

**ST** **STRENGTH INDUSTRIES**  
**HOSES & FITTINGS**



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宁波石固机械管件有限公司始创于1989年，现坐落于经济活跃的浙江余姚，是一家研发、生产、销售各类金属管件产品的专业化制造企业。公司现有厂区三个，员工300余人，其规模位列国内同行前列。公司已建立完善的质量管理体系，最先于1999年通过ISO9001质量体系认证，目前已通过并执行ISO/TS16949质量管理体系认证，汽车管路产品获得国家3C认证。

公司产品涵盖：汽车管路接头及总成、液压软管接头、过渡接头、胶管总成、以及其他金属连接件、冷锻成型件，产品广泛应用于汽车管路系统、工业设备液压系统、以及其他流体连接系统。目前，产品主要为国内多家整车厂和大型设备制造企业提供OEM配套业务，同时产品大量出口至全球近二十个国家和地区，深受国内外客户的认同与信赖。

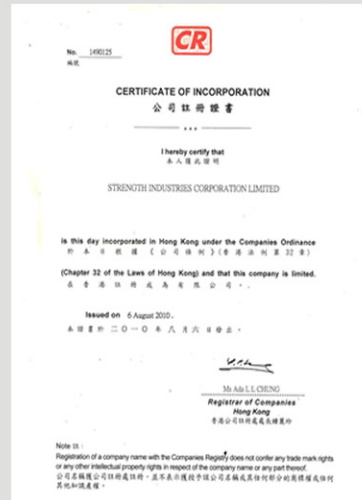
公司一直致力于开发和引进高精度、高自动化率、高稳定性的各类生产和检验设备，现拥有多工位冷锻成型机、冷挤压冲床、数控车床、全自动攻牙机、NC管端成型机、芬兰FINN-POWER胶管扣压机等生产设备，同时拥有3D投影仪、接头气密性检测台、盐雾试验机、胶管压力试验台、总成拉伸试验机、疲劳试验机等一整套检测设备。精密可靠的生产和检测设备为产品品质提供了强有力的保障。

公司本着“用心打造精品、诚心服务顾客”的宗旨，以制造高精度、高品质的产品为目标，以奉行诚信、务实的准则为广大客户提供恒久信赖的服务。石固人诚盼您的支持与合作，并期待您的光临指导。

## INTRODUCTION

STRENGTH INDUSTRIES Co., Ltd. was established in 1989, now located in YUYAO, ZHEJIANG, CHINA. The company consists of 3 factory plants, more than 300 employees, it is one of the most-scale manufacturers in China which specialized in various hose fittings & assemblies. The company firstly got ISO9001 certificated in 1999, now we execute ISO/TS16949 QMS as higher standard level.

The company's main products are: Brake Hose Fittings & Assemblies, Hydraulic Hose Fittings, Adapters, Hose Assemblies, and other Metal Fittings & Fluid Joint Products per customer make. The products are widely applied in automobiles, industry equipments



and other hydraulic & fluid fields. We currently do OEM business in the domestic market, and export to nearly 20 overseas countries as well.

The company always commits itself to introducing and updating high reliability & automatization equipments. The manufacturing equipments mainly includes: 6- station Cold Formers, Cold Forging Punches, CNC Machines, Automatic Threading Machines, FINN-POWER Crimp Machines etc. The inspection equipments includes: 3D Projector, Salt-Spray Chamber, Fitting Leak Inspector, Hose Pressure Tester, Hose Tensile Strength Tester etc. Advanced manufacturing and inspection equipments ensure the stabilization and reliability of the product quality.

"Make Parts in Precision, Do Business in Integrity" has been the guideline of the company and each member in the company. We position to make high-precision and high-quality products, to serve customers sincerely and honestly. Your visit to our company is warmly welcomed, and we look forward to better and further cooperation.



# 作为业界领先者的经营理念

## IDEAS AS THE LEADER OF THE INDUSTRY

### 一体化 Full-Function United

公司在金属接头和工业软管总成方面拥有从设计、制造、营销到售后服务的专业机构或部门，保证了企业经营链的完整性与一致性。

We own expertise from design, manufacturing, marketing to after-sale service in the fields of metal connect parts and hose assemblies, which keeps enterprise's operating chain united and integrated.

### 专业化 Specialization

公司同时涉足接头配件和软管总成业务，这使我们对产品的专业知识有了更透彻的认识。对产品和市场的专业知识是我们能力的重要保证。

We are involved in both metal fittings and related hose assemblies, which makes us further learned and well experienced in the fields. Such technical knowledge of correlative kinds of products and market is the key guarantee of our ability.

### 综合性合作伙伴 Comprehensive Partner

对于任何一个客户，我们不只是一家产品供应商。我们致力于为客户提供产品设计、验证、使用的各类参考知识。我们能够以综合性合作伙伴的方式，从客户的实际需求出发，力争在每一个环节上做到最佳。

We treat ourself not only a simple supplier for each customer. We strive to assist and suggest in products' designing, inspecting and using as a comprehensive partner. By considering customer's real requirements, we are always striving to be the best in every procedure.

### 技术革新 Technical Renovation

石固人敢于否认自己，勇于超越自己。我们坚信：只有不懈追求技术的进步与革新，才能创造出达到甚至超越客户期望的产品。

We dare to deny ourself, and surpass the old self. Only keeping pursuit of continuous technical improvement and renovation, we can reach, even surpass customer's expectations.

### 全面质量控制 Total Quality Management

按照TS16949体系要求，公司严格把控各项质量环节。“用心打造精品”已深入每一位石固人，我们誓志用完美的产品汇报客户。

We are carrying out the TS16949 quality management system. What's more, "Making Precise Parts" has been the guideline for each member of the company. We aspire to provide perfect products to our customers.



R&D 研发



Produce 制造



Inspect 检测



## 一、金属接头 Hose Fitting



制造金属接头，我们已有20年之久。从传统的仪表机床，到精密的数控机床，到如今的全自动成型机加工方式，把金属接头业务做得“更强，更大”始终是我们不断前行的原动力。公司目前金属接头年产量达到3000万只，其中制动管接头产量占据80%，产品供OEM配套使用为主。

We have been manufacturing hose fittings for 20 years. From traditional hand lather, to precise CNC machine, to automatic cold former, we keep this business going because of the faith "to be stronger, to be bigger".

Our annual capacity for hose fitting is 30,000,000pcs, brake hose fittings take 80% of the whole capacity. The products are mainly for Tier 2 OEM business.

## 二、软管总成 Hose Assembly



在金属接头的优势之上，相应的软管总成业务不断发展壮大。现有软管总成产品包含：液压制动软管总成、气压制动软管总成、动力转向管总成、高压油管总成等。软管扣压装配线配备先进，各类检测设备齐全。软管总成年产量达350万根，配套、零售业务量各占据一半。

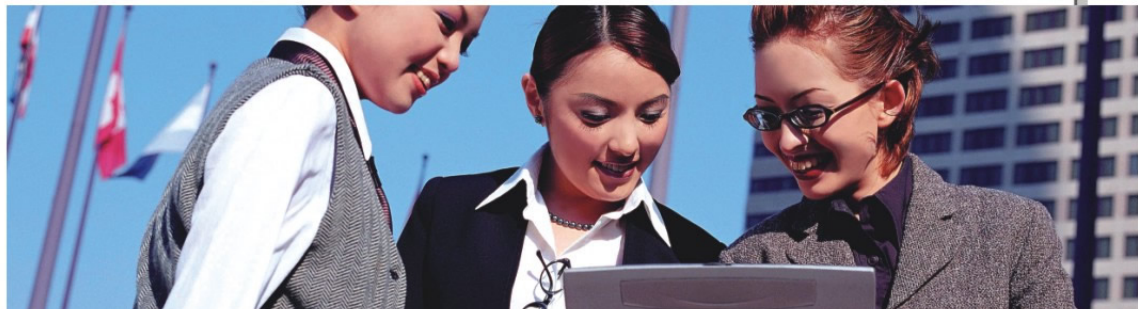
With the advantages of hose fitting manufacturing, the related hose assemblies business is getting bigger as well. Hose assemblies include: brake hose assembly, power steering assembly, and high-pressure hydraulic hose assembly. We have established the full crimping & assembling line, as well as advanced inspection equipments. So far, the annual capacity for hose assembly reaches 3,500,000pcs, products are supplied for both OEM and after-market customers.

## 三、冷锻成型件



凭着雄厚的研发实力和精良的设备保障，金属冷锻件业务发展迅猛。产品以车用冷锻件为主，包含各类接头、螺母等连接件。目前年产能为2000万只，产品全部供OEM配套使用。

With the outstanding R&D capability and advanced equipments, the business of cold forming parts is growing very rapidly. We mainly make various kinds of fittings, nuts and other metal connects. Our current capacity for cold forming parts is 20,000,000pcs with multi-station cold formers.



# 生产现场 **P**roduction Scene



冷墩操作现场  
Cold Forming Scene



软管扣压  
Hose Crimping



数控操作  
CNC Machining



冷挤压现场  
Cold Forging Scene



攻牙现场  
Thread Tapping Scene

# I nspection Equipments 检测设备



盐雾试验  
Salt-Spray Testing

接头气密性检测  
Non-Leak Testing



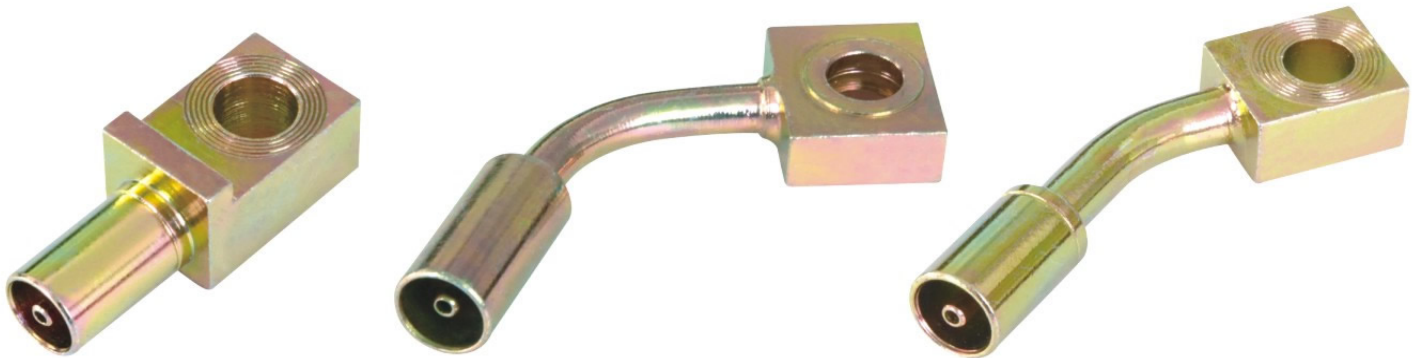
3D 投影仪  
3D Projector



拉伸试验机  
Tensile Strength Tester

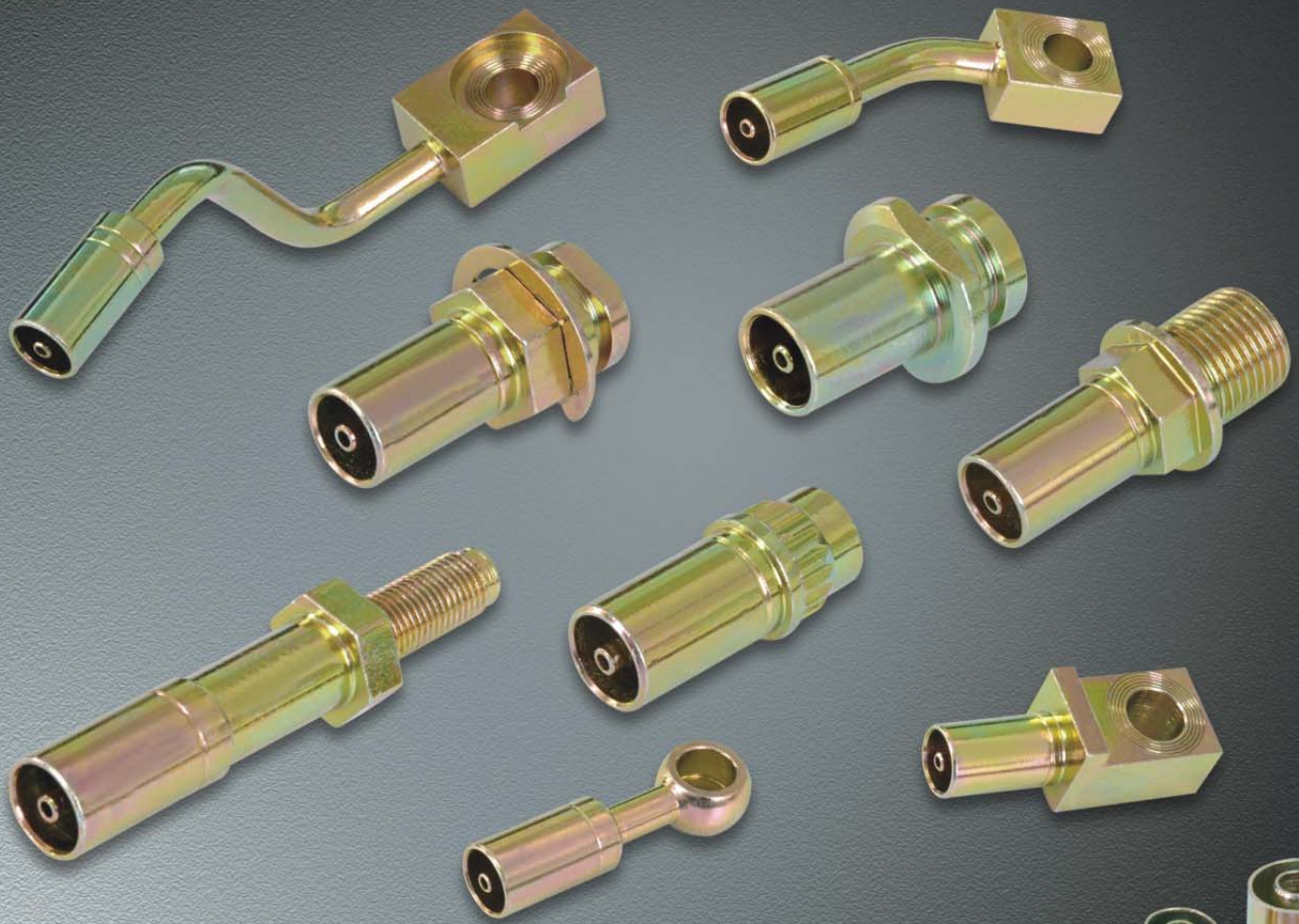


软管压力测试 Hose Pressure Testing



**B** 制动软管接头  
Brake Hose Fitting





我公司生产的液压制动软管接头、气压制动管接头品种多达1000余种。产品按客户要求开发，供OEM配套为主；成品由精密车加工、冷墩成型加工而成，表面光洁，尺寸控制精确，表面烟雾试验最高可达720小时。

Various hydraulic and air brake hose fittings, the types of which are more than 1000 kinds. We develop new products mainly for OEM customers. Brake hose fittings are manufactured and controlled by CNC machines or cold formers, surface comes smooth, dimensions are well controlled, and the salt spray test can highly meet 720 hours.



# 冷墩成型件 Cold Forming Parts



## 冷墩参数 Technical Data:

最大长度 Max Length: 80mm

最大直径 Max Diameter: 35mm (at flange)

最小批量 Min Batch Volume: 200,000pcs p.a.

设 备 Machines: 6-station, up to 200T

6工位最大200吨冷墩成型机

二次加工工艺: off-center machining/grinding/bending/welding/threading

辅助车加工/钻孔/打弯/焊接/螺纹加工





类别：液压制动软管总成 & 气压制动软管总成

用途特性：液压制动软管应用于各类轿车、越野车、多功能商务车、摩托车及其他轻型车辆的液压制动系统，传递液压力。具有低膨胀、抗爆裂、耐高温、耐臭氧、低水分渗透、耐疲劳和脉冲等优良性能，制动效果稳定可靠。

气压制动软管应用于各类卡车、大货车等重型车辆的气压制动系统。具有耐热、耐油、耐臭氧等性能，能承受较高的气体压力。

执行标准：GB16897-97, SAE J1401/J1402, FMVSS106

**Classification:** Hydraulic Brake Hose Assembly & Air Brake Hose Assembly

**Function:** Hydraulic brake hose assemblies are widely applied in various sedan, SUV, MPV, and other light vehicles' hydraulic brake system. It is featured as low expansion, low moisture permeation, resistance to high temperature, ozone, whipping and impulse.

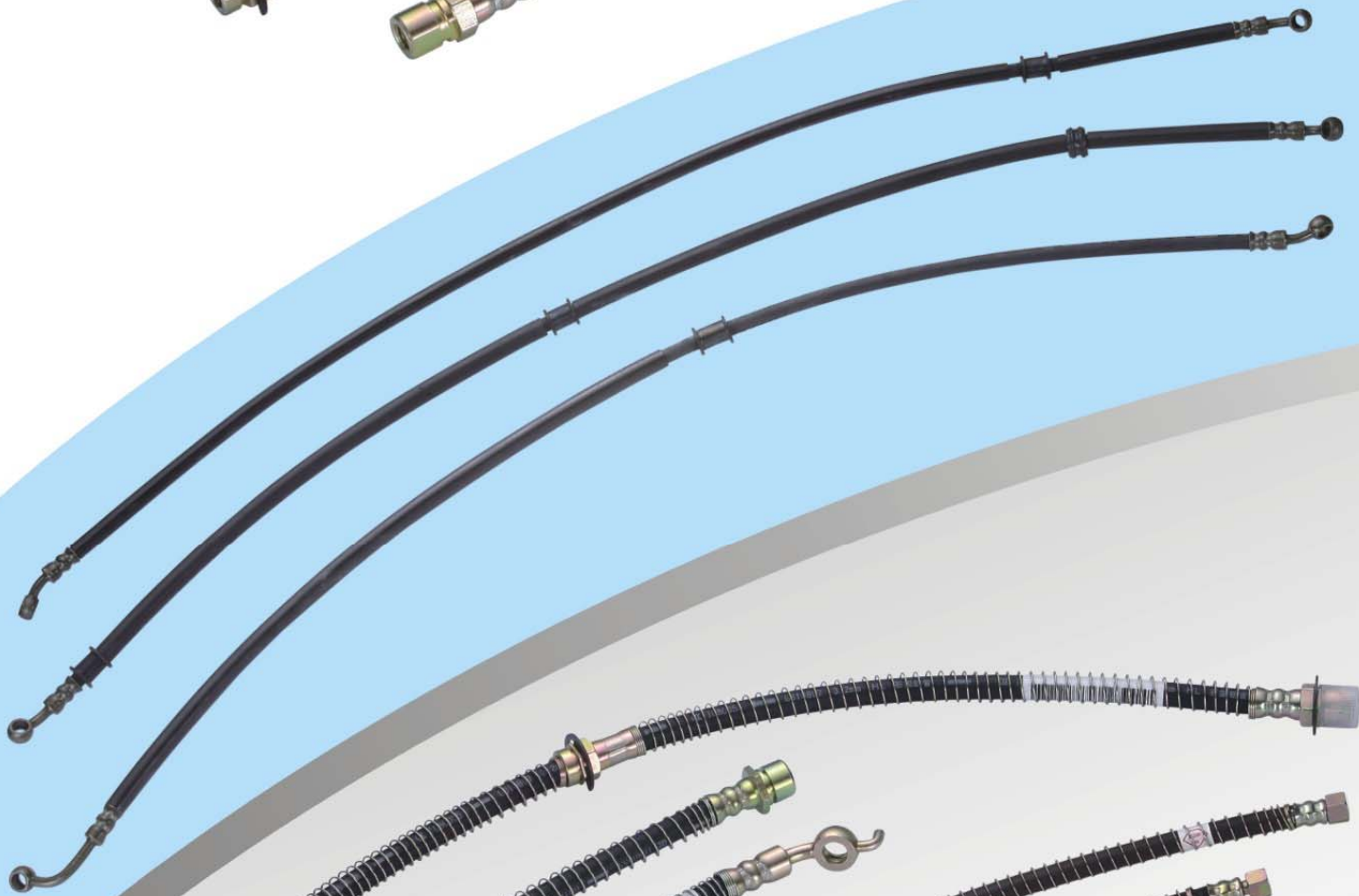
Air brake hose assemblies are applied in trucks and other heavy vehicles' air brake system.

It is featured as resistance to heating, oil and ozone, as well as high air pressure endured.

**Standard:** SAE J1401, SAE J1402, FMVSS106



# 制动软管总成 Brake Hose Assembly





# P 动力转向软管总成

## OWER STEERING HOSE ASSEMBLY

用途：应用于各类轿车、越野车、商务车的动力转向系统，在动力转向装置中传递压力。

特性：高膨胀、低噪音、耐高压和脉冲、耐臭氧。

标准：SAE J188, SAE J2050

**Function:** Applied in various sedan, SUV, MPV, and other light vehicles' power steering system, to transfer the pressure force in steering.

**Feature:** High expansion, Low noise, resistance to high pressure, impulse and ozone.

**Standard:** SAE J188, SAE J2050



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