



汽车行业塑料部件紧固解决方案

英莪国际-塑料件紧固解决方案专家

Mr. Wang Aijun / 王爱军
Technical Manager , Asia Pacific
亚太区技术经理
2013. 04. 11

Fastening Solutions for Plastic Application in Automotive Industry
PSM International – Global Fastening Solutions For Plastics

THE STORY OF PSM

关于英蒨国际



PSM Facts 英蒨

- ◆ Over 80-year history
超过80年的历史
- ◆ Distribution & operations in 23 countries
运营公司覆盖全球23个国家
- ◆ 5 Technical centers
5个技术中心
- ◆ 3 Manufacturing sites
3个生产基地

1931



Established under the name of Precision Screw Manufacturing
英蒨创立

1

1950



Designed and patented the Anchor Rivet Bush (ARB) for use into sheet metal.
专利产品 ANCHOR® RIVET BUSH (ARB)问世

1960



Designed the Sonic-Lok insert for use into plastic material.
塑料嵌件产品 SONIC-LOK®问世

1962



Established a European sales network.
建成欧洲销售运营体系

1970



Est. a Global sales network including USA, Japan & South Africa.
构架遍布全球的销售运营体系, 包括美国, 日本及南非

1977



1982



Established Application Tech Centre in Willenhall.
在英国建立技术应用中心

2001



Established first overseas manufacturing unit in Taiwan to service the developing Asian market.
在台湾成立海外第一个生产基地

2002



Established manufacturing unit in Wuxi Mainland China.
生产基地在中国无锡成立

2006



Relocated to bigger premises in Wuxi.
无锡生产基地扩建

2010



Acquired BAS
成功收购BAS

GLOBAL FOOTPRINT

遍布全球的分支机构



TECHNICAL CENTER

技术中心

UK, Wuxi, Taiwan, Japan, US
英国, 无锡, 台湾, 日本, 美国

MANUFACTURING

生产基地

Wuxi, UK, Taiwan
英国, 无锡, 台湾

SALES & OPERATIONS

销售&运营公司

Europe, US, China, Taiwan,
Singapore, Hong Kong

欧洲, 美国, 中国, 台湾, 新
加坡, 香港

JOINT VENTURE

合资公司

Sweden, Italy, Japan, Australia
瑞典, 意大利, 日本, 澳大利亚



PSM International Wuxi, **China**
英蒔国际中国无锡



PSM International, Pembroke, **UK**
英蒔国际英国



PSM International Ohio, **USA**
英蒔国际美国俄亥俄

PSM CORE COMPETENCY

核心竞争力



Technical Strength 技术优势

- Products 产品
- Technical Centers 技术中心
- Engineering Experience 工程经验



Industry Application 工业应用



Project Management 项目管理

- Communication 信息互通
- Quality 质量
- Delivery 交付



PSM cooperates with customers early in the design phase and provides a full range of fastening solutions throughout the product life-cycle, from design conception and prototyping through product launch and general production.

我们与客户合作从早期设计阶段开始，并从设计理念和样件开发到产品投放和批量生产为客户提供全方位的紧固解决方案和产品生命周期管理。

PSM MARKET FOCUS

我们专注的行业



Automotive
汽车行业



Consumer Electronics
电子消费产品



Medical
医疗健康



Power & Energy
电力 & 能源



Industrial
工业行业



Home Appliance
家用电器



Other Applications
多种应用

PSM PRODUCTION CAPACITY

生产能力

Single Spindle 单轴机



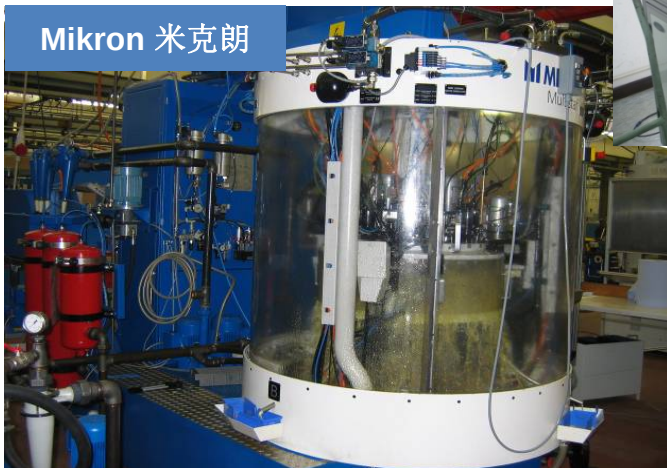
Davenport 五轴机



Sorting Machine 分选机



Mikron 米克朗

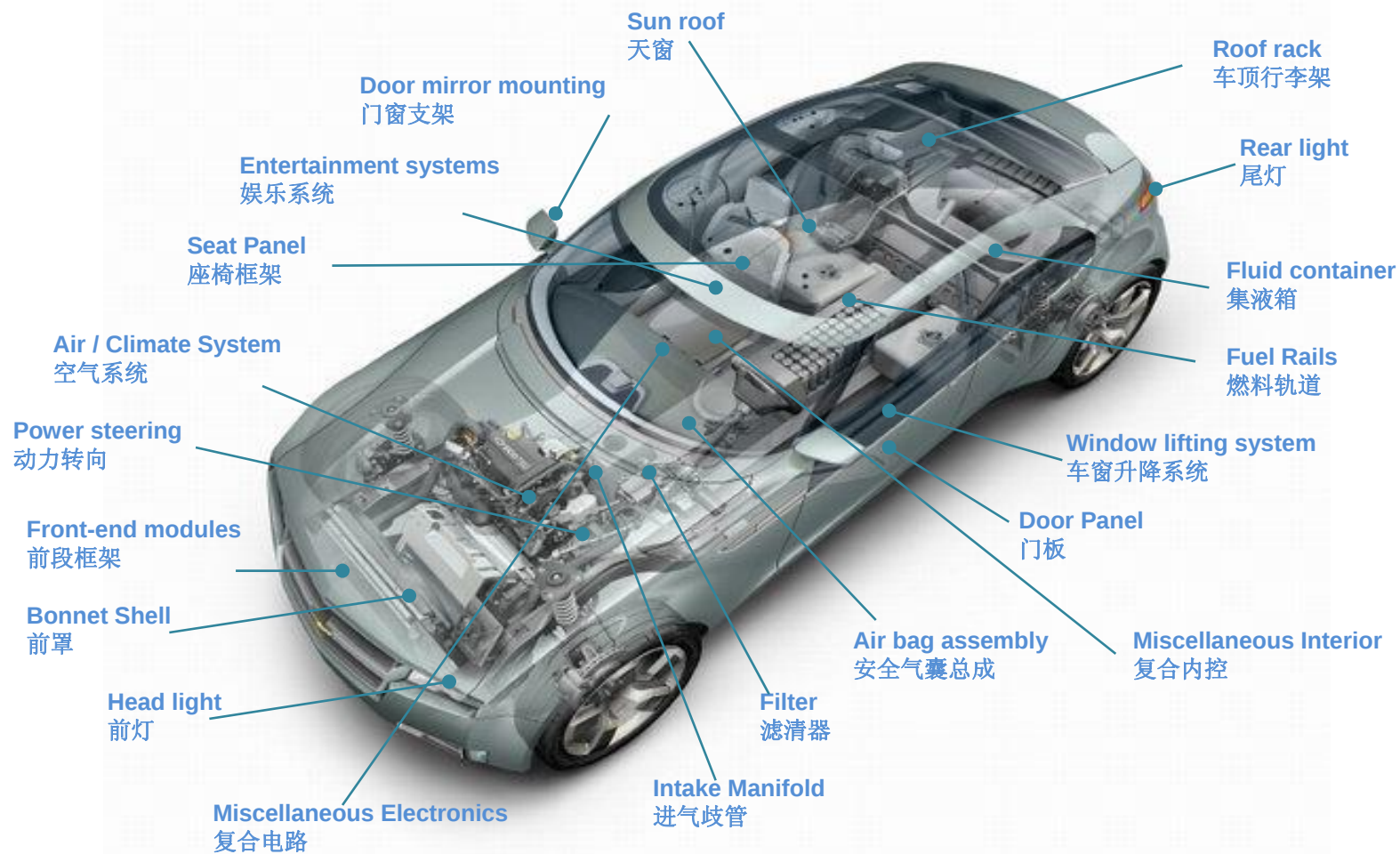


CNC



APPLICATION COVERAGE

整车应用



TRI-STEP™

SONIC-LOK®

HI-TORK

BANC-LOK®

HEAT-LOK®

TECH-SONIC®

FLANGEFORM®

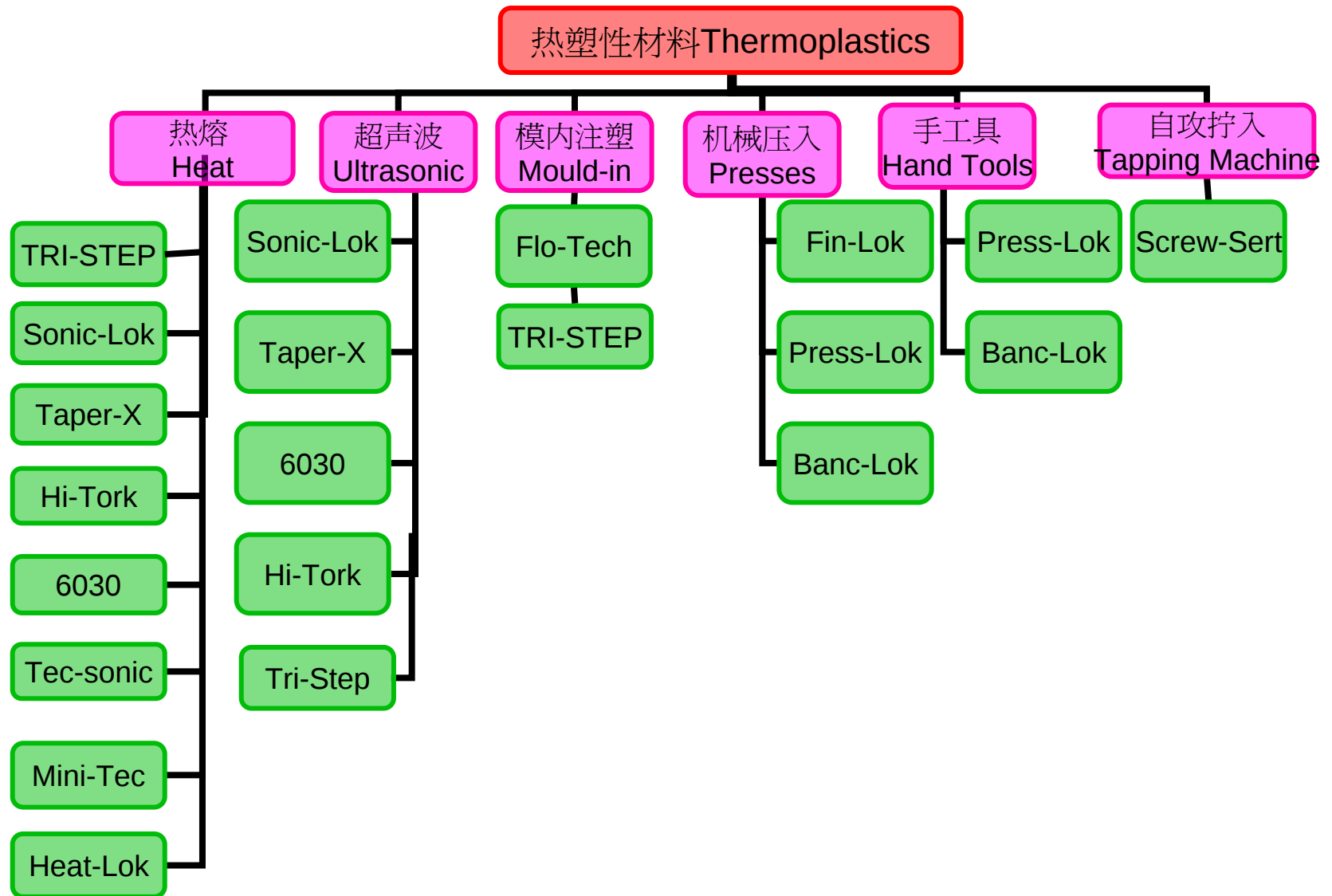
PRESS-LOK®

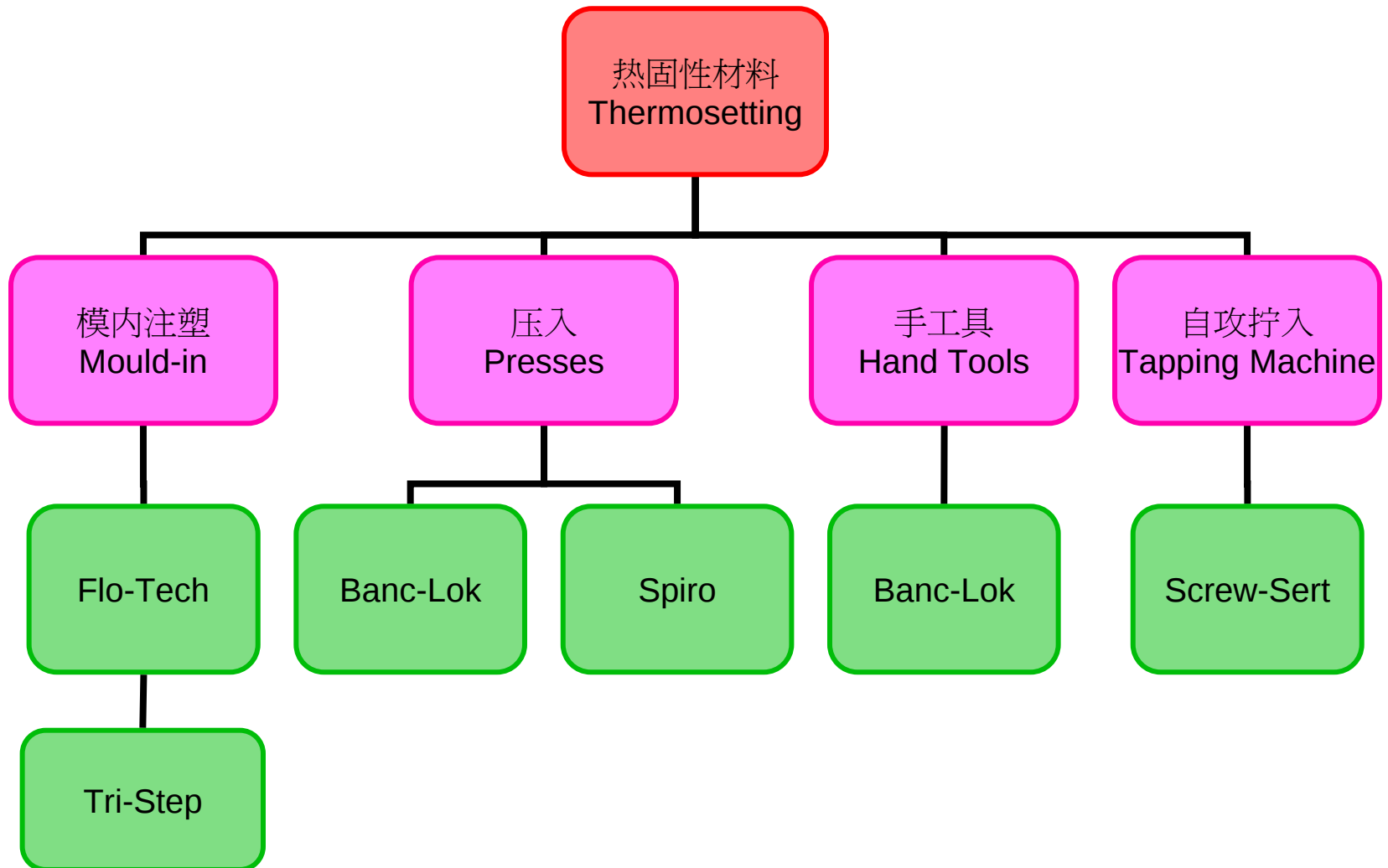
PRESS-LOK®

TAPER-X®

FLO - TECH®

MINI - TECH®





TRI-STEP™ INSERTS

TRI-STEP™ 镶嵌螺母



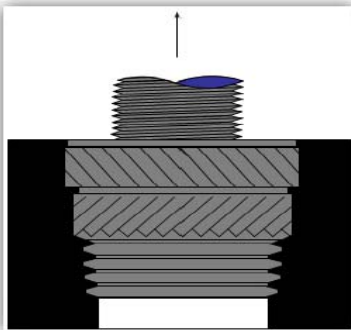
HIGH PERFORMANCE

优异的产品性能

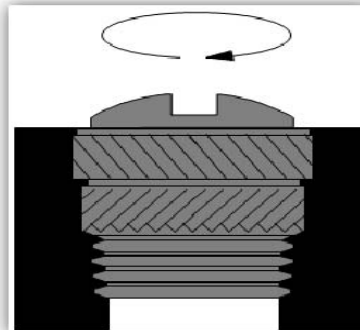
客户认可的高性能产品
Customer Recognized High Performance Product



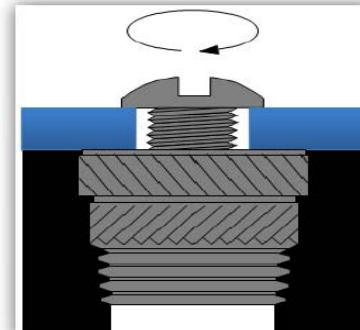
高扭矩
High torque

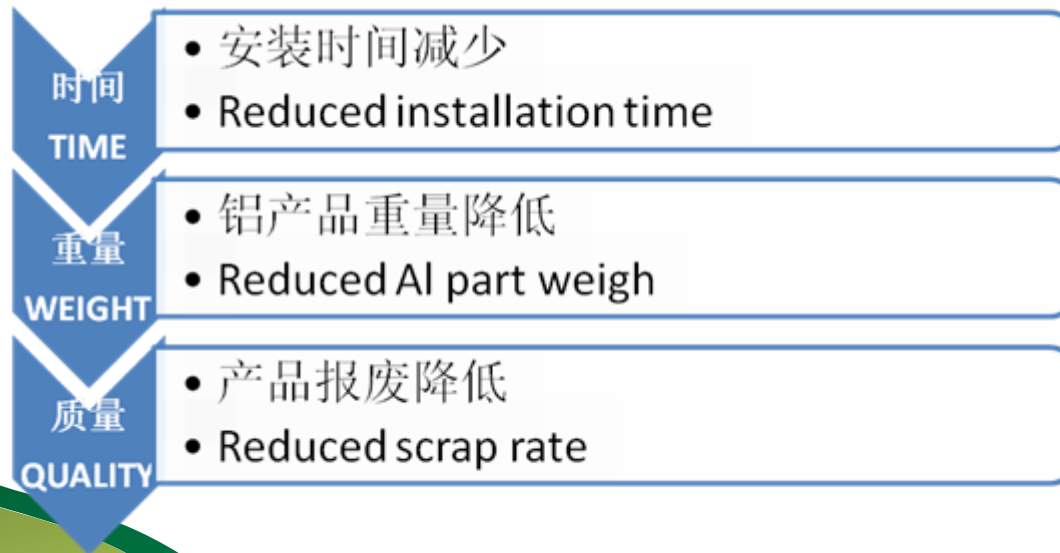


高推出力
High push out force

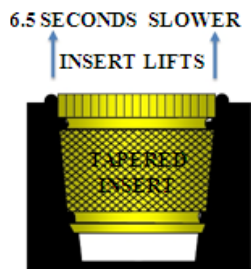


高安装扭矩
High Max torque





Increased heating time, insertion travel and insert produces "plastic flash"



Insert "spring back" due tapered section overfilling with plastic



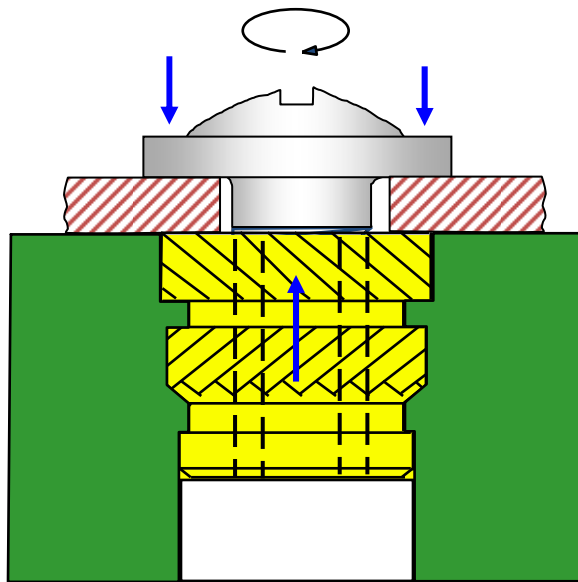
Insert free fits into hole for 70% of its length



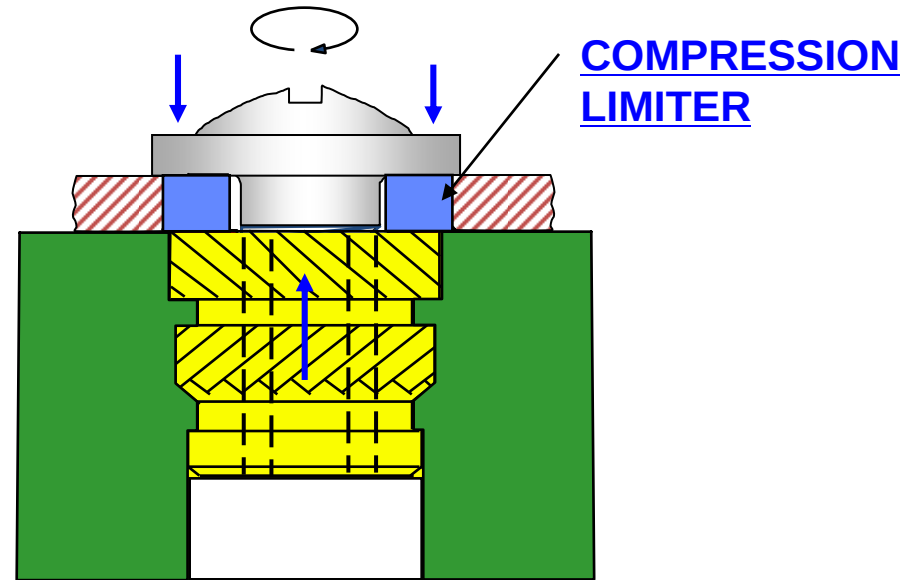
No plastic flash or insert "spring back"

ADAPTATION OF THE CONNECTION MODE

连接方式的适应性



SOFT JOINT
软连接



HARD JOINT
硬连接

TYPICAL PROJECTS

典型案例



Ford Mondeo 蒙迪欧
CD132 Front End
Module with Sonic-
Lok® inserts and
Compression Limiters
前段框架使用Sonic-Lok®
螺母和金属衬套



Rover 路虎
'K' Series Inlet Manifold
Headed Sonic-Lok® M6 &
Compression Limiters
塑料进气歧管使用Sonic-
Lok® 螺母和金属衬套



Citroen 雪铁龙
Manifold project using
split type compression
limiters
发动机塑料进气歧管使用
PSM金属开口衬套开口



Eaton 伊顿
Manifold project using an
oval knurled type
compression limiter
集滤器使用椭圆形花纹衬套



VW Golf 高尔夫
Passenger Airbag
with HPFH studs
副驾驶席安全气囊使用
HPFH螺丝



Land Rover 路虎
Magnesium Cross Car
Beam Using TMA screws
镁制框架使用TMA螺丝



Jaguar X350 捷豹
Aluminium Airbag
Anchor® Rivet
Bushes
铝制安全气囊使用
Anchor铆钉



Ford Focus 福克斯
Radio & Heater controls
Using TMP screws
中控控制面板使用TMP螺丝

CASE STUDY 1

应用实例 1

Customer Background 背景

The customer is a top engine plastic components provider in China.

我们的客户是国内顶级的发动机塑料部件供货商

The customer has adopted bunches of PSM products in their plastic products.

客户已经在现有产品中使用了PSM的零件

Customer Problems 问题

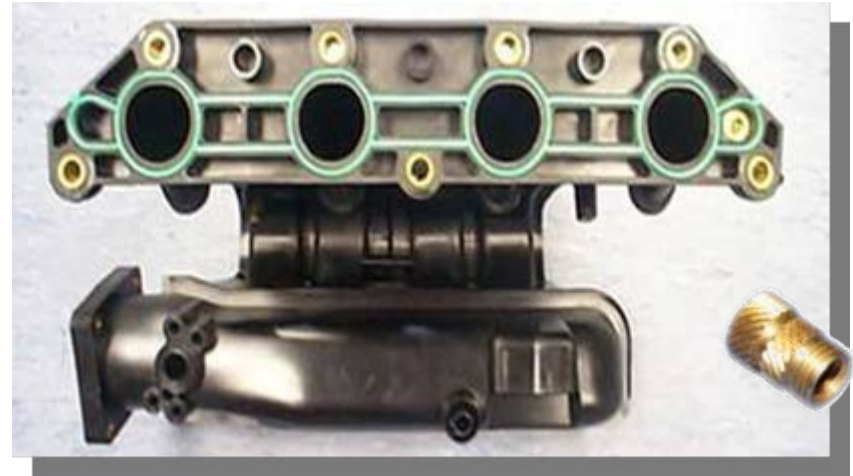
The customer is implementing a new project and they're still using PSM products designed for previous products.

客户想要在新的项目中继续使用现有设计的PSM零件
They meet with plastic overflow problem during their assembling process and they can't define the boss hole size.

在安装过程中出现溢胶情况并且客户也无法界定安装孔尺寸

The project timeline is very tight.

该项目的需求时间已经不能延迟了



PSM Solution PSM的解决方案

- PSM fully leverage the resources and opened a fast-tunnel for the project.

PSM利用优势资源最快速的配合项目进度

- PSM use New TRI-STEP™ design for the project and conduct the complete set of application testing work in house. PSM使用TRI-STEP™设计用于该项目并在自己的实验室完成了试装等性能测试

- Quick response to the customer's application feedback.

依据客户的实际应用完成快速反馈

- Complete the project within a tight timeline.

快速完成项目的时间达成原有进度

Customer Benefits 客户利益

- Keep the development schedule smooth

按照项目时间顺利达成

- Did not add any additional cost for a new product

没有增加任何附加成本在新的产品使用上

- The new product meets all the quality and application requirements

新产品达到所有性能要求并且质量更优良。

Application: Plastic Components

应用：发动机用塑料部件

PSM products: M6 TRI-STEP™ Insert

PSM产品：M6 TRI-STEP™ 嵌件

CASE STUDY 2

应用实例 2



Customer Background 背景

The customer is a global leading automotive powertrain systems provider.

客户是全球领先的动力总成系统供货商

The customer has a local vendor providing plastic components manufacturing services.

客户在国内有配套的合作供货商

Customer Problems 问题

The plastic vendor is always complained by the customer for its quality and application problems.

国内塑料件配套商长期被客户抱怨存在质量及应用有关问题

The plating, size and performance of the products have been existed for a long time and could not find a solution to solve.

零部件的表面处理，尺寸和性能问题长期不能满足客户使用并且未找到合理有效的解决方案。

PSM Solution PSM解决方案

- PSM take over the projects and analyze the problem.

PSM受顾客委托接手该项目并着手分析问题情况

- PSM leverage company R&D strength to develop a product using a different manufacturing process.

PSM依托技术研发优势开发出使用新的生产工艺制作的产品

- The new product solve all the problems which the customer has long suffered.

新产品解决了之前长期被客户抱怨的所有问题

- PSM continues improving the cost efficiency and performance of the products.

PSM持续改善了产品性能并达到了成本优化

Customer Benefits 客户利益

- Solved the problems which has existed for a long time

一次性解决了所以长期存在的问题点

- Complete the components switch within 6 months

在有限的6个月时间里完成从研发到量产

Application: Engine Oil Pan

客户应用：发动机塑料油底壳

PSM products: 6 different Inserts

PSM的产品：6款不同设计的嵌件

CASE STUDY 3

应用实例 3



Customer Background 背景

The customer is a world leading system solution provider in automotive industry.

客户是国际领先的汽车领域系统解决方案供货商

PSM has been cooperating with the customer for a long time with dozens of projects.

PSM已经与该客户在全球范围开展了广泛的合作

Customer Problems 问题

The customer used to adopt a turned compression limiter for their in-take manifold with high cost.

客户原来在使用几款价格昂贵的机加工制作的金属衬套零件

The customer need a new type compression limiter with low cost and meanwhile of the same quality and performance.

客户需要新的成本更优化并具有同等性能的衬套产品

The product should comply with Overseas testing center standards.

新产品需满足海外测试中心的有关测试

PSM Solution PSM解决方案

●PSM organized a dedicated project team involving technical and business staff across countries.

PSM利用跨国资源成立了技术商务合作项目组

●PSM developed a new type compression limiter using cold forming manufacturing process to cut the cost.

PSM开发了全新的冷锻工艺制作成本更低的产品

●With joint effort and application experience, we control the product size and quality to fully meet the critical standards.

通过各方面资源的合作新产品可以满足客户严苛的尺寸及性能要求

●The only supplier in China who meet the precision demands.

PSM是唯一在国内成功开发该项目并达到客户要求的供应商

Customer Benefits 客户利益

●Cut the cost to an expected amount

节约成本达到既定目标

●Save the cost for development and testing

节省了多次测试的成本

●Maintain the quality and precision

维持了原有的高质量和高精度的要求

●Ensure the smooth production

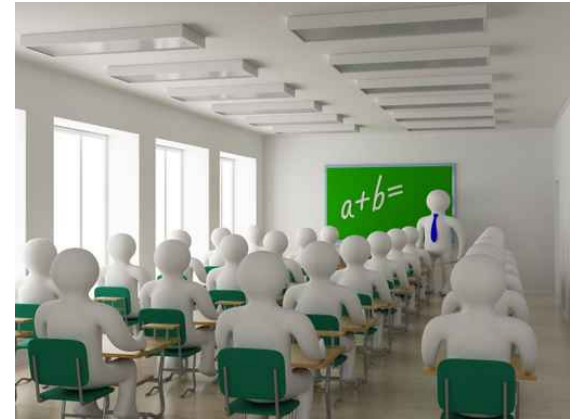
确保稳定顺畅的生产

Application: In-take manifold

应用: 塑料进气歧管

PSM products: Compression Limiter

PSM产品: 冷锻衬套



LOOKING FORWARD TO YOUR QUESTIONS

期待您的提问





THANK YOU !