

**Youngsin Metal Industrial Co.,Ltd,  
world leading company together with  
our customers in the future with best  
technology and quality**

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# YOUNGSIN Metal industrial Korea's leading Fastner maker

## INTRODUCTION

Youngsin is specialized in production of FASTENER as bolt, screw and precision forged parts currently since establishment, supplying specialized products in 12,000 species to the field of automotive, electronics, machinery and construction in overseas and local market and has been certified for quality and technology from consumers.

In particular, we obtained the international quality standard ISO/TS 16949 certification, the certification of ISO 14001 international environmental standards and health and safety sectors ISO18001, contributes to national industrial development and innovation leading by awarding Gold tower of Industrial Service Merit, Business Innovation Award and etc. in the industry's first. We, moreover will make every effort in order to become one of the largest global companies do best to satisfy customers with ongoing technical development and quality management.

# Give benefits to Mankind and to Contribute to the Development of Society

Since establishment in 1967, in producing Bolt, Screw, forged parts as a professional Fastener manufacturer, we have developed Phillips (+) Screw, Self-Drilling Screw the first time in Korea, dedicated to forging new materials research and development components, holds a number of patents, such as Earth Bolt for ground, one-piece Cam Bolt. In addition, we offer to our clients a high-performance product through partnerships with advanced technology companies.

All of Youngsin's members look for the long-term than short-term profit trust with our customers to achieve customer value based on the skills and confidence, and contribute to the benefit of our customers by continuously developing high performance, high value-added products to grow with customers.

We, Youngsin Metal Industrial will continue to move toward the world, are focused to the environment, respect for the people, and do our best that can impress the customers the best products and service.

J. W. Lee / CEO



# SINCE 1967

## Best products through best quality



## HISTORY

**2014.05** Selected "World Class 300" (Ministry of Knowledge Economy of Korea)

**2014.03** Awarded 2013 Supplier Of the Year (GENERAL MOTORS)

**2012.12** Established YoungSin Metal Thiland co.,ltd. [In Rayong, Thailand]

# 2010

**2008.10** Opening of Branch Office in Europe [Rotterdam, Netherlands]

**2007.10** Excellent Products Development Award (President of Korea)

**2006.12** Consulting Innovation President Award(President of Korea)

**2006.08** ISO 14001:2004 Certification

**2005.08** ISO/TS 16949 Certification

**2003.07** Factory Integration(Pyongtaek Industrial Complex)

**2001.01** R&D center establishment

# 2000

**1994.07** KOSDAQ Registration

**1994.05** Gold Tower of Industrial Service Merit (President of Korea)

# 1990

**1987.11** 3 Million US\$ Export Rower Award(President of Korea)

**1985. 05** Technology Advancement Award(MOST)

**1983. 08** Prospective Medium-size Company Award(MOCI)

# 1980

**1971. 12** Conversion to YOUNGSIN METAL INDUSTRIAL CO.,LTD.

**1971. 05** Superior medium-size company Award(Prime Minister)

# 1970

**1967. 06** Establishment of Youngsin stainless screw Factory

# 1960



# PRODUCTS

## Engine Parts & Transmission Parts

YOUNGSIN meets the various needs of customers with high quality, high functional products.  
YOUNGSIN is doing its best to satisfy customers through automatic operation and productivity improvement.



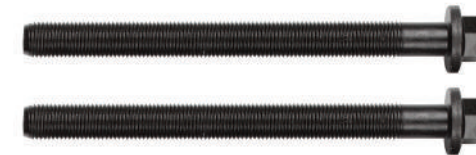
## Engine Parts

Engine-Device for operating automobile.

Main part consists of the engine parts, valve device, lubrication, cooling system, fuel system, ignition system components.

### Cylinder Head Bolt

Functional bolt of connecting cylinder head and block, and guaranteeing supply of oil to inlet hole in preventing block's play.



### Conneting Rod Bolt

Tightening the piston and connecting rod.



### Main Bearing Bolt

Fastening part of supporting shaft adjoining relative part for the purpose of spinning of crank shaft following main journal in block.



### CrankShaft Pully Bolt

Fastening bolts for generator, power pump or cooling water pump as the function of auxiliary transmission equipment except the main power transmission equipment.



**Cam Cap Bolt**

Bolt for tightening cam cap to camshaft for the purpose of assembling camshaft.

**Stud Bolt**

Bolt for fastening both of 2 parts with both end of threaded.

**Plug**

Bolt for protecting oil leakage from hole of the engine and transmission.

**Ladder Frame Bolt**

Bolt for fastening ladder frame to cylinder block.

**Engine Cover Bolt**

Bolt for assembling engine front cover.

**Oil Filter Adapter**

Functional bolt for oil filter cartridge enable to separate for industrial engine.



## Transmission Parts

Device to switch to the power generated by the engine torque

**Reamer bolt**

Protection from abrasion, reduce of life and vibration caused by poor alignment, to be assembled to fit the gearbox hole.

**Union Bolt**

Bolt enables the flow of oil and water in the engine and the transmission.

**Diff Drive Bolt**

Bolt to connect crank shaft for better mobility





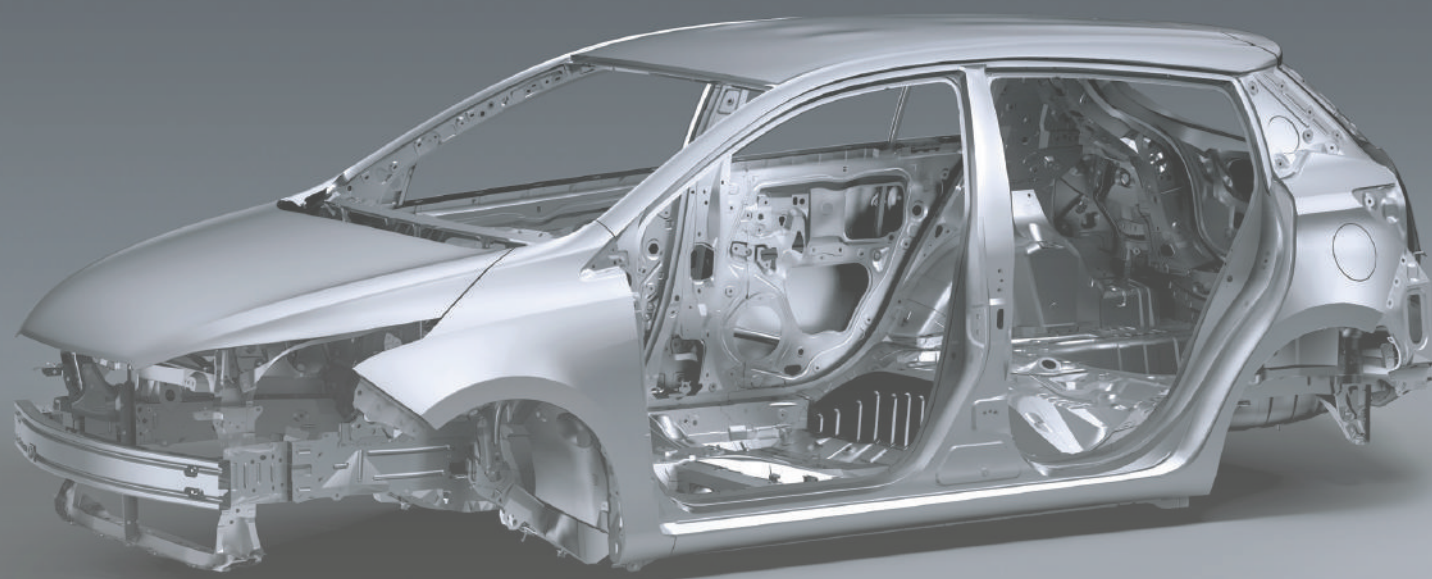
# PRODUCTS

## Body & Chassis Parts

### Other cold-forging products

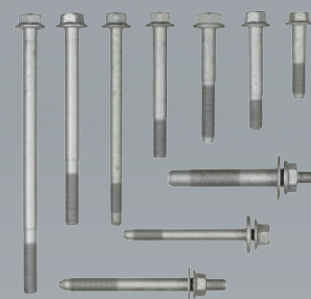
### Precision process Parts

Forms the main structure of the vehicle located in the lower vehicle, consists of suspension, steering, braking parts as supporting system of the body parts and powertrain.



#### Suspension Bolt

Bolt connecting with Beam and Suspension ass'y.



#### Universal Joint Bolt

One spindle can drive the other spindle not in a line completely by this bolt, and transmit power efficiently to the driven shaft angle changeable.



#### Socket Bolt

Protecting part of the anti-hole oil leakage



#### Housing Bolt

Connecting Bolt to the housing of holding MDPS power head.



#### Brake Caliper Pin

Connecting the cylinder and the carriers in the automotive brake components.



#### Wheel Bolt

Bolt connecting tire, drum and disc of steering integrated



#### Column Bolt

Connecting bolt to steering wheel with MDPS electric motor mounted.



#### 6LOBE Bolt

The improved bolt of existing fastening Drive (+, -, hex bit).



#### HUB Bolt

Bolt fixing the brake hub bearings.



#### Tie Rod End



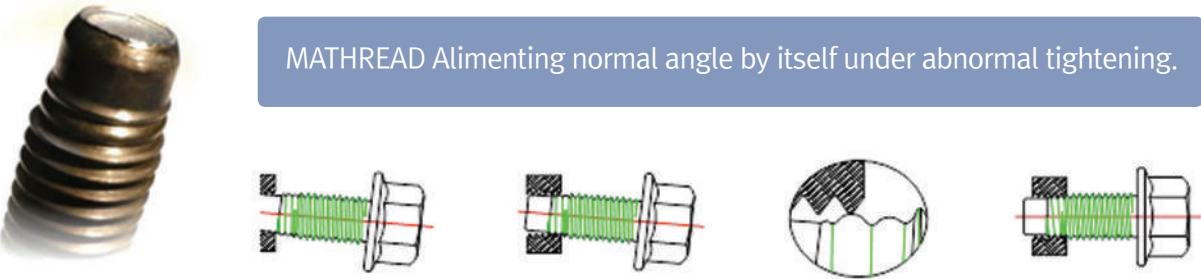
Part of the steering gear box (worm gear) connects to the knuckle of front-wheel as joint function.

# Patents

We manufacture high functional licensed products under patent which customers require, and increase the value to our customers at an affordable cost with license certification of world patent forging items of copyright acknowledged

## MAThread Bolt

**Overview** : placing a round thread at the end of the bolt to avoid overlapping thread fundamentally and prevent inadvertent operation failure.  
**Features** : Avoid overlapping thread, high clamping force, easy operation and accurate normal angle tightening.



## DELTA PT

**Overview** : Exclusive plastic fastening bolt, clamping force is excellent and controllable stabilized quality by no damage at plastic material when tightening.  
**Features** : no damage at the material by Accumulating of chips slightly extruded from material in the center of the screw during fastening.



DELTA PT® : Extruded material shall be accumulated in the center of the groove during assembly of the thread.

- Wide accumulation area.
- Low pressure at contact surface
- Assembly without interference.

60° thread : The lack of accumulation in the grooves of the screw for extruded material during assembly

- Pressure weighting at assembled area
- Causing cracks

We will apply the new method to be the best in the field of Metal forming by forging, and will reach to customers through world-class products of patent certificated at functional products.

## EARTH BOLT

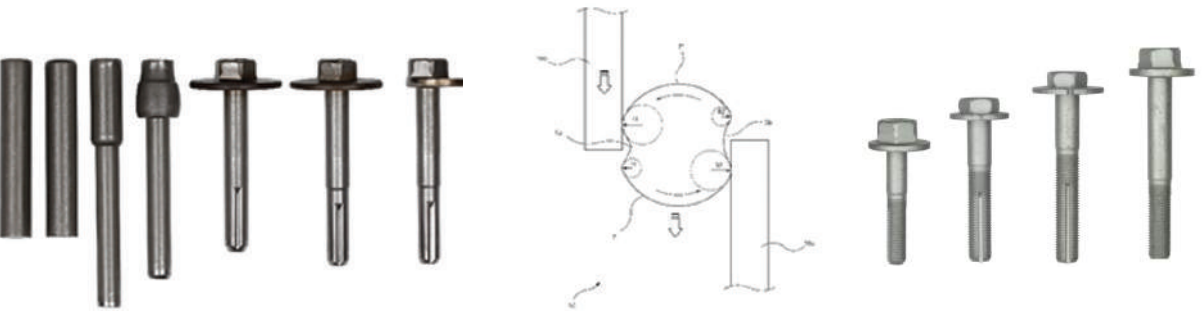
Thread of grounding bolt is formed by polygonal cross-sectional structure, remove foreign substance and increase the efficiency of electrical devices by high conductivity.  
(No. 10-0807315, KOREAN INTELLECTUAL PROPERTY OFFICE)



표면처리 (plating)	주석아연 (백색) (타사 제품)	주석아연 (백색) (영신 제품)	테스트 수 량
Resistance (mΩ)	0.21	0.17	30 EA (Twice)

## CAM BOLT

Conventional bolt has same shape in right and left side based on axis, however cam bolt has different round figures at both boundary, and at boundary of closing area between round part and second slot manufactured under patent. (No. 10-1209164, KOREAN INTELLECTUAL PROPERTY OFFICE)



## Precision process Parts



### Worm gear

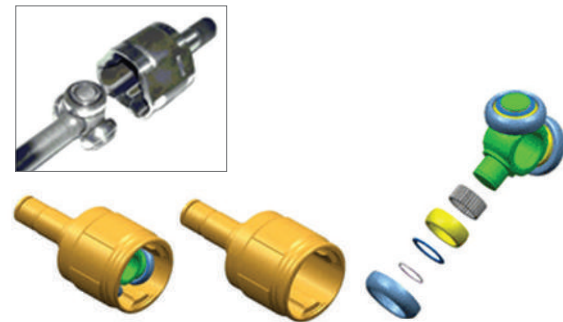
one side gear for speed reducing at orthogonal axis, used for automotive wheel(MDPS) or reducer.



### Shudderless Sliding Costant Velocity Joint

It allows a drive shaft to transmit power through a variable angle, at constant rotational speed, without an appreciable increase in friction or play.

#### Compostion of components



## Other forged products

Designed to meet the requirements to replace the existing product with a new method to reflect the technical characteristics of the product

### Anchor Bolt

Bolt connects the base of concrete or reinforced concrete and the bottom of steel structure, wooden pillar or iron girder of bridge.

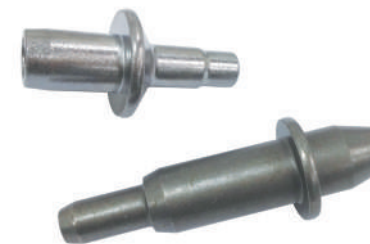


### SDS(Self drilling screw)

bolt for drilling at material by drill blade at the point, making hole core by itself and fastening.



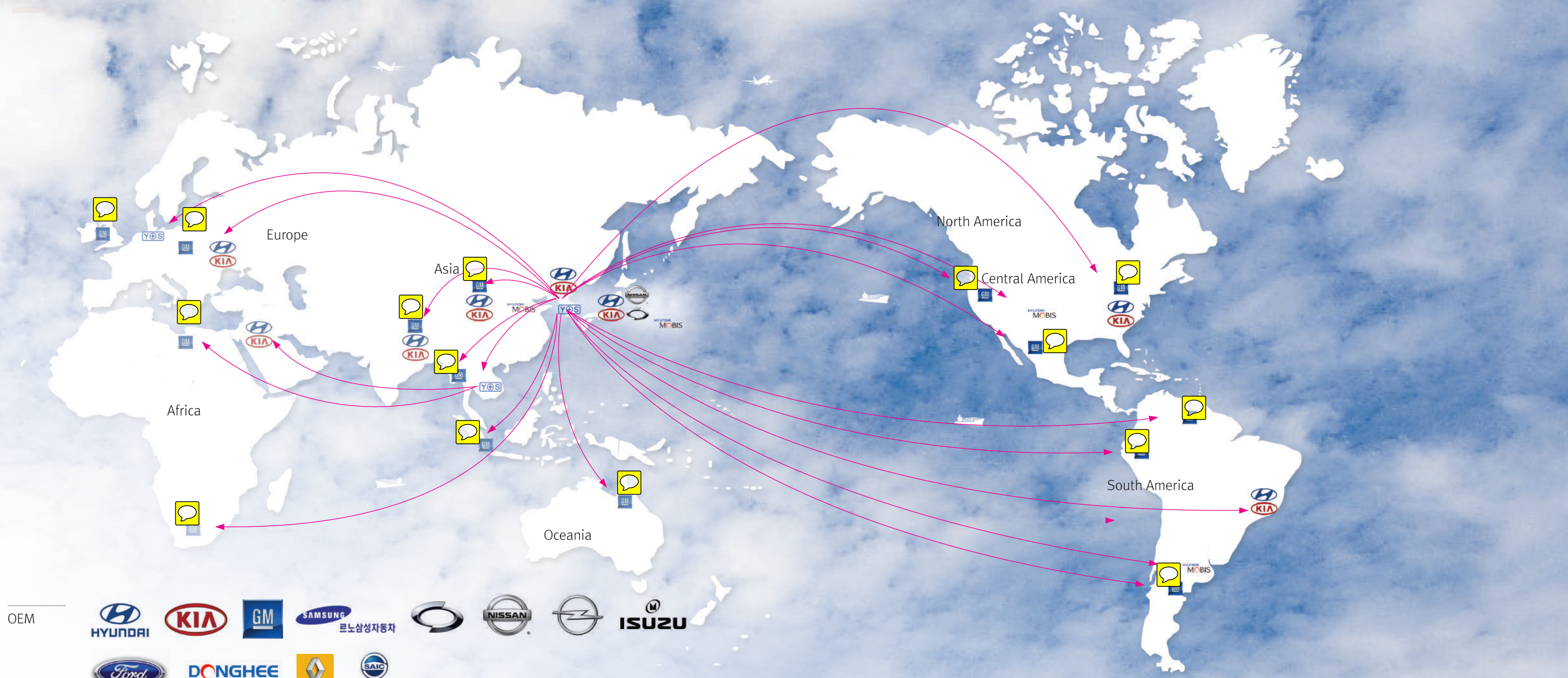
### Mounting Brocket



### Pinion Shaft







OEM



Global Tier 1,2



Tier1,2 (domestic)



Electrics



Construction



### Network & Contact

#### Overseas

**European Headquarter**  
 Youngsin Metal Industrial Co., Ltd.  
 Vareseweg 1, 3047AT Rotterdam, The Netherlands  
 TEL : 31-6-81-723-194 (DIR)

**ASEAN Headquarter**  
 148/25 Moo5, T.Surasak, A.Sriracha, Chonburi  
 20110, Thailand  
 Office : (+66) 38 338 062

#### Domestic Sales Office

**Global Headquarter**  
 118, Poseunggongdan-ro 118beon-gil, Poseung-eup, Pyeongtaek-Si,  
 Gyunggi-Do, R.O.Korea(451-821)  
 Tel : 82-31-680-8700 Fax: 82-31-680-8770 Email: ysmic@ysmic.com

**Seoul Office (Overseas Business Team)**  
 648, Seobusaet-gil, Geumcheon-gu, Seoul, Korea(Daerung Technotown  
 6-604Ho)  
 Tel : 82-2-856-5711~3 Fax: 82-2-867-2245 Email: trade@ysmic.com

**Domestic Sales Offices**  
 GUNSAN Tel : 82-63-467-9384  
 KWANGJOO Tel : 82-62-953-7742  
 CHANGWON Tel : 82-55-251-7384  
 WOOLSAN Tel : 82-52-296-2028  
 DEAGU Tel : 82-53-585-2563



# TECHNOLOGY

Youngsin Metal Industrial had resolution to be No. 1 in metal forming industry, developed cross screw for the first time in Korea and led development of local basic industry by opening the technology the first time, and create industry standard for the industry and develop basic materials (KS criterion) in R & D center.

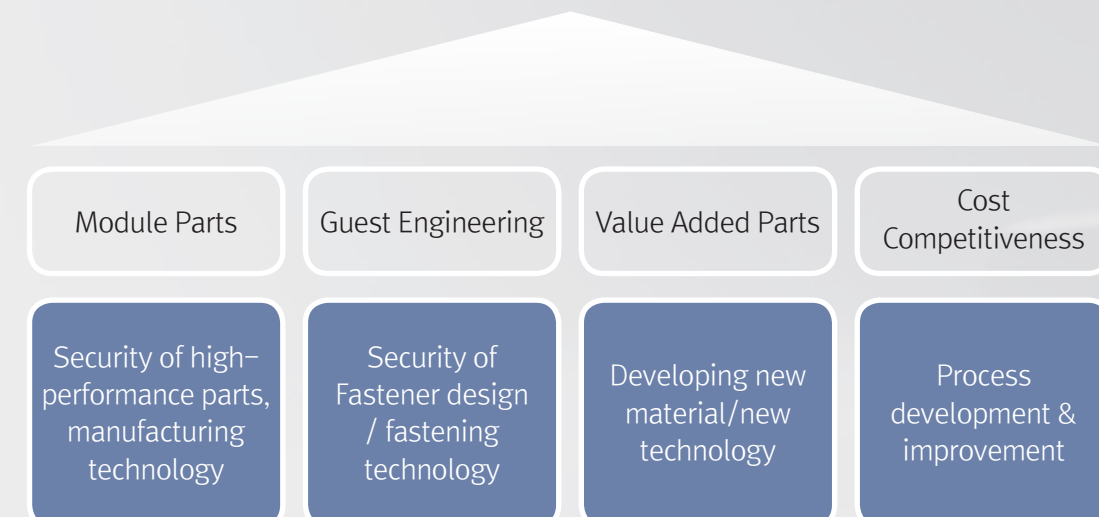
We are also focused on developing new products for customer satisfaction through the continuous improvement process with flawless attention based on the quality management system.

## Patents

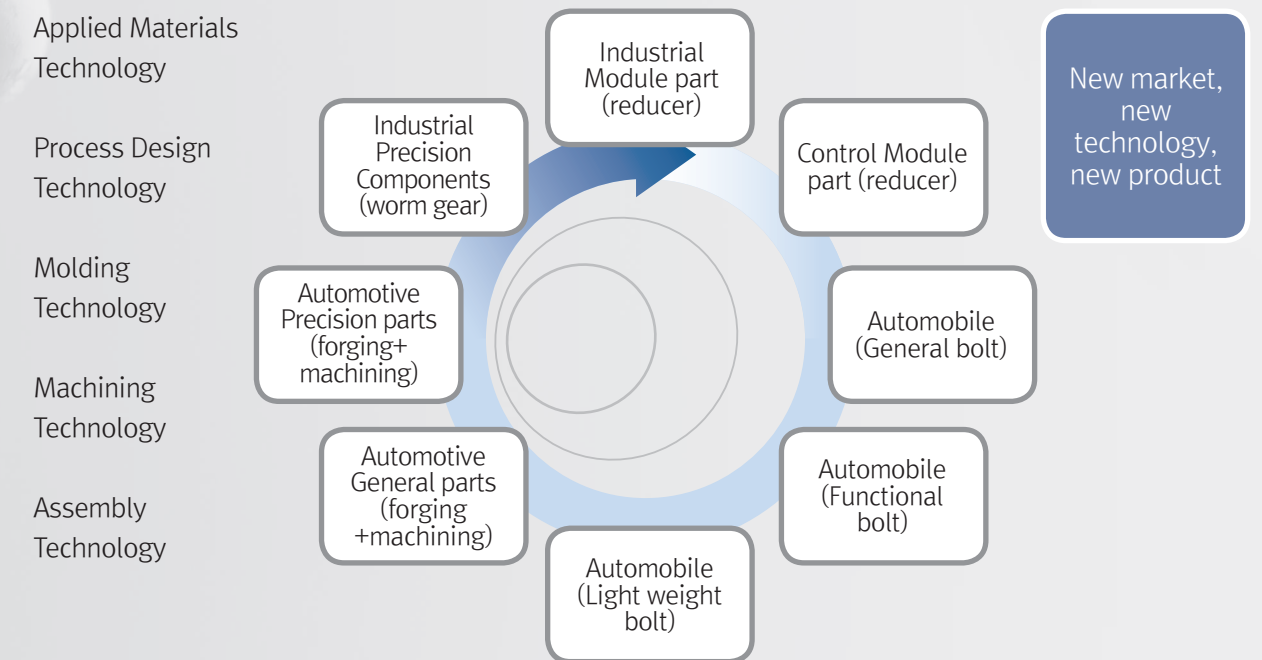
Holding 5 Patents and 9 Utility models

## Vision of Technology research center

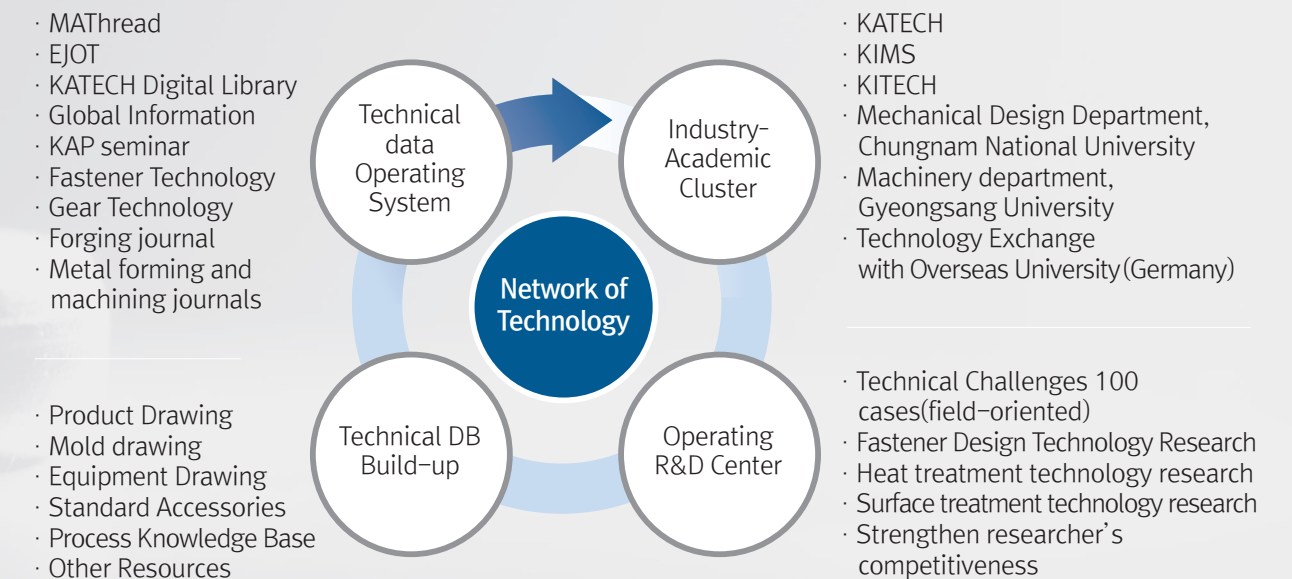
Security of Ecology, the future of clean technology, leading technology acquisition



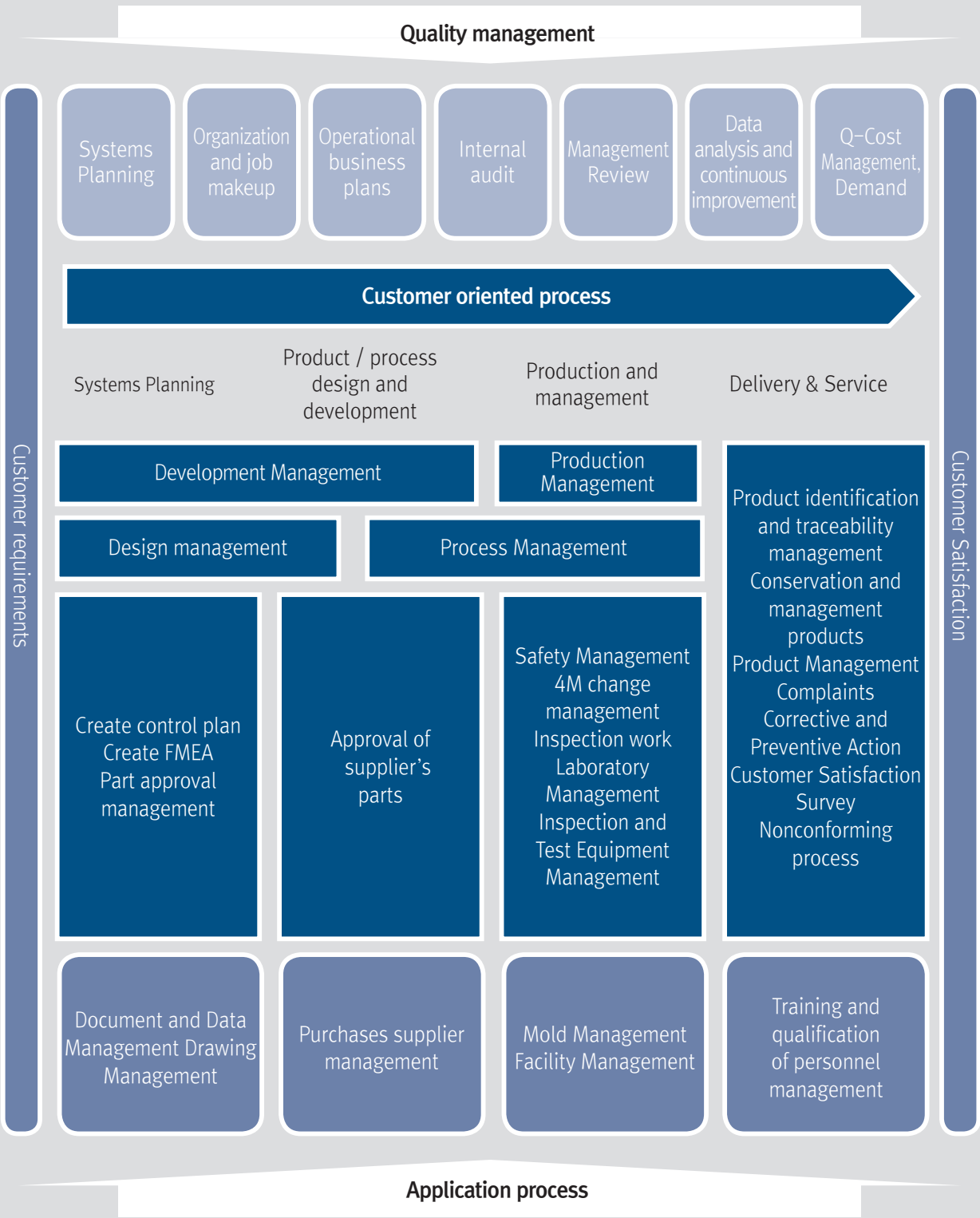
## Enlarging capacity of R&D



## Network of Technology



Quality Management



Quality / Environmental / Health and Safety Policy

We move toward the new 50 years through continuous innovation with quality, environment, safety and health policies and principles.

Environmental Safety and Health Policy

Youngsin Metal Industrial think of the environment and worker health and safety first, and together with the community and gain the confidence of domestic and international developments and provide a base to grow with a leading company

- We will continually improve environmental health and safety management performance by systematical environmental safety and health management systems.
- The prevention of environmental pollution and safety hazards by accumulated experience and technology.
- Conducting periodic training to ensure competence to improve environmental management and health and safety for all employees, and management of environment, health and safety by open environment, health and safety policy to stakeholders.

Youngsin Metal Industrial's Quality Policy

We achieve customer satisfaction and settlement quality management system to continuously improve activities built with TS 16949 certification ISO / Quality Management system.

Quality management policy as under

- Internal innovation capabilities
- Ensure all sectors global response capacity
- Development of human resources self-organize and optimize

Environmental Policy

In order to hand down to the next generation a better global environment, wide activities of company and the conservation of resources and performs a basic harmony with the global environment, such as efficient use of energy business activities shall be done.

- Compliance with act on the business environment such as emissions of pollutants according to the business activity and efforts to continue to decrease.
- The resource-saving and energy-saving efforts of recycling and effective use of resources.
- Basic principles of environmental policy and environment shall be given to all employees through environmental education organization promoting awareness increases.





## Experiment Equipments



Contracer



Profile Projector



Universal Tension Machine



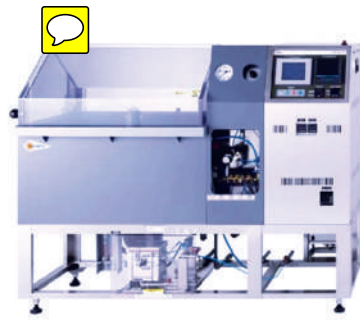
Rockwell hardness Tester



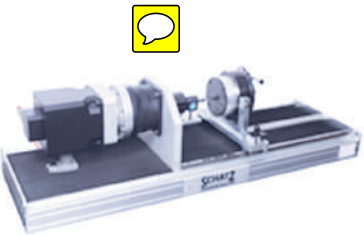
Vickers hardness Tester



Metallurgical Microscope



Salt Spray Tester



Clamping Force Tester

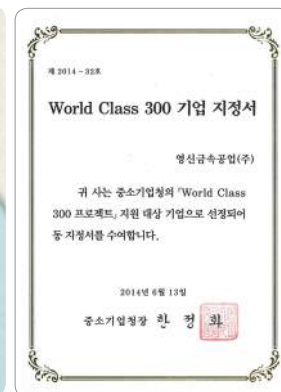


Resonant testing Machine



## Certificate &amp; Prize

Outstanding contribution for maintaining harmonious labor relations & adopting newest fasteners for automobile, construction & machinery industries at large.



# APPLICATIONS



Automobile



Heavy equipment



Construction



Wind power / solar



Plant



Shipbuilding

