

# Letec Profile

## Company Brief

### 公司介绍

烟台乐泰汽车配件有限公司是一家专业制造汽车刹车盘、刹车鼓和汽车发动机飞轮总成的公司。公司成立于2006年，当前的产能是每月250,000件，潜在的产能每月300,000件。

公司生产的刹车盘和刹车鼓面向客户提供最全面的符合原装车性能要求的高品质产品。从先期的毛坯铸件到最终的加工成品，我们优先追求的目标是有效的持久制动性能，因此在我们的整个生产过程中始终贯穿着持久高效和全面质量两个主题。

- 公司占地面积为62000平方米，规划建设面积39000平方米，已建成28500平方米，包括11500平方米的铸造车间、8000平方米的机加工车间、2250平方米的包装车间和3850平方米的仓库。
- 主要产品近1200种型号全部出口到欧洲售后市场。
- 从2018年9月通过德国TUV莱茵公司的IATF16949:2016质量保证体系认证。
- 公司拥有二条全自动的垂直铸造造型线VMM750x535MM。
- 公司拥有二条年产200万件全自动锌铝涂层的涂装流水线。
- 公司拥有一条年产50万件全自动喷漆流水线。
- 全部模具自行研制生产。

LETEC Automotive Co., Ltd specializes in Brake Discs, Brake Drums and Flywheel Assembly. Established in November 2006, current production capacity is 250,000 units monthly, potential production capacity is 300,000 units monthly. The LETEC range of brake discs is engineered to the most exacting standards and offers you and your customers a top quality product that matches original equipment specification in every detail. From initial casting to finished product, our first objective is effective and efficient braking. Therefore our high standards throughout brake discs & drums manufacture processes ensure that lasting efficiency and total quality are built into every LETEC product.

- Total land area is 62,000sqm and programming building is 39,000sqm, and now 28,500sqm building has been set up, including Foundry Shop 11,500sqm, Machining Shop 8,000sqm, Packaging Shop 2250sqm and Warehouse 3850sqm.
- Main products are Brake Discs (1106 references developed), Brake Drums (52 references developed) and Flywheel Assembly (65 references developed), which are all exported to European aftermarket.
- 800 Brake discs with ECE R90 certificates and 913 references passed the ECE R90 testing.
- The latest IATF16949:2016 Quality Assurance Certificate was approved by TUV Rheinland from Sep 2018.
- 2 sets of Automatic Vertical Casting Line VMM750x535mm
- 2 sets of Automatic Flake-metal Coating Line has been set up since April 2014.
- 1 set of Automatic Painting Line has been set up in April 2020.
- All molding moulds are made in house.



## Products

### 产品介绍

所有刹车盘和刹车鼓在使用时均遭受磨损和变形，潜在的刹车风险使得定期性零件更换非常必要。品质稳定的原材料对于攸关生命安全的关键零部件的正常工作是非常重要的，我们严格按照 ECE R90 规则标准生产高品质的毛坯铸件，材质密实，没有气孔、砂眼、裂纹，硬度和材质均衡统一。

毛坯铸件通过严格的化学成份分析、抗拉强度及硬度测试及金相鉴定；在机加工尺寸公差方面，通过细心的测量和精确的监控，严格控制刹车面到安装面的尺寸、轴向跳动、中心孔、螺栓孔安装间距，使得我们的产品具有安全、可靠的优势。100%产品的平衡测试并予以去重后的 100%再次平衡测试，确保产品能够达到我们要求的静平衡标准，最大程度地减少驾驶时的刹车抖动。

All the brake discs and drums suffer wear and distortion during use which can threaten potentially dangerous consequences making periodic replacement essential. Quality raw materials are crucial if safety critical components are to operate efficiently, LETEC specify only high quality castings in accordance with the requirements of ECE R90 standard. The Material must be compact, devoid of blowholes and or sand inclusions, crack free and uniform in both hardness and texture.

Castings are also analyzed for chemical composition, tensile strength, hardness and microstructure. Meticulous measurement and precise supervision of machined tolerances between the braking and mounting faces, axial run-out, rear bore and holes for fitting and wheel studs give us the edge – a safety critical product without compromise. 100% balancing check and again 100% balancing check after weight removing ensure all our products to meet the specification on static balance, and to avoid the braking tremble in driving.

### Brake Discs



### Flywheel Assembly



## Equipments

### 装备介绍

高品质的刹车盘、刹车鼓是通过使用一些最先进的制造设备和检验技术实现的。我们的铸造车间装备包括：4吨和5吨的各一台的中频感应电炉、60吨砂处理线和100吨砂处理线各一组、模板尺寸为750x535mm的垂直自动造型机2台、自动扇形浇注机2台、抛丸机2台。所有的熔炼铁水在浇注前通过先进的德国产快速光谱分析仪进行检测，确保所有的毛坯铸件均按我们的材质要求生产。

运用成熟的加工工艺、采用先进工装刀具的数控机床和加工中心、结合计算机辅助设计，使得制造的产品品质水准高且稳定，技术人员在整个生产过程中贯穿运用系统性检验检查程序，辅以最先进的三坐标测量系统来确定几何方面的平面度和平行度，以达到高标准的制造水平。

The high quality of LETEC brake discs is the result of using some of the most advanced manufacturing and inspection techniques. Our foundry is equipped with 2 sets (4ton/5ton) of Middle-frequency Induction electrical furnaces, 1 set of 60 ton/hour Eirich Sand Plant and 1 set of 100 ton/hour Eirich Sand Plant, 2 sets of DISA/Loramendi Vertical Molding machine VMM750x535mm, 2 sets of Automatic Pouring machines and 2 sets of Shot Blasting machine. All molten iron are checked by our advanced Spectrometer OBLF1000 before pouring, this ensure all castings are produced in our material specification. Another set of DISA Vertical Molding Line is planned.

Sophisticated machining techniques on CNC Lathes and Machine Centers using advanced tooling methods, combined with computer aided design (DS Solidworks) enables us to manufacture products of high and uniform quality. Systematic inspection procedures by technician throughout the production process are complemented by the latest Hexagon coordinated measuring system which confirms the geometric flatness and parallelism against stringent manufacturing specification.

### **Foundry**

- 2 sets (4 ton & 5 ton each) of Middle-frequency Induction Electric Furnaces
- 3 sets of Cold Core Making Machines
- 10 sets of Hot Core Making Machines
- 2 sets of DISA/Loramendi Automatic Vertical Moldings Machines 750x535 HS (AVCL)
- 2 sets Eirich Sand Plants (60ton/hr and 100tong/hr each)
- 2 sets Shot Blasting Machines
- 2 sets Automatic Pouring Machines
- 4 sets of Robots

### **Machine Shop & Packaging Shop**

- 44 sets of CNC Horizontal Lathe machines controlled by Fanuc Oi-mate/TC
- 18 sets of CNC Vertical Lathe machines controlled by Fanuc Oi-mate/TC
- 20 sets of Twin-cutting machines controlled by Fanuc Oi-mate/TC
- 20 sets of Machine Centers controlled by Fanuc Oi-MC
- 9 sets of Robots
- 5 sets of Automatic Balancing machines
- 6 sets of Air-powered Marking machines
- 3 sets of Laser Marking Machines
- 1 set of Cleaning line combined with antirust oil coating
- 2 set of Flake-metal (Geomet Similar) Coating line
- 1 set of Automatic Painting line

### **Tooling Shop**

- 1 set of Milling machine
- 1 set of Grinding machine
- 1 set of Drilling machine
- 2 set of Machine Center 950x520
- 1 set of Machine Center 1300x900

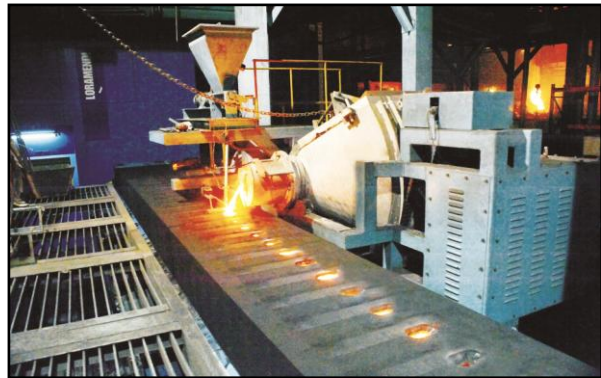
### **Laboratory –**

- 1 set of Chemical Composition C & S Tester
- 1 set of Chemical Composition Mn, P, Si & Cr Tester
- 1 set of Rockwell Hardness Tester
- 4 set of Brinell Hardness Tester
- 2 set of Tensile Tester
- 2 set of Hexagon Coordinate Measuring Machine
- 3 set of Microstructure Tester
- 1 set of OBLF Spectrometer GS1000 (22 elements channels)
- 1 set of Sand Performance Tester
- 2 sets of All-Dimensions Inspection Machines

### Sand Plant



### Automatic Pouring Machine



### Machining Shop



### Stock





## Quality

### 质量介绍

我们的质量体系是严格按照 IATF16949:2016 建立起来的，并顺利通过德国的莱茵公司认证，从 2010 年 7 月起依此质量体系可以给客户提供持续一致的最优品质的产品。

起始于通过仔细分析检验的原材料而制造的毛坯铸件，我们确信能够获得安全、可靠和耐用的高质量刹车盘和刹车鼓。我们承诺，通过持续不断的改善和投入机制，生产和提供满足所有客户要求的高品质产品。

We set up LETEC's quality systems in accordance with IATF16949:2016 which had been approved by TUV Rheinland Germany since July 2010. This can give our customers consistent and optimum quality products.

Beginning with high integrity castings produced by using carefully analyzed materials and processes, we ensure quality engineered brake discs built for safety, reliability and a long working life. LETEC are committed to a policy of ongoing improvement and investment with the aim of manufacturing and supplying quality products that fully satisfy all customers' requirements.

### Spectrometer



### Coordinate Measuring Machine



IATF16949:2016 QMS Certificate approved by TUV Rheinland