质量管理体系 Complying With The Requirements of Standard

IATF 16949:2016

含产品设计 with product design

WWW.ZOREN.CN







### 温州卓人汽车电控有限公司 Wenzhou Zoren Auto Electric Control Co.,Ltd.

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# ZOREN **Fuel Pump & More**

2023卓人形象宣传册 2023 Zoren Company Brochure







Future Request New Start

### Now, we are doing 现在 我们正在做

PLM System 产品全生命周期管理系统



MES System 制造执行系统



ERP System 企业资源管理系统



WMS System 智能仓储系统



Adaptive Data Management 适配数据管理



Visual Management System Of Workshop Process 车间工艺可视化管理系统



Automatic Assembly Line (Quick Replacement Fixture) 自动装配线(快速更换夹具)



Pioneering and enterprising is our nature. Only through continuous innovation and change can we win a foothold in the future.

# 对行业的热爱,是我们的动 力,只有通过不断的创新、 变革,我们才能在未来赢得 立足之地。

- Automobile Fuel Pump
- Motorcycle Fuel Pump
- Air Suspension Compressor.
- 汽车燃油泵
- 摩托车燃油泵
- 空气悬架充气泵

### The world is changing, and we will act

# 世界在变化, 我们将顺势而为



### Progress with the automobile and motorcycle industry

In 2010, Wenzhou Zoren Auto Electric Control Co. Ltd is established and it is a professional factory engaged in developing automobile fuel pump, motorcycle fuel pump and air suspension compressor.

The main products of ZOREN factory are fuel pump and air suspension compressor covering more than 3800sku. The products are exported to several countries and regions, such as United States, France, Australia, Italy and so on.

The area of ZOREN factory is 38,000 square meter while the plant area is 113,000 square meters . There are more than 800 workers in ZOREN, including 85 engineers working on development , 98 QC engineers servicing in the production system.

Based on friendly company culture and scientific management, many talents come together to ZOREN. There is a professional management and senior technical team ,they focus on customers service , achieving the development and maintenance of products in the cooperation,"Offer best service to customers at priority" is main concern which is operated into each operation in the whole factory.

ZOREN company's spirit is "Guided by customer demands from the market, ZOREN will provide customers with cost-effective products and services". In order to satisfy fully customers requirements, ZOREN always put leading technology, excellent quality and great services as top one jobs. We do our best on shipping the cost-valve product to every customer in the world timely and quickly.

### 愿景Vision $\odot$ 成为汽车配件行业百年企业

Become a centennial enterprise in automotive parts industry

### Q 使命 Mission

实现全体伙伴人生价值,继而服务于社会 Achieve all partners' valve of life and then serve the society

价值观\	/alues		
爱国守法	诚信友善	Law–abiding	Integrity
品质兴业	创造价值	Quality	Value creat
敬业创新	追求完美	Innovation	Perfection
感恩互助	尊老爱幼	Cooperation	Friendship
	爱国守法 品质兴业 敬业创新	品质兴业 创造价值 敬业创新 追求完美	爱国守法 诚信友善 Law-abiding 品质兴业 创造价值 Quality 敬业创新 追求完美 Innovation

### 与汽车、摩托车行业共同发展

温州卓人汽车电控有限公司成立于2010年是一家专业从事汽车燃油泵、摩托车燃油泵及空气悬架充气泵研发 和制造的高新技术企业。

公司主营产品为燃油泵及空气悬架充气泵系列,3800多个型号,产品远销美国、法国、澳大利亚、意大利 等数十个国家和地区并和国内主机厂配套。

公司占地总面积38000平方米,建筑面积113000平方米,员工805人,其中工程技术人员85人,品质管理人 员98人。

亲切,开放,严谨的公司文化和科学规范的管理,凝聚了大量优秀人才,公司拥有由优秀职业经理人管理团 队和资深专家组成的技术团队,他们在产品开发,推广和维护方面协同配合,以客户为中心,将服务理念 贯穿于公司整个运作管理的每一个环节。

公司秉承"以市场为龙头,为客户提供高性价比的产品和服务"的精神,始终把领先的技术、卓越的质量及优 质的服务放在第一位,以全方位满足客户的需求。把高性价比的产品及时、快速的发送到世界每一个客户。



g Integrity Value creation Perfection

 $\bigcirc$ 

 $\bigcirc$ 

# 我们汇聚 前进的动力

2016

 $\bigcirc$ 

卓人3.5万平方米第一工厂开建 Zoren's first factory of 35,000 square meters starts construction

# 2010 - 2023

R

2015 销售突破1个亿 Sales exceed \$15 million

### 2014

与全球知名品牌合作 Business cooperation with internationally renowned brands/international OEMs

### 2013

卓人公司与中国最大的 商用车企业配套 Matching with the largest commercial vehicle company in China

### 2012

ZOREN品牌走向国际市场 ZOREN brand goes to international market 2 国P The of i

### 2022

7.8万平方米第二工厂 开工建设 The construction of the

The construction of the second factory of 78,000 square meters started.

### 2010

卓人公司成立 Zoren company was formally established

### 2017

年厂量突破400万台 Annual output exceeded 4 million units

### 2019

第一工厂投入使用运营 The first factory was put into operation

### <u>0</u> 2020

销售额突破3个亿 Sales exceed \$45 million

### 2021

国内外自主品牌渠道搭建成功 The successful establishment of independent brand channels at home and abroad

### NOW

现在,卓人的生产能力已经达到每年 燃油泵泵芯

### 燃油泵泵芯 6,000,000只

燃油泵总成 3,000,000万

并且这个数字还在提升

Now, our annual production capacity has reached Fuel Pump 6,000,000 pcs and Fuel Pump Assembly 3,000,000 pcs. This number is growing. The world is changing, and we will act

# 以实际行动 塑造卓人形象



### The purpose of technology innovation is to achieve better user experience

As being a rapidly growing company, to provide customers more professional and immediate solutions, so far we have recruited 85 R&D engineers, 45 sales representatives and 98 QC engineers.

Zoren is a highly cooperative and efficient operation of the team. Brought together a group of high-tech elite, all members of cohesion in one, and strive to play their own energy. Serve enterprise and society is a guarantee for company's success.

### 技术革新的最终 是以更佳的用户体验为目的

我们作为一家发展迅猛的企业,截止至2023年,已经拥有85名研发人员以及45名销售人员和98名品控人员,为客户提供更多专业快捷的解决方案。

卓人是一支团结合作、高效运作的团队,汇聚了一批行业精英。全体 成员凝聚于一体,努力发挥自己的能量。为企业服务,为社会服务, 是公司走向成功的保证。



The average cooperation time of each customer is 6 years. 平均客户合作时间6年以上



An average of more than 800 customers, maintaining annual maintenance. 平均800家以上客户,保持常年维护。







51 Invention patents in recent years 近年发明专利



Pioneering and enterprising is our nature

# 开拓进取 是我们的天性

standard.

The foundation of market competition is inseparable from production capability, advanced hardware and equipment. As Zoren understood the importance of having high tech equipment and machines, we were the first in the industry to introduce the state of the art production equipment from overseas and invested millions of dollars over the years for renewal in order to produce excellent fuel pump products that qualify international quality

市场竞争的基础,离不开生产实力,离不开完善先进的硬件设施。深知硬件设施重要性的卓人 电控,在同行业内率先引进国外先进的生产设备,几年来先后投资数千万元,对硬件设施进行 更新换代,以适应生产国际化标准的优质电动燃油泵产品。

Pioneering and enterprising is our nature

# 开拓进取 是我们的天性



ISO 14001:2015 环境管理体系认证

ISO 45001:2018 职业健康安全管理体系认证



IATF 16949:2016 质量管理体系认证

• 温州市高成长型企业 • BSCI审核认证企业

•邓白氏注册认证企业

• TPAT认证企业

• 国家高新技术企业

• National high-tech enterprise • Zhejiang Specialized, New Small and Medium-sized Enterprises • "Made in Zhejiang" Certification

- research and development center
- Wenzhou high–growth enterprise
- amfori ID: 156-016754-000





•浙江省专精特新中小企业 •"浙江制造"认证企业 • 智能电控燃油泵高新技术企业研究开发中心 • 温州市企业技术研究开发中心

- Intelligent electronically controlled fuel pump high-tech enterprise
- Wenzhou Enterprise Technology Research and Development Center
- D-U-N-S<sup>®</sup> Number: 421268962
- Certificate Number: ET-1320-369



### Advanced technology to meet customer needs

# 前沿技术 满足客户需求

### Leading equipment in industry

The company has imported high–precision production equipment, and introduced automatic rotor production line, automatic pump assembly line, injection workshop automatic batching system, and manipulator operation for CNC machine.

Zoren employees receive the latest and strict producing technical training. During the production process, Zoren use the advanced machines and strict standards to control products quality. The most reliable products come from the sophisticated design and rigorous testing.

### 领先行业的设备

公司拥有进口高精度的生产设备,先后引进全自动转子生产线,全自 动油泵装配生产线,注塑车间自动配料系统,数控机床机械手操作。

卓人的生产人员均受过专业的最新生产技术培训。在生产过程中采用先 进的设备和严格的质量控制标准。精细的设计和精准的测试生产出最可 靠的产品。





## Precise and reliable production mode

Zoren employees receive the latest and strict producing technical training. During the production process, Zoren use the advanced machines and strict standards to control products quality. The most reliable products come from the sophisticated design and rigorous testing.



### 精密可靠的生产模式

卓人的生产人员均受过专业的最新生产技术培训。在生产过程中采用先 进的设备和严格的质量控制标准。精细的设计和精准的测试生产出最可 靠的产品。

半成品检 Semi-fini product i	
,	,
半成品入 Semi-fini	库 shed

Semi–finished product inventory Perfect detection achieve outstanding quality

# 完美质检 实现卓人品质



质量管理体系 Complying With The Requirements of Standard IATF 16949:2016











12V工作电压下电流、流量数据对比 12V operating voltage current, flow data comparison



每款自主开发产品与OE件原始测试数据对比,确保提交客户的产品质量符合要求。

The original test data comparison between self-developed products and OE parts, to ensure that the customer's product quality meet the requirements.

### Zoren product advantage

卓人产品优势

燃油泵产品特性 Fuel Pump Product Characteristics



### Armature 电枢

1. Commutator adopts imported carbon sheet, high-temperature welding, more dense, less spark, more wear-resistant, strong oxidation resistance, compatible with a variety of fuels, work efficiency increased by 10%, life expectancy increased by 50%. 2. Core use cold rolled non-oriented DW470 silicon steel sheet, high permeability, low coercivity, low hysteresis loss.

3. Insulation paper potect armature under more than 1000V breakdown voltage. 4. Temperature resistance of enameled wire: 220°C.

5. Over-molded armature, low fluid resistance. full-automatic production to ensure consistency.

1、换向器采用进口碳片,高温焊接,更致密,火花小,更耐磨,抗氧化性强,兼容多种燃油, 工作效率提升10%,寿命增加50%。

- 2、铁芯使用冷轧无取向DW470硅钢片,导磁率高,矫顽力低,磁滞损失小。
- 3、绝缘纸击穿电压超1000V。
- 4、漆包线耐温220℃。
- 5、全注塑包覆,流体阻力小,全自动生产保证一致性。



### **2** Pump Housing 泵壳

1. The selection of high-quality carbon seamless steel pipe, effectively Eliminate electromagnetic eddy current, reduce magnetic loss. 2. Bilateral chamfering, one-time full section of the inner hole processing, concen-Tricity 0.02mm, to ensure that the armature and tile air gap, reduce pump core Vibration, reduce operating noise, increase product life. 3. Environmental plating, strong corrosion resistance.

1、选用优质碳素无缝钢管,有效消除电磁涡流,降低磁损。 2、双边倒角,内孔一次性全段加工,同心度0.02mm。保证电枢与磁瓦气隙,降低泵 芯振动,减小运行噪音,增加产品寿命。 3、环保电镀, 抗腐蚀性强。



### **3** Turbine Impeller 涡轮叶片

1. Scoop type blade, smooth fluid running track, high oil suction efficiency, low noise, effective suppression of vibration.

2. Imported double-sided grinder grinding, high-energy wave cleaning, smoother operation. 3. Balance hole design, reduce the friction with the pump body, increase the life of the pump.

1、瓢型叶片, 流体运行轨迹顺滑, 吸油效率高, 噪音低, 有效抑制振动。

2、进口双面磨床磨削,高能波清洁,运行更平稳。

3、平衡孔设计,减少与泵体摩擦,增加油泵寿命。







### Zoren product advantage



燃油泵总成产品特性 Fuel Pump Assembly Product Characteristics

### High-precision automotive grade fuel tank pressure sensor 高精度车规级油箱压力传感器

CMOS technology and MEMS hybrid technology, modular design, waterproof and dustproof, -40~125°C zero drift, 2% FSO precision measurement, 1ms extremely fast response, to ensure the national six emission standards. CMOS 技术与MEMS 混合技术,模块化设计,防水防尘,–40~125℃零漂移,2 %FSO精密测量,1ms极速响应,保证国六排放标准。

### Dual-channel long-life level sensor 双通道长寿命液位传感器

Dual-channel dual-contact design, more stable and longer life. HERAEUS conduction tape, Dupont resistance, laser cutting process, liquid level display is more accurate. 双通道双触点式设计,更稳定,寿命更长。 HERAEUS导带,Dupont电阻,激光切割工艺,液位显示更精准。

### B Low level design 低液位设计

The minimum tank liquid level of 10mm still continuously maintains the fuel supply pressure to ensure the safety of driving at low liquid levels. 最低油箱液面10mm仍可持续保持供油压力,确保低液位行驶安全。

### 4 High dust holding layer filter 高容尘多层滤网

Nylon skeleton one-time injection molding process, low temperature resistance, low resistance, high toughness, long life. Imported SEFAR mesh fabric, dust holding capacity of 575g/m<sup>2</sup>, 60 µm particle filtration efficiency of more than 90%. 尼龙骨架一次注塑工艺, 抗低温, 低阻力, 高韧性, 长寿命。 进口sefar网布,容尘量575g/m²,60µm颗粒过滤效率超90%。

### **5** Platform R&D 平台化研发

Patented products, standardized design, data and OE are fully interoperable, good stability, high recognizability, low noise, and work efficiency increased by 20%. 专利产品,标准化设计,数据与OE完全互通,稳定性好,可识别性高,

噪音低,工作效率提升20%。







Zoren product advantage

卓人产品优势

空气悬架充气泵产品特性 Air Suspension Compressor Product Characteristics





### 写 功能 Function

Provide clean and dry compressed air for the suspension system

为悬架系统提供清洁干燥的压缩空气

汽车悬架充气泵,是空气悬架系统的重要组成部件 Air Suspension Compressor is an important component of air suspension system

### **Pump body** 泵体

Using AA–7075 material, it has good wear resistance and corrosion resistance, high strength, far better than any mild steel.

采用AA–7075材料,有良好的耐磨性和抗腐蚀性,强度高、 远胜任何软钢。

### **2** Motor 电机

The motor is sealed to work, reducing the working pressure difference, and the output power, meanwhile, increasing the service life.

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电机密封工作,降低工作压差,降低输出功率,
提高使用寿命。
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### B Piston 活塞

Two-stage compression saves power consumption, improves volume utilization, lowers exhaust temperature and reduces gas force on piston rod.

二级压缩节省功率消耗,提高容积利用率,降低排气温度, 降低活塞杆上的气体力。

### 4 Safety valve 安全阀

The 3-gear adjustable safety valve can adjust the opening pressure of the safety valve as needed.

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采用3档位可调节安全阀,可根据需要校正调节
安全阀的开启压力。
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