 19 million
Listed : KOSDAQ
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

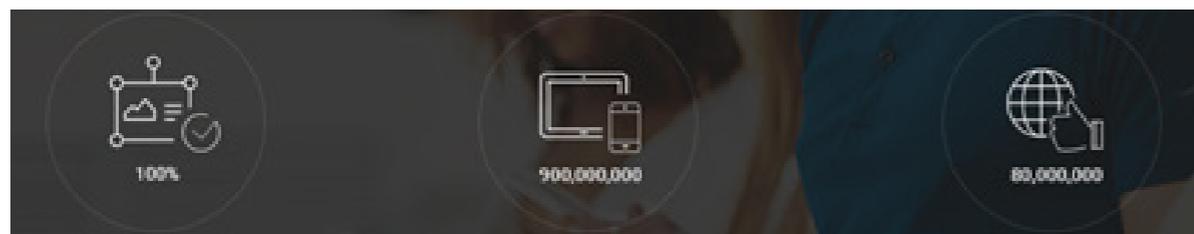
Introduction

It is a global IT service company that is reiterating relentless challenges and innovation based on differentiated software technology since its establishment in 1997. Main products include mobile-, PC- and cloud-based POLARIS OFFICE and mobile games. POLARIS OFFICE has 80 million users who have subscribed from over 240 countries around the world, as of 2018. 92% of the subscribers are overseas users and among them, the proportion of IT advanced countries, such as USA, Japan, UK and Germany accounts for 45%. It has overseas companies in USA, China and Japan and in October, 2005, it was listed in KOSDAQ. Subsidiaries include SELVAS AI, SELVAS Healthcare and Infraware Technology.

Main Product

Installed as default in **900 million devices worldwide**

80 million subscribers worldwide



Polaris Office

Cloud-based office service: Document editing and document creation enabled in the same format between PC and mobile based on MS Office compatibility and powerful editing features

QUBER

Sector : Information and communication
Sub-sector : Information & Communication Modules & Parts/Digital Broadcasting
CEO : Jay Lee
Founded : 2015
Employees : 53
Homepage : www.quber.net
Sales : \$ 7 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

- Quber is an Android Embedded PCB HW & SW Platform Specialist Company.
 - ① Korea's largest Android embedded software engineer group.
 - ② High level of Android development know-how. (Android Core Developer 80%)
 - ③ Experience in integrating devices with various SoCs such as Rockchip, Synaptics, HiSilicon and Broadcom.
 - ④ Distribution of over 2 million KT-AI-GiGA-Genie-1/2/3.
 - ⑤ AI Voice-Recognition Enabler (KT-AI-GiGA-Genie/kakao mini speaker/SKB nugu AI2 STB)
- Utilizes the purchasing and production process of Kaon-Media, which possesses the ability to manufacture more than 10 million sets of SetTop-Boxes per year.
- Highly reliable, since it has been developed in-house from circuit designs and immediate response to technical support and maintenance is also available.

Main Product



Android Embedded PCB HW & SW platform with the latest Android OS.

Excellent service scalability at a reasonable price with Quber design and production.

- Quber Field of application
 - Voice-Recognition AI Life Robots, Medical-Glucose monitors-Kit.
 - Digital-Signage, DID, POS, Kiosks, Payment Terminals, Smart-Mirror.
 - Voice-Recognition AI Digital-Broadcasting-Settop-Box.

Digital-Signage STB with PCB single board product based on Android OS.

- Used in combination with various Displays
- Runs on Android 9.0 Pie OS.
- Perfectly compatible with all apps, allowing stable use High-Resolution contents supported
- 3840x2160 Display resolution supports 4K ULTRA HD.
- High-definition video files and H.265 HEVC supported.
- Supports various media in all types of formats.
- Supports every display ratio. (normal (4:3)/Wide (16:9)/Theater (16:10))
- Supports Digital-Signage Powerful Global CMS (Contents Management System)



RFHIC

Sector : Information and communication
Sub-sector : Information and communication modules and parts
CEO : Jo Deok Soo
Founded : 1999.08.26
Employees : 290
Homepage : www.rfhic.com/ko
Sales : \$ 56 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

RFHIC, as a compound word RF (Radio Frequency) and HIC (Hybrid Integrated Circuit), is a company that produces IC that amplifies radio frequency. By producing high performing and efficient parts for communication and radar equipment using Gallium Nitride (GaN) which is a next-generation compound semi-conductor material, and being the first in the world to commercialize, it has gained attention in the global market. Client companies of RFHIC includes the Top 3 global communication companies and recently, it is expanding its business areas into national defense sector, such as military radar transmitter-receiver.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

- GaN transistor for communication
- GaN power amplifier for communication



- GaN power amplifier for radar



Rsupport

Sector : Information and communication
Sub-sector : Software
CEO : Seo HyungSu
Founded : 2001.11.06
Employees : 269
Homepage : www.rsupport.com/ko-kr
Sales : \$ 44 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

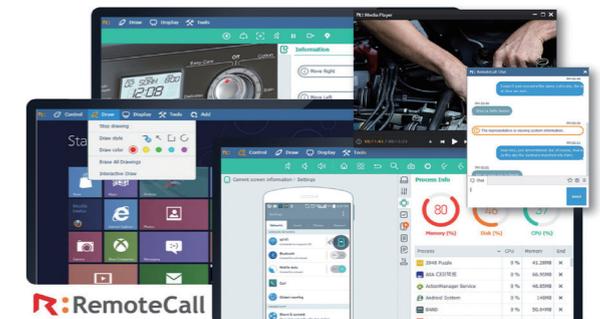
Rsupport is Asia's No. 1 remote support solutions provider. After being the first in the world to commercialize the patented technology of the remote control system using web and icon, Rsupport is setting forth world standards and taking a step closer to becoming a top global leader. In recognition of its technological progressiveness, patents have been acquired in Korea, USA, Japan and other countries and they are being protected as intellectual property rights in the world market.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

5th market share in the world

1st domestic market share



RemoteCall

World's first remote support solution that enables agents to connect to the customer's device through a web browser, diagnose errors and resolve problems real-time

Mobizen

Powerful mobile screen recording and broadcasting features provided. South Korea's representative mobile killer application with 30 million global users and 30% MAU

RTNET

Sector : Information and communication
Sub-sector : Software
CEO : Myoung-Soo Park
Founded : 2007
Employees : 65
Homepage : www.rtnet.co.kr
Sales : \$ 19 million
Listed :
Qualified* : ATC

Introduction

RTNET, established in 2007, We are continuously developing and supplying various software solutions to B2B/B2G markets. In particular, the IT-infra automation platform developed using Ansible open-source engine provides various ways to automate iT operations for medium/ large scale it-infrastructure such as network devices, servers, applications, etc.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Falcon Automation Platform

"Falcon Automation Platform" is an integrated IT infrastructure management platform that automates IT operations and simplifies infrastructure management in various environments. It provides Korean Language-based GUI playbook editing function, and supports efficient IT operation management through workflow-based business process management, operation procedure verification and monitoring, and system recovery process visualization.

Falcon-3D Visualization Platform

"Falcom-3D" visualization platform provides an integrated user interface for managing complex and various IT infrastructure environments, and is a web-based 3D visualization platform that visualizes data based on building, floor, data center, rack's physical spatial information for implementing it-infra Digital Twin.

SOLID

Sector : Information and communication
Sub-sector : Mobile communication
CEO : Jeong Joon, Lee Seung Hee
Founded : 1998. 11. 5
Employees : 190
Homepage : www.solid.co.kr
Sales : \$ 177 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

'South Korea's No. 1' in the field of telecommunication repeater
 SOLiD is a company that develops telecommunication repeater DAS, ICS, WDM technologies and manufactures products. SOLiD, with over 440 experts, is engaged in business activities through 9 local companies and branches across the world. In the future, it aims to become the 'Worldwide No. 1 Coverage Solution Provider' by solidifying its position in the overseas DAS market.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

4th place in the world's DAS market share

DAS (Distributed Antenna System)

Equipment that amplifies and expands the base station signals into the building to resolve communication shade area within the building



DAS



ICS

ICS (Interference Cancellation System)

Equipment that expands 2G/3G/4G voice call and data coverage even if there is no wired backhole connection in radio shade areas in cities, islands and mountainous regions or in indoor radio shade areas

WDM (Wavelength Division Multiplexing)

MFH (Mobile FrontHaul) equipment that is utilized in wired coverage equipment by efficiently binding different wavelength for transmission



WDM

Suprema

Sector : Information and communication
Sub-sector : Knowledge information security
CEO : Lee Jae Won, Kim Han Cheol
Founded : 2015. 12. 31.
Employees : 182
Homepage : www.supremainc.com
Sales : \$ 60 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Suprema, equipped with world's renowned biometric source technology combining AI and deep learning is a premium brand with superior quality. It is a biometric-security company with No. 2 market share in the world, No. 1 market share in EMEA (Europe, Middle East and Africa), and No. 1 market share in Korea.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 2 market share in the world for biometric access control terminal

Suprema, equipped with the world's best biometric technology supplies fingerprint recognition modules which can be applied to various fields, access security, attendance control system as well as fingerprint recognition modules for smart phones



- Supplies fingerprint recognition algorithm to Samsung Galaxy Series mobile phones (S10, S20, S21, Note 10, Note 20, etc.)



- AI face recognition technology and mobile access card technology has led to Suprema being selected as Smart Store access verification technology company

Telecons

Sector : Information and communication
Sub-sector : Software
CEO : Jung Im Soo
Founded : 2004
Employees : 110
Homepage : www.telecons.co.kr
Sales : \$ 10 million
Listed :
Qualified* : ATC

Introduction

Telecons is a domestic and international car navigation software company that provides route guidance solutions to users of various means of transportation, including finished cars, air and sea. Telecons' main software development technologies include Audio Video Navigation (AVN), Cluster HMI Solution technology and Connectivity Solution technology, In-Vehicle Infotainment (IVI) Solution technology, and regular updates and maintenance of AVN software for domestic and overseas vehicles. Telecons is recognized by domestic and international customers based on this technology.

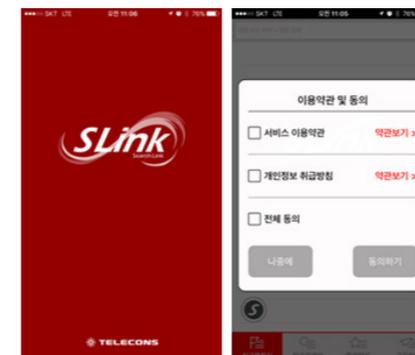
* Refer to 396p for detailed information about ATC, and World Class

Main Product



MapzinAir Map Service

MapzinAir is a navigation software based on Telecons' technology. MapzinAir provides a variety of search methods for easy and fast search, has a user-centered design, unified menu and quick menu functions, a simple and modern UI, and various path finding functions.



SLink

SLINK is a software that has a function that starts guidance immediately after boarding by searching for a smartphone location before boarding and setting a destination in advance. SLink has easy and convenient connections, easy destination search, smartphone media playback, multi-tasking, automatic update, and personal assistant service.

THINKPOOL

Sector : Information and communication
Sub-sector : Software
CEO : Kim Dongjin
Founded : 1994
Employees : 65
Homepage : www.thinkpool.com
Sales : \$ 100 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Thinkpool provides an AI investment platform that includes real-time market trends and issue analysis of all stocks and real-time personalized AI buy/sell signals(AI trading secretary) based on structured and unstructured data.

The AI investment platform has global competitiveness to resolve the unfairness of global investment information and provide investors with convenience and profitability for overseas investment as well as domestic.

Main Product



AI Trading Secretary

AI Trading secretary is an AI solution service that supports decision on the timing of stock buy/sell which is difficult for investors, based on the AI algorithm developed by Thinkpool.

- Real-time AI buy/sell signals for all stocks
- Providing personalized sell signals and alarm service
- Based on learning more than 200,000 trading data over 6 years



Rassi Contents

AI Rassi contents is a service that quickly organizes and provides real-time information that requires a lot of time and effort for investors to analyze themselves.

- Provision of Rassi infra including content recommendation system, personalization system, and AI content production
- The US Earnings Breaking News service is a service that crawls the data immediately after announcing the company's performance on EDGAR, a US public website, and provides content that is compared with the previous year's performance and analyzed by consensus in real time

TmaxData

Sector : Information and communication
Sub-sector : Software
CEO : Jang Young Hwan
Founded : 2003
Employees : 364
Homepage : www.tmaxtibero.com
Sales : \$ 28 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

TmaxData is one of the Korea's top total data technology specialist that provides core data solutions. Since its foundation in 2003, TmaxData has successfully commercialized its large-scale DBMS in Korea and become the strongest challenger against major global SW companies.

Now, as part of its AI and Collaboration Transformation strategy to embrace the new era of intelligent information society, TmaxData will lay a solid foundation for the AI-based SaaS using a database solution. In the new data economy, the company will no longer be a simple DBMS vendor, but a leading provider of highly advanced intelligent data platforms.

Main Product



Tibero

The Tibero DBMS integrates heterogeneous large-scale databases, without any modification to existing applications.

- Seamless failover: Tibero Active Clustering (TAC) allows applications to run uninterruptedly when one of the servers fails.
- Strong data security: row-level access control blocks any unauthorized access, while encryption prevents unwanted data modifications.
- High efficiency: key processes are integrated to simplify the architecture and reduce SQL concurrency.

ZetaData

ZetaData is an integrated data solution that supports fast and reliable data processing.

- Performance and reliability: the storage SW technology combined with the parallel processing mechanism enables a faster processing of large volumes of data and reliable system operation.
- Cost saving: data processing in large quantities with minimal I/O can significantly reduce cost.



ProSync

ProSync is a data replication and transfer solution to ensure data integrity.

- Data protection: the Changed Data Capture (CDC) process synchronizes target data in real time and copies the data, converted in a desired format, to a target database.
- Productivity: data on which a transaction occurred can be immediately used for another job, which speeds up the entire processing time.
- Reliability: automatic failure recovery, encryption and compression as well as replication guarantee data reliability.



TmaxSoft

Sector : Information and communication
Sub-sector : Software
CEO : Lee Hyeong Bae
Founded : 1997.06.03
Employees : 482
Homepage : www.kr.tmaxsoft.com
Sales : \$ 98 million
Listed :
Qualified* : World Class

Introduction

TmaxSoft is Korea's representative company specializing in system software, providing robust backbone for IT innovation by converging new growth engines; AI and collaboration to the existing powerful system software technologies.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ **JEUS No. 1 WAS market share in Korea**

★ **Open Frame – Successfully awarded with global big deals with GE Capital in USA, Nomura Securities in Japan, etc.**



JEUS

JEUS

Web application service for developing and operating applications in web environments

WebtoB

High performance web service of differentiated architecture



WebtoB

Open Frame

Mainframe modernization solution that converts the mainframe system's application, resources and data into an open system without changes in the existing data



Open Frame

Hyper Frame

Integrated middleware platform that helps build platform-centric cloud environment

TOBESOFT

Sector : Information and communication
Sub-sector : Software
CEO : LEE KYEONGCHAN, JANG SUNSU
Founded : 2000.07.10
Employees : 213
Homepage : www.tobesoft.com
Sales : \$ 31 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Korea's No. 1 enterprise UI-UX platform specialist

For a system to be controlled, there must be a User Interface (UI). In addition, to operate the system more seamlessly and efficiently, User Experience (UX) must be taken into consideration. TOBESOFT is the No. 1 enterprise platform company that thinks about both individuals and companies. Moreover, it has continuously invested in R&D and has identified new growth engines in the existing business areas, amidst the rapidly changing IT market environment. Based on the research team which takes up the majority of the employees, innovative technology convergence and business expansion (FinTech, IoT, blockchain, etc.) have been achieved, ultimately providing various business platforms and services.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ **No. 1 domestic market share in the field of enterprise UI/UX**



nexacro platform

Korea's one and only, internally developed platform Javascript Framework-based Real OSMU solution



XPLATFORM

Offers the highest productivity with incomparable development convenience



MiPlatform

Provides high level of performance and features pushing the boundaries of web environments

Treenod

Sector : Information and communication
Sub-sector : Digital contents
CEO : Lee Mee Joo
Founded : 2018. 12. 26
Employees : 224
Homepage : www.treenod.com
Sales : \$ 44 million
Listed :
Qualified* : World Class

Introduction

Treenod has developed Pokopang game series which has recorded more than 90 million cumulative global downloads. Now, it is expanding its business scope so that the stories of the game could reach the lives of people.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



<p>POKOPANG </p> <p>May, 2013 Genre: Puzzle</p> <p>2nd title of POKO game loved by the entire world. Puzzle game where you draw lines at one go to connect blocks of the same color as quickly and long as possible.</p>	<p>POKOPKO </p> <p>Sep, 2014 Genre: Puzzle</p> <p>3rd title of POKO game following the success of POKO. Puzzle game where more than 3 blocks of the same color have to be matched to proceed with to the next stage</p>	<p>POKOPANG TOWN </p> <p>Dec, 2017 Genre: Town building/puzzle</p> <p>Puzzle & town building game where players have to build a fabulous town through simple one-touch puzzle stages and various missions</p>
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UBIVELOX

Sector : Information and communication
Sub-sector : Software
CEO : LEE Heung Bok
Founded : 2000. 9. 1
Employees : 300
Homepage : www.ubivelox.com
Sales : \$ 269 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

UBIVELOX Co., Ltd., as a company that provides smart card Total Solution and card payment platform, is Korea's biggest company specializing in smart cards that internally develops, manufactures and sells IC Chip OS (Operating System) which is the core technology of smart cards. UBIVELOX Co., Ltd. operates businesses related to the general smart card industry, such as financial IC Chip card, USIM (Universal Subscriber Identification Module) card for communication, prepaid Hi-Pass card, electronic government card/student card, electronic resident card (National ID Card) and Smart Card Management System for issuing smart cards. In addition, by engaging in smart mobile businesses, it is expanding the business area of IT Convergence through synergy between the two businesses; smart card and smart mobile.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

<p>Finance</p> <ul style="list-style-type: none"> • 32% domestic market share in finance 	<p>Communication</p> <ul style="list-style-type: none"> • 33% domestic market share for USIM • 100% LGU+M2M SIM
<p>Transportation</p> <ul style="list-style-type: none"> • 100% prepaid Hi-Pass • 80% postpaid Hi-Pass • 25% T-Money 	<p>ID</p> <ul style="list-style-type: none"> • 100% e-voucher • 100% e-government card • 50% e-student card

Smart card & smart mobile + exclusive technology = Identify future growth industry with high added value

- Card manufacturing (Factory)
- Smart card platform (COS)
- Security verification solution
- Mobile payment solution
- Mobile convergence (NFC, Beacon, LBS)

WINS

Sector : Information and communication
Sub-sector : Knowledge information security
CEO : Kim Boyeon
Founded : 2011. 1. 5.
Employees : 466
Homepage : www.wins21.co.kr
Sales : \$ 80 million
Listed : KOSDAQ
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

WINS, listed in KOSDAQ in 2003 is a company with the largest market share in the domestic network security. Security solutions and security services are provided through its iconic brand, 'Sniper' and the business areas are expanding into AI security and cloud business as well. After dominating the high-end market that requires performance and stability, it has successfully advanced into overseas markets based on technology and know-how. Safer security environments are provided to customers by responding promptly to the rapidly changing IT environment such as 5G commercialization or digital transformation, for instance, being the first in Korea to offer 500G products.

Main Product

★ Based on the sales in Public Procurement Service's national e-procurement system

No. 1 Intrusion Prevention System (IPS) in Korea

'Sniper ONE', next-generation intrusion prevention system

Model that has recorded the largest market share in the domestic network security, capable of effectively responding to new threats and diversified communication trends in the network



Intrusion prevention (Sniper ONE-i)



Next-generation firewall (Sniper NGFW)

'Sniper NGFW', intelligent threat tracking firewall

Intelligent next-generation firewall centered on threat tracking capable of responding to security breaches as an acceleration engine dedicated to L7 DPI applied with No. 1 IPS technology has been installed in SNIPER NGFW

WISEiTECH

Sector : Information and communication
Sub-sector : software
CEO : Kim Jong-hyun
Founded : 1990
Employees : 193
Homepage : www.wise.co.kr
Sales : \$ 21 million
Listed : KOSDAQ
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Founded in 1990, WISEiTECH is an industry-leading big data company specializing in AI, big data analysis, data quality. It was originally founded under the company name, 'Wise Information Technology' in 1990 growing into an industry leader in relational database, data modeling, and data warehousing consulting and became a solution vendor with the development of BI products in 1998. In 2000, we changed our company name to 'WISEiTECH' and entered the data analysis solution market and emerged as an industry leader in the professional solution market based on total solution of BI, data management and the AI. We are now growing into a company specializing in AI and big data company through 'big data analysis and management using AI'.

Main Product



WiseProphet™

AI development platform with various industrial applications

- Automate preprocessing of machine learning, model learning, and predictive process
- Helps data search, data refinement, variable definition using machine learning
- Performs model construction, model evaluation, and optimization by selecting features and algorithms
- Monitors prediction results effectively by visualizing them multidimensionally
- Implements machine learning applications based on WiseProphet™

WiseIntelligence™

Big data analytics for effective business decision-making

- Intuitive understanding of your business with visual insights from various perspectives
- Dashboards help you understand your business at a glance
- Provision of user-friendly self-service
- Predictions for business in various fields combined with machine learning applications



WISENUT

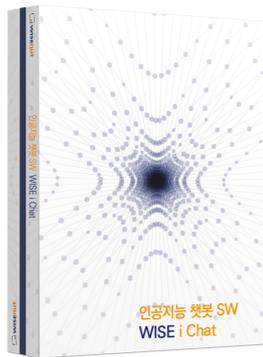
Sector : Information and communication
Sub-sector : Software
CEO : Yong-seng, Kang
Founded : 2000
Employees : 308
Homepage : www.wisenut.com
Sales : \$ 35 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

For the past 22 years after the foundation in 2000, WISEnut has established and invested in R&D institutes, including artificial intelligence chatbots, big data search, and data analysis. Wisenut has achieved constant technological innovation in artificial intelligence and big data with our strong core technology. Currently, WISEnut has built the largest number of artificial intelligence chatbot references in Korea, which are commercialized and conveniently used by the public. AI Chatbots are based on accumulated the original technologies which are natural language processing, text mining, machine learning, intentional analysis, data search, and Artificial intelligence technology over the past 22 years.

Main Product



WISE iChat

WISE iChat is an intelligent automatic response solution (AI Chatbot) using hybrid conversation processing method. Core AI technology is applied to provide knowledge and information in real time suitable for users' intention of conversations and queries.

- Machine Learning and scenario-based hybrid conversation processing
- Sophisticated morpheme analysis and natural language processing
- The application of self-developed deep learning algorithm for better understanding of queries



Search Formula-1

Search Formula-1 is WISEnut's next-generation integrated search solution. The core technology for the solution, encompassing big data analysis, large-scale unified search, semantic technology, text mining and document duplication management, was developed by our dedicated team for online search experts.

- Provide results of high-speed search and Offer 100 or more functions
- Provide crawling, indexing, and administrative tools
- Retain experienced interworks with global packages (EMC Documents, SAP ERP, ORACLE Exadata)

WISOL

Sector : Information and communication
Sub-sector : Information and communication modules and parts
CEO : Yeom Sang Deok
Founded : 2008. 6. 20
Employees : 518
Homepage : www.wisol.co.kr
Sales : \$ 309 million
Listed : KOSDAQ
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

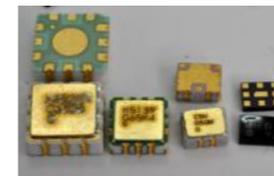
WISOL, the only SAW filter manufacturer for mobile phones in Korea, is a manufacturer specializing in RF parts equipped with core technologies in the entire processes, from chip design to FAB and packaging. New businesses include Piezo Acoustic Ceramic Actuator Module using multi-layer ceramic and dielectric material components.

Main Product



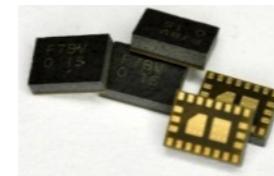
SAW Filter (Surface Acoustic Wave Filter)

Core RF part of a mobile phone that selectively allows only specific frequency required for communication to pass through



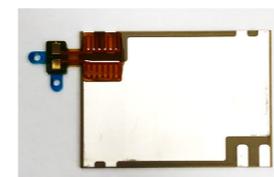
Duplexer (Frequency duplexer)

Communication part that separates the transmission and reception signal and enables transmission and reception through 1 antenna



RF Module

Part with RF component and semi-conductor component integrated



CAM (Ceramic Actuator Module)

Ceramic Actuator Module that is directly attached to various display panels to create sounds

11% market share in the world
3rd place in SAW filter

Woorisoft

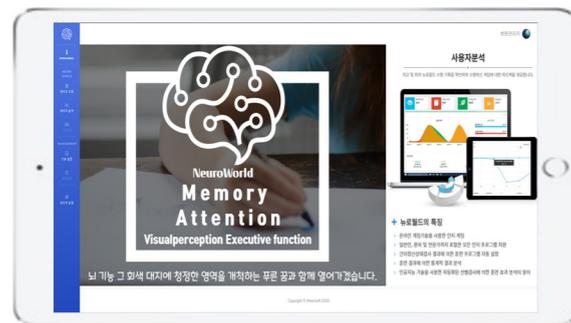
Sector : Information and communication
Sub-sector : Software
CEO : Byeongil, Kim
Founded : 2010
Employees : 30
Homepage : www.woorisoft.net
Sales : \$ 3 million
Listed :
Qualified* : ATC

Introduction

Woorisoft Inc. is a software company that is creating a new market and creating a win-win model, focusing on IT convergence business for language, psychological and cognitive rehabilitation social service industries. Woorisoft Inc. optimizes individual cognitive ability by building a cognitive rehabilitation HUB that integrates all areas of medical care, treatment, rehabilitation and medical devices based on ICT convergence technology such as NeuroWorld MED, NeuroWorld VR, Voucher Manager, and Rehabilitation Assistive Devices. By providing a customized assessment and training platform, we value improving the quality of life through changes in cognitive abilities.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



A "validated game-based" cognitive impairment training and assessment tool that can replace cognitive screening conducted by hospitals.

It can be used by both ordinary people and patients with cognitive declining. A "valid game-based" cognitive impairment training and assessment tool that can replace cognitive screening conducted by hospitals. It can be used by both ordinary people and patients with cognitive disabilities.

KORIL
 Directory of
 Outstanding Korean
 Companies

KORIL
Directory of
Outstanding Korean
Companies

07

**Knowledge
service**



bistelligence

Sector : Knowledge service
Sub-sector : R&D/Engineering services
CEO : Choi Woon Gyu
Founded : 2000.08.18
Employees : 168
Homepage : www.bistelligence.ai
Sales : UNDISCLOSED
Listed :
Qualified* : World Class

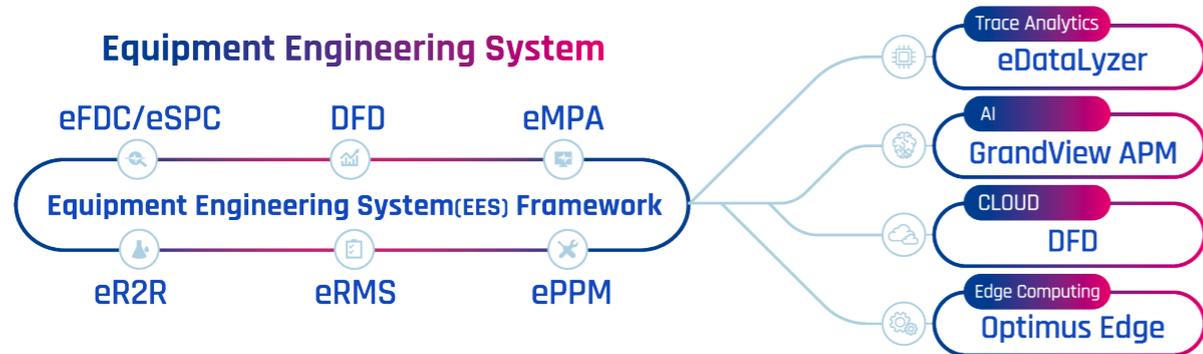
Introduction

BISTEL has acquired know-how in the semi-conductor and display manufacturing industries for over 20 years under the motto of "Customer Loyalty Service", providing total solutions for EES, analysis and prediction within the boundaries of smart manufacturing and is recognized for the world's best technologies in the fields of engineering automation SW and service.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

BISTel solutions, at the heart of core technologies, bound to gain attention for leading future-oriented plants, such as Artificial Intelligence (AI), Cloud Computing and Edge Computing, offers New Normal Manufacturing AI for opening an era of smart factory in the manufacturing industry, creating better working environment and efficiency for engineers and workers at production site while generating enhanced productivity and profits for managers of working environment



★ DFD, world's biggest semi-conductor exhibition
 Awarded with 1st price in Best of Westin the SEMICON West 2018

★ GrandView APM, Smart Pharma
 Awarded with Manufacturing Innovation Award 2020

Dohwa Engineering

Sector : Knowledge service
Sub-sector : R&D/Engineering services
CEO : Park Seung Woo, Kwak Joon Sang, Kim Deok Goo
Founded : 1957. 8. 15
Employees : 2,341
Homepage : www.dohwa.co.kr
Sales : \$ 481 million
Listed : KOSPI
Qualified* : World Class

Introduction

Dohwa Engineering Co., Ltd., is South Korea's top ranking engineering consulting company, providing planning, feasibility studies, design, analysis, testing, supervision, commissioning, evaluation/assessment and consulting as well as training services in all areas of engineering, such as water industry, urban planning, railway, plant and water resources at both home and abroad. By shifting away from the conventional pure engineering businesses, such as design and supervision services, businesses are being expanded to become the EPC service provider, responsible for all works required for construction, such as construction design, provision of equipment and materials, construction work, commissioning, license and permit.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Construction design engineering (design)

Provides technical consulting on design regarding majority of processes, excluding commissioning, among the overall processes such as planning of construction projects, survey, environmental impact assessment, project feasibility review and design (basic and working design)

Supervision/CM (Supervision/Construction Management)

Conducts supervision and management to determine whether construction of the facility complies with design

EPC (Engineering Procurement & Construction)

Executes projects by taking responsibility of all works required for construction such as provision of equipment and materials, construction work, commissioning, license and permit

O&M (Operating & Maintenance)

Operation management and maintenance work of urban infrastructure



Design engineering

Supervision/CM

EPC= Design + procurement + construction

Infrastructure operation and management

Douzone Bizon

Sector : Knowledge service
Sub-sector : Business strategy/Finance/Trade services
CEO : Kim Young-woo
Founded : 1977. 8. 20
Employees : 1,633
Homepage : www.douzone.com
Sales : \$ 266 million
Listed : KOSPI
Qualified* : World Class

Introduction

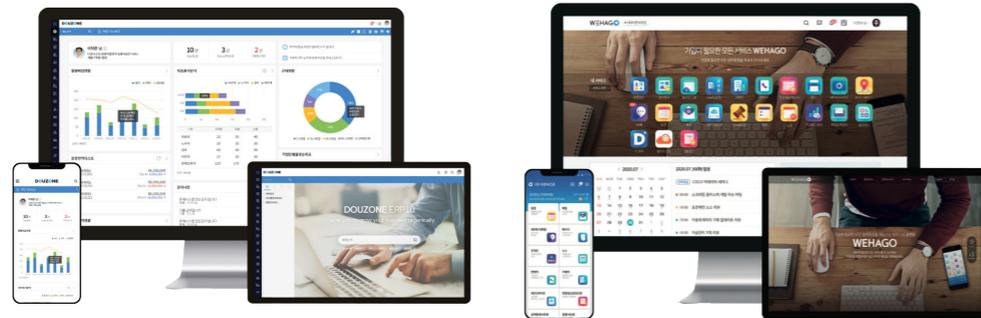
Douzone Bizon is South Korea's representative ICT company that provides various solutions and services required for corporate informatization. It is developing into a leading company of platform and digital transformation through existing businesses such as ERP and groupware as well as through new growth engine businesses such as cloud, big data and AI.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 market share in the ERP sector

Korea's one and only No. 1 in the cloud business platform sector



- Douzone Bizon has the largest market share in the field of corporate informatization software, such as not only ERP but also groupware, information security, electronic tax invoice, electronic facsimile and cloud.
- In line with the 4th industrial revolution era, it is growing together with the market and its customers by providing various ICT products and services for companies, such as business platform, cloud, AI, big data, FinTech and healthcare required for the digital transformation of a company by applying new ICT trend and the latest advanced technologies.

FURSYS

Sector : Knowledge service
Sub-sector : Design services
CEO : Bae Sang Don, Park Gwang Ho
Founded : 1983. 3. 11
Employees : 215
Homepage : www.fursys.com
Sales : \$ 272 million
Listed : KOSPI
Qualified* : World Class

Introduction

Since its establishment in 1983, FURSYS has secured 1st place in the office furniture market, leading transformations in South Korean offices through insightful research on office environment and advanced product development. It contemplates about the definition and role of a working space, closely analyzes the behavior and relationship of people and proposes an office environment that embraces the corporate culture respectively.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

'Office environment creates culture'



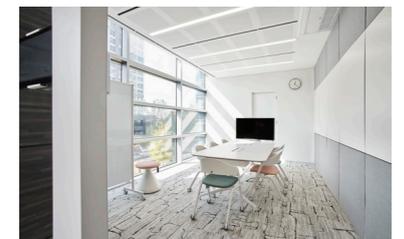
ENABLE

The ENABLE series offers design that thinks about the user and it has achieved a system optimized to layout changes. It is a solution for smart office.



MOTION DESK

Motion desk enables users to freely adjust the height of the desk according to the individual body type and work type, enhancing both the work efficiency and health index.



BECONN

Comprised of display equipment and convenient wiring system, it is suitable for users who use IT devices and it is capable of creating an effective cooperation space for video conferences.

Heerim Architects & Planners

Sector : Knowledge service
Sub-sector : Design services
CEO : Jeong Young Gyun, Lee Mok Woon, Heo Cheol Ho
Founded : 1989.11.28
Employees : 1,321
Homepage : www.heerim.com
Sales : \$ 170 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Heerim Architects & Planners Co., Ltd., as a general architect service company specializing in 'architectural design, construction project management and supervision', was the first in the industry to establish a corporate affiliated research center in 1996. Since then, it has achieved many management performances. In 2000, it was the first in the industry to be listed in KOSDAQ, in 2013, it was selected as World Class 300, in 2014, it was appointed as Korean Hidden Champion, in 2019 and 2020, it ranked 1st place in the domestic CM Performance Evaluation for 2 consecutive years, in 2020, it was designated as Representative 1000 Innovative National Company. It has expanded its business into over 40 countries and has also established 11 branches and companies overseas, including Vietnam, UAE, Azerbaijan, Bangladesh, Iraq, China, Kazakhstan, Qatar, Cambodia, Uzbekistan and Hungary and is constantly striving to expand its global business.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

10th place in the world

Performance Evaluation for 2 consecutive years in 2019, 2020

1st place in CM (Construction Project Management)

Airport

Incheon International Airport Passenger Terminal 1 and 2, international airports (Long Thanh in Vietnam, Phnom Penh in Cambodia, Khabarovsk in Russia, Mongomeyen in Equatorial Guinea, Bata in Equatorial Guinea, Tashkent in Uzbekistan, Almaty in Kazakhstan, 3 airports in Bangladesh), Jeju International Airport's terminal expansion, Gimpo Airport's Development Master Plan, Mactan Cebu Airport in Philippines, interior of Qingdao Jiaodong International Airport terminal in China, Puerto Princesa Airport in Philippines (CM), etc.

Sports stadium

Incheon 2014 Asian Games Main Stadium·Sipjeong Stadium·Seonhak Stadium, Baku Olympic Stadium, Pyeongchang 2018 Winter Olympic Games Gangneung Ice Arena, Qatar Al Thumama FIFA World Cup Stadium, Uzbekistan Tashkent Humo Arena, etc.

Healthcare

Gangnam Severance Hospital, Seoul Medical Center, Seoul National University (Outpatient Cancer Center, Daehan Outpatient), National Cancer Center, 108 Military Central Hospital in Vietnam, MeLinh General Hospital in Vietnam, Military Hospital 175 in Vietnam, Chungnam National University Sejong Hospital, etc.

Korea Fire Protection UBIS

Sector : Knowledge service
Sub-sector : R&D/Engineering service
CEO : Choi Doo Chan
Founded : 1947
Employees : 330
Homepage : www.kfubis.com
Sales : \$ 17 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

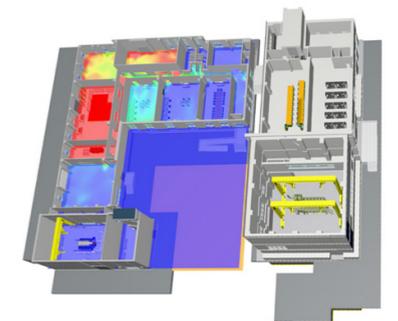
Introduction

Our company carries out work on Fire-extinguishing facility design, construction supervision, inspection, and disaster-prevention research for which completeness is a level upgraded through establishing partnership with national and international prestigious fire-extinguishing specialist corporations and research institutes, as the leader in disaster-prevention industry, holds ISO9001/14001 certification, and carries out an advanced level fire-extinguishing work that is a level higher through technological partnership with Japanese Disaster-Prevention Service Center Ltd. and RJA(Rolf Jensen & Associates, INS) which is the largest disaster-prevention consulting company in the United States.

Main Product



- Designing fire-extinguishing facility(national/international architecture, plant, hazardous material facility)
- Fire-extinguishing facility consulting
- Designing in accordance with overseas applicable codes such as NFPA, FM, IRI, BS, of France, Vietnam, and China etc.



- performance-focused design(PBD)
- architectural disaster-prevention plan
- reviewing legislations, investigating overseas data, and researching examples
- computer modeling: fire(heat, smoke) modeling, safety exit modeling
- fire prevention R&D

Squarenet

Sector : Knowledge service
Sub-sector : Human Resource Competency Development Service
CEO : Chang hyung Moon
Founded : 2006
Employees : 38
Homepage : www.squarenet.co.kr
Sales : \$ 6 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Squarenet provides a platform of cms, lms, and admin site based on Open edX.

In order to confront the rapidly changing business environment and industry trends, It is necessary to foster the high-tech talents of AI technology. However, there is a limit to higher education alone. Squarenet aims to provide customized content for the 4th industry based on artificial intelligence that can be programmed in reality and foster human resources through our platform.

Main Product



MLP Contents

LMS

CMS

MLP consists of Learning Management System, Content Management System, ADMIN sites, and the main features are as follows.

- Microsoft Educational Content and Additional Development Courses
- Simple and intuitive user UI and Responsive Web for Mobile Service Support
- Microsoft o365 SSO login support and two-way learning using MS Teams
- *A hands-on laboratory experience that is important in SW development education.
- Course Recommendation for Learner

* A hands-on laboratory experience: one in which students manipulate, observe, explore, and think about science using concrete materials. Hands-on labs help you learn faster and better.

TENERGY

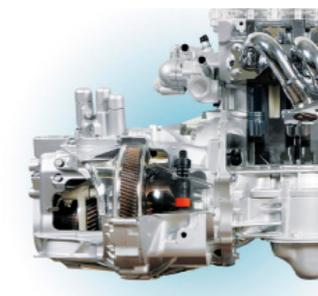
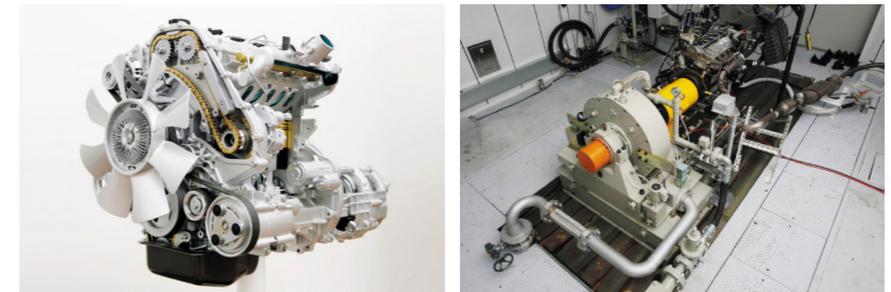
Sector : Knowledge service
Sub-sector : R&D/Engineering services
CEO : Choi Jae Gweon
Founded : 2008. 3. 4
Employees : 94
Homepage : www.tenergy.co.kr
Sales : \$ 26 million
Listed :
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

TENERGY is Asia's biggest powertrain research and development service company that provides total solutions for development and testing of powertrains (engine and transmission). It has participated in over 30 engine development projects and is a financially stable company that has recorded surplus for 13 consecutive years. Other than its existing business, it is diversifying its business areas, such as total automotive engineering, big data, development of eco-friendly vehicles (Hydrogen, Electric, Hybrid) and development of engines for unmanned aerial vehicles with the objective of becoming 'Global Top 3 powertrain engineering company'. It is also in the process of building a total research center in Pangyo 2 with the objective of meetings the needs of the 4th industrial revolution and to take its second leap forward.

Main Product



R&D services

- Engine/TM development
- Vehicle engineering
- Hydrogen car/electric car
- Big data management

KORIL
Directory of
Outstanding Korean
Companies

08

Machine
and
materials



ACE MACHINERY

Sector : Machine and materials
Sub-sector : Automation machine
CEO : Chul Lee
Founded : 1998
Employees : 30
Homepage : www.acegluer.com
Sales : \$ 12 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Ace Machinery is a professional producer of automatic Folding Carton Gluer with the brand name SIGNATURE, and we are continuously leading in both domestic and overseas markets as korean folding gluer manufacture. Based on its twenty-five years of experience with its in-house R&D center, Ace Machinery is making endless efforts to provide Folding Gluing solutions such as flagship high-end model Elite and Steady Seller - model Premier, as well as In-line solutions such as auto-feeders and auto-packers to improve productivity of the customer. Also ACE Machinery has many certification like NET, INNOBIZ, ISO 9001, ISO 14001, CE and about 30 patents including 2 US patent and one UK patent.

Main Product



SIGNATURE ELITE

SIGNATURE ELITE is High-End Model of the ACE Machinery. Operator can overcome any challenging, complicated jobs easily as it has high speed and functions. Also this model has high versatility using SIGNATURE's accumulated R&D capacity and many optional devices that can be attached.

- Carton Aligner and Final Fold MS carrier up down device is equipped basically.
- Belt speed 600 m/m is available using option device.



SIGNATURE ALBATROSS

SIGNATURE ALBATROSS is model that specialized for thick and wide corrugated boxes.

Possibility of folding and gluing the various kinds of cartons (N,F,E,B,V,AB,AC,BC,EB,EF flutes from straight line to 6 corners).

Limitless operational scope (straight line : 290mm ~ 3,000mm)
 Rapid and easy make-ready with Auto Jog system.

Possible with stable operation at 350mpm.

*Open-type frames of every section: Maximize the efficiency, accuracy of setting and accessibility of the operators.

AeroSpace Technology of Korea

Sector : Machine and materials
Sub-sector : Aerospace/Space systems
CEO : Kim, Hee Won
Founded : 2001. 4. 18
Employees : 245
Homepage : www.astk.co.kr
Sales : \$ 68 million
Listed : KOSDAQ
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

AeroSpace Technology of Korea Co., Ltd. is an export-leading 'One Stop Supplier' equipped with the expertise in and capability for producing large-scale aircraft fuselage. Its specialized production system in the field of aircraft fuselage has enabled it to secure the ability to process simple machineries, assemble large-scale structures and to mount systems, leading it to gain excellent competitiveness in the global aviation manufacturing market. Led by experience and expertise, it is proactively exporting large-scale assembly of aircraft to the overseas aviation companies.

Main Product

- 50% market share in the world
- 2nd place in B737 Section 48 (rear fuselage)
- 100% domestic market share
- 1st place in B737 Section 48 (rear fuselage)



Technology for manufacturing aircraft component

B737, B747, B757, B767, Stringer, Q400 mid-sized aircraft, fuselage skin

Technology for assembling aircraft fuselage

B737 Section 48 Module (rear fuselage), B757 PTF Main Deck Cargo Door, B737 Bulkhead Assembly, B747-8 AFT-Body Assemblies

Ajin Industrial

Sector : Machine and materials
Sub-sector : Plastic processing/Powder
CEO : Seo Jung-ho
Founded : 1978. 5. 31
Employees : 646
Homepage : www.wamc.co.kr
Sales : \$ 399 million
Listed : KOSDAQ
Qualified* : World Class

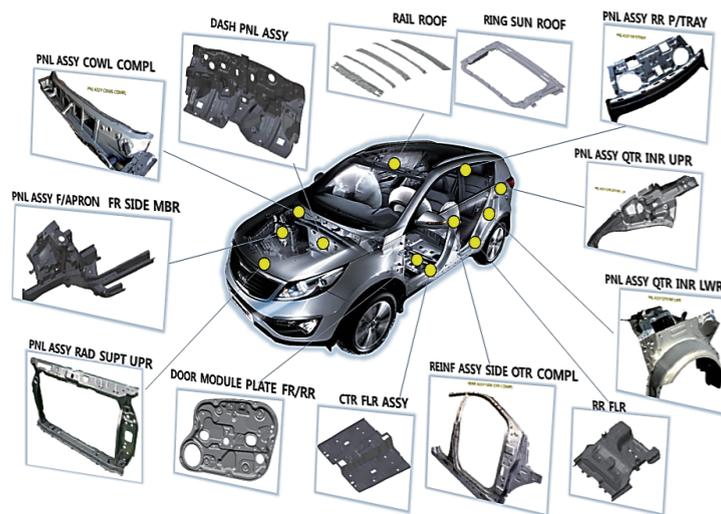
* Refer to 396p for detailed information about ATC, and World Class

Introduction

Ajin Industrial that has developed continuously for over 30 years by accumulating technologies throughout consistent improvements and researches based on creative mind under the corporate motto of "Diligence, creative development and technology nurturing" is dedicated to securing technological competitiveness of various product groups, led by automotive chassis to intelligent automotive electronic products. Furthermore, following the establishment of advanced technology development and global management system through localization of overseas subsidiaries, with the objective of globalizing our technologies, Ajin Industrial is supplying products that touch the hearts of customers with quality management, by adopting technology management through partnership with advanced automotive parts companies and acquiring various quality certifications.

Main Product

No. 1 market share in the world for eco-friendly chassis parts



Automobile chassis parts

DASH COMPLETE, FLOOR COMPLETE, SIDE OUTER and many others

AMS

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Lee Myeong Gon
Founded : 2011. 12. 29
Employees : 346
Homepage : www.amslighting.co.kr
Sales : \$ 73 million
Listed :
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

AMS Co., Ltd. has developed into a world-class company, along with the advancement of Korean automotive industry, meeting the requirements of customers and producing and supplying lamps, since its establishment in 2000. AMS intends to expand the capabilities continuously through sound management centered on core businesses, while proposing the vision for future to our members and fulfilling its social responsibilities externally. AMS is stepping up the technical exchanges with advanced companies and development of new technologies, conforming to the modernization, advancement and digitalization trend of next-generation automotive component industry, proving its world-class R&D capability for securing new technologies.

Main Product



Head Lamp (DRL)



Head Lamp



Rear Combination Lamp



Turn



Fog Lamp



CHMSL brake lamp



Rear Fog Lamp

A-Tech Solution

Sector : Machine and materials
Sub-sector : Components
CEO : Yoo Young Mok
Founded : 2001. 8. 20
Employees : 350
Homepage : www.atechsolution.co.kr
Sales : \$ 217 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

A-Tech Solution is a company with root technologies that aims to develop element technologies of electronics, automobile and aviation industries, that are, optical and compound material forming technologies, into the world's top class. By expanding precision component module business which must be backed by highly complex mold technologies, A-Tech Solution is pioneering the world's market through its local company in Thailand and its branches in Japan, USA and Europe. As a result, A-Tech Solution has become a export-centric company with export accounting for 47% of the sales.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 mold in Korea

No. 4 mold in the world

Automotive molds and parts

PRODUCT

제품개발 과정

- 3D / 2D / 3D 설계
- 1:1 / 1:10 / 1:100 설계
- 1:1 / 1:10 / 1:100 설계
- 1:1 / 1:10 / 1:100 설계

장점

- 1:1 / 1:10 / 1:100 설계



TV and living appliance molds and parts

PRODUCT

제품개발 과정

- 3D / 2D / 3D 설계
- 1:1 / 1:10 / 1:100 설계
- 1:1 / 1:10 / 1:100 설계
- 1:1 / 1:10 / 1:100 설계

장점

- 1:1 / 1:10 / 1:100 설계

APPLICATION

- 3D / 2D / 3D 설계
- 1:1 / 1:10 / 1:100 설계
- 1:1 / 1:10 / 1:100 설계
- 1:1 / 1:10 / 1:100 설계

APPLICATION

- 3D / 2D / 3D 설계
- 1:1 / 1:10 / 1:100 설계
- 1:1 / 1:10 / 1:100 설계
- 1:1 / 1:10 / 1:100 설계

Optical parts and modules

카메라 렌즈 모듈

차량 센서 모듈

스마트 헤드램프

AutoGen

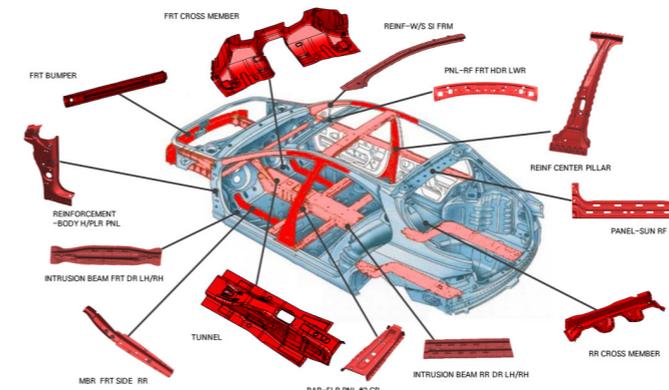
Sector : Machine and materials
Sub-sector : Automobile/railroad vehicle
CEO : HongSin Cho
Founded : 1975
Employees : 120
Homepage : www.autogen.kr
Sales : \$ 24 million
Listed :
Qualified* : ATC

Introduction

AutoGen is the specialized company manufacturing lightweight auto parts, especially hot stamping. Hot Stamping is the technology for passenger safety and is the best of the light weight technology in today's automotive industry. AutoGen has the technique to optimize a car body parts including hot stamping and cold stamping lines. AutoGen has established high level R&D environment with precision analysis equipment (UTM, SEM and simulation tool). Most of our engineers and researchers have over ten years' experience. With R&D and production infrastructure, AutoGen can supply low-cost and high-quality for light weight automotive body parts. Based on R&D environment, AutoGen can provide the solution to improve a design of body parts and production process.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



[Auto parts] Hot Stamping

AutoGen's hot stamping parts is recognized by many automotive Customer. We supply hot stamping auto parts to GM, Volkswagen, Mahindra&Mahindra and Hyundai Motors for passenger car.

- Ultra High Strength Steel parts. (Tensile strength 1.5GPa grade)
- Best solution for safety and lightweight of car body and chassis
- One of the most important technology in EV (Electric Vehicle)

BMT

Sector : Machine and materials
Sub-sector : Components
CEO : Yoon Jongchan
Founded : 1988. 2. 1
Employees : 335
Homepage : www.superlok.com/kr
Sales : \$ 90 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Since 2003, BMT Co., Ltd. started from a registered supplier at Samsung for instrumental fittings & valves and has gained recognition from prominent domestic companies such as SK Hynix, LG Display and top 3 domestic shipbuilding companies, for its excellent quality and service. In addition, BMT is a registered supplier at overseas petroleum & gas ordering parties, including KOC, ExxonMobil and Chevron, as well as construction companies, hence, has grown into a global company. The management value of 'Living, growing, evolving and trusted company' has been maintained and fulfilled since its establishment in 1988 and has achieved continuous R&D and innovation. Following such, BMT has successfully created a differentiated business portfolio, covering not only the initial 'instrumental fittings & valves' but also 'Process-Low temperature-UHP fittings & valves' and 'Electric & Energy' fields, ultimately preparing a foundation for continuous growth. The technology accumulated over 30 years, process management know-how and the corporate culture of pursuing growth and innovation are the root source of BMT's credibility in clients, regardless of industrial fields, including semi-conductor, shipbuilding, marine and construction.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



FITTINGS & VALVES

- Instrumentation Fittings & Valves
- Process & Cryogenic Valves
- Ultra High Purity Fittings & Valves

ELECTRIC & ENERGY

- Compact Switchboards
- Distribution Boards
- Energy Monitoring System

Central

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Yoon Yong Ho, Lee Ho Young
Founded : 1971. 2. 5
Employees : 655
Homepage : www.ctr.co.kr
Sales : \$ 512 million
Listed :
Qualified* : World Class

Introduction

Central is a auto parts company that pursues to become a 'Core company providing safe products and services to every transportation means' under the slogan of 'Central to your safe mobility'. Starting from a small store called 'Shilla Ironworks' selling parts in 1952, it has developed into a global company with annual sales of more than KRW 1 trillion as of 2021 and currently produces 'ball joints' which account for more than 10% market share in the world, along with suspensions, driving and steering parts.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

1st place in aftermarket share in over 10 countries

- 71% of Central's export
- Supplies parts to 25% of world's OEM car brands
- Supplies parts to 1 out of 4 electric vehicles



Ball Joint



Outer Tie Rod



Inner Tie Rod



Control Arm



Stabilizer Link



Cross Axis Ball Joint

CHAMP DIA

Sector : Machine and materials
Sub-sector : Element parts
CEO : CHOI SOON JU
Founded : 1993
Employees : 50
Homepage : www.champdia.com
Sales : \$ 4 million
Listed :
Qualified* : ATC

Introduction

Champ Diamond manufactures the only single-crystal diamond tool for processing ultra-precision optical elements in Korea. Globally, it ranks 2nd and 3rd among 5-7 companies that manufacture the same product. We have secured equipment and processes optimized for the processing characteristics of each material. We are actively developing tools and processing technology.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Contact Lens Tools

This product is a tool for processing intraocular lens lenses, and the tip of the tool is very fine because fine processing is performed.

- Maximization of economic feasibility by increasing the number of regrinding
- Production of ISO insert tools for processing the lens surface of the intraocular lens
- Production of micro-end mill tools for shape processing of intraocular lenses (IOL)



Special Purpose Tools

Special purpose special-purpose tool that can cope with various shapes, sizes, and applications by overcoming the inherent difficulty of processing while taking advantage of the characteristics of single-crystal diamond



Chang Sung

Sector : Machine and materials
Sub-sector : Metal material, Plastic working/ powder
CEO : Choi Gwang Bo
Founded : 1980
Employees : 436
Homepage : www.changsung.com
Sales : \$ 153 million
Listed :
Qualified* : ATC

Introduction

Since it was first established in 1980, CSC has continued with its research and development efforts and bold investment in innovation to implement the commercialization of basic materials thus providing the impetus for our country to prosper for generations to come with advanced technologies. As a result, it became the first Korean company to develop metal powder manufacturing technology. The continual growth of CSC has seen it become a company with unparalleled technological prowess and a competitive edge, providing cutting-edge basic materials, such as magnetic powder cores, coils, functional paste, EMC, clad metals, and powder metals.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Metal Powders

Metal powder is a fine powder that has high surface area for its volume, and is available to acquire the characteristic of the material itself under high pressure. Metal powder has various shapes, such as spherical, irregular, dendrite, flake, and square shapes, according to its manufacturing method. It is available to produce various mechanical parts and materials across the industry more effectively and economically with the CSC metal powder.



[Application]

- Copper and Copper alloyed powder : PM parts, Friction materials, Electrical contacts, Carbon brush and Diamond tools
- Iron alloyed powder : Magnetic powder core and PM parts
- AM metal powder : Bio-medical(Dental, others), Aircraft turbine and Thermal parts
- Silver powder and Coated powder : Conductive and shielding material
- Fine magnetic powder : Chip inductor



Magnetic Powder Cores

Soft Magnetic Powder Cores made of metal powder have a lower core loss at a high frequency and exhibits almost no magnetic flux leakage due to the presence of small air gaps evenly distributed through the matrix, and thus the product is not easily saturated even at a high direct current.



[Application]

- Power conversion devices for cars, servers, PV systems, UPS, communications devices, sound devices, measurement equipment, etc.

Coils

Chang Sung's Inductors are produced using the inhouse developed raw powders and magnetic powder cores, which have a lower loss at a high frequency compared to the inductors using silicon steel cores and provide higher temperature stability than the inductors using ferrite cores. The inductors are used as essential components of power converters in air conditioning, solar and eco-friendly vehicle applications.

[Application]

- Power converters for Air-Conditioners, Solar Power equipment and Eco-friendly Vehicles

Charm Engineering

Sector : Machine and materials
Sub-sector : Display
CEO : BYUN IN JAE
Founded : 1973
Employees : 239
Homepage : www.charmeng.com/kr
Sales : \$ 79 million
Listed : KOSPI
Qualified* : ATC

Introduction

Founded in 1973, Charm Engineering Co., Ltd. is the world's No. 1 company in the field of FPD Repair equipment based on first-class technology. We are supplying products to major panel manufacturers around the world by expanding our sales network through our domestic headquarter, Chinese and Vietnamese offices. Based on the technological know-how accumulated for many years, the company is constantly striving to create high added value and lead the technology through strengthening R&D.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Laser Repair (Open/Short)

Laser cutting TFT pattern defects or laser aided wiring on damaged pattern

[Details & Application]

- Optional laser configuration (Wave length, Pulse width & Etc)
- Using diodepumped, harmonic solid-state Q-switched lasers for deposition
- a-Si TFT & LTFS TFT pattern repair
- Oxide TFT & LTPO TFT pattern repair

[Features & Specification]

- Min. cutting width: <1um, Max. cutting width: ≤ 50um
- Large area high speed patterning technology through selective configuration of Slit / GSM
- Selective cutting by layer by selecting pulse width (266nm, 355nm, 532nm, 1064nm)
- AOI, Auto Repair can be added

Laser Repair (Cell/Module)

Laser burning bright pixel or treating BM(Black Matrix) in display Cell/Module

[Details & Application]

- Optional laser configuration (Wave length, Pulse width & Etc)
- Real-time repair result check through pattern generator (PG)
- FPD Cell/Module manufacturing process

[Features & Specification]

- Burning high pixels into dark pixels (0 gray)
- AOI, Auto Repair can be added



CIS

Sector : Machine and materials
Sub-sector : Robot/Automated machinery
CEO : Kim Soo Ha
Founded : 2015. 5. 22
Employees : 191
Homepage : www.cisro.co.kr
Sales : \$ 111 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

CIS is a company specializing in equipment related to electrode manufacturing for the production of lithium secondary battery. The equipment, classified into Coater, Calender, Slitter, Tape Laminator and other equipment belong to the pre-processing of the secondary battery manufacturing process and the front industries belongs to the secondary battery manufacturing industry which is the same business sector.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Main products of CIS and their characteristics

	Coater	Calender	Tape Laminator	Slitter
	3 rd place in the world 1 st place in Korea	1 st place in the world 1 st place in Korea	1 st place in the world 1 st place in Korea	2 nd place in the world 1 st place in Korea
				
Purpose	Anode/cathode pole production equipment	Densification of poles by applying pressure	Laminating process at pole end to enhance battery stability	The pole material that has been produced is cut into reel of desired width
Characteristics	Developed the world's first complex high-speed coater (1.5M/min)	Holds the world's best rolling speed technology (Max 120M/min)	More than 80% market share in the world	Defects reduced by applying vision inspector and labeller
				
	Coating M/C Anode/cathode pole production equipment	Calendering M/C Densification of poles by applying pressure	Laminating M/C Laminating process at pole end to enhance battery stability	Slitting M/C The pole material that has been produced is cut into reel of desired width

DAE YOUNG CORE TECH

Sector : Machine and materials
Sub-sector : Precision production machine
CEO : Chung Taeho
Founded : 2007
Employees : 143
Homepage : www.dycmc.com
Sales : \$ 38 million
Listed :
Qualified* : ATC

Introduction

DAEYOUNG CORE TECH is manufacturer of machine tool modules and has developed and produced core components of all machine tool, including machining center with high precision and efficiency, automatic tool changer with short non-cutting time, and ball screw for high precision and speed. In addition to this, in order to diversify various businesses such as automotive parts and electric car charger businesses, we are continuing to hire excellent human resources and invest in large-scale equipment and facilities in the region.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Machining Center

A machine tool integrated with a boring machine, a milling machine, and a drilling machine are composed of an automatic tool changer and an NC device and is a universal mechanical device capable of producing high precision and high efficiency.



Automatic Tool Changer

A tool stored in a tool magazine is mounted on a spindle by operating a change arm, and the tool in the spindle is mounted on a tool pot of the tool magazine again to shorten the non-cutting time by the principle of replacing the tool.



Ball Screw

It is the most important part of a positioning system that converts rotational motion into linear motion and has a low coefficient of friction and efficiency of more than 90%.

Daedong

Sector : Machine and materials
Sub-sector : Industrial/General machinery
CEO : Kim Joon-Sik, Won Yu-Hyun
Founded : 1947. 5. 20.
Employees : 1,318
Homepage : ko.daedong.co.kr
Sales : \$ 983 million
Listed : KOSPI
Qualified* : World Class

Introduction

Starting from the production of cultivator since its establishment, Daedong has pioneered the mechanization of Korean agriculture with the production of tractors, combines and others. Without being satisfied at being the 1st in Korea, Daedong has established local companies in USA, Europe and Canada, elevating its status in the global market.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

 **No. 1** in Korea in the tractor sector

 **No. 3** in North America in the tractor sector of less than 60 HP

Tractor

Agricultural machine that executes various works by using traction

Zero Turn Mower

Grass mover that is driven

UTV

Multi-purpose utility task vehicle

Combine

Agricultural machine that simultaneously cuts and threshes crops



Skid loader

As a type of construction machine that is used for industrial/construction use, it is smaller and lightweight than a general wheel loader

Rice transplanter

Agricultural machine that transplants rice seedlings from rice seedbed or seedling raising box to farms

Daeho Technology Korea

Sector : Machine and materials
Sub-sector : Precision production machine
CEO : Lee Yeon Hyeong, Jeong Young Hwa
Founded : 1989. 1. 20
Employees : 63
Homepage : www.daehoteck.co.kr
Sales : \$ 25 million
Listed :
Qualified* : World Class

Introduction

World First, World Best, World Leader
 Daeho Technology Korea Co., Ltd., touching the hearts of customers by producing the best products and services based on experts and technologies, was the first to develop the aspherical glass lens forming machine (LMR) and 3D Curved Glass forming machine (DGP). The 3D Curved Glass which is applied to the domestic and overseas global smartphone manufacturing set maker is produced by using Daeho Technology Korea Co., Ltd.'s glass forming equipment.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Curved glass molding machine

- DTK-DGP-3D12S
Thermoforming machine for development and production of 3D Glass process that produces Curved Glass
- DTK-DGP-H8P6/S/S2
Thermoforming machine dedicated to 3D glass with S/S2 model added through improved semi-sculptured surface shape (2.5D) performance for mobile smart device



Aspherical glass lens molding machine

- DTK-LMR-3300/V2
Produces aspherical glass lens such as phone cameras, digital cameras, Pick-up optical system
- DTK-LMR-3300-IR/A8
Equipment that produces infrared ray lens (Suitable for high precision, aspherical, infrared ray lens)



Robot SI

Painting robot, deburring robot, die casting take-out robot, thermal treatment take-out robot, CNC controller



No. 1 market share in the world for 3D Curved Glass thermoforming machine

Daejoo Machinery

Sector : Machine and materials
Sub-sector : Energy/Environmental machine system
CEO : Lee Jae Hyung
Founded : 1996.07.16
Employees : 135
Homepage : www.djair.co.kr
Sales : \$ 17 million
Listed :
Qualified* : World Class

Introduction

Daejoo Machinery is a company that specializes in the production of compressors and relevant equipment. Based on continuous sales and growth, Daejoo Machinery has increased its presence as the No. 1 company in the compressed air cleaning system at both home and abroad and by leveraging on such competitive edge, it is developing into a global top compressor system company.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



7th place in the world

1st place in Korea



Compressed air cleaning system

Removes foreign substances contained in compressed air so it is utilized in the manufacturing of high precision products such as semi-conductors, electronic products and displays.

Large capacity air compressor system

Used as utility for creating air in various manufacturing industries

Daemo Engineering

Sector : Machine and materials
Sub-sector : Industrial/General machinery
CEO : Lee, WonHae
Founded : 1989. 6. 16
Employees : 110
Homepage : www.daemo.co.kr
Sales : \$ 41 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Since the establishment of the company, Daemo Engineering has insisted on focusing on attachments for excavators and has positioned itself as a manufacturer specializing in attachments. Daemo supplies attachments with the best performance required in quarries, mines, construction sites and public projects. Through endless research and development, Daemo owns various attachment product groups and the products manufactured under its stringent quality control system lead to customer satisfaction and profit.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

DAEMO	Manufactures attachments	
Steel cutter 	Breaker 	Crusher
Multi-processor 	Quick coupler 	Other attachments

and more!

3.2% market share in the world

No. 11 hydraulic breaker

40% domestic market share

No. 1 pneumatic shear

Hydraulic breaker

Multi-disciplinary analysis solution for design optimization in the field of machinery

Hydraulic crusher

Crushes concrete of buildings and dismantles/cuts reinforced concrete

Hydraulic shear

Shears scrap and dismantles structures (H-Beam, I-Beam)

Hydraulic multi-processor

Dismantles buildings and cuts iron structures

Daemyung Total Solution

Sector : Machine and materials
Sub-sector : Robot/Automated machinery
CEO : Kwon Yong SEK
Founded : 2011. 2. 11
Employees : 84
Homepage : www.dmtsc.com
Sales : \$ 31 million
Listed :
Qualified* : World Class

Introduction

Daemyung Total Solution Co., Ltd. offers total solution for sealing equipment and vision system for inspection, from technical review to delivery and local installation & commissioning. Total Sealing System, such as structural, hemming and mastic required for sealer process applied for the purpose of adhesion, water tightness, anti-corrosion and soundproofing suitable to automobile production line is provided and the company is equipped with history management and centralized data management through mass defect prevention and data storage through real-time auto inspection. Based on the know-how accumulated over the years, the production process of design and manufacturing has been optimizing, offering optimal products that satisfy customers. Along with ranking 1st place in Korea for automobile chassis sealing & vision system, Daemyung Total Solution Co., Ltd. is taking on a new challenge of going global.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Sealer coating equipment

Equipment that automatically coats in specific form by controlling the oil quantity, pressure and temperature of the sealer applied for the purpose of adhesion, soundproofing and water tightness in cars

Quality inspection vision system

Solution that monitors quality real-time by applying lighting, inspection instrument, camera and others in the process of inspecting (disconnection, defect coating) the coating state of sealer that is sprayed at high speed during the manufacturing process of automobiles



DAESUNG HI-TECH

Sector : Machine and materials
Sub-sector : Precision production machine
CEO : CHOI WOO KAK
Founded : 1995-01-01
Employees : 285
Homepage : www.topdsht.com
Sales : \$ 87 million
Listed :
Qualified* : ATC

Introduction

DAESUNG HI-TECH manufactures one of the world's best automatic lathes, inheriting the 75 years of history. Our skilled R&D team meets customers' potential needs and responds best to their demand. Also our technology of interfacing with robot and various devices enables our machines to lead 4th industry. Technical innovation, quality management, and customer satisfaction are what we pursue.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



NN-20J3-XB

- Enhanced rigidity with dovetail structure.
- High precision with manually scraped surface of the tool post.
- Less vibration with integrated casting bed.
- Multi angle machining with B axis control.
- Various tool options for complicatedly shaped parts.
- Minimized cycle time with efficient layout.



DST-40DS

- Reduced cycle time through rapid traverse and superb acceleration and deceleration performance.
- Independent operation of Z and W axes.
- Minimized thermal expansion by separated Z and W spindles.
- Increased productivity with two spindles.
- Minimized installation area.

Daewon Kang Up

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Hur,ChaiChul
Founded : 1946. 9. 20
Employees : 768
Homepage : www.dwku.com
Sales : \$ 719 million
Listed : KOSPI
Qualified* : World Class

Introduction

Founded in 1946, Daewon Kang Up is a leader in the auto parts industry of South Korea with a history of 70 years. As a company specializing in auto parts, dedicated to producing suspension springs and seats required for cars, Daewon Kang Up has contributed to the development of the automotive industry in South Korea. There are 4 business premises including the head office in Cheonan, a research center in Seoul, 7 overseas companies, such as in China, USA, India, Poland, Russia and Mexico and there are 5 subsidiaries in Korea, including Samwon Steel.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



★ 15% market share in the world
No. 5 spring

★ 85% domestic market share
No. 1 spring

As the No. 1 company in Korea in the field of suspension springs for cars, the suspension spring product group including plates, coils and Stabilizer Bars (STB) accounts for 65% of the total sales. The sales proportion of precision spring supplied to engines, transmissions and others is 15% and the sales proportion of seat products is 16% and stable sales is being generated based on the domestic market. Main products include Stabilizer Bars (STB), coil springs, plate springs, line springs, valve springs and seats and these products take up approximately 66% of the total sales

DIGEN

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Jeong Yeon Gook
Founded : 1999. 3. 12
Employees : 175
Homepage : www.idigen.com
Sales : \$ 194 million
Listed :
Qualified* : World Class

Introduction

AVN system for cars, display audio, monitor and BSD are being supplied to renowned automobile manufacturers at both home and abroad. In addition, DIGEN has also advanced into car safety fields such as advanced Digital Cluster and HUD, developing into a company specializing in the world's best electronic devices for cars.

* Refer to 396p for detailed information about ATC, and World Class

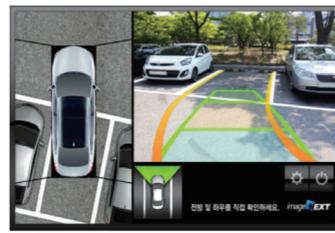
Main Product

47% domestic market share **1st** place in LCD Module

Car convenience products



AVN/Audio



AVM



Rear camera



Monitor/LCD module

Car safety products



BSD : 24GHz, 77GHz

DILLI

Sector : Machine and materials
Sub-sector : Industry/General machine
CEO : Choi, Geon-Soo
Founded : 1996
Employees : 92
Homepage : www.dilli.co.kr
Sales : \$ 29 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

DILLI is the Korea's sole digital inkjet label press manufacturer that has secured original core technology for manufacturing UV inkjet printers since its foundation in 1996, with the vision of 'Global leader in the field of digital inkjet technology'. It has registered 37 domestic patents and 8 foreign patents for the past 10 years. DILLI is a de facto export-oriented global enterprise whose overseas sales take part in about 80% of its total sales, establishing close dealerships in more than 30 countries.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



NEO TITAN series

High-quality multi-pass digital wide-format printer

- Able to print 1,440dpi resolution images upto a width of 5M
- Employing printheads of 1,024 nozzles with 4-level gray scales
- Available in three types of flatbed, roll-to-roll and hybrid



NEO SUN series

Extreme high-end multi-pass digital wide-format printer

- Able to print 2,400dpi images with 2,558-nozzles printheads
- Perfect colorizing by DILLI's original waveform performance
- Available in three types of flatbed, roll-to-roll and hybrid



NEO PICASSO series

High-quality single-pass digital label press.

- Maximum production of 50m/min with CMYK+W colors
- Photorealistic image quality at a resolution of 1,200dpi
- Operated by DILLI's original NEO RIP software and ICC profile
- Perfect fit to full colorVDP (variable data printing)

DK-LOK

Sector : Machine and materials
Sub-sector : Components
CEO : Noh, Eun-sik
Founded : 1992. 1. 20
Employees : 308
Homepage : www.dklok.com
Sales : \$ 71 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

As an enterprise specializing in instrumental Fittings & Valves, our products are being supplied to the front industries, such as shipbuilding and marine, nuclear power and hydrogen and coal-fired power plants, as well as petroleum, refining, chemical, CNG & NGV, semi-conductor and hydrogen equipment, across the world, through 108 agents in 47 countries. In addition, DK-Lok is prepared to continuously provide quality and services that could satisfy the quality requirements of customers around the world based on continuously investment in production equipment, fostering of human resources and R&D.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Instrumental Fitting & Valve

Fitting

It is a device that connects pipes horizontally, vertically, etc. By connecting pipes conveniently without tools or equipment, it enables fluid to flow flawlessly and it can be applied to all industrial fields, as there is not limitation in the fluid type, temperature and pressure. Tube is used instead of the existing piping, reducing cost while enhancing handling convenience and management efficiency.



Fitting & Valve for semi-conductors

Valve

It is a device that plays the role of regulating or opening/closing the flow of fluid. It is an essential product when constituting a piping system and has important functions, such as Shut-off, direction change, prevention of backflow and protection against high voltage. The application field is extremely diverse, from high-pressure gas to oil and air pressure.

Dong Yang Piston

Sector : Machine and materials
Sub-sector : Metals
CEO : Hong Soon Gyeom
Founded : 1967. 7. 1
Employees : 557
Homepage : www.dypiston.co.kr
Sales : \$ 295 million
Listed : KOSPI
Qualified* : World Class

Introduction

As a global engine piston manufacturer with the largest market share for engine pistons in Korea, it supplies OEM products to Hyundai and Kia, GMK, Doosan Infracore, Renault Samsung and Ssangyong Motor and as a World Class 300 company, it is also a supplier to global auto manufacturers, such as BMW, Audi, GM, Ford, Chrysler, Fiat, Isuzu, Kubota and Mitsubishi based on outstanding R&D, production and quality assurance competence. In 2016, it was designated as a representative Smart Plant by the Ministry of Trade, Industry and Energy, substantiating its position as an advanced manufacturer that is fully prepared for the 4th industrial revolution.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ **9% market share in the world No. 4**

★ **55% domestic market share No. 1**



Piston

An essential component that plays the role of delivering power using combustion energy at high pressure and high temperature of more than 2000°C produced when fuel and air are ignited in the car engine cylinder to the crankshaft through the connecting rod. Generally, it can be classified into gasoline piston, diesel piston and industrial piston and depending on the purpose of the vehicle, it can be classified into sedan piston and commercial piston.

Piston pin

Component that engages in high-speed reciprocating movement inside the cylinder together with the piston simultaneously as the huge force applied to the piston is delivered to the crankshaft through the connecting rod

Enclosure for hydrogen car

Component that protects the hydrogen car's fuel cell stack from external environment such as thermal shock and vibration

Manifold ass'y for hydrogen car

Component that supplies hydrogen and air to the fuel cell stack



DongHwa Entec

Sector : Machine and materials
Sub-sector : Shipbuilding & Marine System
CEO : Kim Dong-Kun
Founded : 1980
Employees : 204
Homepage : www.dh.co.kr
Sales : 103,749,559(USD) / 2021
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

DongHwa Entec, founded in 1980, supplies the best products in the heat exchanger field to ships, starting with the repair of heat exchangers for ships. We have established ourselves as a heat exchange manufacturer in power generation and plant industries as well. We are entering various industrial fields including heat exchangers for cryogenic fluid's liquefaction (LNG) and vaporization.

Now it is the time for the environment. DongHwa Entec will strive to solve environmental problems including energy essential for human survival, so we can live in a more pleasant environment. We will create new values through our eco-energy business for future generations using the technology we have developed.

Main Product



Fuel Gas Supply System for LNG Fueled Ship

LNG FGSS(Fuel Gas Supply System) for gas-powered vessels allows LNG and BOG to be supplied as high or low pressure engine fuel.

Business & Product

- LNG FGSS & Cryogenic Engineering Service
- LNG Fuel Tank, LNG Pumping System, BOG Compressing System, LNG Heating System, BOG Heating (Cooling) System, Medium Circulation Heating System, Bunkering System and Venting System the product embodies

PCHE(Printed Circuit Heat Exchanger)

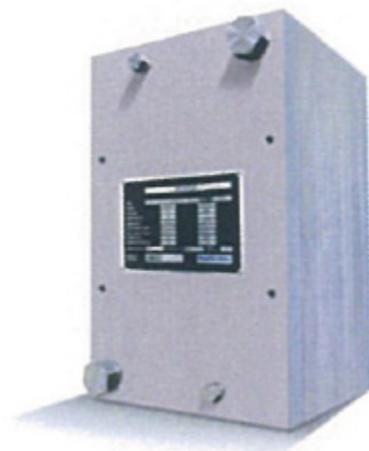
PCHE is a product bonding base materials utilizing the interface diffusion phenomenon that occurs between base materials in a vacuum environment with high temperature and pressure. Heat exchange-type is similar to Plate-type but structural Plate to Plate bonding can maintain the mechanical property of base materials

Characteristics

- High temperature and cryogenic, High pressure environments, Compact Size

Application

- BOG re-liquefaction (cryogenic) on LNG carriers
- High-pressure vaporizer and compressor cooler
- Waste heat recovery for hydrogen fuel cells
- Hydrogen filling stations "H2 Pre Cooler (700bar)"



DORCO

Sector : Machine and materials
Sub-sector : Metals
CEO : Yoo Choon Nam, Hong Geon Hee
Founded : 1959. 5. 21.
Employees : 500
Homepage : kor.dorco.co.kr
Sales : \$ 244 million
Listed :
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Established in 1955, DORCO strives to achieve the mission of "Company that gives happiness to customers" and the vision of '1·DORCO 330'. '1·DORCO 330' signifies that DORCO is ultimately oriented to becoming world-class and aims to become the TOP 3 global company in the industry by 2030. The core corporate values are challenge, cooperation and execution.

Main Product

No. 1 domestic market share for male portable

No. 2 domestic market share for male system

No. 4 market share in the world for male portable

No. 5 market share in the world for male system



Shaving products

- For men (System, portable)
- For women (For body, for eyebrows)



Kitchen utensils

Kitchen knife, fruit knife, kitchen scissors, pots, frying pans, plant scissors



Stationery

Paper cutter, stationery knife, stationery scissors

DTR

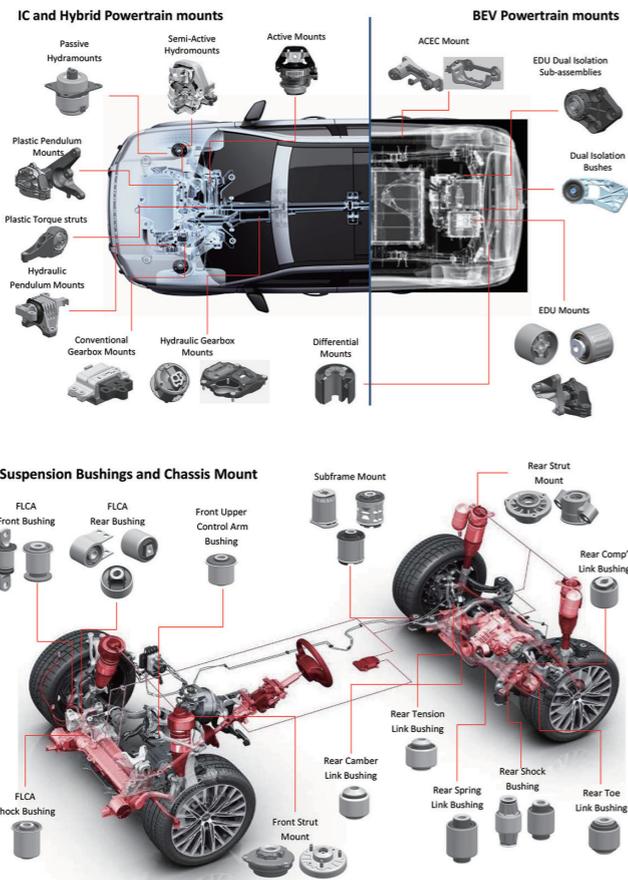
Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Kim Sang Heon, Kim In Hwan
Founded : 2004. 4. 1
Employees : 903
Homepage : www.dtrvms.com
Sales : \$ 257 million
Listed :
Qualified* : World Class

Introduction

DTR has secured sensual quality and dustproof technology for automobiles and its strength lies in the product portfolio specializing in dustproof and its technology. Through its strategic global network, it is a registered Tier 1 supplier to global automobile manufacturers, with a stronghold in maintaining its position as the global Top 5 companies.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Duksan Hi-Metal

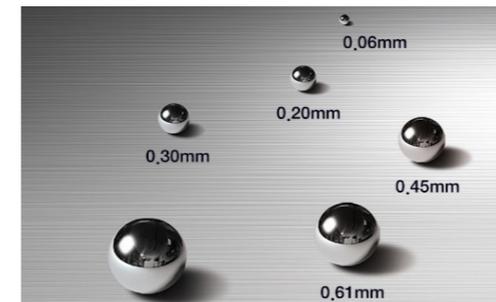
Sector : Machine and materials
Sub-sector : Metals
CEO : Kim Yoon Cheol, Lee Soo Hoon
Founded : 1999. 5. 6.
Employees : 218
Homepage : www.dshmetal.com
Sales : \$ 77 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Products such as solder balls and pastes which are bonding materials for semi-conductor packages are being supplied to companies like Samsung Electronics and SK Hynix and the company is contributing to the development of not only the domestic but also global material industry. Duksan Hi-Metal will continue to become the 1st INNO-Creator of material and part industry by preemptively reflecting the trend of world's IT technologies.

* Refer to 396p for detailed information about ATC, and World Class

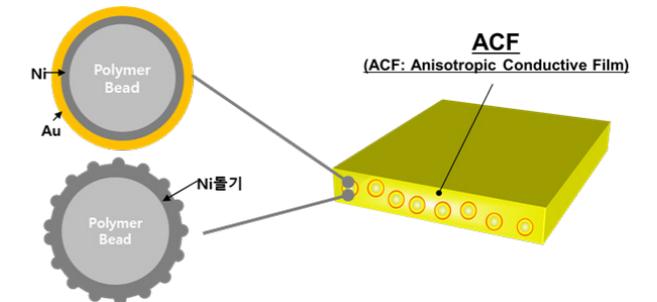
Main Product



- ★ **No. 1** world's market share for solder balls
- ★ **No. 1** domestic market share for solder balls
- ★ **No. 1** domestic market share for conductive balls

Solder Ball

Solder ball is an essential part of the semiconductor package technology such as BGA (Ball Grid Array) and CSP (Chip Scale Package) and is a material for semi-conductor package that plays the role of delivering electrical signals by connecting chips and boards



Solder Paste

As a cream-type of material for bonding, it binds boards and devices, prevents oxidation or creates solder bumps

Conductive Particle

High precision connecting material that is used in Anisotropic Conductive Film (ACF) and others

DY Auto

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Yoo Tae Gil
Founded : 2014. 12. 1
Employees : 468
Homepage : <http://auto.dy.co.kr>
Sales : \$ 238 million
Listed :
Qualified* : World Class

Introduction

DY AUTO is Korea's only indigenous company that specializes in producing electronic parts for automobiles, such as motor, wiper system and cooling fan motor. Production companies have been established in China, India, Mexico and others in order to secure a Global Footprint and the market share is gradually being increased in the global market through continuous development of high-tech products and core technologies such as motors and controllers.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 domestic market share for cooling fan motor

No. 1 domestic market share for power window motor

WIPER SYSTEM

Secure driver's vision



SUNROOF MOTOR

Opening and closing system of sun roof



COOLING FAN MOTOR

Prevents overheating when engine and air-conditioner are in operation



POWER WINDOW MOTOR

Opening and closing of car window's glass



Ecocab

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Choi Young Cheon
Founded : 2004. 6. 20
Employees : 256
Homepage : www.ecocab.co.kr
Sales : \$ 71 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

ECOCAB, playing a leading role in automotive cable manufacturing industry based on the best technology and competitiveness, is striving to become a representative automotive component company as a global leader in the future by securing source technologies for next-generation components as well as competitiveness. In addition, ECOCAB is taking the initiative to pioneer market markets through strategic partnership with its branches and suppliers all over the world and is not only adopting new technologies for the advancement of future industry but also enhancing quality and technology by operating a R&D center.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Wire & Cable

As an eco-friendly, highly flexible cable, it is used as various wiring to deliver signals inside cars, such as car's engine, control circuit wiring, Door, Roof, Air-Bag and transmission



Wiring Harness

Tying electrical wiring convenient is called a Wiring Harness and it plays the role of delivering electrical energy produced from the generator to each electronic devices and delivering various information produced from various switches and sensors to the relevant components



Bulb Socket

It is utilized in head lamp and rear combi and it is used to deliver signals of turn signals, head lamp position, parking and tail



BMPCB LED Module

As a component that is part of the automobile's lamp system, it belongs to the DRL and RCL product group. It is a lighting device that is automatically lit immediately when the engine is started, enabling other drivers or pedestrians to easily take note of the vehicle when the car is driven during day time, preventing accidents. With in-house manufacturing of BMPCB LED Module, our company is expanding the market share at both home and abroad.



Ehwa Diamond

Sector : Machine and materials
Sub-sector : Grinding /Cutting Tools
CEO : Jaehee Christine Kim
Founded : 1975
Employees :
Homepage : www.ehwadia.co.kr
Sales : UNDISCLOSED
Listed :
Qualified* : ATC

Introduction

Since its establishment in 1975, it has devoted to manufacturing diamond tools and based on the accumulated know-how, it has achieved the vision of 'World Best Diamond Tool Company' and is heading towards becoming the NO. 1 diamond tool. As the first company in Korea to achieve export of US\$ 100 million in the export markets in over 90 countries worldwide, it has accomplished outstanding growth. Diamond tools are essentially being used in various industrial fields such as semiconductor material, solar energy material, LED panel, CFRP material, cars, mechanical parts, glass optics, construction/stone.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

4th in the world

1st in Korea



Electronic tools

Used for manufacturing of integrated circuit of semi-conductors, display, and in the manufacturing fields of LED and solar cell which are gaining attention as eco-friendly green energy



Precision processing tools

Utilized in processing of cars and automotive parts, aerospace industry, glass optics, ultra-precision machine and bearing, various household products and electronic parts, etc.



Tools for construction and stone

Used in the fields related to stone from stone mining to processing and fields related to construction such as concrete structure and asphalt

EMTOMEGA

Sector : Automobile/Rail vehicles
Sub-sector :
CEO : Lee Jin Gook
Founded : 2002. 11. 1
Employees : 73
Homepage : www.emtomega.com
Sales : \$ 80 million
Listed :
Qualified* : World Class

Introduction

EMT Omega Co., Ltd. has been oriented to trust and righteous management since its establishment in 2004 and is an innovative company developing into a World Leading company in the field of In-Car Product based on the best technology and quality.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Japanese market share
 No. 1 dash car supplier in Japan

Europe market share
 No. 1 COMBO supplier

Dash cam, frontier of industry

- World's fastest booting and recording time (0.7 sec.)
- Owns multiple patents regarding video saving and management
- Technology for detecting forgery, modification of video (KS-certified)
- Offers various industry-leading Advanced Driver Assistance Systems (ADAS)
- Tracking and driving management technology based on GPS

Combo(Black Box+RD)



Source and convergent technologies regarding radar signal processing

- Technology for converging 5 band RFs (GPS, X, K, VHF, WiFi)
- Patch/Horn antenna technology, DPS processing technology of radar signal
- K Band Signature technology, technology for evading wrong detection of radar signal
- GIS-based server connection technology utilizing GPS/WiFi/MAP information
- Manages driving by obtaining various vehicle information from OBD2

Radar Detector



Multi-model combined product (COMBO)

- First in the world to launch product combining dash car and radar detection (COMBO)(Russia/2013)
- First in the world to launch COMBO product combined with patch antenna (Russia/2015)
- First in the world to launch radar SIGNATURE COMBO product (Russia/2017)
- First to launch COMBO model in Japan (2017)

Black Box



ENJET

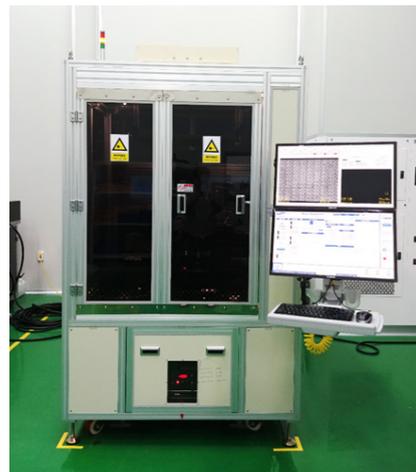
Sector : Machine and materials
Sub-sector : Precision production machine
CEO : Doyoung Byun
Founded : 2009
Employees : 50
Homepage : www.enjet.co.kr
Sales : \$ 9 million
Listed :
Qualified* : ATC

Introduction

The Enjet Inc. was founded in 2009 with vision to provide innovative manufacturing solution replacing conventional vacuum manufacturing process in OLED, PCB, Semiconductor, Glass, Bio-medical, energy industries. We has developed original fluid control technology, based on i-electrohydrodynamics (iEHD), precise valve, and robotic control technology. The Enjet is the only supplier of iEHD high resolution printing and coating solutions in mass production.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



eNanoJet Printer

The eNanoJet Printer is a device that can print ultra-fine patterns of 1um. It is applied to the manufacturing process of microLED and OLED TFT repair.

- high-resolution, contactless printing
- Pattern width: >1um
- Pattern accuracy: ±0.1um
- Process Area: Up to 8G Glass

eNano Spray Coater (eNC-800)

The eNC-800 is a spray coating equipment and can replace the vacuum deposition functional material coating process. It is possible to control the thickness of the coating film at the nano-microscale level, it is easy to apply a large area size, and can reduce chemical solution usage by up to 40%. It is applicable to the display, smartphone, PCB, and semiconductor industries.

- Drop size: 200nm to 5um
- Thin film thickness: > 2nm
- Solution viscosity: ~ 1,000cPs
- Coating speed: up to 2m/s



ERAE AMS

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Kim Yong Jung
Founded : 2017. 10. 1
Employees : 764
Homepage : www.eraeams.com
Sales : \$ 275 million
Listed :
Qualified* : World Class

Introduction

ERAE AMS Co., Ltd., as a joint venture between Daewoo Group and GM established in 1984 is a global automotive parts company globally supplying essential automotive parts, such as chassis parts (driving, braking, steering) and electronic/electrical parts (Alternator, EGR, ADAS, VCU).

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ First in Korea and

2nd in the world to succeed mass production of Ballspline technology

★

Solution Provider of autonomous driving system (Braking, steering, ADAS)



eAxle



Halfshaft



Brake



Steering

Chassis parts

Development and production of driving and steering devices that exhibit outstanding NVH performance, excellent durability and optimal performance under any given driving circumstances as well as braking devices with fast responsiveness

Electronic and electrical parts for cars

Development and production of downsized/lightweight high efficiency/high output and low noise alternator, Exhaust Gas Recirculation device (EGR Valve), Advanced Driver Assistance Systems (ADAS) for autonomous vehicles and Vehicle Control Unit (VCU) of electric vehicles



Alternator



EGR valve



VCU



ADAS

Exicon

Sector : Machine and materials
Sub-sector : Semiconductor Equipment
CEO : Park SangJun
Founded : 2001
Employees : 156
Homepage : www.exicon.co.kr
Sales : \$ 54 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

Exicon Co., Ltd., which is a company that specializes in manufacturing semiconductor test devices, has succeeded in commercializing a storage semiconductor test device and a Burn-in test device after having succeeded in developing a semiconductor test device for the first time in South Korea In 2006. EXICON aims to provide total solutions in all testing area by expanding its business into the non-memory semiconductor area beyond its main product of memory test device.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Storage Tester performs final SSD inspections using a number of different methods. Thus, by providing an equal testing environment through precision temperature control, this product helps determine faults in SSD products and inspects their performance and reliability.

- SATA 6G/ SAS 12G/ PCIe Gen3
- Precise Temp. Control Chamber (-10℃ ~ +85℃)
- Flexible Parallel 240p
- Support variable Form Factor

Memory Tester perfects products in their final stage by performing the final inspection on memory components and modules such as DDR4 and DDR5 during the post-process of semiconductor manufacturing while promoting yield management within the process.

- DDR4,5 Module Full Function Test and DC Test Support
- Available TOF function up to 200MHz(cell & core test)
- Support Auto Calibration, SPD function

Felix Technology

Sector : Machine and materials
Sub-sector : Plastic processing/Powder
CEO : Kim Jong Oh, Lee Myeong Hee
Founded : 1998. 5. 21
Employees : 76
Homepage : www.fete.co.kr
Sales : \$ 75 million
Listed :
Qualified* : World Class

Introduction

Felix Technology Co., Ltd. has conducted successful businesses through global management since its establishment in 1998 and has thus significantly developed into a manufacturer specializing in forged pistons and flanges. Led by accumulated forging technology and advanced plastic working production technology, it has supplied forged pistons, precision forged flanges to the global market, elevating its status as a global TOP 1 company for forged piston parts and as No. 2 domestic company for flanges.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Forged pistons



Forged flanges

GUMCHANG

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Jae-Yeol Song
Founded : 1991
Employees : 300
Homepage : www.gumchang.com
Sales : \$ 65 million
Listed :
Qualified* : ATC

Introduction

Gumchang provides hinge systems, seat frame, EV battery module frame, body and chassis parts to the automotive industry. Hinge systems include hoods, trunks/deck lids, doors, tailgates hinges and door checks. Gumchang supplies the above-mentioned parts to the Hyundai Motor Group based on its own design, analysis, and test technology. Gumchang is particularly focused on stamping technology and has various process technologies for product manufacturing.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Gumchang provides a large range of single and multiple joint hinges.

- Single pivot hood hinge : lightweight & low cost
- Four bar hood hinge : safety & customer convenience
- Active hood hinge : pedestrian protection
- Torsion bar trunk lid hinge : lightweight & low cost
- Gas-lift trunk lid hinge : Trunk lid can be fully opened

Gumchang is supplying manual and power type front seat frames and split and bench type rear seat frames to customers. Front and rear seat back frame products are designed to fit within most vehicle environments and to accommodate many features. Gumchang manufactures seat parts using ultra-high-strength steel materials, and complies with the laws for seat products in North America and Europe such as ECE R-14 and FMVSS210.



HANHO INDUSTRIAL

Sector : Machine and materials
Sub-sector : Automobile
CEO : Kang Dong Han
Founded : 1999
Employees : 180
Homepage : www.hanhoinc.com
Sales : \$ 58 million
Listed :
Qualified* : ATC

Introduction

HANHO started from the forging company in 1999, has achieved continuous growth to automobile power train parts company expanding to machining business. It's major customer is domestic OEM companies as well as overseas, including FORD, HONDA, and BMW etc. HANHO has provided high quality product that maximizes customer value with developing combination forging for gear teeth, Ring Rolling method etc though continuous R&D, production capacity and quality enhancement.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Gear BLANK

Among various power transmission devices, gears have an accurate belt speed detector, high efficiency, and power density. HANHO is currently producing a total of 11 types of gear blank parts including RING GEAR and PRIMARY, which are recognized for his technological prowess in countries around the world through continuous quality improvement and technology development.

- RING ROLLING process that improves material utilization rate and builds environment-friendly process by saving resources and energy
- Flexible production system for hot forming process with high productivity and precision
- Securing advanced automobile technology for high precision products

Park Gear is essential parts of transmission to hold the car during P-Mode. So, This part is directly related to safety and also, It is applied to electric vehicle as well as ICE(internal combustion engine) vehicle.

- By applying combination forging technology, It is possible to reduce the weight and size with better tensile strength compared to the existing parking gear.
- Reduced cost from integrated process of parking gear production line
- High performance and quality from accumulated data of induction heat treatment process.



PARK GEAR

Hanjoo Metal

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Jeong Sam Soon
Founded : 1987. 12. 8
Employees : 252
Homepage : www.hanjoometal.com
Sales : \$ 158 million
Listed :
Qualified* : World Class

Introduction

Hanjoo Metal Co., Ltd., as a company that specializes in casting, processing and Sub Assy production of engine, car body and chassis parts in the fields of automobiles, vessels and industrial machines by utilizing various aluminum casting techniques, is a global hidden champion that produces complex and difficult products based on casting technology acquired over 30 years since its establishment and exports them to the world. In addition, it has successfully developed exclusive casting techniques through endless R&D, applying them to corner module parts of vehicles for mass production. It strives to become a global aluminium casting company in the future through exclusive casting techniques.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Gravity casting parts

Technique that injects and casts aluminum molten metal to the mold by using the gravitational force



Intake manifold

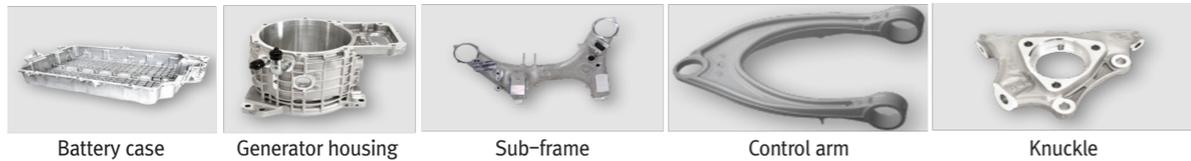
Oil pump cover

Compressor housing

EGR housing

Low pressure casting parts

Technique that injects and casts molten metal at low pressure of less than 1kg/cm²



Battery case

Generator housing

Sub-frame

Control arm

Knuckle

High pressure casting parts with electromagnetic stirrer

Technique that injects and casts to the mold through microstructuring of aluminum in semi-solid state using electromagnetic force



Carrier for passenger cars

SUV knuckle

SUV carrier

Damper fork

HOJIN PLATECH

Sector : Machine and materials
Sub-sector : Surface treatment
CEO : Denny Lee
Founded : 1995
Employees : 45
Homepage : www.hojinplatech.com
Sales : \$ 20 million
Listed :
Qualified* : ATC

Introduction

HojinPlatech Co., Ltd has been re-established from Hojin Co., Ltd, which was established in 1979 as a manufacturer of chemicals for electroplating and surface finishing. We supply surface finishing chemicals and technical services to both electronic component industries such as semiconductor packaging, printed circuit board (PCB), connector, and automobile parts industry, based on our close cooperation with the Schloetter Group in Germany, famous worldwide for its plating technology.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



SupraStrip TC-10K

SupraStrip TC-10K is a sulfuric acid based process for stripping of Tin and Tin-Copper alloy depositions from stainless steel conductive belt or rack by dip or spray method. Comparing with the nitric acid based product, SupraStrip TC-10K has very low exothermic reaction and minimization of corrosion to equipment and the toxic gas or odor is limited, therefore the operating environmental is better than the nitric acid based chemistry. The stripping capacity of SupraStrip TC-10K is approximately 200g/l of tin in the solution therefore the life time of solution can be extended.



HoplaEtch CU-Series

HoplaEtch CU-100 is a strong acidic copper etchant based on sulfuric acid and hydrogen peroxide. This product is designed for stripping of copper deposition from stainless steel substrates without attack on the base materials, and is especially suitable for the application of plating jigs in the electro-plating industry.

- Excellent stability of bath based on sulfuric acid and hydrogen peroxide.
- Excellent etching rate and maximized capacity at room temperature.

Hoong-A Corporation

Sector : Machine and materials
Sub-sector : Industrial/General machinery
CEO : Kang Shin-Young
Founded : 1970. 12. 1
Employees : 140
Homepage : www.hoonga.com
Sales : \$ 61 million
Listed :
Qualified* : World Class

Introduction

Since its foundation in 1970, Hoong-A Corporation is a pharmaceutical and non-pharmaceutical packaging manufacturer with half a century of history and technical know-how. It is a small and medium enterprise with over 800 client companies in over 70 countries around the world. Hoong-A Corporation manufactures Blister packaging machine which is an automatic packaging machine that produces blister packs of tablets, capsules, vials and syringes through forming, filling, packaging, usually with films or aluminum foil, Cartoner which automatically inserts Blister products into cartons, and a full-line automatic packaging machine up to End of Line Packaging in which cartons and blisters and automatically stretch banded and shrink wrapped. With the objective of becoming a small and powerful 'hidden champion', it strives to enhance the production competitiveness of customers based on world-class products and trust.

* Refer to 396p for detailed information about ATC, and World Class

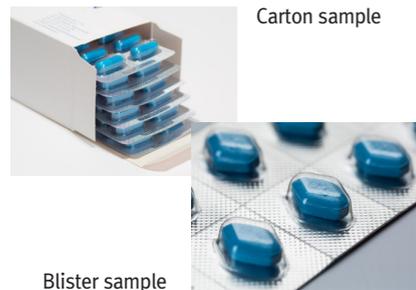
Main Product

4th place in the field of pharmaceutical automatic packaging machine in the world

1st place in the field of pharmaceutical automatic packaging machine in Korea



(HM 600P + HC 400 + HB 40S)



900 Blister Line

As a line-up comprised of HM600P which is a flat adhesion type of blister newly developed in 2016 that allows 900 blister packagings to be made per minute and HC 400 which is a continuous type of horizontal carton packaging machine, it is a super high speed blister packaging line suitable for mass production. With the recently updated technology and realization of a Smart Factory, it has been designed to enhance maximum production efficiency and to maximize the convenience of users and managers.

* Has over 800 client companies in 70 countries

HORYONG

Sector : Machine and materials
Sub-sector : Industrial/General machinery
CEO : Park, Jang-hyeon
Founded : 1990. 1. 17
Employees : 146
Homepage : www.horyong.co.kr
Sales : \$ 112 million
Listed :
Qualified* : World Class

Introduction

HORYONG Co., Ltd, has secured the largest market share in Korea for 31 years since its establishment in 1990, by manufacturing lift equipment (aerial lift truck, ladder lift truck) under the motto of safe and comfortable life. It is a leading producer of future, eco-friendly equipment that is engaged in R&D and production of eco-friendly electrical equipment (electric crane, electric excavator).

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Electric excavator

Zero-Emission! Electric excavator manufactured with HORYONG's internal technology

- Representative models (iX35e, iX17e)

Aerial lift truck

HORYONG's aerial lift truck that prides in the best Korean technology, pioneering the market

- Representative models (SKY900S, SKY750S, SKY700AR)



Ladder lift truck

HORYONG's ladder lift truck that was first to be produced in Korea

- Representative models (PE 650P, PE 640Q, PE450Q)

Howon

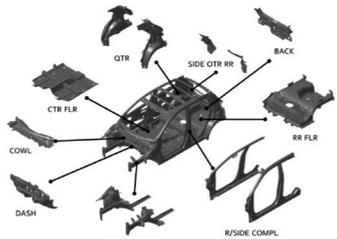
Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Shin Hyun Ju
Founded : 1993.02.08
Employees : 461
Homepage : www.howon.com
Sales : \$ 34 million
Listed :
Qualified* : World Class

Introduction

Since its foundation in 1986, Howon has overcome various regional economic hardships and is striving to become a leading company in Gwangju, contributing to the advancement of automotive parts industry through continuous human resource development, technological development and quality innovation. Based on systematic management, Howon has adopted a quality system attempting to achieve 0% defect rate while continuing to invest in R&D for new technology development. In 2007, it has set up a local company in Turkey, marking a turning point for developing into a global company.

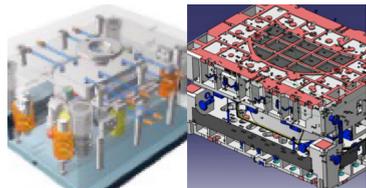
* Refer to 396p for detailed information about ATC, and World Class

Main Product



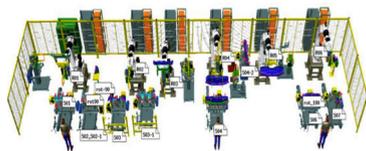
Car chassis parts

Frame of a car that secures stability and silence in automobiles, including opening and closing device which becomes the point of entry/exit for passengers and luggage and where driving parts such as engine as well as passenger's convenience parts are installed onto



Press mold products

Mold that produces parts by plastic working of steel plates through up/down movement of mechanical press machine for production of automotive parts



Production equipment and jigs

Production equipment that fixes chassis parts into assembly structures then joins and assembles them using robots



Solar power generation system

Equipment or system that receives light energy from the sun and converts it directly to electrical energy. Sunlight is received and solar cells comprised of semi-conductor substance are allocated to generate electricity

Hwashin

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Chung Seojin
Founded : 1969. 10. 15.
Employees : 914
Homepage : www.hwashin.co.kr
Sales : \$ 1030 million
Listed : KOSPI
Qualified* : World Class

Introduction

Hwashin, a producer of automobile chassis and body components is dedicated to research and development through a research center playing a pivotal role in order to enhance quality level. Hwashin, leading product development as well as the industry in the fields of new technologies and new engineering techniques, participates as a guest engineer from the new vehicle development planning stage in recognition of its design technologies and based on technological competence, is achieving an upper hand in competitiveness in receiving orders for products where new technologies and new engineering techniques are applied.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

4% market share in the world

13th place in chassis category

60% domestic market share

1st place in chassis category

Cross Member

Supports the engine of the vehicle, connects the car axis and the chassis, supports the external load during driving and prevents vibration as well as noise from the ground or power trains

RRCTBA

Installed on the rear wheel of a vehicle, it absorbs the shock following road information while driving on a straight road while maintaining cornering stability of the vehicle during cornering

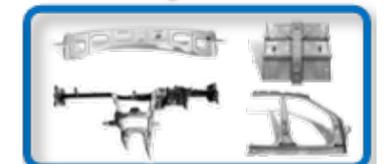
Lower Arm

Supports lateral force, longitudinal force and vertical force applied through the tires during driving and prevents abnormal movement of the tires

Chassis Parts



Body Parts



Electric Parts



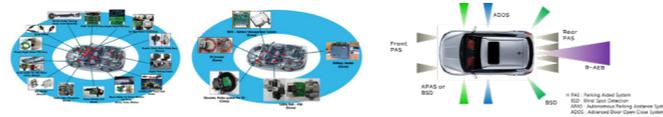
Hyunbo

Sector : Machine and materials
Sub-sector : Automobile/railroad vehicle
CEO : Taeseung Kwak
Founded : 1985
Employees : 280
Homepage : www.hyunbo.com
Sales : \$ 64 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

We are developing and manufacturing various electronic and electric parts for automotive components. We also have many technical know-how and experiences over 37 years. And we have Factories in South Korea, China and Mexico. Especially, we developed special solution with ultrasonic sensors and cameras. For example, Remote AutoParking System, BSD(blind Spot Detection) and Digital PAS(Parking Added Sensor). We also have the technology for controlling motor and various sensors.

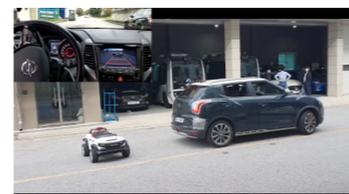
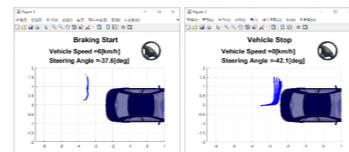


Main Product



Auto Parking System with AVM & Ultrasonic Sensors

	PAS (Parking Assist System)	APAS (Automatic Parking Assist System)	R-SPA (Remote Smart Parking Assist)	RAPS (Remote Automated Parking System)	AVPS (Automated Valet Parking System)
주차 보조	○	○	○	○	○
주행 지원	X	X	○	○	○
주행 자동	X	X	○	○	○
주행 안전	X	X	X	○	○
주행 편의	X	X	X	X	○
주행 효율	X	X	X	X	○
ISO 인증	ISO 17386	ISO 14787	ISO 20900 (RAPS)	ISO 23374 (AVPS-인명용)	



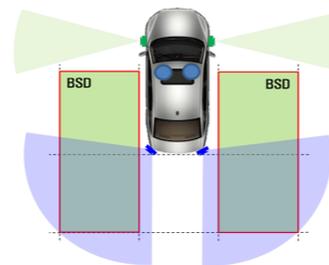
Rear AEB System



Auto Door System



Blind Spot Detection



*ISO -17387(LCDAS) Type 1

* AVM : Around View Monitoring
 AEB : Auto Emergency Brake

ILJIN Diamond

Sector : Machine and materials
Sub-sector : Plastic working & Powder
CEO : shin Kwang Seop
Founded : 1988
Employees : 300
Homepage : www.iljindiamond.com
Sales : \$ 58 million
Listed : KOSPI
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

ILJIN Diamond is the only company in Korea manufacturing synthetic diamonds, PCD/PCBN, PDC and super-hard alloy materials using high temperature/pressure technology. We strive to become a successful partner to our customers rather than remaining as a simple machine tool supplier. To respond to the fast advancement of highly efficient hard material processing techniques, we are doing our best in performance evaluation/analysis.

Main Product



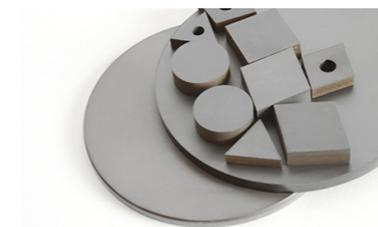
Diamond & CBN Powder

Synthetic Diamond and CBN are manufactured through ILJIN's superb technology and rigorous quality control. Subtle control over strength, purity and size of diamond and CBN particles is critical to deliver high quality products. Diamond and CBN are impregnated to steel body for saw blades, grinding wheels and wire saws to be used in cutting or grinding stones, asphalt, wood, aluminum, glass, steel, and etc. Users adopt methods such as electroplating, brazing, or sintering for impregnation.



PCD(Polycrystalline Diamond)

ILJIN Polycrystalline Diamond(IPOL) is a material used for cutting tools, and is made by sintering synthetic diamond and binder at high temperature and pressure. IPOL is used to process workpiece materials such as automobile and aircraft manufacturing and to process difficult-to-cut materials, including nonferrous materials such as aluminum alloy, ceramic, wood, silicon, carbide, CFRP, copper, etc.



PCBN(Polycrystalline Cubic Boron Nitride)

ILJIN Polycrystalline Cubic Boron Nitride(IBON) is a material used for cutting tools, and is made by sintering CBN powder and ceramic binder at high temperature and pressure. With ILJIN PCBN, ferrous materials can be effectively processed. For this reason, PCBN is essential to process all workpiece materials and difficult-to-cut materials such as Carbon Steel, Cast Iron, Heat Treated Steel, Sintered Metal, Super Alloy, etc. Then they are applied in variety of fields such as automobile and aircraft.

ILJIN Global

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Lee Sangll
Founded : 2019. 7. 1.
Employees : 513
Homepage : www.iljin.com
Sales : \$ 726 million
Listed :
Qualified* : World Class

Introduction

Since its establishment, Iljin has positioned itself as a global leading company in the field of hub bearing through ceaseless transformation and innovation. World-class Iljin actualizes the best customer values through 'creative and innovative management' based on integrity and transparency of corporate management.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Hub bearing

Attached to the wheels of a vehicle, this bearing supports the load applied to the axle while transferring power. Depending on the type of rolling element, it is classified into ball bearing and tapered roller. Currently, all 1st, 2nd and 3rd generation bearings are being produced and 3 out of cars in the world are running with Iljin's bearing.

ILJIN Materials

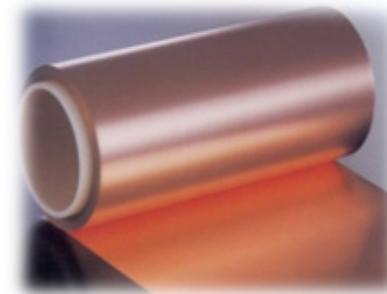
Sector : Machine and materials
Sub-sector : Metal material
CEO : Yang Jeomsik
Founded : 1987
Employees : 474
Homepage : www.iljinm.co.kr
Sales : \$ 564 million
Listed : KOSPI
Qualified* : ATC

Introduction

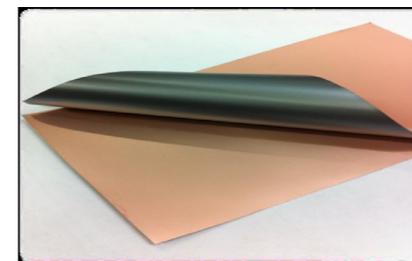
ILJIN Materials was the world's second manufacturer to successfully commercialize Elecfoil for rechargeable lithium ion batteries demonstrating its global technological strength, and its own Elecfoil was selected as a "World Class Product" by Korea's Ministry of Knowledge Economy. The key in Elecfoil manufacturing technology lies in making it thin and even. The thickness is in units of micrometers (μm) or 1/1000 of 1 mm. Elecfoil thickness generally ranges from $12\mu\text{m}$ ~ $70\mu\text{m}$, but with the demand of IT products that need thinner Elecfoil, ILJIN developed Ultra Thin Elecfoil with a thickness of $1\mu\text{m}$, $3\mu\text{m}$, and $5\mu\text{m}$.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



As the current collector for rechargeable lithium batteries, a paste is applied on top of the I2B to create the anode to the rechargeable battery. This specialized Elecfoil's shiny and matte side has similar and very low surface profile, and is used for the anode current collector in rechargeable lithium batteries for cellular phones, camcorders, and laptop computers. I2B is available in a variety of thickness to meet product needs (6, 8, 10, and $20\mu\text{m}$) – less than $10\mu\text{m}$ for higher energy density or thicker to increase charge and discharge speed.



IUT is an ultrathin Elecfoil especially designed for PCBs used in computer CPUs and other complex memory devices that are high density, high integration, high layering and have microcircuits.

IUT is used in semiconductor packaging (Flip Chip, CSP) and High Density Interconnect (HDI) circuit boards. Since its thickness is less than $3\mu\text{m}$, it is attached to a carrier Elecfoil thicker than $18\mu\text{m}$ to make handling easier.

ILJITECH

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Koo Bon Il
Founded : 1986. 11. 24
Employees : 370
Homepage : www.iljitech.co.kr
Sales : \$ 163 million
Listed : KOSDAQ
Qualified* : World Class

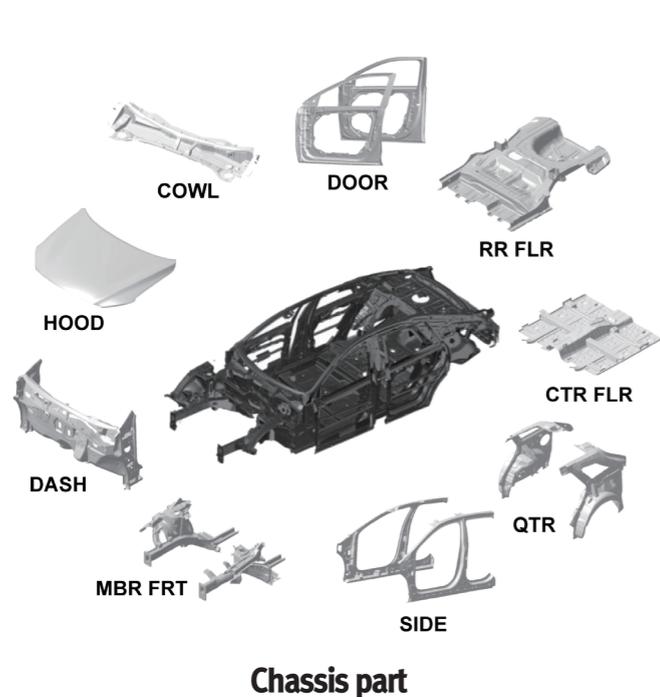
Introduction

Founded in 1986, Ilji Tech Co., Ltd. has devoted itself to the automotive parts industry and despite the evolving corporate environment, has secured the competitiveness to produce the best products under any given environment through the bold challenges and innovation of executives and employees based on the management philosophy of optimal quality and best technology, The new construction of a mold plant in 2003, the new construction of the Head Office's Plant 2 in 2010, the establishment of a overseas company in China in 2011 and the new construction of Gyeongju Plant in 204 are some of the investment and development made, ultimately laying the foundation for it to develop into a sound mid-sized company.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

5star Certification for Quality



INZI Controls

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Jung GooYong
Founded : 1978.01.31
Employees : 1,762
Homepage : www.inzi.co.kr
Sales : \$ 404 million
Listed : KOSPI
Qualified* : World Class

Introduction

Creative experts equipped with high value and competence who contributes significantly to generation of organization's performance and who becomes a role model for members

* Refer to 396p for detailed information about ATC, and World Class

Main Product

13% market share in the world
No. 3 Thermal Management System part

85% domestic market share
No. 3 Thermal Management System part



Thermal Management System part

As a functional part that maintains the appropriate temperature of the engine, global competitiveness has been secured in the relevant fields, such as Thermostat and Water Temp. Control



Engine Management System part

As parts that are responsible for various controls for flawless operation of the engine, high functional, high-tech products such as fuel pressure control, engine knocking detection, collection of incomplete combustion gas are produced



Eco-friendly vehicle parts

Key products for cooling and power source supply for eco-friendly vehicles such as electric vehicle's Battery Module and Coolant Control Valve



Engineering Plastic part

Plasticizing of automotive parts are being achieved in order to enhance fuel consumption and reduce production cost by shedding off weight. Development of technology-intensive products capable of withstanding high temperature and high impact, such as Cylinder Head Cover, Air Intake Manifold and Thermostat Housing are being expanded

JOKWANG I.L.I

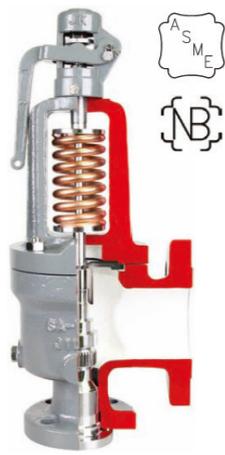
Sector : Machine and materials
Sub-sector : Industry/General machine
CEO : Kim Woo Dong
Founded : 1968
Employees : 140
Homepage : www.jokwang.co.kr
Sales : \$ 26 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

Since its establishment in 1968, JOKWANG I.L.I CO., LTD. with its JK trademark has put every effort in pioneering and specializing as one of the leading valve manufacturing companies. Its devotion has concentrated especially in the area of safety relief valve, pressure reducing valve, stop valve and steam trap. With almost half a century of experience, we have earned over a good reputation for quality, reliability, reasonable price and excellent performance.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



JSV-FF100

JSV-FF100	
Code	ASME Section VIII "UV" Stamp
Type	Conventional, Bellows
Applicable Fluid	Steam, Air/Gas, Liquid
Applicable Pressure	0.1~41.3MPa(15~6000psig)
Applicable Temperature	-196 ~ 537°C
Size	3/4"X1" ~ 14"X18"
Orifice	D(0.11 in ²) ~ Y(76.078 in ²)
Connection	ASME 150LB ~ 2500LB
Material ^{*)}	Body : Carbon Steel(Standard) Trim : Stainless Steel(Standard)

*1) Material could be changeable upon request.



JSV-FF200

JSV-FF200	
Code	ASME Section I "V & UV" Stamp
Type	Conventional
Applicable Fluid	Steam
Applicable Pressure	0.1~34.6MPa(15~5020psig)
Applicable Temperature	-120 ~ 640°C
Size	1"X2" ~ 8"X12"
Orifice	F(0.439 in ²) ~ Y(76.08 in ²)
Connection	ASME 300LB ~ 2500LB
Material ^{*)}	Body : Carbon Steel(Standard) Trim : Stainless Steel(Standard)

*1) Material could be changeable upon request.

JT Corp.

Sector : Machine and materials
Sub-sector : Robot/Automation machine
CEO : Jun Yoo
Founded : 1998
Employees : 155
Homepage : www.jtcorp.co.kr
Sales : \$ 54 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

JT Corp is pursuing a lead forward in the world's best companies with constant enthusiasm and challenging spirit. As a leading company in the field of semiconductor process equipment, JT Corp has been dedicated to the development of localized equipment through continuous investment of technology and research and development.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Burn In Loader/Unloader

- Equipment for loading & unloading IC on Burn-In Board (BIB) for Burn In Test
- Logistics automation response: AGV, OHT response
- Maximize productivity through Auto COK/Nozzle Change
- Tester docking part, including vision inspection function such as Pin1, 2DID
- Reduced difficulty and time of equipment setup by introducing a vision camera for each tool
- Sorting function by bin grade according to the burn-in test result
- Available for various packages such as BGA, CSP, LGA, QFP, QFN, TSOP, etc.



UTG Laser Cutter

- Ultra Thin Glass Cutting Equipment Using Ultra Short Pulse IR Laser
 - Minimize quality problems caused by workers through glass handling through Picker Robot
 - Maximize productivity through dual stage of simultaneous work (independent stage operation possible)
 - Minimize chip out and micro cracks by optimizing process conditions
 - CAD drawing processing function: straight line, curved line processing available
- * Thin Glass Cutting from Roll to Sheet possible

Sector : Machine and materials
Sub-sector : Industrial/General machinery
CEO : Lee Yong-hee
Founded : 1977. 6. 20.
Employees : 315
Homepage : www.myjvm.com
Sales : \$ 97 million
Listed : KOSDAQ
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Starting from the development of manual tablet packaging machine, JVM is a true global company of automated tablet dispensing and packaging after being the first in Korea to develop a fully Automated Tablet Dispensing & Packaging System (ATDPS) in 1998. It is currently a automated tablet dispensing, packaging and management solution provider for hospitals, pharmacies and care hospitals for the elderly. JVM, a global company exporting to 34 countries based on contracts with renowned global companies and agents is continuously moving forward, beyond No. 1 automated solutions for hospitals and pharmacies around the world.

Main Product

92% domestic market share No. 1

76% market share in the world No. 8

* As of 2020

ATDPS

Offers a more accurate and economic medication management environment by automating the classification, distribution, packaging, printing and inventory management depending on prescriptions per patient

- Auto Canister
Automatic preparation of 1/2 tablets and special medications
- Ordering Communication System
System that delivers prescription information
- ACRS-II
Automatic recognition of medication location



VIZEN DE

Tablet packages that have been prepared are scanned to check the prescription information of patients and automatically inspects to determine if medication has been prepared correctly according to the prescription by cross-checking with the registered medication information

Sector : Machine and materials
Sub-sector : Element parts
CEO : Kim Sung Kun
Founded : 2001
Employees : 173
Homepage : www.kamtec.co.kr
Sales : \$ 165 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

In the early days of its establishment, Kamtec introduced advanced technology to have actuator technology, a key component of engine control technology. In addition Kamtec have its own technology through continuous development of the technology introduced. Based on the secured technology, we are contributing greatly to the development of the domestic automobile industry by supplying electric actuator technology to the market that meets domestic conditions. We also have established production plants in China and Europe to respond quickly to requests from global customers, and we are challenging innovative productivity improvement and perfect quality by introducing smart factories. We promise to become a trusted and respected company in society by securing original technology, flawless quality, and fulfilling social responsibility.

Main Product



EGR Valve

As an EGR system component, EGR flow rate optimal control according to operating conditions such as engine speed

FEATURES

- DC motor drive
- Quick response
- High actuating force

TECHNICAL INFORMATION

- Operating voltage : 10~16V
- Operating temperature : -40~150°C
- Response time : < 65msec
- Max. Operating force : 300N@4.5A
- Max. flow : 45kg/h@ Δp 10kPa

Turbocharger Actuator

Improve fuel efficiency and improve power by controlling the vanes of VGTs to optimize supercharging pressure

FEATURES

- Robust design
- High driving torque
- Excellent linear control
- Quick response
- High durability

TECHNICAL INFORMATION

- Operating voltage : 9~16V
- Operating temperature : -40~160°C
- Continuous torque : 30Ncm@13.5V, 160°C
- Response time : < 200msec



Kapec Valeo

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Kim SangTae, Eric Balibe
Founded : 1993.10.07
Employees : 626
Homepage : www.kapecvaleo.com
Sales : \$ 809 million
Listed :
Qualified* : World Class

Introduction

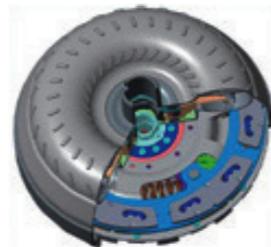
Korea Powertrain which boasts the highest level of expertise and production efficiency in the field of torque converter based on exclusive technology and Valeo, a global auto parts group that has 180 production bases in 33 countries around the world, have merged to become Kapec Valeo. Besides the head office in Korea that prides in the best productivity, there are overseas bases (5 countries) capable of accommodating the exclusive production of all processes, from design to production. Centered on its distinctive quotation cost price system, maximized efficiency through strategic production and central research center, unwavering partnership is being maintained with notable foreign companies through standardized technology that offers uniform level of service anywhere around the world and optimal logistics system capable of promptly responding to customer's needs.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Torque Converter



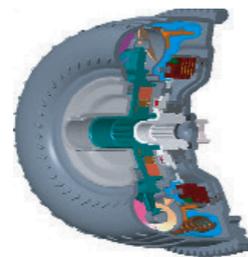
Rear wheel drive 8-speed pendulum Torque Converter



Gear Actuator



Engine Pulley



Front wheel drive 8-speed automatic transmission Torque Converter



Flywheel

No. 1 market share in the world

KB Autosys

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Kim Sin Wan
Founded : 1985.10.14
Employees : 212
Homepage : www.kbautosys.com
Sales : \$ 108 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

KB Autosys is a company that produces and sells automotive parts; Brake Pad and Lining. With over 400 global experts, it also has local companies in China, India and USA. It endeavors to become a leader of global eco-friendly and high performance friction materials by developing hybrid friction materials in the future.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 domestic market share for OEM front pads



Front Caliper



Rear Caliper (BIR, EPB)



Drum Brake



Front Brake Pad



Rear Brake Pad



Brake Shoe



Brake Pad & Lining

Device that plays the role of reducing the speed of wheels or operation of machines or stops and delivers them by using the friction of surface that comes in contact with friction material

KCP Heavy Industries

Sector : Machine and materials
Sub-sector : Industrial/General machinery
CEO : Yoon Young Gon
Founded : 2002.05.15
Employees : 120
Homepage : www.kcppump.com
Sales : \$ 87 million
Listed :
Qualified* : World Class

Introduction

KCP which was established in 2020 by 5 joint founders who got together to localize concrete pump trucks that were mostly imported at the time, accumulated experiences by benchmarking advanced products in order to overcome the limits of domestic technology. Unlike other companies that used to copy advanced German equipment for sales, KCP succeeded in manufacturing the world's first 65M equipment in 2006 and as of 2016, the world's first 75M equipment has been developed and commercialized. KCP has ranked 1st place in sales for 5 consecutive years in the domestic market and has achieved 35.1% export growth rate p.a., pioneering the market.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



CPT

As a self-propelled concrete pumping device that is mounted to special trucks, it is the main product of KCP



KML

Although it can be mounted to special trucks, it is a self-propelled concrete pumping device without a boom



KTP

Non-self-propelled pumping device without a boom



CPB

Device that fixes the boom onto a building to transfer concrete

KDM

Sector : Machine and materials
Sub-sector : Robot/Automation machine
CEO : Jung Donghun
Founded : 1989
Employees : 72
Homepage : www.ekdm.co.kr
Sales : \$ 21 million
Listed :
Qualified* : ATC

Introduction

- 1) NC leveller feeder lines
 - Improves precision after processing by removing winding stress of coil materials
 - Eliminates internal torsion of materials thanks to its design and structure
 - Realizes high quality materials
- 2) Blanking lines
 - High precision thanks to AC vectors and servo motors
 - Suitable for protection and long service life thanks to safety devices and control systems for - - - high speed operations
 - Possible to produce different shapes of sheets with oscillating shears

* Refer to 396p for detailed information about ATC, and World Class

Main Product

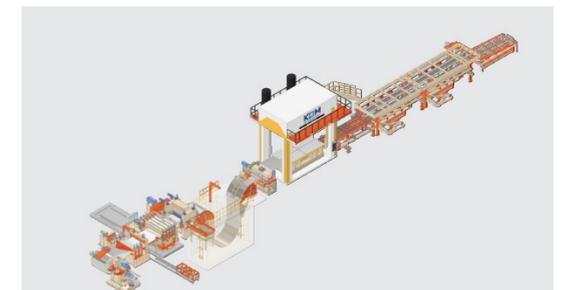


NC leveller feeder

Steel plates used in press molding deform due to stresses imposed on materials when rolled into coil. NC leveller feeder lines correct deformed materials to have a uniform property by running it through work rolls.

Blanking line

Blanking lines from KDM are used for car manufacturing like sheet metals and car body parts by inserting coil into presses automatically. Our lines automatically manufacture at a time from coil to the blank stack: inserting materials according to mold types, adjusting product length and width, and stacking sheets. It is possible to realize a stable operation by applying speed synchronous control system with presses.



Keumyong Machinery

Sector : Machine and materials
Sub-sector : Shipbuilding/offshore systems
CEO : Lee Moo Chul
Founded : 1956. 1. 5
Employees : 207
Homepage : www.keumyong.com
Sales : \$ 74 million
Listed :
Qualified* : World Class

Introduction

Keumyong Machinery Co., Ltd., comprised of Textile Machinery, New Business and Industrial Machinery business divisions, is growing together with the vision of 'Best manufacturer of mid/large machineries-components in the world'.

The Textile Machinery Business Division produces knitting machines that manufacture clothes, shoes, bedding and industrial materials. The New Business Division develops cars, RVM, drone station and others while the Industrial Machinery Business Division produces exhaust valves and hydraulic components which are core components that are used to make vessel engines.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Circular knitting machine

★ **5th market share in the world for circular knitting machine**



Exhaust valve, valve spindle

★ **1st market share in the world for vessel engine parts**

Circular knitting machine

Type of a knitting machine that produces clothes, shoes, bedding and industrial fabric

Exhaust Valve

Component located at the upper part of the vessel engine that controls the discharge of combustion gas

Valve Spindle

Component that is assembled to the exhaust valve and opens/closes the combustion chamber by moving up and down



HCU

HCU (Hydraulic Cylinder Unit)

Cylinder control component that assists high pressure fuel injection and controls the spindle



HPS

HPS (Hydraulic Power Supply)

Component that produces system oil pressure

Keyang Electric Machinery

Sector : Machine and materials
Sub-sector : Industrial/General machinery
CEO : Lim Young Hwan
Founded : 1977. 4. 27.
Employees : 752
Homepage : www.keyang.co.kr
Sales : \$ 327 million
Listed : KOSPI
Qualified* : World Class

Introduction

Keyang Electric Machinery has firmly established its position as a manufacturer specializing in power tools based on technologies and experiences accumulated over the past 40 years and in addition, it is gaining its reputation in the automotive industries by expanding businesses as a partner of Hyundai/Kia Motor and the world's leading automobile manufacturers.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ **30% domestic market share for power tools**

★ **75% domestic market share for car seat motors**



Power tools

Power tools which are used in industrial sites and homes are transforming from wired to charge-type of tools, following the development of battery charging technology. The first power tools equipped with high capacity battery has been launched for the first time in Korea and since then, Keyang is leading the domestic market

Motor for cars

Keyang Electric Machinery has been producing motors for cars since 1989 and as the front runner of motor for cars, it is leading the first place for seat motors in Korea and is expanding its businesses into the overseas market by producing motors for power trains, engines and chassis.

Keyyang Precision

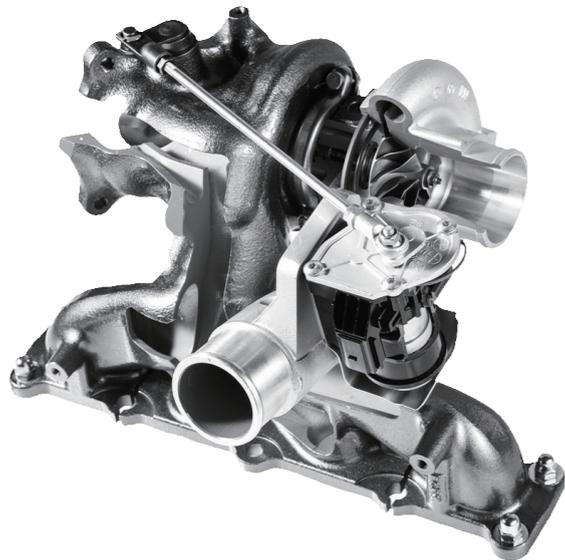
Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Chung Byung Kee
Founded : 1994. 10. 17.
Employees : 136
Homepage : www.keyyang.co.kr
Sales : \$ 62 million
Listed :
Qualified* : World Class

Introduction

As the only company in Korea that specializes in the production, development and manufacturing of turbo chargers, it was the 4th in the world to succeed in the turbo charger's technology through R&D and continuous investment after the establishment of a technology research center. It is currently supplying products to not only domestic but foreign automobile manufacturers based on outstanding technology and its domestic market share of gasoline WGT is unparalleled.

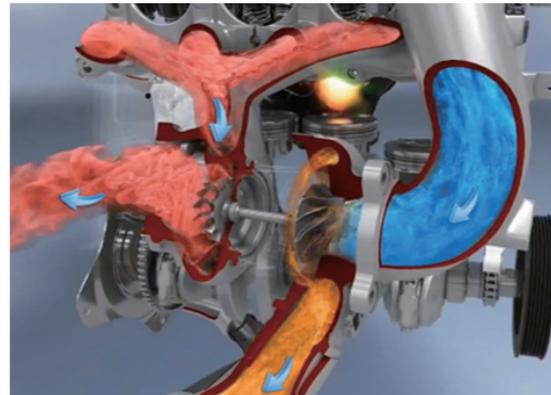
* Refer to 396p for detailed information about ATC, and World Class

Main Product



★ 28% domestic market share
No. 2 turbo charger

★ 5% market share in the world
No. 6 turbo charger



Turbo charger

A turbo charger reuses exhaust gas produced by the engine as an energy source to rotate the turbine, compresses the external air sucked into the compressor and supplies it back to the engine so it is an eco-friendly product which ensures that all fuel is burned. As a device that reuses exhaust gas which is disposed after combustion as driving power, high-density compressed air is supplied to the cylinder, improving engine performance (output, torque) and fuel efficiency so it is an essential product for engine downsizing

Kirin Industrial

Sector : Machine and materials
Sub-sector : Metals
CEO : Song Jin Hyu
Founded : 1981. 2. 7
Employees : 65
Homepage : www.kirinind.com
Sales : \$ 25 million
Listed :
Qualified* : World Class

Introduction

As the first panel material company in Korea, founded in 1981, it is a global company that has advanced into over 50 countries across the world, from the South Pole to deserts. 'Panel Solution', surpassing the best development, manufacturing and service of internal and external construction materials is provided by Kirin Industrial. The dream of Kirin Industrial is to become a world-class, 'Global No. 1 Panel Group' that develops continuously, together with customers, based on infinite trust.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



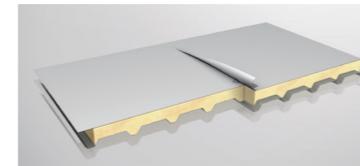
POLY PANEL

Outstanding product that can be used as insulation material, offering the world's best level of flame resistant and insulation performance



SUPER METAL

High-tech, eco-friendly product with strong resistance to internal and external wind and with excellent fire resistance and leakage prevention features



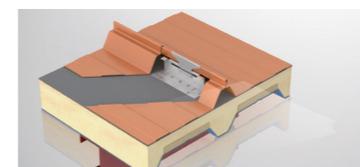
TPO DECK

As the world's first integrated waterproof product for rooves, this outstanding product provides convenient installation



SOLAR PANEL

Cost effective with economic maintenance cost and product that can be applied to any new or existing roof



MONO ROOF

New concept of roof material product in which the roof contracts and expands integrally depending on temperature changes. Equipped with excellent waterproof features

KISWEL

Sector : Machine and materials
Sub-sector : Casting/Welding
CEO : Min Won Sik
Founded : 1964.09.10
Employees : 287
Homepage : www.kiswel.com
Sales : \$ 50 million
Listed :
Qualified* : World Class

Introduction

KISWEL has gained its reputation as a global company specializing in welding materials through endless efforts and technological development to achieve localization of welding materials and advancement of base materials. By pioneering overseas markets, the excellence of KISWEL products has enhanced the product value worldwide and based on the competitiveness of its trademark "Elephant logo" on welding materials solely, KISWEL proudly stands out in the world.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Shielded arc welding bold

Used in various industrial machines, pressure containers, boilers and architecture



Flux cored wire

Used in shipbuilding and marine plants, car exhaust system, etc.



Non-ferrous material

Used in heavy and chemicals industry, aviation industry and shipbuilding fields



Oxygen/Acetylene

Converged bonding of metal using oxygen and acetylene combustion heat



MAG welding material

Used in heavy machinery for construction, cars, boilers, etc.



MIG/TIG welding material

Used in heavy and chemicals industry, freezer container, etc.



Submerged arc

Welding material that is used in shipbuilding, canning, steel structure and pressure container, etc.



Titanium powder

Used in components for electronics, national defense and medical industries

Kodaco

Sector : Machine and materials
Sub-sector : Casting/Welding
CEO : Ihn Gui Seung, Jo Man Young
Founded : 1997. 2. 14
Employees : 266
Homepage : www.kodaco.co.kr
Sales : \$ 210 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

KODACO Co., Ltd. is an expert that produces and processes automotive components using aluminum die casting method. Products can be classified into engine, transmission, steering device and compressor device sectors and KODACO's performances are increasing following the lightweight and eco-friendly trends of cars.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Converter Housing



Valve Body



Balance Shaft



T/M Control Housing



Accumulator Housing



Actuator Body (DCT)



Fan Clutch



Water Pump Housing

Transmission parts

Engine parts



Compressor Front Head



Compressor Rear Head



Rack Housing (REPS)



Rack Housing



Compressor Cylinder



Electric Compressor



Gear Box



Sensor Housing

Compressor parts

Steering parts

Koh Young Technology

Sector : Machine and materials
Sub-sector : Robot/Automated machinery
CEO : Koh Kwang ill
Founded : 2002. 4. 25
Employees : 490
Homepage : www.kohyoung.com
Sales : \$ 206 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Koh Young Technology is a global hidden champion that has grown at a rapid pace by focusing on exclusive inspection and measuring equipment as well as solutions, the world's first in the field of Surface Mount Technology (SMT) process. Starting for the development of medical robots for brain surgeries, it is expanding the business into the medical device industry.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ 50% market share in the world

No. 1 in 3D SPI



3D SPI

★ 30% market share in the world

No. 1 in 3D AOI



3D AOI



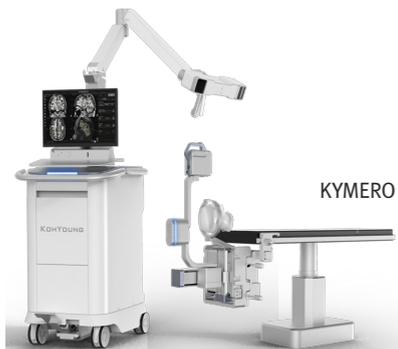
3D DPI



MEISTER



3D MOI



KYMERO

KONEC

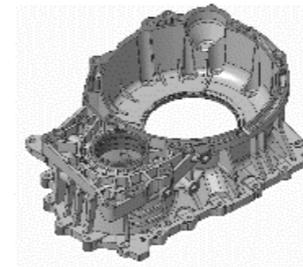
Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Gong Seong Hwang
Founded : 2003. 4. 3.
Employees : 271
Homepage : www.konecauto.com
Sales : \$ 129 million
Listed :
Qualified* : World Class

Introduction

KONEC Co., Ltd., as a company specializing in eco-friendly, new material and future mobility parts, researches, develops, manufactures and sells light metal die casting parts, such as housing of driving parts, such as gearbox case of electric and hydrogen cars.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



★ Korea's only

total production system such as material, mold, casting and processing

★

No. 1 domestic market share for gearbox case of electric cars

★

Only Cpk 1.67 level precision processing in this industry

Gearbox case

Housing part that protects the driving devices of electric cars produced by high pressure die casting process applied to light metal, aluminum and by cpk1.67 processing ability

Converter housing

As a light metal case that protects the automotive parts and maintains air tightness to prevent oil leaks, it is produced by high pressure casting process based on Industry 4.0-based automatic quality control

Korea Electric Terminal

Sector : Automobile/Rail vehicles
Sub-sector : Electrical and electronic parts
CEO : Lee Chang-Won
Founded : 1973.04.20
Employees : 1,105
Homepage : www.ket.com
Sales : \$ 756 million
Listed : KOSPI
Qualified* : World Class

Introduction

As a company with history dating back to 1973 when it first started the electrical/electronic connector business, Korea Electric Terminal Co., Ltd. is Korea's best connector manufacturer, supplying various automotive components (PRA, ICB, fuse, inlet, etc.) to both Korean and global client companies (GM, Geely, etc.), an achievement that was possible through endless R&D and investment.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

45% market share in Korea

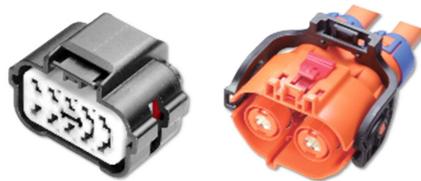
No. 1 connector

95% market share in Korea

No. 1 PRA

80% market share in Korea

No. 1 ICB

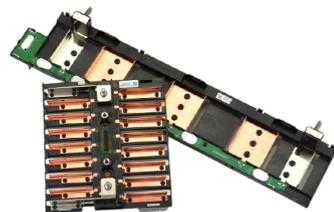


Low/high voltage connector

Delivers and supplies current to electrical devices required inside cars

PRA (High voltage junction box)

Blocks power of high voltage battery system and prevents damage in parts caused by inrush current upon circuit connection and engine start



ICB

Serial and parallel connection between battery cell, sensing circuit connection for cell voltage management, Battery Cell/BMS protection

KUNHWA

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Chung, Cho Hwa
Founded : 1993. 2. 5
Employees : 19
Homepage : www.kunhwamc.com
Sales : \$ 29 million
Listed :
Qualified* : World Class

Introduction

Kunhwa Co., Ltd., comprised of the Construction Machinery Business Division (Changwon Plant) and Shipbuilding & Marine Business Division (Geoje Plant), is a company equipped with more than 25 years of experience and know-how in the manufacturing of components for heavy equipment, forestry equipment as well as super large vessel block. The production capacity of Kunhwa's Construction Machinery business sector is more than 150,000T per year, making it a Global Player that has managed to establish infrastructure in a global scale. The Shipbuilding Business sector is equipped with a giga block production cooperation system and has established a business partnership with Daewoo Shipbuilding & Marine Engineering and Samsung Heavy Industries. Kunhwa aims to become a global leader pioneering innovation in future-oriented construction machinery and shipbuilding & marine worlds by developing innovative products and securing internal brands in the future.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Construction machinery sector (Changwon Plant)

- Frames
- Attachments
- Other heavy equipment components



Shipbuilding & marine sector (Geoje Plant)

- Vessel block
- Marine plant
- Shipbuilding tools and materials



Kyung Dong Navien

Sector : Machine and materials
Sub-sector : Energy/Environmental machine system
CEO : Sohn Yeon-ho
Founded : 1973. 12. 6.
Employees : 1,493
Homepage : www.kdnavien.co.kr
Sales : \$ 919 million
Listed : KOSPI
Qualified* : World Class

Introduction

Under the management philosophy of 'Social contribution through corporate', Kyung Dong Navien is leading the boiler industry while pursuing the development of advanced, eco-friendly technology in consideration of energy reduction and environmental protection. After being the first in Asia to develop a condensing boiler, it has endeavored to develop highly efficient, eco-friendly devices. It currently holds more than 200 patents and is the first in Asia to have received the best heat efficiency grade by the European Quality Certification (CE) which goes to show that its technology is being recognized overseas, as well.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

4th place in the world

* Based on the production and sales amount of gas boilers

No. 1 boiler company in Korea

* Based on the 2017 official data published by the Financial Supervisory Service

Heating and hot water system

Navien Cascade System

Eco-friendly, highly efficient condensing boiler

Premium condensing boiler, NCB760



meerecompany

Sector : Machine and materials
Sub-sector : Precision production machine
CEO : Kim Joon Goo
Founded : 1984. 11. 1
Employees : 313
Homepage : www.meerecompany.com
Sales : \$ 97 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Meere Company is leading the semi-conductor and display processing market based on the world's best precision grinding process technology. Based on the semi-conductor display equipment business, it is expanding its business areas into ToF 3D Range Camera, laparoscopic surgical robot.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No.1 market share in the world

First to localize in Korea



Edge Grinder

Equipment that processes dimensions, forms and brightness of display panel edges as desired using a grinding wheel to enhance display panel durability

First True VGA in the industry

S. Cube (ToF 3D Camera)

As a ToF 3D depth camera, it is a sensor that calculates the distance with the laser's response speed and adds depth instead of a simple plane to reproduce 3D image



Korea's first laparoscopic surgical robot



Revo-I (Laparoscopic surgical robot)

The operating surgeon moves the master arm from the master control by looking at 3D images and laparoscopic surgery is performed by moving surgical tools inserted in the body. Revo-I enables more accurate and precise surgeries to be carried out

Mirae Nanotech

Sector : Machine and materials
Sub-sector : Components
CEO : Kim Cheol Young
Founded : 2002. 7. 29.
Employees : 362
Homepage : www.mntech.co.kr
Sales : \$ 382 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

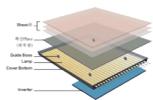
Mirae Nanotech, located in Cheongju, Chungbuk, is comprised of 22 subsidiaries, other than the head office in Korea and endeavors to identify promising businesses while continuously investing in R&D.

★ **No. 2 market share in the world for optical films**

★ **No. 1 domestic market share for optical films**

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Optical film for display

First in Korea to successfully mass produce micro-lens type of optical films. Largest market share in the optical film for display in the world in 2012 (21%). Currently, ranks 2nd with 14% market share



Pattern design film for smart phones

Plays the role of fabulously decorating the appearance of smart phones. Continuously applied to Samsung smart phone's from 'Galaxy S6' to 'Galaxy S9 Note'. In the future, it is not only expected to be applied to Samsung smart phones but also to expand its overseas market share



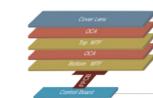
Retro-reflective films for road traffic safety

Market in which more than 80% is dominated by 3M. Although there are difficulties in expanding the business with B2G business, it is a high value added product that is steadily growing and is emerging as a powerful competitor of 3M



Window film for cars and buildings

Tinting film that is beneficial for energy saving. Currently, it is being sold to over 30 countries in the world. It is exhibiting consistent growth rate and the market potential is also bright



Metal mesh film & solution for touch screen

Embedded-method of touch sensor applied with imprinting technology which is Mirae Nanotech's optical film manufacturing technology. Realizes the best durability compared to other technologies in competition. Solution that is optimized to large 32" touch screens and above

Mobase Electronics

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Kim Sang Young, Lee Gwang Yoon
Founded : 1957.06.01
Employees : 1,145
Homepage : www.mobaseelec.com
Sales : \$ 657 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Since its foundation in 1990, Mobase Electronics Co., Ltd has led its growth by newly establishing Magnesium and Electronic Business Division and by setting up Plant 2. In the 2000s, it has established overseas affiliates at both home and abroad, engaging in aggressive strategies to expand its business in order to develop into a global company. In 2016, it transferred to a new plant equipped with the latest equipment and in 2019, it changed its company name, opening its doors to a new era.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ 9% market share in the world
No. 4 Car Lock Set

★ 68.4% domestic market share
No. 1 Car Lock Set

★ 7.5% market share in the world
No. 6 HMI (Switch, etc.)

★ 45.5% domestic market share
No. 2 HMI (Switch, etc.)



Security System

Advanced security system device applied with bilateral communication technology that enables you to open doors and trunk and to start the engine without manual operation

Electronic Control Unit/Sensor

Technology convergent device for maximizing convenience such as wireless charging and integrated control following digitalization and intelligent vehicle

HMI (Switch etc)

As a signal input device for operating the respective function of a car, it is an ergonomically designed device

Magnesium Die-casting

Eco-friendly vehicle component material with outstanding intensity and lightweight features that is 100% recyclable

Myunghwa Ind.

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Moon Chae-Soo
Founded : 1957. 8. 13.
Employees : 580
Homepage : www.myunghwa.com
Sales : \$ 716 million
Listed :
Qualified* : World Class

Introduction

Car engines and power-driven components, chassis components as well as products required for customer safety such as key functions of cars and supplementary components are being developed, produced and sold and in addition, Myunghwa endeavors to develop new products and pioneer markets. Based on the management philosophy of 'Realizing the dream of mankind society by creating new future through creative thinking and endless challenges', it is engaged in various management activities to become a world-class company contributing to mankind society.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 domestic market share for oil pump, water pump and electronic water pump

No. 1 domestic market share for aluminum carrier



Power-driven parts of vehicles

Oil pump for engine and automatic transmission, water pump, fuel pump, balance shaft module



Electri components

Electric water pump (Replaces mechanical water pump to reduce fuel consumption and exhaust gas)

Chassis parts

Axle assembly, brake disc, brake drum, hub, knuckle, carrier

Namdo Mold

Sector : Machine and materials
Sub-sector : Casting/Welding
CEO : Oh Ki-jong
Founded : 1993. 2. 15
Employees : 95
Homepage : www.ndmold.co.kr
Sales : \$ 46 million
Listed :
Qualified* : World Class

Introduction

Through endless efforts and innovative activities, Namdo Mold is continuously undergoing growth, inside out, covering extensive business areas, from mass production of plastic parts used in appliances and automobile, assembly, coating and new businesses. From 2015, plastic parts and molds are being supplied to Tesla, USA.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

1st place in mod sector



Mold

Mold for internal and external materials of cars, molds for home appliance parts

Home appliance parts

Refrigerator, washing machine, air conditioner, vacuum cleaner

Internal materials of cars

Internal and external materials of cars

Green mold: Exclusive advanced technology

Heater and T/C auto recognition function secured, owns Heater Layout monitor function, enhanced quality, less cost, heating method programming

Nara M&D

Sector : Machine and materials
Sub-sector : Components
CEO : Kim Youngjo
Founded : 1999.02.19
Employees : 244
Homepage : www.naramnd.com
Sales : \$ 162 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

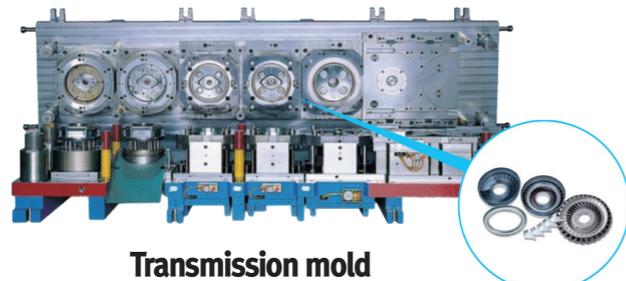
As a company that spun off from the Mold Business Division of LG Electronics in 1999, it is a small hidden champion specializing in molds. The scope of business has been expanded and now covers a comprehensive range, from molds for electronic products to display and automobiles. With the objective of creating and realizing values for customers, providing affordable price, fast delivery and high quality molds based on advanced technologies and know-how on forming and molding accumulated over the years is the basic direction of customer satisfaction pursued by Nara M&D.

* Refer to 396p for detailed information about ATC, and World Class

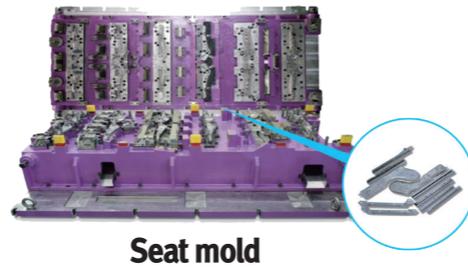
Main Product

3.4% transmission mold

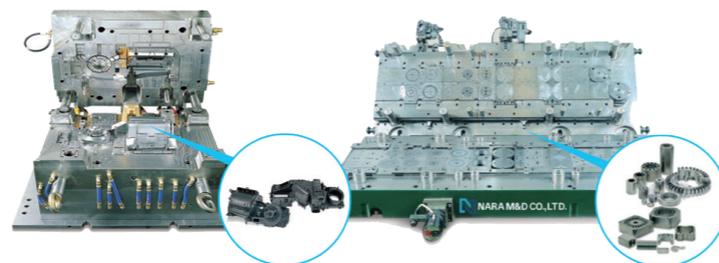
30% transmission mold



Transmission mold



Seat mold



HVAC mold

Motor core mold

NEOOTO

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Kim Won Il
Founded : 2010. 1. 6
Employees : 111
Homepage : www.neooto.kr
Sales : \$ 119 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Since its establishment in 2010, Neooto Co., Ltd. has positioned itself as the best Korean powertrain parts company, through continuous and voluntary technology innovation, never being satisfied with the current status. In addition, along with the globalization of the domestic automotive industry, it has developed into a company with global competitiveness by expanding its production and logistics bases in Vietnam, India and the Czech Republic. As the first in Korea to be awarded with the supply of 4 major gears to Hyundai Motor, it is growing into a global company specializing in powertrain based on the best technology in Korea.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Pinion Gear

As a part for automatic transmission, it is a product that receives the engine's power from the sun gear through the axle, shifts gear, and delivers to the annulus gear



Diff Ass'y

As a short form for differential assembly, it is a device that delivers the transmitted power to the drive shaft connected to the wheels and absorbs the rotational difference on the left and right produced from the car



Large gears, etc. (T/F Gear and others)

As a part for automatic transmission, the carrier's power is received and delivered to the operation of Output Shaft and axle



2-speed transmission power delivery device for electric vehicles

As a transmission power device for electric vehicles, it is a device that receives the power from the E-Motor and delivers the power to the drive shaft connected to the Diff Ass'y inside the transmission device

Sector : Machine and materials
Sub-sector : Shipbuilding/offshore systems
CEO : Cheon Nam Joo
Founded : 1980. 9. 1
Employees : 165
Homepage : www.nkcf.com
Sales : \$ 58 million
Listed : KOSPI
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

NK that has grown by diversifying products based on vessel's fire extinguishing devices and high pressure container production technologies acquired in the last 30 years, is currently a global marine and environment solutions provider. The 3 major Korean shipbuilding companies leading the world's shipbuilding market and the main shipping companies are NK's client companies and customer satisfaction is achieved based on cutting-edge technology. NK owns its brand for fire extinguishing devices and Ballast Water Treatment System (BWTS) product groups which are well known globally. NK is growing into a market leader based on technology and networks with key client companies in the FGSS, OHPV and BWTS businesses which are expected to take a lead in the future.

Main Product



Vessel's fire extinguishing deviceBallast Water Treatment System

- Capable of providing Total Solution (Planning, design, production, installation, commissioning)
- New, safe and eco-friendly fire extinguishing system (N2)
- Verified technology and quality
- Largest market share



Pressure container

- Producer of special industrial containers (Aerospace, defense, nuclear fusion)
- Owns core technology for manufacturing special industrial containers (nuclear power)
- Largest domestic market share



Ballast Water Treatment System

- World's first ozone treatment method
- World's one and only, exclusive ozone treatment method
- 4th market share in the world



Offshore plant system

- First in the world to apply barrel finishing technique (High precision internal surface: 1s, 99.9999% storage gas purity)
- Supplies to global mega-giant drilling equipment companies, NOV (USA) and MH WIRTH (Norway)

Sector : Machine and materials
Sub-sector : Industry/General machine
CEO : Ham Young Cher
Founded : 2008
Employees : 50
Homepage : www.ofe.co.kr
Sales : \$ 45 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Ofe Co., Ltd. (CEO Ham Young-cher, Chilbuk-myeon, Haman-gun, Gyeongsangnam-do) is a company that specializes in field agricultural machinery along with efficient implementation of field crop mechanization policies. In addition, in recognition of its excellence in agricultural work, it was certified by the Korean government (Ministry of Agriculture, Forestry and Food) for the first time in Korea.

Main Product

Regular Multi Purpose Combine (ABC 270)

It is possible to harvest a variety of crops such as rice, barley, and beans with excellent workability, and a structure that is easy to operate and easy to use for women and elderly farmers to minimize the burden of work.

- Size: 6250 x 2400 x 2940mm
- Weight: 4260kg
- Output: 70ps(51.5kW) / 2600rpm
- Spec: Two sets of cutting width
- Feature: 2-stage feeding, 2-stage sorting function, distance adjustment (66 ~ 86cm)
- Work efficiency: 3.5 ha / day

4 sets (AS 45)

By suppressing soil and enabling consistent mechanization in the form of sowing work, it is possible not only to prevent damage to algae, but also to affect germination, and the production effect of soybean cultivation is expected.

- Size: 2750 x 2000 x 1300mm
- Weight: 400kg
- Horsepower: 45ps or more
- Feature: Various crops such as adlay/ red beans / corn Tractor traction type, round thrust ridging → compacting → seeding → compacting
- Work efficiency: 70 ha / day

2 sets (AS 25)

By suppressing soil and enabling consistent mechanization in the form of sowing work, it is possible not only to prevent damage to algae, but also to affect germination, and the production effect of soybean cultivation is expected.

- Size: 2440 x 1835 x 1060mm
- Weight: 350kg
- Horsepower: 35ps or more
- Feature: Various crops such as adlay/ red beans / corn Tractor traction type, round thrust ridging → compacting → seeding → compacting
- Work efficiency: 35 ha / day



Regular Multi Purpose Combine (ABC 270)



Compact Multi-purpose Combine (ABC 130)



4 sets (AS 45)



2 sets (AS 25)

Compact Multi-purpose Combine (ABC 130)

It is possible to harvest a variety of crops such as rice, barley, and beans with excellent workability, and a structure that is easy to operate and easy to use for women and elderly farmers to minimize the burden of work.

- Size: 4210 x 1860 x 2300mm
- Weight: 1817kg
- Output: 30ps (22.0kW) / 2600rpm
- Spec: Cutting width 120cm
- Feature: adlay, grains, etc. Excellent sorting and threshing 2ndlevel slanted type for minimizing slip
- Work efficiency: 2.0 ha / day

OSG Korea

Sector : Machine and materials
Sub-sector : Precision production machine
CEO : Chung Seung-jin
Founded : 1980. 9. 12
Employees : 395
Homepage : www.osg.co.kr
Sales : \$ 75 million
Listed :
Qualified* : World Class

Introduction

Since its foundation in 1976, OSG, under the belief of 'Realizing localization of cutting tools and pursuing world-class quality', has pioneered the field of cutting tools that were mostly imported, not only enhancing the quality of cutting tools which is an essential factor in the machinery industry but also contributing to the national industrial development by replacing imports. In recognition of the excellent quality of products, it is emerging into a global company.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



★ Tabs

1st place in the domestic market Nut processing tool



★ End mills

1st place in the domestic IT market Milling processing tool



★ Drills

1st place in MQL processing market Hole drilling tool



★ Dies

First to be localized Screw processing tool

Cutting tools for metal machining such as dies

PANASIA

Sector : Machine and materials
Sub-sector : Shipbuilding/offshore systems
CEO : Lee Soo-Tae
Founded : 1989. 10. 10
Employees : 284
Homepage : www.worldpanasia.com
Sales : \$ 297 million
Listed :
Qualified* : World Class

Introduction

PANASIA, founded under the belief of 'Company taking on the challenge towards new creation', is an eco-friendly and energy equipment expert that is developing into a company leading the global market as it pursues to protect the air and water quality environment as well as to supply hydrogen energy.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Hydrogen generation system

PANASIA's hydrogen generation system, "PanaGen" is a renewable energy solution capable of producing hydrogen and achieving carbon neutrality in the hydrogen energy industry.



Carbon Capture, Utilization and Storage System

PANASIA's Carbon Capture, Utilization and Storage System, "Pan-CCUS" is a technology that isolates from the atmosphere, carbon dioxide emissions from large fossil fuel-powered emitters, such as power plants, steel and cement plants and ships.



PHA

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Heo Seung Hyeon
Founded : 1985. 4. 11.
Employees : 657
Homepage : www.phakr.com
Sales : \$ 773 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

As a company specializing in automobile door moving system, it is a global company with 8 plants in Korea, 2 research centers as well as 10 plants and 3 research centers in 7 countries overseas.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



1st place in domestic latch sector

Door Latch

Known also as door lock. The door latch is attached to the door of a vehicle and interlocks with the striker of the chassis, maintaining and releasing the closed state of the door to secure the safety those inside the vehicle



Power Systems

It is comprised of PTL (Power Trunk Lid System, for sedans) and PTG (Power Tail Gate System, for SUVs) and it is a system that automatically opens/closes the trunk/ tail gate for user convenience.

PNT

Sector : Machine and materials
Sub-sector : Precision production machine
CEO : KIM oonSup
Founded : 2003. 12. 29
Employees : 474
Homepage : www.epnt.co.kr
Sales : \$ 315 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

PNT Co., Ltd. is leading the design and manufacturing paradigm of Roll to Roll equipment throughout the overall industry, such as secondary battery coater and press using Roll to Roll, slitter, notching equipment, copper equipment, Roll to Roll screen printer, separator and slitting equipment, production equipment of display optical film and composite sheet, manufacturing equipment of Flexible Printed Circuit Board (FPCB) and Multi-Layer Ceramic Capacitor (MLCC), flexible & Flexible & Printed Electronics equipment, water treatment equipment, assembly equipment of VCM camera module inline.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Secondary Battery
 1st place in the world, 1st place in Korea



Production equipment of secondary battery

- IT Device, EV, ESS, Fuel Cell, Electrode Coater, Press, Slitter, Knotching, Electrolyte Membrane, MEA Assembly

Plating & Treatment
 1st place in the world, 1st place in Korea



Production equipment of E&E materials

- FCCL, Coil, Cu Foil, Al Foil

Functional Material
 Global TOP 3, 1st place in Korea



Production equipment of functional & optical film

- Display, IT Industry, MLCC Quantum Dot, OLED & LCD Film Hard Coating, AR Coating.. Prism

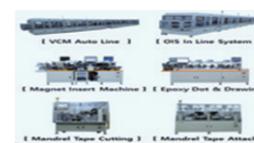
Printing & Pattern Mold
 Under Developpe



Production equipment of flexible & printed electronics

- Flexible Packing, Imprinting Decoration Material

Precision Automation
 TOP 5 in Korea



Precision automation equipment

- Semiconductor & LED Camera Module, MLCC



Pyung Hwa Holdings

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Kim Jong Suk
Founded : 2006. 5. 2
Employees : 806
Homepage : www.ph.co.kr
Sales : \$ 353 million
Listed : KOSPI
Qualified* : World Class

Introduction

Since its foundation in 1950, Pyung Hwa Holdings has been part of the history of Korean automotive industry as a pioneer in the rubber industry to this day. It has led transformations through continuous management innovation and technology development. Recently, it has focused on developing technologies in the future car industry as an attempt to respond to the rapidly evolving automotive industry and strives to become a market leader.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Engine mount

★ **No. 1 domestic market share**



Thrust

Dustproof system

Provides a comfortable environment to the passengers by minimizing vibration and noise from engine or driving



Bushing

★ **No. 1 domestic market share**



Intake and exhaust system

Fuel system



Hose system

Passage that transports fluid between parts such as cooling, fuel, intake and exhaust, steering/brake of vehicles



Cooling system

★ **No. 1 domestic market share**

RETECH

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Chae Gyeong Seon
Founded : 1994.04.01
Employees : 220
Homepage : www.retech.kr
Sales : \$ 68 million
Listed :
Qualified* : World Class

Introduction

RETECH, established in 1994, is Korea's biggest producer of snow removal equipment and multi-purpose road management vehicles. All the executives and employees endeavor to localize import equipment and to develop new products based on the experiences and technological know-how accumulated so far, to ensure that quality is maximized so that customers could be satisfied at all times.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ 72% domestic market share

No. 1 snow removal equipment for roads



- Sprinkler
- Snow remover
- Multi-purpose road management vehicle
- Road surface cleaning vehicle



RS Automation

Sector : Machine and materials
Sub-sector : Robot/Automated machinery
CEO : Kang Duk Hyun
Founded : 2009. 12. 10
Employees : 194
Homepage : www.rsautomation.co.kr
Sales : \$ 95 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

RS Automation, rooted from the Rockwell-Samsung Joint Venture as the mother company was established in 2010. It is targeting the global 4th industrial revolution market with its Smart Factory Total Control Solutions based on smart, high precision robot motion control technology. Through its global network covering over 20 countries, RS Automation aims to achieve the vision of becoming a Top 5 global control solution provider by developing into an export-oriented company.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Robot motion control/Drive business areas

Optical Encoder

- Korea's first 22bit optical encoder



Network Servo Drive

- Functional safety
- Smart tuning



Network Motion Controller

- Multi-axis control of more than 100 axes
- Real-time high speed motion network



Network Controller

- Embedded Ethernet
- CPU dualization



Energy control business areas

ESS PCS

- Energy Storage System Power Conversion System



Power Stack Module

- High efficient power conversion



Saesol diamond Ind.

Sector : Machine and materials
Sub-sector : Precision production machine
CEO : Maeng Ju-ho
Founded : 1998. 1. 1
Employees : 388
Homepage : www.saesoldia.com
Sales : \$ 103 million
Listed :
Qualified* : World Class

Introduction

For the first time ever in the domestic market, SAESOL Diamond has locally produced CMP Pad Conditioner used in high-tech semi-conductor industry and has intensively engaged in R&D on diamond wire saws for LED Sapphire Ingot and solar power Si Ingot processing as well as Grinding Wheel for advanced semi-conductor. It has gained unlimited reliability from global semi-conductor companies for endless technological development and quality innovation and continues to produce differentiated products and services in recognition of its excellent technological competency.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ Internal estimation of world's market share: 38% (Based on sales)

1st place in CMP Pad Conditioner



CMP Pad Conditioner

Product that refreshes the pad surface in semi-conductor's CMP process. World's leading, representative product



Diamond Wire

Product that is used in the Wire-Sawing process among semi-conductor wafering process and is a product for slicing sapphire and ingot thinly

Sambo Motors

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Lee Jae-Ha
Founded : 1987. 9. 25
Employees : 491
Homepage : www.sambomotors.co.kr
Sales : \$ 108 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Established as Samhyup Industry Co., Ltd. in 1977, it has dedicated over 44 years in the manufacturing of auto parts to the present-day Sambo Motors Co., Ltd. Based on the spirit of 'Fostering experts, frontier spirit and technology development', Sambo Motors specializes in producing precision press products of auto transmissions using Fine Blanking technology as well as parts related to the engine and fuel systems.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Stamping Part

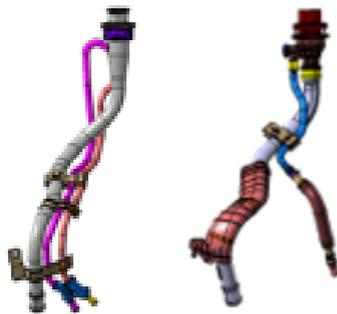
- Auto Transmission Plate: Attached to the transmission and delivers power through the piston by hydraulic

★ 9.9% market share in the world

9th place in Stamping Part

★ 57.5% domestic market share

No. 1 in Stamping Part



Tubing Part

- Fuel Filler Neck Pipe: Plays the role of transferring fuel from the fuel injection hole to the fuel tank
- Water(Heater) Pipe: Acts as a passage for coolant to flow from the engine to the radiator

★ 1.9% market share in the world

10th place in Tubing Part

★ 84.8% domestic market share

No. 1 in Tubing Part



Gear Box Part

- EV Gear Box: Increases the torque of the electric vehicle's drive motor as much as the reduction gear ratio to enhance the vehicle's motor power

SAMHYUN

Sector : Machine and materials
Sub-sector : Automobile/railroad vehicle
CEO : Hwang Sung Ho
Founded : 1988
Employees : 147
Homepage : www.samhyun.co.kr
Sales : \$ 51 million
Listed :
Qualified* : ATC

Introduction

SamHyun was established in 1988 in Changwon, We are specialized in BLDC motors and controllers. As a technology-oriented company, it is a special company in small and medium-sized companies where more than half of all employees are engineering personnel. We have dedicate our best to customer satisfaction by designing and manufacturing precisely controlled motors, controller, actuators, gear reducers and power pack in the fields of automobile, robotics, defense industry, aviation applications, shipbuilding industry, and medical science.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



- Shift and automatic parking through an electronic control device without mechanical connection.
- A future-oriented technology that deletes the shift cable connected to the existing mechanical shift lever and adopts the electronic shift lever controls the driver's willingness to shift to an electrical signal.
- Korea's first successful mass production (before mass production, all imported from Japan)



- Improving engine performance and fuel efficiency by adjusting valve duration.
- The valve duration is adjusted by continuously controlling the control shaft of the CVVD system according to the conditions and conditions of the engine.
- The principle of varying the valve opening time by changing the eccentric position by rotating the control shaft of the engine through driving of the CVVD motor.
- The world's first engine to be applied to Hyundai Motor Company and selected as one of the world's top 10 engines in 2019 with parts to be manufactured.

Samkee

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Kim Chihwan
Founded : 2009. 12. 24
Employees : 531
Homepage : www.samkee.com
Sales : \$ 462 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Since its establishment in 1978, Samkee has grown into a company specializing in aluminum die casting, producing automotive components. As a people-centric, future-oriented company comprised of more than 600 experienced and dedicated employees, it is leading the South Korean die casting industry. Samkee is engaged in developing and producing die casting products covering all automotive fields, from engine to transmission and chassis. In 2013, it started supplying to Volkswagen and pioneered by the operation of a Chinese plant in 2014, it was able to prepare a foundation, taking a leap forward as a global automotive parts maker. Through creative and continued R&D investment, Samkee is leading high efficiency, lightweight trend, paving its way towards new transformation and innovation.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Transmission parts

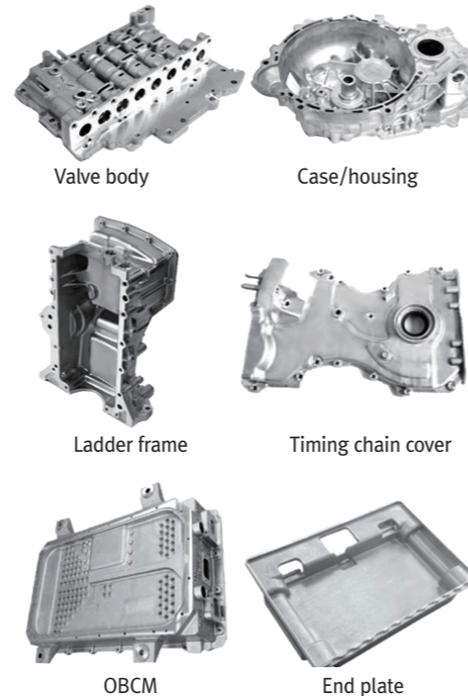
- Automatic adjustment of gear shift through hydraulic control
- Delivery and blocking of transmission's power
- Oil pressure is received from the case and supplied to each component
- Connected to the hydraulic control system (valve body) to maintain constant discharge pressure, regardless of the RPM

Engine parts

- Acts as a passage for engine oil lubrication
- Assembled to the front part of the engine to protect the timing chain and the engine is kept air tight

Parts for electric vehicle

- Protection cover for charge device to charge the car's battery using external power
- The upper/lower cover for the battery module offers protection from external impact



SB P&T

Sector : Machine and materials
Sub-sector : Industrial/General machinery
CEO : Kim Hyeong Chang, Oh Jeong Seok
Founded : 2007. 4. 2
Employees : 241
Homepage : www.sbpnt.co.kr
Sales : \$ 124 million
Listed :
Qualified* : World Class

Introduction

SB P&T Co., Ltd., as a manufacturer specializing in automotive parts, has been engaged in production for over 30 years since its establishment in 1975. With the objective of becoming a global company specializing in components for construction machinery and heavy equipment, SB P&T Co., Ltd. was established as a spin-off in 2007, and is growing into a global company specializing in pneumatic system based on reducer and hydraulic motor.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ Global competitiveness secured

No. 1 world class product and supplier to global customers

Driving unit

- Fostering excellent technologies such as preventing reverse rotation, shock prevention, hill start assistance
- System tuning customized to equipment characteristics

Corner driving unit

- Fostering excellent technologies such as highly efficient rotary part, inertia force absorption, etc.
- High quality level and long lifespan guaranteed with in-house production of key components

Turning joint

- Fostering excellent technologies such as preventing pressure interference, etc.
- Minimizes pressure loss
- Pressure resistance secured regarding high pressure



Segos

Sector : Machine and materials
Sub-sector : Plastic processing/Powder
CEO : Park Yoon Sik
Founded : 1998. 8. 1
Employees : 153
Homepage : www.segos.co.kr
Sales : \$ 90 million
Listed :
Qualified* : World Class

Introduction

Segos is a producer that specializes in ball-bearing type of slides that are used in living appliances, system furniture, ATMs and photocopy machines. Among them, the quality and exclusiveness of the slide for refrigerator have won the recognition from living appliance companies and it is a product recording No. 1 sales in the world for 6 consecutive years since 2009. The slide used in washing machines, ovens and industrial devices rank 2nd~3rd place in the world and are undergoing advancement through continuous R&D. Moreover, Segos has newly launched hardware for premium furniture as the new growth engine.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

30% market share in the world

1st place in refrigerator slides

100% domestic market share

1st place in refrigerator slides

Ball bearing type of slide rail for Kimchi refrigerators, refrigerators, washing machines, ovens and cars



Kimchi refrigerator



Refrigerator
(S company's Chef)



Washing machine
(L company's Twin Wash)



Oven

Sejong Industrial

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Park Jeong Gil, Kim Ik Seok, Kim Gi Hong
Founded : 1976. 6. 10
Employees : 680
Homepage : www.sjku.co.kr
Sales : \$ 1323 million
Listed : KOSPI
Qualified* : World Class

Introduction

As the first company in Korea to develop the technology for manufacturing the exhaust system, Sejong Industrial has become a leader in the Korean automotive industry and currently holds the first place in terms of domestic market share and technology in the field of automobile exhaust system. Furthermore, driven by active overseas advancement strategies, it has established 4 companies in Korea and 13 companies overseas, including China, USA and Europe while maintaining 5th place in terms of global competitiveness through continuous R&D.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

World's market share

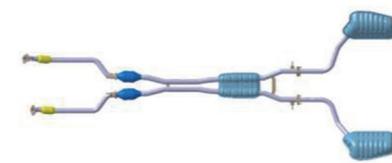
1st place in fuel cell electric vehicle's sensor

Domestic market share

1st place in exhaust system

World's first mass production

fuel cell electric vehicle's hydrogen/pressure sensor



Noise reduction device

Reduces engine noise and cools high temperature and high pressure exhaust gas



Diesel Particulate Filter

Filters hazardous substances of exhaust gas from engine



Sensor for fuel cell electric vehicle

Detects hydrogen leaks and monitors hydrogen pressure in fuel cell electric vehicles

SensorTec

Sector : Machine and materials
Sub-sector : Automobile/railroad vehicle
CEO : Um, Jonghag
Founded : 2001
Employees : 80
Homepage : www.st4u.com
Sales : \$ 45 million
Listed :
Qualified* : ATC

Introduction

Since the establishment of SensorTec, we have achieved growth by undertaking the research, development, manufacture and sales of ultrasonic sensors for vehicle. SensorTec is a market leader of autonomous vehicle sensor in Korea, specialities in ultrasonic transducers and modules. Our product line up includes ultrasonic transducers, as well as sensor modules, safety sensor and parking lot detection sensor. Also, SensorTec is equipped to optimized manufacture process with integrated transducer process and press-fit which lead to save production time and cost.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



AK2 sensor (DSI3 type digital ultasonic sensor)

Features

- DSI3 based high speed response sensor (next generation communication standard)
- Up to 444kbit/s, Optimized data package transfer by short latency
- Obtain the Max 15cm near distance detection performance using Near-field detection (NFD) technology
- 6m long range sensing performance using the Sensitivity Time Control (STC) technology
- Obtain the robustness technology for interference of other ultrasonic sensor and noise environment using the Burst Generation (BGR) control technology

Applications

- Autonomous Parking System
- Object detection for Autonomous Vehicle
- Blind spot detection System



Safety sensor for commercial & Heavy vehicle

The safety sensor is an ultrasonic sensor that detects obstacles and controls driving to prevent accidents while driving buses, trucks, and heavy equipment.

Features

- Ensure the reliability that can operate under the harsh working environment
- Secure the distance applicable to full-sized vehicles
- Can be combined with AVM camera system

Seo yeong

Sector : Machine and materials
Sub-sector : Automobile/railroad vehicle
CEO : Ha Tae-gwon
Founded : 1993
Employees : 45
Homepage : www.moldsy.com
Sales : \$ 10 million
Listed :
Qualified* : ATC

Introduction

In accordance with the chang of automobile paradigm, we are realizing customer satisfaction and promoting the development of new mold industry through our unceasing R&D and technical innovation of the engine part such as Cylinder Block, Cylinder Head and weight lightening chassis parts, BATTERY CASE, SUBFRAME, KNUCKLE, CARRIER.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Electric Car Part_Motor Housing

Motor Housing is equipped with a cooling system that protects the motor, the power unit of an xEV vehicle, and efficiently controls temperature rise. Develop, manufacture, and supply low-pressure casting molds for mass production of core parts of these xEV vehicles.

Electric Car Part_Battery Case (Small Type)

The Battery Case is a case for mounting and protecting batteries, a key component of xEV vehicles. This Battery Case is a large-area thin-walled product that requires mold design and manufacturing know-how in consideration of thermal deformation, and produces materials by low-pressure casting. It is a low-pressure injection type made with technology accumulated over the years.

Light weight Parts_Sub-Frame

SubFrame is a chassis component that fits under the vehicle and is being replaced by aluminum products from existing steel products. Aluminum materials are used to increase ride comfort while reducing weight. It is a low-pressure injection mold manufactured by accumulating 'Seoyeong' unique mold technology to produce hollow aluminum materials.

Sewon Precision Industry

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Kim Moon Ki
Founded : 1989. 7. 20
Employees : 189
Homepage : www.se-won.com
Sales : \$ 119 million
Listed : KOSPI
Qualified* : World Class

Introduction

Sewon Precision Industry Co., Ltd. is a company specializing in automotive parts based on people-centric, site-centric corporate culture. It is devoted to generating high added value to secure technological competitiveness in the global market. Furthermore, it is making relentless investment to secure eco-friendly and source technologies to foster future core competence.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 domestic market share for cowl cross member with zero defect rate

Cowl Cross Member

It is mounted at the cowl part of the car and it is a part that prevents twisting in the left and right direction as well as bending. It also maintains structure to protect passengers upon collision.



Cowl Cross



Dash Complete

Dash Complete

It plays the role of a boundary between the engine room and the passenger's cabin. It prevents noise, vibration from the engine room and prevents foreign substances from entering the car.



Rear Floor

Rear/Center Floor Complete

It is a component at the floor of the vehicle which maintains rigidity to protect the passenger and fuel system components upon collision.

Shilla Industrial

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Choi Byeong Seon, Choi Do Sik
Founded : 1975. 11. 1
Employees : 365
Homepage : www.shillaind.co.kr
Sales : \$ 96 million
Listed :
Qualified* : World Class

Introduction

Shilla Industrial is a robust automotive component expert, undergoing development in recognition of its best technology and its continuous R&D and high-tech facilities. Since its establishment, efforts have been put into localizing components to create a foundation for technology independence while quality system certifications such as TS16949 and ISO14001 have been acquired, adding confidence to 'Shilla quality in the world'.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 market share in the world for differential solenoid actuator



Actuator

Magnet clutch assembly for air conditioner and compressor, coil assembly for transfer case, solenoid actuator for differential, coil assembly for water pump



Calcination and grinding processing

Magnet Pulley assembly for air conditioner and compressor, plunger assembly for differential, rotor clutch for transfer case, bushing for EV conditioner and compressor, plunger assembly for differential (exclusive supply to GKN)



Others

Pressure switch for power steering, high press relieve valve for air conditioner and compressor, bellow for air conditioner and compressor

Shin Young

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Kang Ho-Gap, Kim Jong-Cheol
Founded : 1999.03.01
Employees : 776
Homepage : www.shym.co.kr
Sales : \$ 327 million
Listed :
Qualified* : World Class

Introduction

Shin Young Group, specialized in chassis parts and mold manufacturing, was founded from 'SHIN-A Metal' in 1973. Shin Young continuously focuses on R&D, investment and improvement on facilities and management innovation in order to become a global leader in the automotive industry.

* Refer to 396p for detailed information about ATC, and World Class

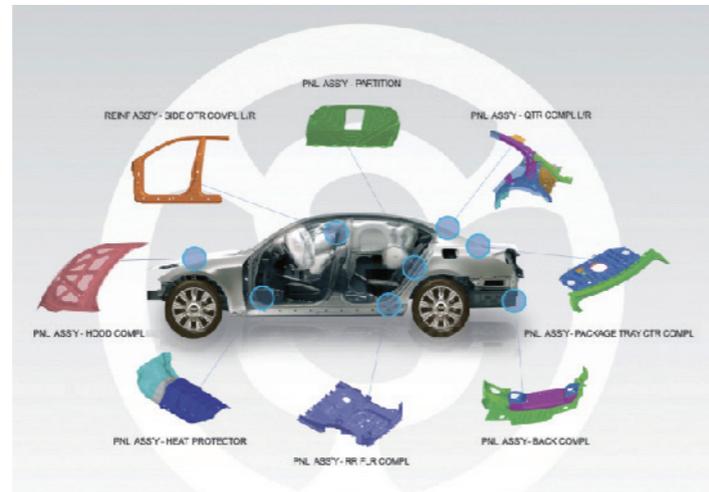
Main Product

20% domestic market share
1st place in mold business

Chassis

Mold

Manufactures the shape of chassis by mounting the mold on press machines and applying pressure on steel plates



Jig

Mechanical device that fixes the position of parts when producing or processing parts



Shinhan Diamond Industrial

Sector : Machine and materials
Sub-sector : Components
CEO : Kim Seong Gyu, Kim Shin Gyeong, Kim Ji Won
Founded : 1977. 4. 12
Employees : 530
Homepage : www.shinhandia.co.kr
Sales : \$ 125 million
Listed :
Qualified* : World Class

Introduction

Shinhan Diamond Industrial Co., Ltd. is a company that manufactures diamond tools. With extensive experience and the best level of technologies, it has been developing processing tool technologies and producing products for precision purposes used in construction & stone industry, smart mobility, aviation and semi-conductor industries, growing into a company trusted by global and domestic customers.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Construction industry (Arix G3 saw blade)

Arix G3 saw blade applied with Shinhan's innovative technology that prides in long lifespan and fast cutting force



Semi-conductor industry (CMP/BGW)

CMP pad conditioner that removes stabilized wafer film through polyurethane pad surface dressing that is used in CMP process



Display industry (Edge grinding wheel)

Edge grinding wheel by enhances the chamfer intensity of glass by removing chips and cracks on the glass that is used in the overall display industry



Automotive industry (Gear dresser)

Gear dresser that dresses worm heel used in gear grinding (for reducer and transmission of vehicles) into accurate gear shape



SH PAC

Sector : Machine and materials
Sub-sector : Components
CEO : Lee Jeong Hwa, Lee Jong Won
Founded : 2006. 9. 1
Employees : 258
Homepage : www.shpac.com
Sales : \$ 140 million
Listed :
Qualified* : World Class

* Refer to 396p for detailed information about ATC, and World Class

Introduction

SHPAC, established in 1973 with hard Cr electroplating which was relatively an unexplored technology at that time but essential for the development of key industries, has developed consistently by proactively participating in the localization of key automotive parts, such as shock absorbers, piston rods and brake components. Furthermore, starting from the export of piston rods for hydraulic cylinders for forklift in 1987 based on the competence that it has attained so far, hydraulic cylinders for heavy equipment and special vehicles were developed to participate in construction machinery fields and in 1990, a cylinder production plant was newly built in 1990 to supply its products to renowned heavy equipment companies in Korea and to replace import products, ultimately growing into a global company that exports hydraulic cylinders to famous companies around the world.

Main Product



1. BOOM CYL (2.5t~120t equipment)
2. ARM CYL (2.5t~120t equipment)
3. BUCKET CYL (2.5t~120t equipment)
4. BALDE CYL (2.5t~120t equipment)
5. SWING CYL (2.5t~120t equipment)
6. OUTRIGGER CYL (2.5t~120t equipment)

1. Rotary actuator (4.5K)
2. Rotary actuator (30K)
3. JIB CYL
4. TELESCOPIC CYL
5. LEVEL CYL
6. MASTER CYL
7. UPPER LIFT CYL

SINDO

Sector : Machine and materials
Sub-sector : Automobile/railroad vehicle
CEO : Seo, Ho-Kwon
Founded : 1986
Employees : 103
Homepage : www.sindokorea.com
Sales : \$ 33 million
Listed :
Qualified* : ATC

* Refer to 396p for detailed information about ATC, and World Class

Introduction

Since establishment, Sindo has to be exclusively manufacturing automotive components over 30 years and we are try to developing production based on continuous management innovation, accumulated experiences and superior technology. Also, we are stabilization by customer supporting infrastructure structured through systematic specialists.

21st century can be called highest technological world as well as global intelligence age, that industry is such as an Automobile.

We are manufacturing high-precision products through cold forging, warm forging, and high-speed precision machining process technology using metal for key element parts required in the automotive industry such as precision parts, and digital industry which are industries that require extreme competition and high technological innovation.

We consider our top priority on increasing customer value through new technological innovation, establishing R&D strategies to secure future-oriented technology, and concentrating all research support on technology development and process improvement to create high added value in the future.

Main Product



Gear

Gears for seat adjuster pinion gear, Oil pumps gear and other gear



Housing, Ball Stud

Ball joint components



Inner Rod

Chassis front sub and suspension link stanchion



Shaft

Main parts for T/M



Inner Bush

Absorption of the vehicle's vibration by assembling inner bush



Lightweight parts

Damper pulley, inner rod, Door hinge, Sleeve Stud

SJ Tech

Sector : Machine and materials
Sub-sector : Metals
CEO : Huh Il
Founded : 1987.06.11
Employees : 159
Homepage : www.sjtech87.co.kr
Sales : \$ 59 million
Listed :
Qualified* : World Class

Introduction

SJ Tech which has developed into a company specializing in die-casting equipped with the capability of developing new alloy material attained over 34 years, currently supplies auto parts such as metallic internal and external parts for mobiles phones and auto parts such as modules to Samsung Electronics, Hyundai MOBIS and overseas companies. SJ Tech is taking one step at a time as a leader by differentiating itself from companies in the industry, developing high-tensile aluminum alloys, coded S36, S33N and others in order to become a steadfast blue chip company amidst ever changing transformations.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ 37% domestic market share

1st place in P-Train

★ 30% domestic market share

2nd place in brackets



Brackets



Valves for powertrains

Mobile phone parts

Brackets, cases, accessories

Auto parts

Electric parts, powertrain parts, engine parts

SKF Sealing Solution Korea

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Heo Yong-jun
Founded : 1988.08.1
Employees : 365
Homepage : www.skfkorea.co.kr
Sales : \$ 63 million
Listed :
Qualified* : World Class

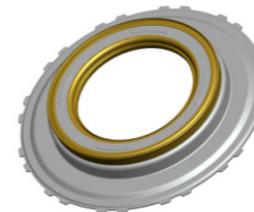
Introduction

SKF Sealing Solution Korea Co., Ltd. is recording consistent growth as a joint venture with the Swedish SKF Group with a history of a century based on based on continuous technological development, abundant know-how and the advanced technology of its partner, and as a oil seal company not only in Korea but also around the world, based on the best quality and customer service.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ Global Top 3 in the 3 major seal component groups



BPS

An essential item that plays the role of sealing so that pressure does not leak when the clutch plate is pushed using oil pressure when shifting the gear of a car

Shaft Seal

Attached inside the transmission to prevent oil leaks



Encoder Seal

Seals the part between the outer and inner ring of the car's hub bearing and detects the rotation speed of the axle is detected by using an encoder

SMEC

Sector : Machine and materials
Sub-sector : Precision production machine
CEO : Choi Yong-sup
Founded : 1996. 3. 5
Employees : 163
Homepage : www.esmec.com
Sales : \$ 105 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

SMEC, a company opening the doors to a smart world where machine and people communicate, was established after spin-off from Samsung Heavy Industries. SMEC is comprised of 4 business areas, such as ICT, plant automation and smart factory centered on machining business and its 4 subsidiaries include, SMEC VINA, SMEC America and SMEC EUROPE.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Machining

Turning Center, Machining Center

Intelligent Robot

Collaborative robot, plant automation solution

ICT Convergence

Gateway, B-CDMA, D-TRS

Soosan Heavy Industries

Sector : Machine and materials
Sub-sector : Industrial/General machinery
CEO : Jeong Seok Hyeon, Shin Soo Geun
Founded : 1984.03.02
Employees : 146
Homepage : www.soosan.co.kr
Sales : \$ 211 million
Listed : KOSPI
Qualified* : World Class

Introduction

Soosan Heavy Industries is the first company in Korea that has localized breakers, truck-mount cranes and hydraulic drills. Through ceaseless technological development, internal brand and sales network, it is a global hidden champion, ranking 1st place in the domestic market share, 5th place in the world and 1st place in the domestic truck crane market and is still growing by leveraging on R&D investment and overseas advancement through its research center.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Breaker

1st place in Korea, 5th place in the world

Truck-mount crane

1st place in Korea, 7th place in the world

Operates 2 overseas companies; Netherlands and Dubai Branch



SPG

Sector : Machine and materials
Sub-sector : Robot/Automated machinery
CEO : Lee Joon Ho, Yeo Young Gil
Founded : 1991. 3. 21
Employees : 372
Homepage : www.spg.co.kr
Sales : \$ 347 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

SPG is a company that specializes in producing geared motors (motor for reducer) for precision control below 5HP for industrial and household use. It has played a part in overcoming the trade deficit with Japan in the components industry where domestic companies are relatively vulnerable, it was awarded with the Tin Tower of Order of Industrial Service Merit which is the highest honor in the components and material technology award hosted by the Ministry of Knowledge Economy in 2008, in recognition of its technology and potentials.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

53% domestic market share
1st place for industry automation



Standard AC (geared) motor
 Standard DC (geared) motor

1.4% market share in the world
15th place for industry automation



Motor for power (geared)
 SHADED POLE (geared) motor

SUNBO Industries

Sector : Machine and materials
Sub-sector : Shipbuilding/offshore systems
CEO : Choi Geum sik
Founded : 1986. 8. 20
Employees : 175
Homepage : www.sunboind.co.kr
Sales : \$ 62 million
Listed :
Qualified* : World Class

Introduction

Sunbo Industries, established in 1986, is a robust company with 6 affiliates such as Sunbo Unitech, Sunbo Hitech, Sunbo Peace, Sunbo Angel Partners, and 6 manufacturing plants in Korea and is Busan's representative shipbuilding material and equipment producer. As a small hidden champion representing Busan, over 1,000 packages are being supplied annually, in Korea and overseas. Without being satisfied with the present status, it has been devoted to the development of eco-friendly technologies to respond to environmental regulations and as a leader of module unit, it specializes in material and equipment E.P.C for eco-friendly LNG vessels. It has also been awarded with Grand Prize for National Productivity, World-Class 300 and Grand Prize for South Korean Maritime in recognition of its technological competence at both home and abroad. In addition, it was the first SME to be designated as a family-friendly company and by receiving 'Grand Prize for Family Love' awarded by the Minister of Gender Equality and Family, it continues its family-friendly management.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Fuel Gas Supply System



Partial Re-liquefaction System



High Pressure Pump System



Regasification System

Sungjin Fo-Ma

Sector : Machine and materials
Sub-sector : Plastic processing/Powder
CEO : Son Seok Hyun, Son Seong Tae
Founded : 1986. 5. 15
Employees : 317
Homepage : www.sjfoma.com
Sales : \$ 40 million
Listed :
Qualified* : World Class

Introduction

As a high precision cold forging auto parts company, Sungjin Fo-Ma is equipped with unparalleled technology in the field of cold forging. It supplies key products such as ABS brake parts for cars and piston pins to global auto manufacturers. Headed by foregoing overseas marketing, it aims to achieve sales of KRW 100 billion in 2020.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

6th place in the world's ABS market

1st place in the domestic ABS market



TEHCROSS

Sector : Machine and materials
Sub-sector : Shipbuilding/Marine system
CEO : Park Seogwon
Founded : 2000
Employees : 225
Homepage : www.techcross.com
Sales : \$ 217 million
Listed :
Qualified* : ATC

Introduction

TEHCROSS, which started the electrolysis water management business based on the original technology for electrodes in 2000, carried all before one, introducing the world's first electrolysis-type ballast water management system to the market when the IMO enacted the BWM Convention in 2004. TEHCROSS, which has grown into the global No. 1 ballast water management system company through rapid market domination, reliable performance products and a prompt service network, is moving beyond the marine environmental company to become a comprehensive environmental company, by acquiring TEHCROSS Water & Energy, an environmental EPC company, and TEHCROSS Environmental Services, a company specializing in environmental O&M, in 2019.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



ECS

The world's first ballast water management system ECS (Electro-Clean™ System) developed by Techcross uses a direct electrolysis method to efficiently destroy microorganisms. It is not restricted by the installation area and easy to install on existing ships where spaces are limited. The optimal solution of the system can be provided through various references that have proven by the world's No. 1 sales and installation performance.



HYCHLOR

HYCHLOR (ECS-Hychlor™ System) developed by Techcross effectively treats harmful microorganisms in ballast water through indirect electrolysis. As the high-quality electrodes of Techcross are used in the same way as ECS, sterilization efficiency can be guaranteed. Since only 1% of seawater entering the ship is used for electrolysis, it is a good alternative for tanker ships, which had many difficulties in installation space.



TLGS

A system for gauging the water level in a ship's ballast tanks. In particular, the TLGS of TEHCROSS can be monitored in connection with the ballast water management system, and the water level of the tank can be checked and calibrated locally by connecting the HHT (Hand-Held Terminal) to the transmitter/PI Converter.

THN

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Lee Gwang Yeon, Chae Seung Hoon
Founded : 1986. 7. 23
Employees : 472
Homepage : www.th-net.co.kr
Sales : \$ 336 million
Listed : KOSPI
Qualified* : World Class

Introduction

THN Co., Ltd. is a manufacturer of Wire Harness for cars. It has developed through unwavering R&D and continuous innovation and currently operates 9 companies in 5 countries overseas. Through preceding technology, quality, global network and investment in human resources, THN strives to become a world-class E&E components company.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Wire Harness

Refers to goods that has processed and connected power, connector, power distribution device and others with the purpose of delivering electrical signals and power to each system within the vehicle



Smart Junction Box

Plays the role of signal processing, monitoring, alarm reporting and error diagnosis in addition to the digitalization function to the existing Junction Box which executes the functions of power distribution and functional absorption of the Wire Harness

TYM

Sector : Machine and materials
Sub-sector : Industrial/General machinery
CEO : Hiyong Kim, Dohoon Kim
Founded : 1960. 2. 1
Employees : 617
Homepage : www.tym.world
Sales : \$ 701 million
Listed : KOSPI
Qualified* : World Class

Introduction

TYM, under the vision, "Harmony between nature and technology for the prosperity of mankind", is a manufacturer specializing in agricultural machineries, aiming at becoming the Top 10 in the world. The vision of TYM embraces the distinct philosophy of TYM for creating a workplace where people, nature and technology blend in well. Based on state-of-the-art equipment, mechanical devices related to agriculture such as tractors, transplanter and combine harvesters are being produced and sold at both home and abroad.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

6.4% market share in North America

8th place in agricultural machine (including OEM)

15% market share in Korea

3rd place in agricultural machine

Export



T25



T574



T1304

19~130 horsepower

20,000 units exported annually, from multi-purpose small tractors to large tractors for livestock/ agriculture

Domestic



TE58



TX76



T130

25~130 horsepower

Small (Greenhouse, plantation)
 Medium (Crop plantation, rice plantation)
 Large (livestock) Various line-up



HJ6135



PRJ83



K1-HC

Combine harvesters

4~6 trillion (Domestic, import dualization)

Transplanter

6~8 trillion (Including GPS)

Others

Riding type farm management machinery (Cultivator)

Unick

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Ahn Young Koo
Founded : 1976. 4. 21.
Employees : 567
Homepage : www.unick.co.kr
Sales : \$ 206 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Unick, a Tier 1 supplier for automobile manufacturers, produces solenoid valves for automobile's automatic transmissions, has been selected as a company in the 'World Class 300 Project' by the Ministry of Trade, Industry and Energy in 2012 and is growing into a global company. Based on a labor and management culture of harmony and coexistence, it has achieved '33 years of dispute-free and negotiation-free wage agreement for 17 consecutive years since the establishment of a labor union in 50 years of company establishment' in 2021.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Hydrogen control valve and high pressure valve for hydrogen fuel cell vehicles

Development and production of hydrogen control valve which is a key part of hydrogen fuel cell vehicles which are receiving attention as future cars as well as high pressure valve for hydrogen tank



USB Charger

Offers high speed charging (PD 3.0) and communication functions for electronic devices through USB terminals

78.3% market share in the world

No. 1 hydrogen control valve for hydrogen fuel cell cars

100% domestic market share

No. 1 hydrogen control valve for hydrogen fuel cell cars



Coolant multi way valve

Improves power performance and fuel consumption of cars with the development of coolant multi way valve which is a heat management system for electric cars

wise-automotive

Sector : Machine and materials
Sub-sector : Automobile/railroad vehicle
CEO : Park Jae Hong
Founded : 2005
Employees : 42
Homepage : www.wise-automotive.com
Sales : \$ 7 million
Listed :
Qualified* : ATC

Introduction

Wise Automotive Co., Ltd., a vehicle system engineering company, was established in 2005 with a master's or doctoral degree from the System Electronics Consulting Research Center at Seoul National University, and is conducting research and development of key parts for vehicle electric/electronic devices.

Starting with the research on noise reduction and robust design in the automotive wiring/network sector, we have been conducting research and development related to the development of automotive electronic controllers, wireless communication technology for vehicles, controller integration, and next-generation network technology.

Recently, we have expanded our business to the safety support field, especially the laser and camera image application area, and have been recognized not only in the domestic market but also in the global market. In addition, we have succeeded in developing the world's second successful camera-based BSD (Blind Spot Detection System) and Korea's second LDW (Lane Departure Warning), and have the best technology as a vehicle system engineering company.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Transparent Bucket



The transparent bucket is a safety assistance system that provides an image of the back of the bucket that blocks the driver's view. A never-before-seen concept,

it allows the operator to see the person or other equipment behind the giant bucket, allowing the wheel loader to be operated safely. With a transparent bucket, drivers can be sure if they can move forward or if they need to stop.

- Function
- Full view of the front
- Transparent bucket view
- Moving object recognition
- View creation according to customer request
- Display the distance from the bucket or wheel to the object in front

Ez Parking



Ez Parking uses one (rear) or two (front and rear) cameras mounted on the vehicle to show the floor of the vehicle as well as the top view of the vehicle when moving the

vehicle. By doing so, it supports functions that help the driver to park comfortably.

- Function
- Real-time view output with top view
- Check for hazardous objects and terrain under the vehicle
- Provides a clear top view screen at night
- Driver parking assistance support in forward and reverse parking
- Clear guidelines
- Reinforcement of safety through obstacle recognition
- Easy Parking 1 channel: Parking support with one rear camera
- Easy Parking 2-channel: Parking support with two front and rear cameras

WON ST

Sector : Machine and materials
Sub-sector : Element parts
CEO : LEE TAEK WON
Founded : 1989
Employees : 250
Homepage : www.wonst.co.kr
Sales : \$ 45 million
Listed :
Qualified* : ATC

Introduction

Based on expertise and technologies it has gained for about 30 years, WONST Co., Ltd. has contributed to creating import substitution effect and securing competitiveness of domestic core industries including semiconductors, LCD, LED and various machine tools in the field of domestic automation industry. In particular, it has key specialized technologies of application for special steel and heat treatment and ultraprecision machining as well as interpretation ability for rolling motion and sliding motion by domestically producing LM unit, super ball bushing, ball spline, linear motion guide, and crossed roller bearing. With differentiated technologies, strict quality control and competitive pricing, we will do our utmost to satisfy our customers.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Linear Motion Guide

High Positional Accuracy.

Highly accurate and precise linear motion is achieved through low frictional resistance and small difference between the dynamic and static frictional coefficient.

Capability to maintain precise movement for a long time

Rolling contact has little wear so machines can achieve a long life with accurate motion. Moreover, the thinner oil film compared to that of a sliding motion minimizes the error caused by the thickness changes in the oil film.

Improved machine productivity.

Low friction, high load-bearing capacity and rigidity make the device more compact, cost-effective and energy saving. High speed and accurate movement is possible so high efficiency machines can be designed.

Easy maintenance.

Accuracy readjustment depends on the lubrication condition is not required because of the simplified lubrication process. Regular supplying of little grease is required to reduce wear.



Woobotech

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Jeong Hae Il
Founded : 2000. 6. 1
Employees : 211
Homepage : www.woobotech.com
Sales : \$ 102 million
Listed :
Qualified* : World Class

Introduction

With over 50 domestic patents and 80 overseas patented related to Headrest, Woobotech is a company with the largest domestic market share for Headrest Mechanism for car seats. Based on its Headrest Mechanism technology offering 4-way control and injury prevention, Woobotech was awarded with 'US\$ 30 million Export Tower' in 2017 and continues to develop with the objective of ranking 1st place in terms of the world's Headrest market share. It has completed the development of multi-functional, lightweight, door latch for cars and is developing the Flush Door Handle so that it could be applied to Hyundai and Kia cars. Through the differentiated operational structure of its products, Woobotech owns 18 domestic patents and 26 overseas patents and has acquired New Excellent Technology (NET) certification.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

No. 1 domestic market share for Headrest Mechanism

Headrest offering user convenience and safety

- Button 4-way Headrest (up, down, left, right) operation method
- Sliding Headrest, forward and backward operation method
- Built-in, lightweight door latch
- Flush Handle & E-latch system considering convenience and safety



WOOJIN

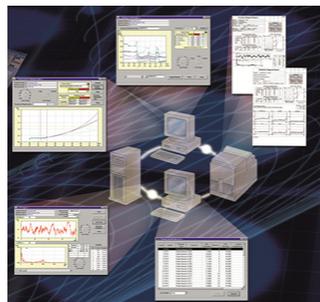
Sector : Machine and materials
Sub-sector : Industry/General machine, Meter, Nuclear power
CEO : LEE JAI SANG , BAIK SEUNG HAN
Founded : 1980
Employees : 157
Homepage : www.woojininc.com
Sales : \$ 43 million
Listed : KOSPI
Qualified* : ATC

Introduction

WOOJIN INC. is specialized in manufacturing precision instrument used in steel industry and nuclear industry which are the basis of all industries. Since the establishment of the company in 1980, we have developed industrial measuring instrument, and now we are in the core business of measuring instruments for nuclear power plants. In 1987, we established the research institute for measurement technologies. We engaged in the development of nuclear power plant, and flow measurement system business. We are also leading the automation equipment, condition monitoring system, plant business and new material business.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



1. ICI

ICI is an instrument for measuring nuclear fission condition in reactor

2. Automatic Temperature Measuring & Sampling Device

Automatic measuring device used in the steel industry

3. CMS

The Condition Monitoring System predicts and prevents unexpected equipment accidents that may occur in industrial sites.

4. Measuring system

Integrating system for measuring quantity of receipt and shipment for fluid

Woojin Industrial Systems

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Kim Young Chang, Kim Jeong Hyeon
Founded : 2010. 6. 1.
Employees : 517
Homepage : www.wjis.co.kr/kr
Sales : \$ 287 million
Listed :
Qualified* : World Class

Introduction

Woojin Industrial Systems Co., Ltd., a leader of eco-friendly new transportation and power system is a company that specializes in providing total solution, from railway vehicle to electric bus and smart energy business areas. As for the field of railway vehicle, Woojin is fulfilling the responsibility in the safety of citizens by expanding the business areas into rail operation sectors based on professional manufacturing know-how. Furthermore, Woojin is leading the rapidly changing business fields of global new transportation and smart energy by securing economic feasibility, efficient operation and credibility of products through never-ending research and development.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Railway vehicle

The light railway vehicle manufactured by Woojin has adopted new technologies such as permanent magnetic type of synchronous motor, resonance type of inverter and air supply device.

Electric bus

Woojin Industrial Systems' electric buses emit less carbon dioxide emissions and air pollutants compared to fossil fuel buses and maintenance is easier compared to internal combustion engines, so they are gaining attention as the future public transportation



YG-1

Sector : Machine and materials
Sub-sector : Components
CEO : Song Ho-Keun
Founded : 1981. 12. 20.
Employees : 1,582
Homepage : www.yg1.kr
Sales : \$ 382 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

YG-1 manufactures and sells various cutting tools satisfying the customer's needs and it isn't just a provider but is a global No. 1 company that prioritizes customer satisfaction throughout the entire industry. Based on extensive product range and advanced quality control capabilities, customers can rely on us for high quality products and for customer-oriented services.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

MILLING

YG-1's milling tools are recognized to be one of the most effective cutting tools in the world, highly satisfying users by enhancing their productivity significantly. It is suitable for various working conditions and conditions, offering optimal solution for maximizing productivity



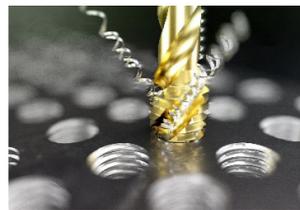
DRILLING

YG-1's drilling tools exhibit the best cutting performance in comprehensive working conditions and various machining objects and the tools are well known for their durability, highly satisfying users. The outstanding rigidity and design considering optimal chip discharge bring out extraordinary performances, creating longer lifespan and maximizing user productivity. With a variety of sizes and shapes available, solution for various drilling works are provided



THREADING

YG-1's threading tools are highly acclaimed for its excellent quality and unique design and constantly remaining as the No. 1 choice of users. Problems which could occur during machining are prevented in advance through stringent quality control, enabling comprehensive working conditions as well as stable and efficient threading work in various machining objects.



TURNING

YG-1's turning tools are the most cost effective cutting tools in various machining applications. Longer tool life is provided to further enhance the user's productivity. the tools exhibit excellent cutting performance in general applications as well as under harsh machining conditions.



YOUNGJIN

Sector : Machine and materials
Sub-sector : Automobile/railroad vehicle
CEO : Jae Young, Choi
Founded : 1998
Employees : 150
Homepage : www.yjmobility.com
Sales : \$ 65 million
Listed :
Qualified* : ATC

Introduction

Youngjin develops & produces three main parts.

- FCEV stack parts (Metal bipolar plate), EV cone clutch
- Eco-friendly vehicle parts (EV rotor shaft, EV reducer shaft, Hybrid transmission parts)
- ICV parts (Engine parts (Gear, Shaft, Tube injector), Transmission parts (Synchronizer ring, Speed/Differential gear)

Youngjin has full line-up of material, casting, forging, machining and heat treatment process.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Synchronizer ring, Cone clutch



EV Rotor shaft, EV Reducer Shaft, FCEV bipolar plate

YoungKwang YKMC, Inc

Sector : Machine and materials
Sub-sector : Surface treatment
CEO : Kwan Seop Jang
Founded : 1989
Employees : 188
Homepage : www.ykmc.kr
Sales : \$ 37 million
Listed :
Qualified* : ATC

Introduction

YKMC, a specialist in surface treatment, provides one-stop solution surface treatment as well as machining. Based on long history of work, we provide various type of surface treatment to meet customer needs such as anodizing, plating, coating, and cleaning. Also, we have precise machining centers that cover small parts to large parts. Main application fields are display, semiconductor and sales are expanding to the aerospace & defense. We has 7 certified processes by KSPC, NADCAP and specialized quality control system based on AD9100D and ISO9001 as well. Maximum capability of machining is 8 x 3 m, and bath size for anodizing is 10 x 3 x 5 m.

* Refer to 396p for detailed information about ATC, and World Class

Main Product



Surface treatment

- Anodizing : Electrochemical process to form an oxide layer on the aluminum, titanium, and magnesium surface for the enhancements of hardness, corrosion resistance, and durability.
- Plating : 3+ & 6+ chromate, zinc nickel, chrome, brush nickel, electroless nickel
- Cleaning : electro-polishing, ultra high vacuum part cleaning, special metal cleaning
- Coating : EDS, passivation, NEDOX®, TUFRAM®



Machining

YKMC is equipped with facilities that can process of various size from small to large products such as large 5-axis processing machine(∅2500 mm) for complex shaped semiconductor chamber and 3 axis(10 x 3 x 5 m) for 10.5 generation display chambers. In addition YKMC has a robot lapping system, enable uniform pretreatment of large and complex shape product.

Youngshin Precision

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Lee Sang Woo
Founded : 1987. 2. 28
Employees : 348
Homepage : www.ys-kr.com
Sales : \$ 101 million
Listed :
Qualified* : World Class

Introduction

Youngshin Precision, a global automotive parts company, started from localizing power steering oil pump and successfully developed high quality chassis, transmission, powertrain, brake and core components for electric vehicles with the best technology and is a supplier to global automobile manufacturers.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Steering part

- PSP designed to withstand high temperature, high pressure, high torque exposures
- EPS applied with high pressure control technology and downsizing

Brake part

- EVP applied with high vacuum check valve design, high temperature plastic

Engine part

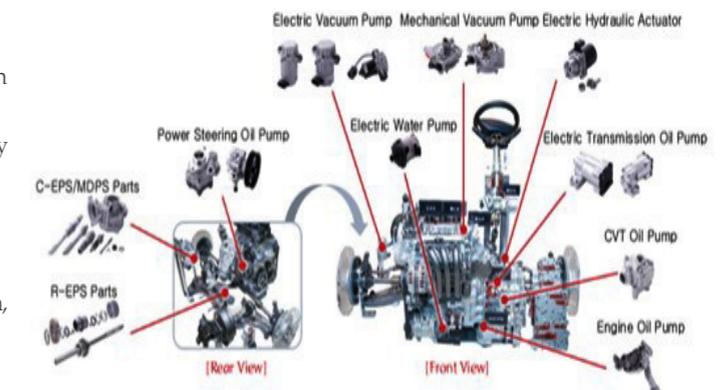
- ENG OP applied with high RPM torque reducing technology and pump capacity variable control technology

Transmission part

- EHA applied with noise/pulsation/vibration analysis technology
- CVT OP applied with variable pump technology, high pressure pump control technology
- ETOP applied with intake-discharge flow channel design technology

Eco-friendly vehicle part

- EWP applied with RPM connected flow control technology, noise/pulsation/vibration analysis technology
- Electric-powered refrigerant compressor applied with technology suitable to characteristics of eco-friendly vehicle
- Hydraulic actuator applied with exhaust-vacuum design technology, high vacuum check valve technology



Youngsin Metal Industrial

Sector : Machine and materials
Sub-sector : Components
CEO : Sun Ji-young
Founded : 1971. 12. 1
Employees : 335
Homepage : www.ysmic.com
Sales : \$ 102 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Youngsin Metal Industrial is a manufacturer specializing in fasteners and forged products used in automobiles, electronics, machinery and architecture industries. With renowned Korean companies like Hyundai Kia Motor, GM Korea, Renault Samsung, Hyundai MOBIS and Samsung Electronics and international key players like GM Global and Nissan as its partners, it is growing into a world-class company beyond boundaries. Recently, it is expanding the field of specialization from the production of fastener products to plastic forming products.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

1.41% market share in the world

15th place in steering device bolt

26.53% domestic market share

1st place in steering device bolt



⟨Engine bolt⟩



⟨Chassis bolt⟩



⟨Transmission bolt⟩



⟨SDS⟩



⟨Steering device bolt⟩

Engine bolt

Representative cylinder head bolt is assembled to the block by using a gasket in between so usually, long bolts are used

Chassis bolt

Functional product that prevents work defect caused by overlapping thread
 Transmission bolt Representative Diff drive bolt is a fixing bolt which is a key part of automatic transmission that fixes the Diff drive gear

Transmission bolt

Representative Diff drive bolt is a fixing bolt which is a key part of automatic transmission that fixes the Diff drive gear

SDS (Self Drilling Screw)

Hole is drilled in the combining object and female thread is created for fastening

Steering device bolt

Representative Cam Bolt is a component that constitutes the steering device of the vehicle

YUJINROBOT

Sector : Machine and materials
Sub-sector : Industry/General machine
CEO : PARK SEONG JU
Founded : 1988
Employees :
Homepage : www.yujinrobot.com
Sales : \$ 23 million
Listed : KOSDAQ
Qualified* : ATC

Introduction

Yujin Robot offers autonomous mobility solutions technology including 3D LiDAR sensors, SLAM, Navigation and Safety controller modules. They are ISO 13482 certified PL-d level safety system incorporated into our GoCart mobile transport platforms as well as end-to-end Robotization SI Solutions. Yujin Robot has more than 30 years of R&D experience and solid reputation as a pioneering, first-generation robotics company in the industry. We continue to push the boundaries of robotics and artificial intelligence, developing game-changing autonomous solutions that give companies around the world the edge over the competition.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Yujin GoCart 180/250/500

YUJIN GoCart is an autonomous transport system that can be used in various dynamic environments and logistics applications. With its proprietary 3D ToF LiDAR-based intelligent navigation, it supports precise navigation and obstacle avoidance without using any artificial markers.



Key Features

- Fleet Management System (FMS)
- 3D SLAM & Navigation based on Yujin 3D LiDAR
- Smart interface with automatic doors and elevators via FMS
- Industry-accredited PL-d level safety system

Robotization Package

Yujin's Robotization Package is a comprehensive package comprising of Yujin Robot's 3D LiDAR, SLAM, Navigation and Safety Controller, a globally accredited ISO standard PL-d level safety system, FMS (Fleet Management System) that enables simple and easy transformation of a manual machine into a fully autonomous mobility machine.

Key Features

- Transforming a manual device/machine to an autonomous mobile robot
- Cost-effective and proven technology for autonomous mobility based on Yujin Framework
- PL-d level safety equivalent functionality as an option
- Easy integration with its proprietary YUJIN 1 3D LiDAR and SLAM & Navigation controller
- Fully compatible with Yujin FMS (Fleet Management System)
- Compact size & scalable for customer integration
- Saving engineering costs and development efforts

Yujin 3D LiDAR

Yujin 3D LiDAR is an enhanced direct ToF (Time of Flight) 3D LiDAR (Light Detection and Ranging) optimized for mapping, object detection, navigation, and other applications in robotics.

Key Features

- Single Channel & Wide FOV (Max 360 X 80)
- Selectable Scanning Modes
- ROS compatible
- Affordable



Yura Tech

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Ohm Dae-yeol
Founded : 1987. 5. 7
Employees : 268
Homepage : www.yuratech.co.kr
Sales : \$ 154 million
Listed : KOSDAQ
Qualified* : World Class

Introduction

Yura Tech Co., Ltd., established in 1987, is a manufacturer specializing in car ignition system, such as ignition coil and ignition plug.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

Ignition coil

Step-up transformer that changes low voltage current from the battery to high pressure then delivers it to the spark plug

Spark plug

Ignition devices that receives the high voltage current from the ignition coil to generate electrical spark to move the engine piston

Glow system

Preheating device that increases the temperature of air inside the cold combustion chamber until the ignition point to help start a diesel engine

Exhaust temperature sensor

Measures the exhaust gas temperature so that hazardous substance contained in the exhaust gas can be purified



★ 49% market share in Korea
No. 1 in exhaust temperature sensor sector

★ 63% market share in Korea
No. 1 in ignition coil sector

★ 13% market share in Korea
No. 2 in spark plug sector

Yushin Precision Industrial

Sector : Machine and materials
Sub-sector : Automobile/Rail vehicles
CEO : Lee Dong Ah, Lee Jae Won, Han Eui Chang
Founded : 1975. 12. 15
Employees : 476
Homepage : www.ysptech.com
Sales : \$ 140 million
Listed :
Qualified* : World Class

Introduction

Yushin Precision is a Tier 1 supplier of Hyundai Motor, focused on producing car engine, transmission and chassis parts. As part of the initiative to develop new technologies, it succeeded in localizing high carbon steel such as Driver Plate, Cushion Plate and Hose Clamp which are sub-parts of car transmissions that used to rely heavily on imported products. Furthermore, it was the first Korean company to develop a new technique, successfully localizing One-Piece Ring Gear. It is taking a firm position as a world-class company in the field of automotive parts through continuous investment in R&D, development of new technologies, global management and identification of new businesses.

* Refer to 396p for detailed information about ATC, and World Class

Main Product

★ Driver Plate
1st place in Korea / 4th place in the world

★ Snap Ring
1st place in Korea / 4th place in the world

★ Others
Spacer/Washer/Motor housing, etc.

★ Plate Spring
1st place in Korea / 4th place in the world

★ Clamp
1st place in Korea / 4th place in the world

Plate spring

Attached to the clutch of automatic transmission of a car and helps auto clutch piston to return

Clamp

Prevents deviation and leak regarding hose and counterpart

Snap ring

Fixes the location of parts that are assembled to the transmission case and prevents deviation

Driver plate

Key part that is connected to the engine's crank shaft and torque converter and delivers the engine's power to the automatic transmissions



Qualification Reference

In this directory, you're provided with information about the state-run ATC Project, which is a program of choosing the excellent companies in Korea and the companies selected for the World Class Project.

World Class

What is the World Class Project?

It is a package program that supports and promotes the middle-sized firms that have overcome stagnation in growth and entered into the stage of full-fledged growth, or small and medium-sized enterprises (SMEs) that make continuous innovation, secure the independence of business relationships, and have high growth potential.

Eligibilities

- ▲ A company with recent sales of 40 billion won - 1 trillion won
- ▲ An SME whose export contributes 20% or more to the total sales
- ▲ R&D intensity* is greater than 2% in the last 3 years or CAGR** is larger than 15% in the last 5 years

* R&D Intensity: Expenditure in R&D / Total Sales (%)

** CAGR: Compound Annual Growth Rate

ATC+

What is the ATC+*?

* ATC+: Advanced Technology Center Plus

It is aimed to grow middle-sized firms and SMEs to be the core players in the industrial revolution by helping their affiliated research centers improve R&D core competence.

Eligibilities

- ▲ A company-affiliated research center with serve year of more than 5 years
- ▲ With 8 to 30 R&D personnel
- ▲ R&D intensity*: 2% (domestic) to 4% (overseas)

* R&D Intensity: Expenditure in R&D / Total Sales (%)



KORIL
Directory of
Outstanding Korean
Companies



KOREA·ISRAEL
INDUSTRIAL R&D FOUNDATION