Shanghai DE Industrial Co., LTD.
---Precision Casting Factory
## Presentation catalogue

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- Technical process and process control
- Our technical advantage
- Product pictures

- Other machinery products
DE is a growing industrial company with multiple platforms, supplying for global terminal market. It takes leading share of the market and owns highly credited brand.
DE is a manufacturing group integrating research, design, production and sales together. Its top manufacturing factories supply a wide range of products, from various components to finished assemblies.
Annual sales: 16.5 Million US$.

**Company Size**

Fixed Assets: US$4.2 Million.
Factory Size: 29100 Square Meters.
Building Size: 16800 Square Meters.
Employee: 232 people.
Precision Gear Factory has 94 staff. Precision Valves Factory has 74 staff. Precision Foundry has 42 staff (5 technical quality engineers and 3 management staff).
Machinery Processing Factory has 22 staff.
Main products:

- **Gears** accounting for 39% of sale amount
- **Valves** accounting for 27% of sale amount
- **Precision aluminum castings** accounting for 21% of sale amount
- **Other machinery products** accounting for 12% of sale amount

Management Philosophy:

- **Quality-oriented**
- **Innovation as the power**
- **Agility get opportunity.**
Company profile

DE organizational structure

Shanghai DE Industrial Ltd.

Trading Company

HR

Financial Management Department

Research and Development Centre

Administration and Service Department

DE Precision Gear Factory

DE Precision Valve Factory

DE Precision Foundry

DE Machinery Processing Factory

URL: http://www.gearvalves.com
The organizational structure of precision casting factory

- GM
- Logistics dept
  - Purchase
  - Storehouse
- Quality dept
- MFG
  - Model shop
  - Foundry
- Technology dept
  - Equipment dept
Management mode and system

To promote the management is our continuous objective;
We carry out the institutionalized, standardized, normalized operational management;
Fully use the chance of cooperating with overseas companies to upgrade our quality and management.

We use ISO 9001:2008 quality system, and pass the system certification by TUV Rheinland Group. (Certificate number: 01100064733).
We insist on the principle of PDCA continuous cycle improvement, to ensure the system's effectiveness, suitability and adequacy, to meet or exceed customer requirements of the system running effect, in order to meet the customer's product quality.
Company management

Project management

Step 1

Customer's demands
- English/Chinese translation
- Customer's RFQ
- Critical product characteristic (CPC)
- Critical customer requirements (CCR)

Step 2

Calculate the price for quoted product
- Reasonable price
- Reasonable processing technology
- Right material
- Skills of workers
Company management

Project management

Offer to the customer
Sign cooperation contract

Step 3

CPC analysis

Step 4

CPC
Customer approval

Standard conversion/Material substitute

URL: http://www.gearvalves.com
Company management

Project management

- **Step 5**
  - Customer approval
  - Prototype
  - Drawings/Tools development /Marking prototype
  - Revision suggested by our TD

- **Step 6**
  - Audit process flow
  - Production preparation
  - Audit Process Document
  - Audit quality control plan

URL: http://www.gearvalves.com
The precision casting workshop
The precision casting workshop
The precision casting workshop
Our production

Precision aluminum castings--Technical process and process control

1. Mould design
2. Mould making
3. Wax pattern making
4. Pattern assembly
5. Coating
6. Stucco
7. Dewaxing
8. Mold shell baking
9. Pouring
10. Lost shell
11. Cutting
12. Polishing
13. Inspection
14. X-ray inspection
15. Packing
16. Delivery

URL: http://www.gearvalves.com
Our production

Precision aluminum castings-- Our technical advantage

Designers can focus to the function objectives of the parts

Casting the combinations, whole parts, instead of welding or assembly

Manufacture the complex parts that other processes can't produce

Minimum increase the similarity between the parts and rough

Surface roughness up to 1.6

Min size less than 10mm
Max size 1000mm × 800mm × 600mm
Tolerance up to 0.13mm

Weight reduction

Save processing cost

Improve shock resistance and rigidity

URL: http://www.gearvalves.com
Our production

Precision aluminum castings -- Product pictures

※ Aerospace industry

Ø Shipyard industry

※ Weapon industry

Ø Electronic and IT industry

※ Auto industry

Ø Export to US, Europe & Japan

All kinds of non (less) allowance chassis

Frame

Case

Waveguide

Stand

Thin-wall castings

Complex structure and machining deformation parts

Large parts

Export to US, Europe & Japan
Our production

Precision aluminum castings -- Product pictures

Complex structure parts for aerospace industry

Box in aerospace industry

URL: http://www.gearvalves.com
Our production

Precision aluminum castings-- Product pictures

Box with Complex structure

Impellor

URL: http://www.gearvalves.com
Precision aluminum castings-- **Product pictures**

**Frame for military industry**

**Bulkhead for military industry**
Our production

Precision aluminum castings-- Product pictures

thin-wall castings
Our production

Precision aluminum castings-- Product pictures

Parts for electronic equipment
Our production

Precision aluminum castings-- **Product pictures**

**Electric cabin for aerospace industry**

URL: [http://www.gearvalves.com](http://www.gearvalves.com)
The main production equipments for precision aluminum castings

LZ-56KW 铝合金固熔炉
Aluminum alloy solid melting pot

LZ-27KW 铝合金时效炉
Aluminum alloy aging furnace
Production capacity

The main production equipments for precision aluminum castings

Trolley mould shell baking furnace
台车式模壳焙烧炉
Production capacity

The main production equipments for precision aluminum castings

DRT type Electro-heating dewaxing kettle
电热脱蜡釜
Production capacity

The main production equipments for precision aluminum castings

Aluminum melt furnace
铝合金熔化炉
Production capacity

The main production equipments for precision aluminum castings

FYY10-1
Horizontal wax injector
卧式液压蜡模压注机
Production capacity

The main production equipments for precision aluminum castings

DYZ-50T Single position wax injector
单工位蜡模压注机
Production capacity

The main production equipments for precision aluminum castings

Wax molding  蜡模成型

URL: http://www.gearvalves.com
Production capacity

The main production equipments for precision aluminum castings

Mould perfecting 修模

Mould & dies 各种模具
Production capacity

SWJ-8 3-dimension revising machine
三维校正机
Process equipments

Production capacity

CNC

CNC

NC Lathe

NC Lathe

Processing size ODφ1000mm, length1200mm
Production capacity

High precision cylindrical grinding

Honing machine
Heat treatment equipment

(Nitriding 、Thermal refining)
### The main production equipments lists

<table>
<thead>
<tr>
<th>No.</th>
<th>Equipment Type</th>
<th>Model/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Aluminum alloy solid melting pot</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Trolley mould shell baking furnace</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Aluminum melt furnace</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Electro-heating dewaxing kettle</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Single position wax injector</td>
<td>50T</td>
</tr>
<tr>
<td>6.</td>
<td>Horizontal wax injector</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>L-type paint mixer</td>
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</tr>
<tr>
<td>8.</td>
<td>TIG welding machine</td>
<td></td>
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<tr>
<td>9.</td>
<td>Band saw Machine</td>
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<tr>
<td>10.</td>
<td>Double-headed grinder</td>
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<tr>
<td>11.</td>
<td>Floating sand</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Aluminum liquid purification machine</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Double sandblasting machine</td>
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<tr>
<td>14.</td>
<td>Air compressor</td>
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</tr>
<tr>
<td>15.</td>
<td>3-dimension revising machine</td>
<td>SWJ-8</td>
</tr>
<tr>
<td>16.</td>
<td>Machining center</td>
<td>4 sets</td>
</tr>
<tr>
<td>17.</td>
<td>CNC Lathe</td>
<td>11 sets</td>
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<tr>
<td>18.</td>
<td>Lathe</td>
<td>20 sets</td>
</tr>
<tr>
<td>19.</td>
<td>Drilling machine / Boring machine / Milling machine</td>
<td>9 sets</td>
</tr>
<tr>
<td>20.</td>
<td>Gear-making machine</td>
<td>16 sets</td>
</tr>
<tr>
<td>21.</td>
<td>Grinding machine</td>
<td>5 sets</td>
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<tr>
<td>22.</td>
<td>Gas nitriding furnace</td>
<td>3 sets</td>
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<tr>
<td>23.</td>
<td>High frequency induction heating equipment</td>
<td>2 sets</td>
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<tr>
<td>24.</td>
<td>Wheel-type furnace</td>
<td>2 sets</td>
</tr>
<tr>
<td>25.</td>
<td>Box-type furnace</td>
<td>2 sets</td>
</tr>
</tbody>
</table>
Inspection and testing ability

The main testing equipments for precision aluminum castings

**FC-100F Fluorescence detecting lamp**
荧光探伤灯

**QXG-1205 X-rays detector**
射线玻璃探伤
Metallographic test、Hardness、Physical and chemical inspection
Inspection and testing ability

Projection detector

Spectroanalysis instrument

UT
Inspection and testing ability

Universal tensile testing machine

Dynamic balancing machine
<table>
<thead>
<tr>
<th>No.</th>
<th>Equipment</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>X-ray glass detection machine</td>
<td>X射线玻璃探伤机</td>
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<tr>
<td>2.</td>
<td>FC-100F Fluorescence detecting lamp</td>
<td>荧光探伤灯</td>
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<tr>
<td>3.</td>
<td>Three-coordinates Measuring Machine</td>
<td>三坐标 1 套</td>
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<td>4.</td>
<td>Spectral Analysis</td>
<td>光谱分析 1 套</td>
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<tr>
<td>5.</td>
<td>Metallographic Analysis</td>
<td>金相分析 1 套</td>
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<td>6.</td>
<td>Projecting Apparatus</td>
<td>投影仪 1 套</td>
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<tr>
<td>7.</td>
<td>X-rays apparatus</td>
<td>射线机 1 套</td>
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<tr>
<td>8.</td>
<td>Tensile Test Machine</td>
<td>拉伸试验机 1 套</td>
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<td>9.</td>
<td>Ultrasonic flaw detector</td>
<td>超声波探伤仪 1 套</td>
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<td>10.</td>
<td>Hardness tester</td>
<td>硬度计 1 套</td>
</tr>
<tr>
<td>11.</td>
<td>Dynamic balance machine</td>
<td>动平衡试验机 1 套</td>
</tr>
<tr>
<td>12.</td>
<td>Spectrophotometer 721</td>
<td>分光光度计 1 套</td>
</tr>
</tbody>
</table>
Customers visiting
Thanks for Your Attention!