

## 聊城市德通交通器材制造有限公司

LIAOCHENG DETONG AUTO PARTS MANUFACTURING CO., LTD

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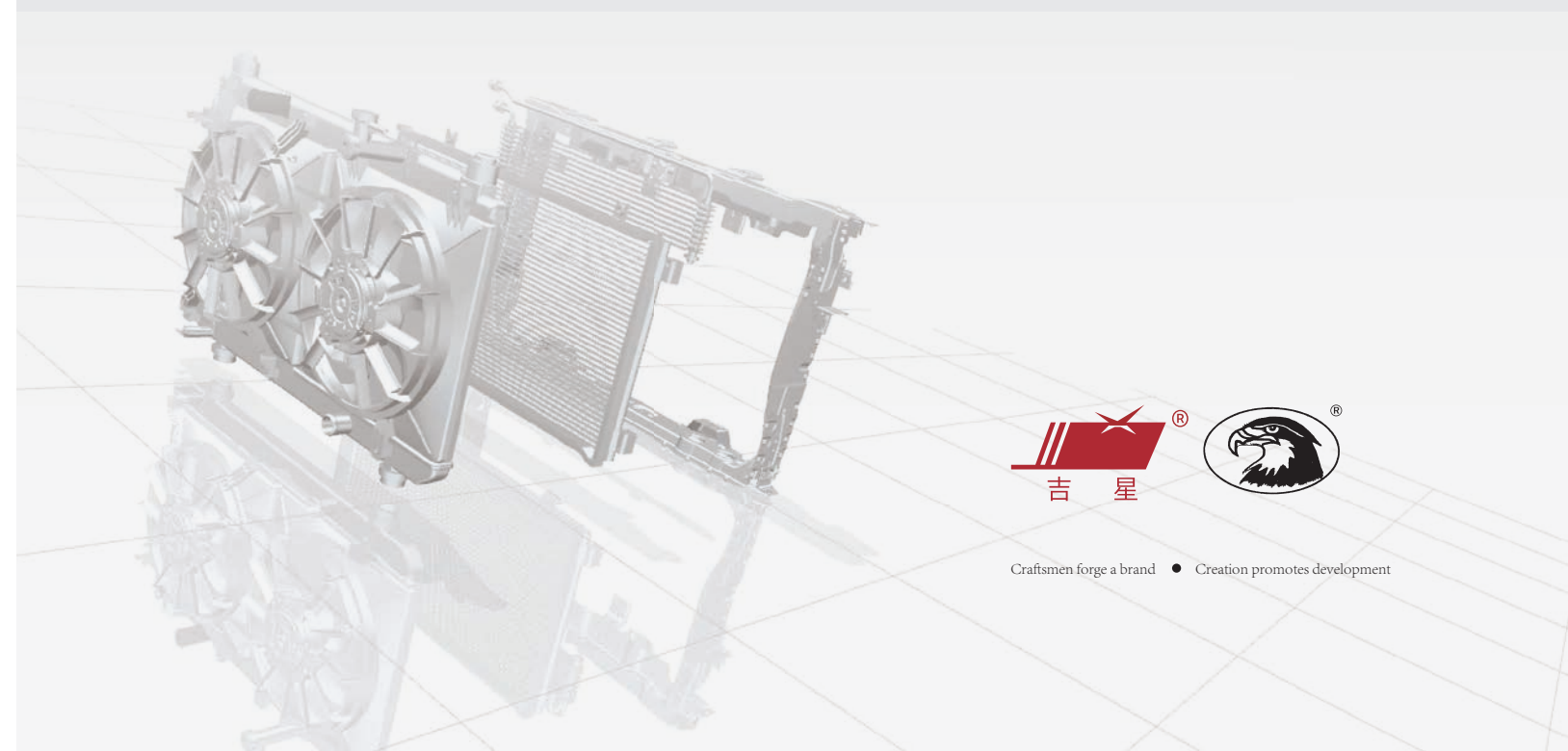
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LIAOCHENG  
**DETONG**

**AUTO PARTS**  
MANUFACTURING CO., LTD

**Liaocheng Detong Auto Parts Manufacturing Co., Ltd**



Craftsmen forge a brand • Creation promotes development





# CORPORATE CULTURE

企业文化

## People Based Customer First Result Oriented

Detong aims to forge itself into a century-old international brand. We optimize each detail and equip ourselves to become one of the most competitive transnational corporations in the heat radiator processing industry around the world. Provide customers with high value-added products to realize win-win cooperation; provide a platform for development of employees; make our best to make contributions to national brands.



# COMPANY PROFILE

## 企业简介

公司成立于 1987 年，是一家集研发、生产、营销于一体的专业化汽车热交换器制造企业。总公司位于中国著名的“江北水城”——聊城市茌平区，东临山东省省会济南，地理位置优越，交通十分便利。总公司下有三个分公司：茌平县嘉鑫贸易有限公司、DTL Auto Parts LLC、山东吉星检验检测有限公司。

主要产品为发动机散热模块、工程机械模块、缓速器专用散热器、发动机变速箱机油冷却器、汽车暖风冷凝器等汽车动力系统的关键零部件。公司拥有总资产 3.4 亿元。公司在管理上实行 ERP 管理，生产管理系统推行 TPS 生产方式。拥有国内最先进的真空钎焊炉、氮气保护钎焊炉、年生产各类产品 300 万台套。

公司现为中国内燃机协会换热器分会副理事长单位，中国汽车工程协会会员，中国汽车行业协会会员，中国内燃机热交换器机械行业标准制订单位之一，公司先后荣获山东优质品牌产品、国家级高新技术企业、山东省著名商标企业和山东省机械行业十大自主创新品牌企业等荣誉称号。

1987 公司成立

研发

生产

营销

专业化汽车热交换器制造企业

Since its inception in 1987 Detong has been in the business of automotive heat exchangers: including research, design, manufacturing and marketing. The headquarters and factory are located in the “Water City” of Chiping, Liaocheng near the capital city of Jinan in Shandong province; conveniently making it a short drive to the nearest major city. Detong is comprised of four companies including its three subsidiaries, Chiping Gashin Trading Co.ltd, DTL Auto Parts, and Shandong Jixing Inspection and Testing Co.,ltd .

The main products are engine cooling module, construction machinery module, retarder oil cooler, engine gearbox oil cooler, automobile condenser and other key parts of automotive power system. The company has a total assets of 340million yuan. The company implements ERP management in management and TPS production mode in production management system. It has the most advanced vacuum brazing furnace and nitrogen protection brazing furnace in China, with an annual production of 3 million sets of various products.

Detong holds the seat of vice president in the China Internal Combustion Engine Association's heat exchanger branch. We are also members of the Society of Automotive Engineers of China and China Automotive Industry Association; setting many standards in the heat exchanger industry in China. Detong has been honored with such awards as Shandong Famous Brand, High Tech Enterprise of Shandong, Shandong Famous Trademark Enterprise and the Top 10 Independent Brand Enterprise for the machinery enterprise in Shandong.

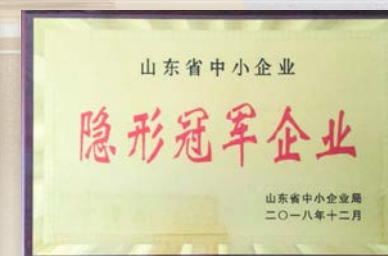




# QUALIFICATION HONOR

## 资质荣誉

Over 30 years of development, Detong people have formed obvious advantages in many aspects, such as technological strength, management level, influences in the industry, etc. Detong company has become a leading enterprise in the industry. In the future, Detong will definitely make more achievements in the international auto parts industry.



National Accredited Lab

High-Tech

Provincial Tech Center

Provincial High Potential



# DEVELOPMENT HISTORY

## 发展历程



Detong

30 years development...

- 1987 The company (former Chiping Guanghua Cooler Factory) was established.
- 1990 Started to export our product to USA and Taiwan area.
- 1995 The vacuum brazing furnace was improted from US.
- 1998 Passed ISO9002 Certification, and won the award of Shandong Famous Brand.
- 2001 ChiPing JiXing Auto Parts Co., Ltd founded.
- 2003 ChiPing Gashin Air Conditioning Co., Ltd founded.
- 2006 Mar.11, LiaoCheng Detong Auto Parts Manufacturing Co., Ltd established
- 2008 ShanDong Gashin Heat Exchanger Co., Ltd established

- 2009 Shandong Motor Oil Cooler Engineering Technology Research Center was established in "Gashin".
- 2011 Established "Shandong University Gashin Heat Exchange Power Engineering Research Center".
- 2013 DTL Auto Parts LLC established in California, USA.
- 2014 Moved to the new location and expanded the factory with one R&D center and 7 workshops
- 2018 September, recognized as National Accredited Lab.
- 2018 October, Provincial Enterprise Technology Center of Shandong
- 2018 November, ShanDong High-Tech Enterprise.
- 2018 November, ShanDong Provincial High Potential.
- 2019 November, Retarder oil cooler won 1st prize of ShanDong Provincial Technology Innovation, and Microchannel Heat Exchanger for 2nd prize.
- 2019 November, passed Quality Management ISO/TS 10012 Ceriification.
- 2019 November, passed Environmental Management Certification.





# R & D CENTER

## 研发中心

1000 Square meter lab 100000 Square meter factory

The company has technology research centers (Shandong Motor Oil Cooler Engineering Technology Research Center and Liaocheng Motor Oil Cooler Engineering Technology Research Center) and well-equipped product testing centers. In 2011, the company cooperated with Shandong University and established "Shandong University Gashin Heat Exchange Power Engineering Research Center", focus on the developmet of heat transfer modules for heavy duty truck. In 2017, JiLin University Detong Thermodynamic Research Center was established with the cooperation with JiLin University.

The testing center was established in 2010 and was officially accredited by the China National Accreditation Service for Conformity Assessment (CNAS) in September 2018, CNAS L11370. We strictly adhere to "scientific method, standard operation, fair behavior, accurate results, customer satisfaction, and continuous improvement" to provide efficient and high-quality services for all our customers.



R & D Centers

**Shandong Motor Oil Cooler Engineering Technology Research Center**

Shandong Provincial Enterprise Technology Center

**LiaoCheng Motor Oil Cooler Engineering Technology Research Center**

2011 with ShanDong University

**Shandong University Jiaxin Heat Exchange Power Engineering Research Center**

2017 with JiLin University

**JiLin University Detong Thermodynamic Research Center**



Microscope



Metallographic Test



Copper Material Analyzer





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# R & D CENTER

## 研发中心



Lab



### Heat transfer performance test

Applicable Products: Oil Cooler, Intercooler, Radiator etc.

Test Range:

Wind Speed	Wind Flow	Oil Flow	W Flow	O Temp	W Temp	Wind Max Temp
0-30m/s	0-2500m³/h	0-30GPM	80GPM	130℃	95℃	160℃



Servo Pressure Pulse Test (Low Pressure)



Auto Oil Cooler Pulse Test



Oil Cooler Pulse Test



### Servo Pressure Pulse Test (High Pressure)

Applicable Products: Oil Cooler

Test Range:

Temp	Frequency	Pressure
0-120℃	1-6S	0-2Mpa



### Mechanical durability vibration test

Applicable Products: Oil Cooler, Intercooler, Radiator etc.

Test Range:

Frequency	Acceleration Rate	Max Shift	Max Loading	Direction
5-80Hz	100m/s	10mm	250kg	Vertical, Forward, Back



### Salt Spray Test

Applicable Products: Product Assembly and Accessories

Test Range:

Concentration	Chamber Temp	Salt spray deposition	Test Cycle
5% NaCL	35±2℃	10.-2.0mL/h.80cm²	Spray 8h, Hold 16h, per cycle



Programmable constant temperature and humidity test chamber.

Applicable Products: Oil Cooler, Radiator and heater etc.

Test Range: -40℃ -150℃



### Mechanical property test

Applicable Products: Metal/non-metal pulling, pressing, bending, etc.

Test Range:

Max Force	Measuring Range	Force Accuracy	Deformation Accuracy	Max Pulling, Pressing Direction	Width
10kN	0.1%-100%Fn	±1%	250kg	Vertical, Forward/Backward, Left/Right	370mm



# PRODUCT QUALITY INSPECTION

## 产品质检



To conduct appearance, size and specification inspections of various types of automobile products in the production workshop, with different approach, first inspection, random inspection, patrol inspection, and end inspection, to prevent defective products from flowing to next processes. To make labels and records for defective products with easy tracking purpose, then record and analyze the test results to notify technicians or engineers to make improvements. To minimize the rate of defective products and ensure product quality.

### Quality Goal

Product Failure Rate  $\leq$  **50PPM**

Customer Satisfaction  $\geq$  **95%**

### Quality Policy

Following OE, do as supporting synchronous satellite, customers first, win the market with thoughtful service and rely on high quality, create a famous brand



☑ COORDINATE MEASURING MACHINE  
三坐标测量机





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# PRODUCTION WORKSHOP

生产车间



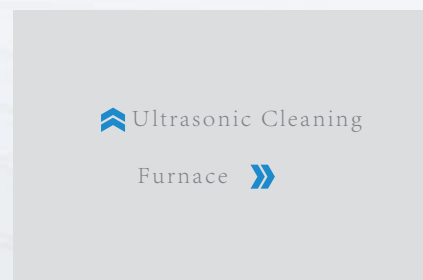
《 Stainless Steel Oil Cooler Plant

》 Punch Workshop



《 BWF-730 Helium Leakage Test

》 Automatic Assembly



《 Ultrasonic Cleaning

Furnace 》



《 Automatic Welding



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WAREHOUSE AREA

仓库发货区



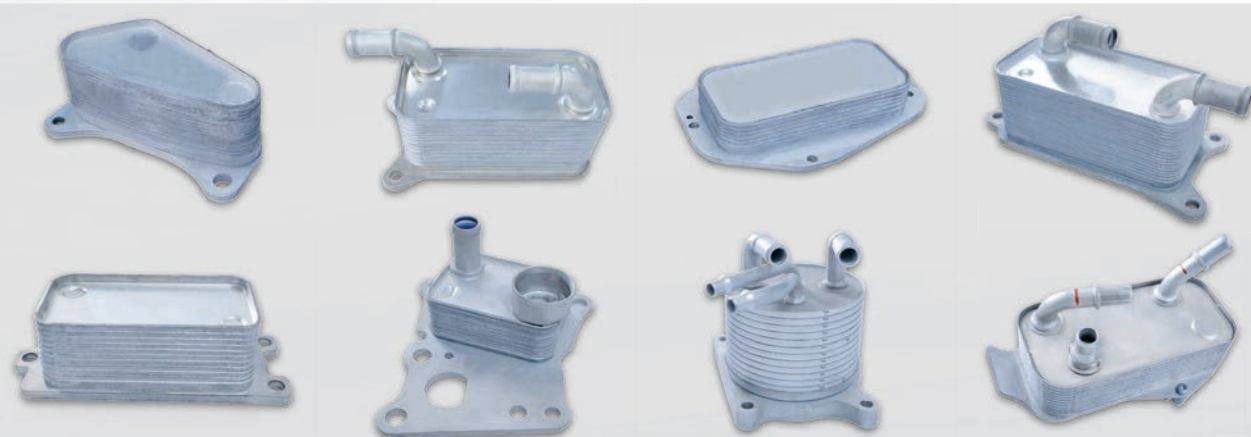
# PRODUCT DISPLAY

## 产品展示

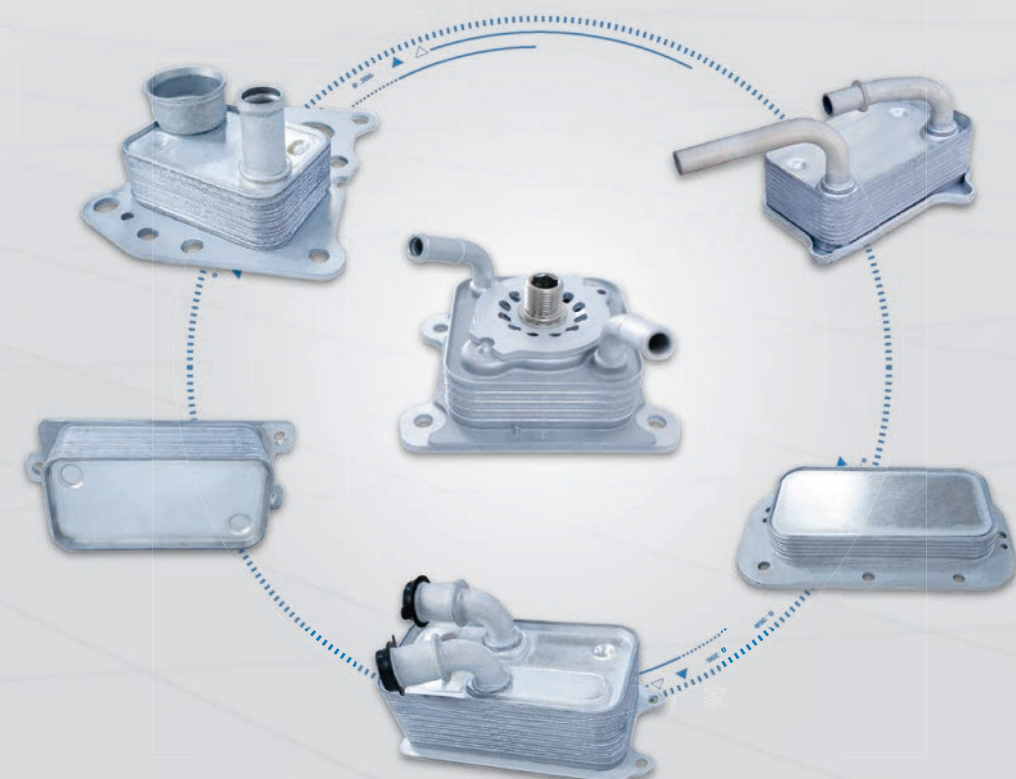
### 铝水油复合油冷器

AL WATER AND OIL OIL COMPOUND OIL COOLER

There are two channels in the aluminum water and oil compound oil cooler, one for water and one for oil, which are interspersed with each other (one layer of water and one layer of oil) to increase the heat exchange area.



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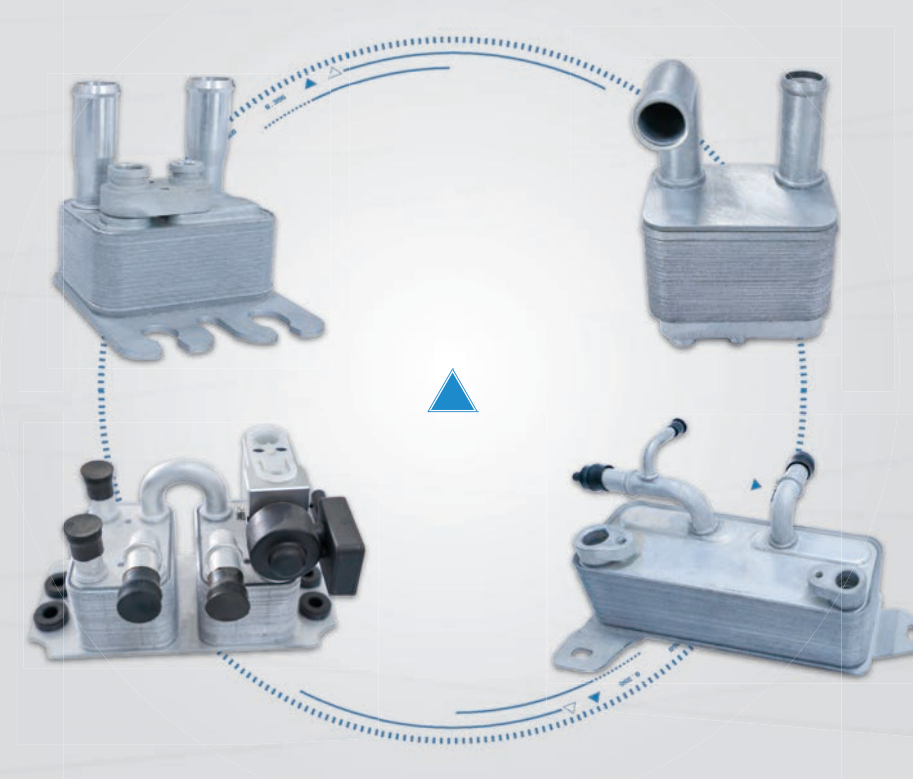
### 新能源散热器

COOLER FOR NEW ENERGY VEHICLE

The battery chiller is a compact plate-to-plate heat exchanger that transfers thermal energy from the battery coolant loop to the vehicle's refrigerant loop to maintain optimum battery temperatures. The battery contact heat exchanger is packaged in the battery pack to transfer thermal energy between the battery pack and a coolant or refrigerant loop.



LIAOCHENG DETONG AUTO PARTS MANUFACTURING





# PRODUCT DISPLAY

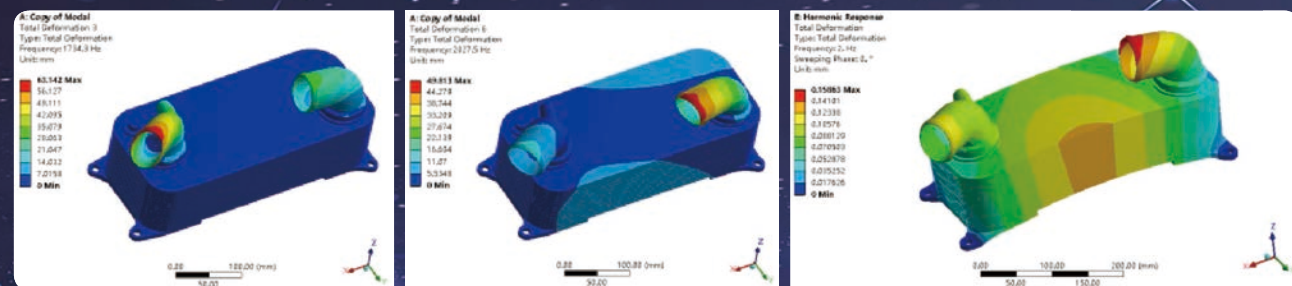
产品展示



缓速器专用散热器

RETARDER OIL COOLER

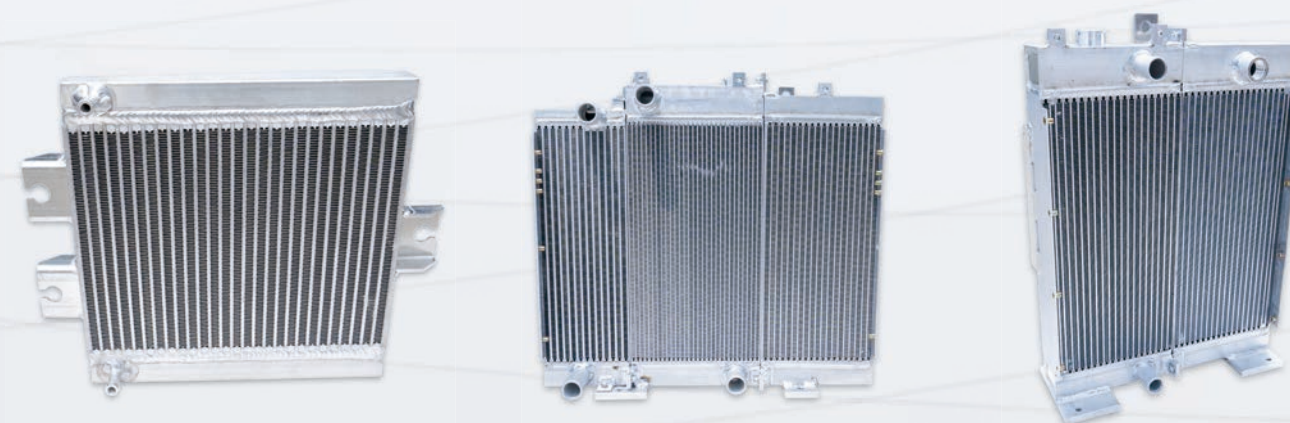
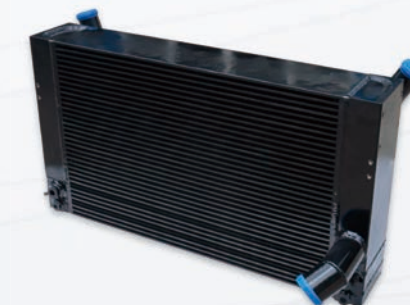
Professional Plant



## 板翅式散热模块

BAR & PLATE TYPE HEAT EXCHANGER MODULE

Bar and plate coolers feature a wide variety of thermally efficient internal and external fin patterns. Fins are laid between aluminum braise sheets and fitted with header and face bars. The assembled unit is placed into one of our modern brazing furnaces where precise control of time and temperature produces a unified core. Manifolds designed to meet each customer's particular piping requirements are welded into place to complete the cooler.





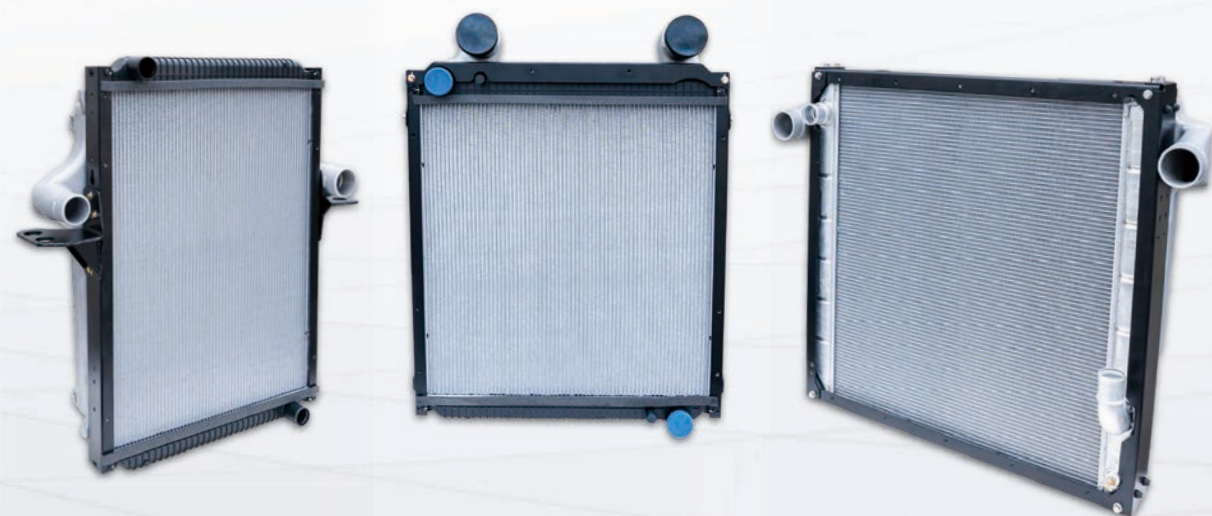
# PRODUCT DISPLAY

## 产品展示

### 重卡散热模块

HEAT EXCHANGER MODULE FOR HEAVY DUTY VEHICLE

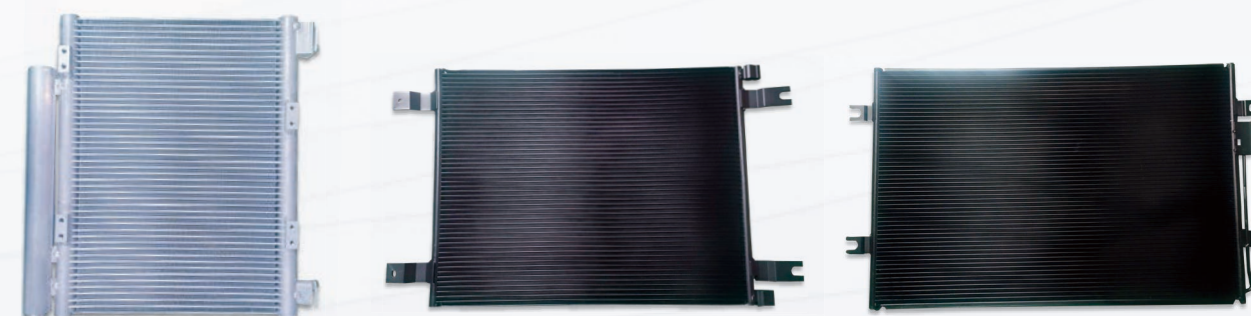
The radiator works by passing your coolant through thin metal fins, which allow the heat to flow to the air outside your car much more easily. Engines create a lot of heat in their operations! To prevent your engine from overheating, your car pumps coolant through your engine fluid that receives heat, and carries it away from the engine block. The coolant takes the heat generated by your engine, and moves it to your radiator, which blows air across the liquid-cooling it down and exchanging heat with the air outside your car.



### 冷凝器

CONDENSER

A/C condenser is a radiator positioned between the car's grille and the radiator for the motor. In the condenser, the gaseous refrigerant sheds heat and returns to a liquid state. In other words, the condenser condenses the refrigerant from a gas to a liquid.



### 暖风

HEATER

Heater is part of a system that accomplishes two things. In addition to heating your vehicle, it also helps to keep the car's engine cool. In other words, your car's heater is connected to some very important functions that go beyond just keeping you and your passengers comfortable during your commute.



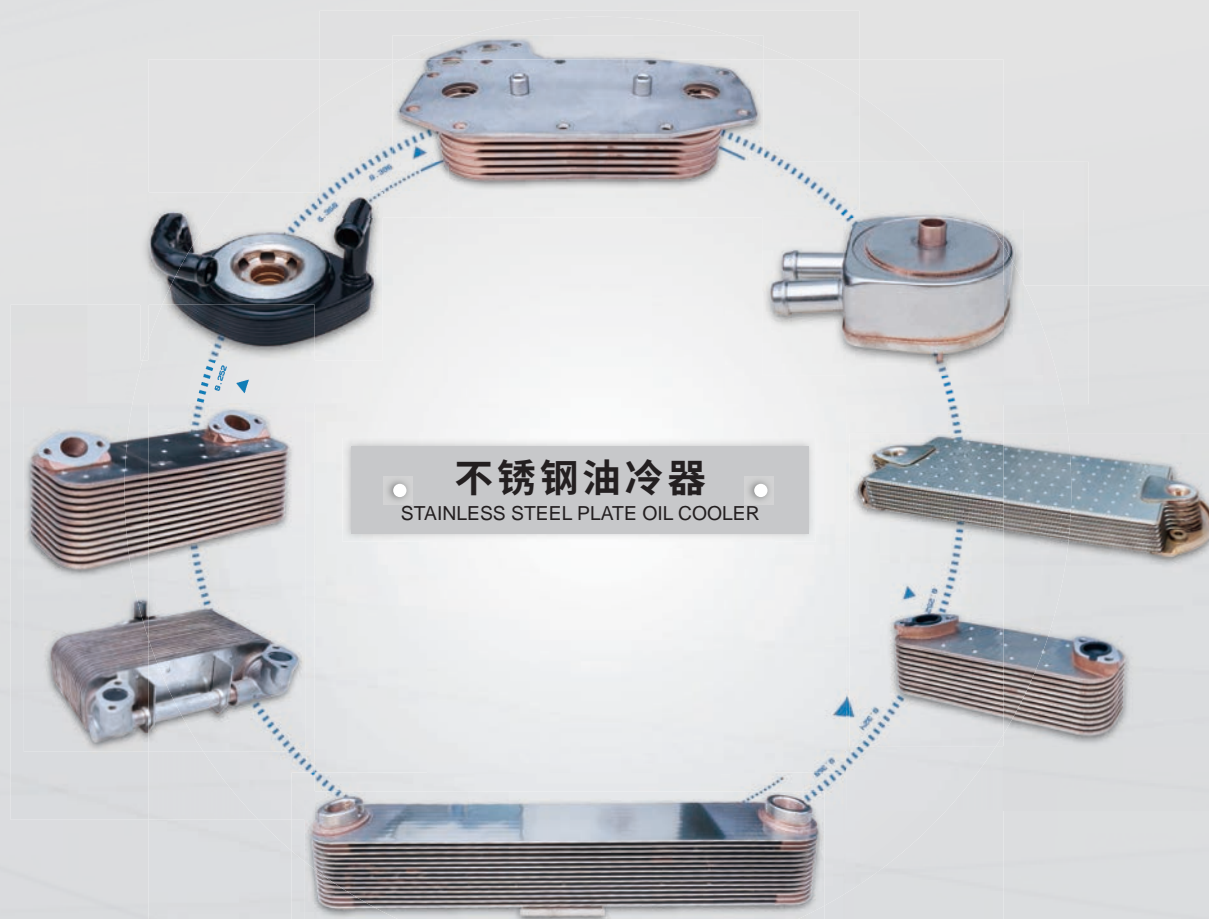




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# PRODUCT DISPLAY

产品展示

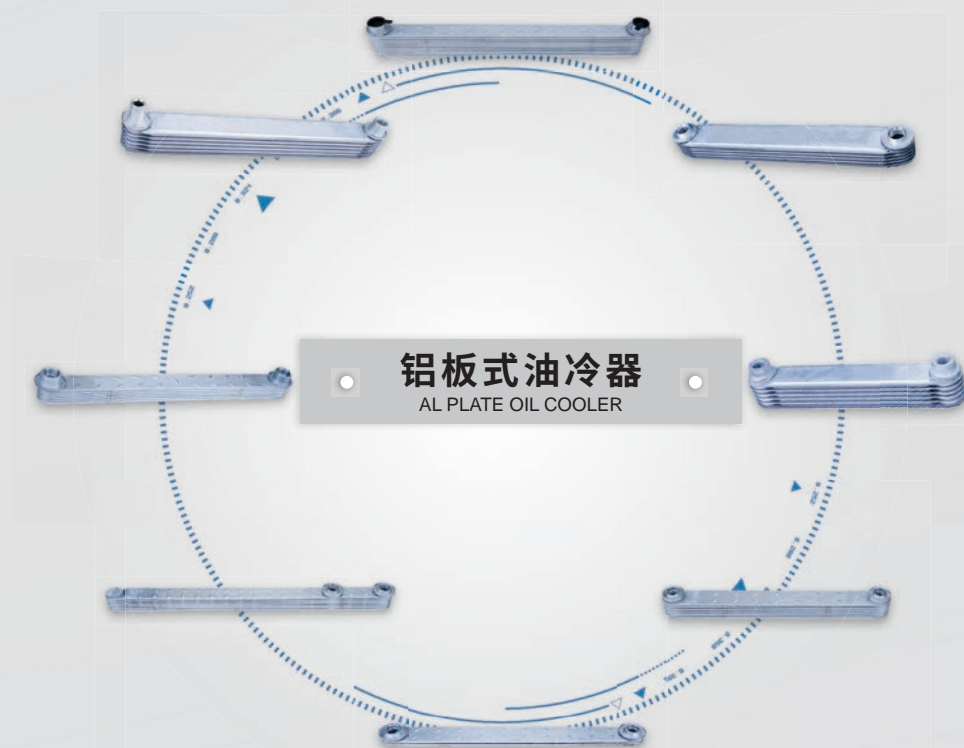


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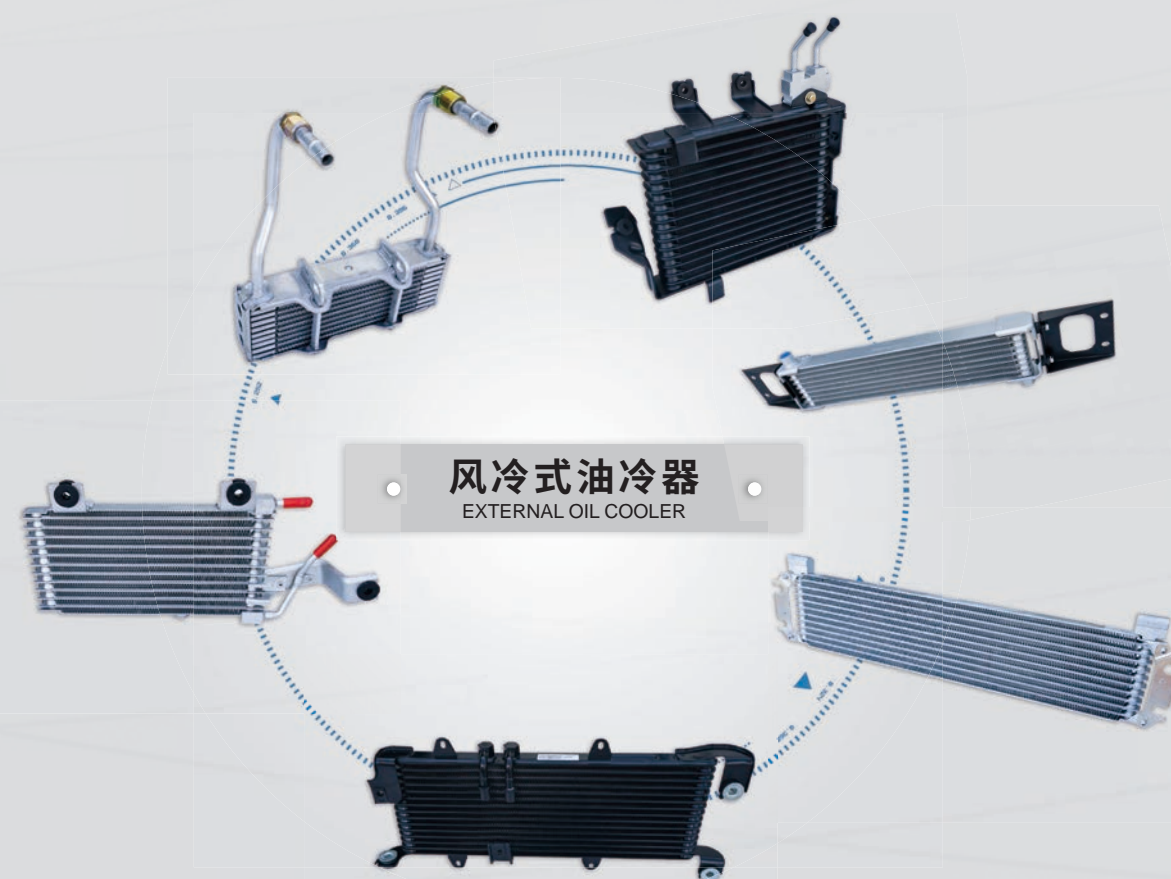


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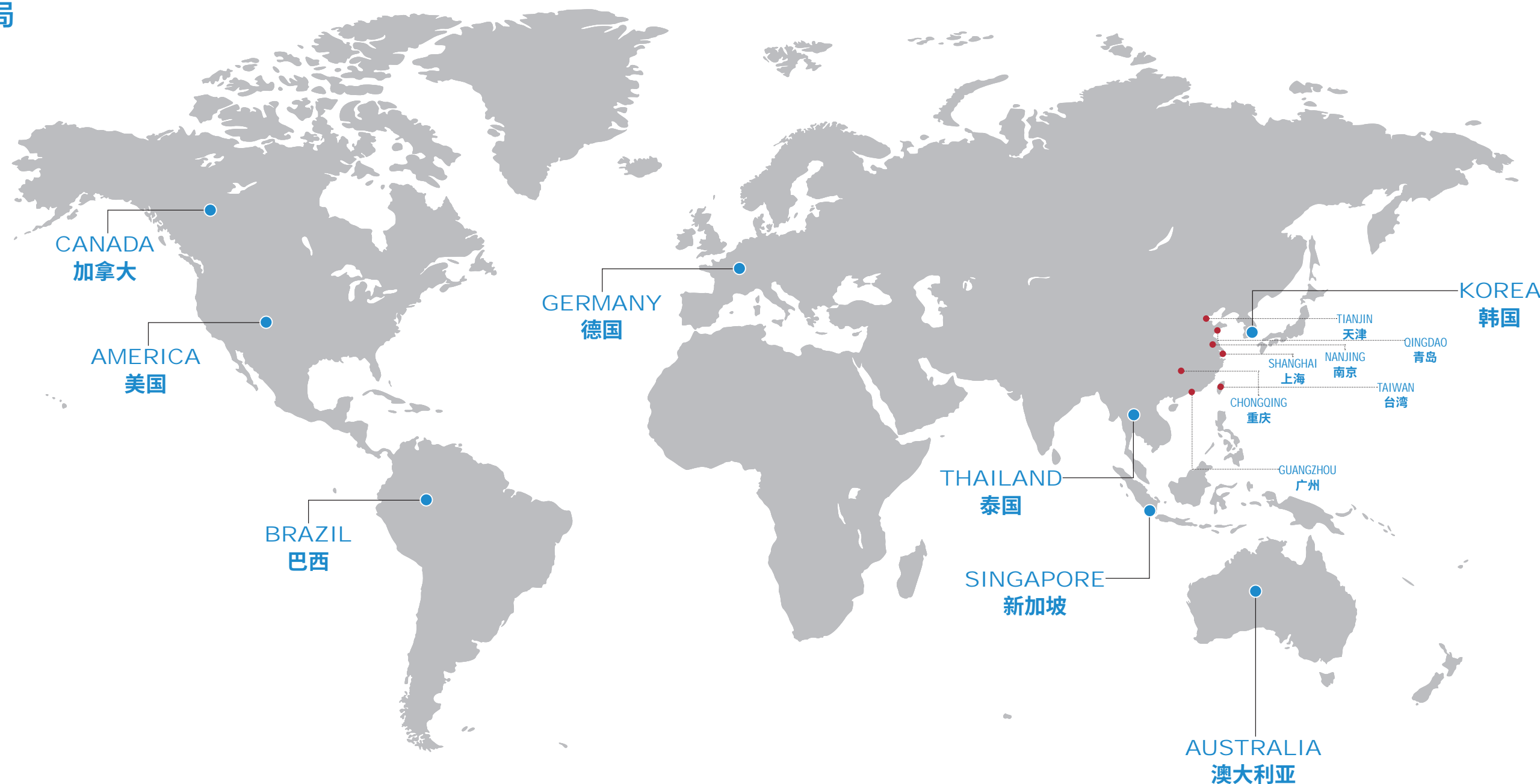




# GLOBAL MARKET

## 全球布局

- Overseas market
- Domestic market



### ● Overseas market

公司出口产品约占总销售收入的 35%，主要销往北美、欧洲市场、东南亚、中东等地区。  
Over 35% products have been exported to many countries and regions, such as USA, Europe, SouthEast Asia and Middle East area

### ● Domestic market

公司国内一级、二级广泛配套于一汽、二汽、中国重汽、长城等国内知名汽车厂。  
The company provides products and services for famous automobile factories, such as FAW, No. 2 Automobile Factory, Sinotruk and Great Wall Motor etc.



# COOPERATIVE PARTNER

## 合作伙伴







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# FUTURE PROSPECTS

未来展望



## Management Strategy

Strengthen execution, Coordination, Research and Development, and marketing



## Development Direction

Automobile products, Construction Machinery products, Oversea Market



## Corporate Culture

Integrity Management, Excellence, High-quality and Dedication to society



## Business concept

Technology drives progress, Quality creates advantages



## Enterprise's Goal

Create a first-class brand and lead the development of the industry



## Product Strategy

Independent Intellectual Rights and Independent Brand



## Enterprise Spirit

High Quality, High Efficiency, Truth-Seeking and Innovation



## Business Strategy

Scale, Systematization, Modularization



## Business objectives

Expanding overseas markets

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