



TSP-SAMCO
PRECISION

| TSP SAMCO PRECISION CO., LTD. |

TSP Samco Precision Co., Ltd.

Company Profile

2019/6/20

More for Less

Introduction

- **TSP** (Taiwan Supply Power) was founded in year 2002.
- We manage ONLY project of **Single Mechanical Component**, without any further welding or assembly.
- Our business is **100% OEM** for customers from Automotive to Industrial Application.
- In year 2018, Taiwan Supply Power Company and SAMCO Seiki Company were merged in TSP SAMCO Precision Company. We are still **TSP** (TSP SAMCO Precision)
- We do **24 Mio EUR** turnover in year 2018.

Our Concept

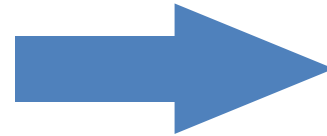
- We are specialized in **Production Process Development**.
- We then manage the complete **Project Development** from Prototype to SOP.
- We do **Precise Machining** inhouse in ***TSP SAMCO Thailand Factory***.
- We develop **Process Techniques, Tools** and **Gauges** for the Raw Parts with partners chosen. They are mainly in Taiwan, and some in China.
- We work closely with our outsourced **Post-Treatment Partner** for Mechanical and Surface Property in Thailand. They are mainly Japanese invested factories.
- We audit and ensure **Robust Production Process** in place with our SQA Team.
- We give customers **Strong Field Service and Technical Support** during Projects Phase, Quality and Logistics during Serial Production, through our Sales Force in Germany, France and U.S.A.

Our Definition

- Subsystem Supplier

- Manufacturer

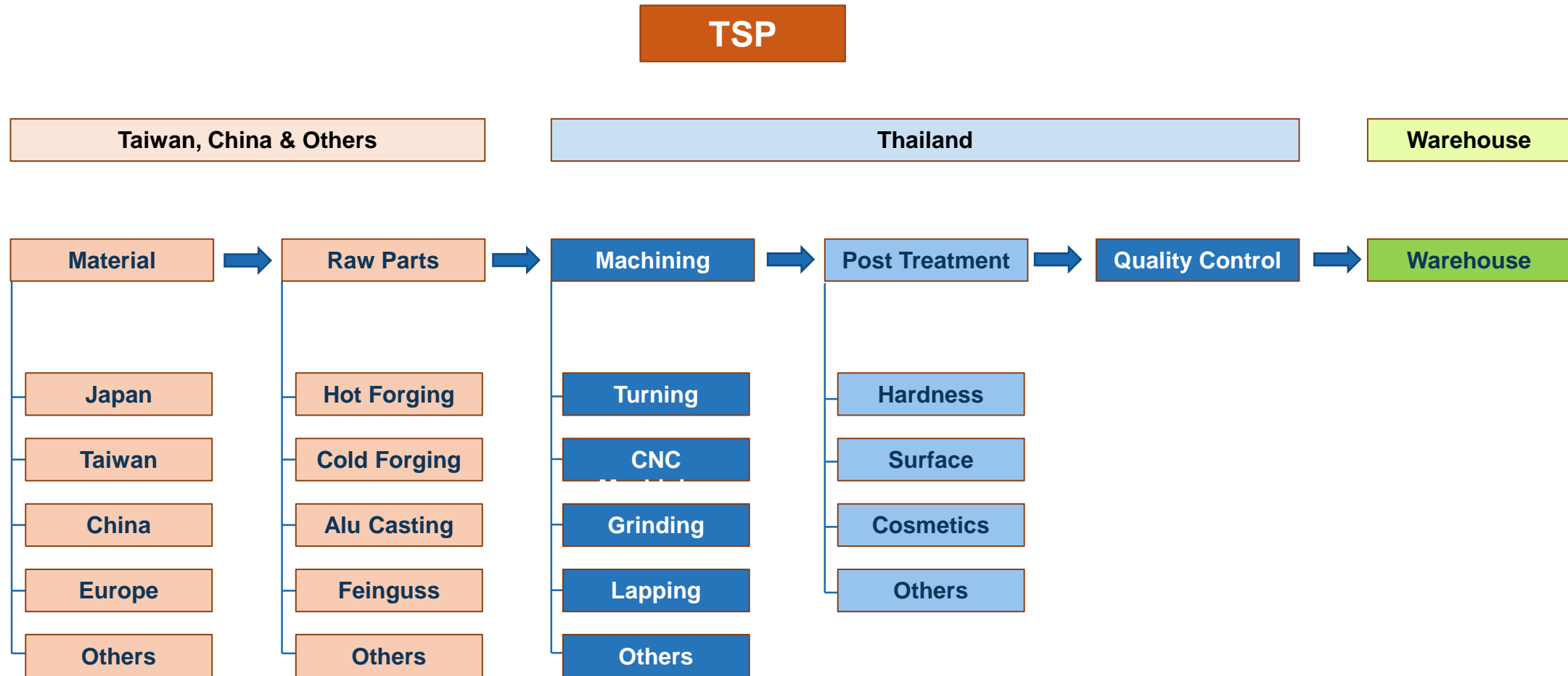
- Producer



TSP is a Manufacturer

- Producer
- Project Management
- Validation of Parts Design
- Industrialization VA/VE
- Tooling & Gauge

We utilize and maximize the Strength of different regions.



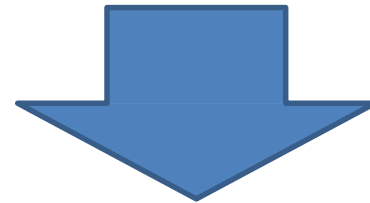
Competence

TSP Team Europe / U.S.A

- Local Active Field Service
- Technical Consultants
- Logistic Support
- Quality Support

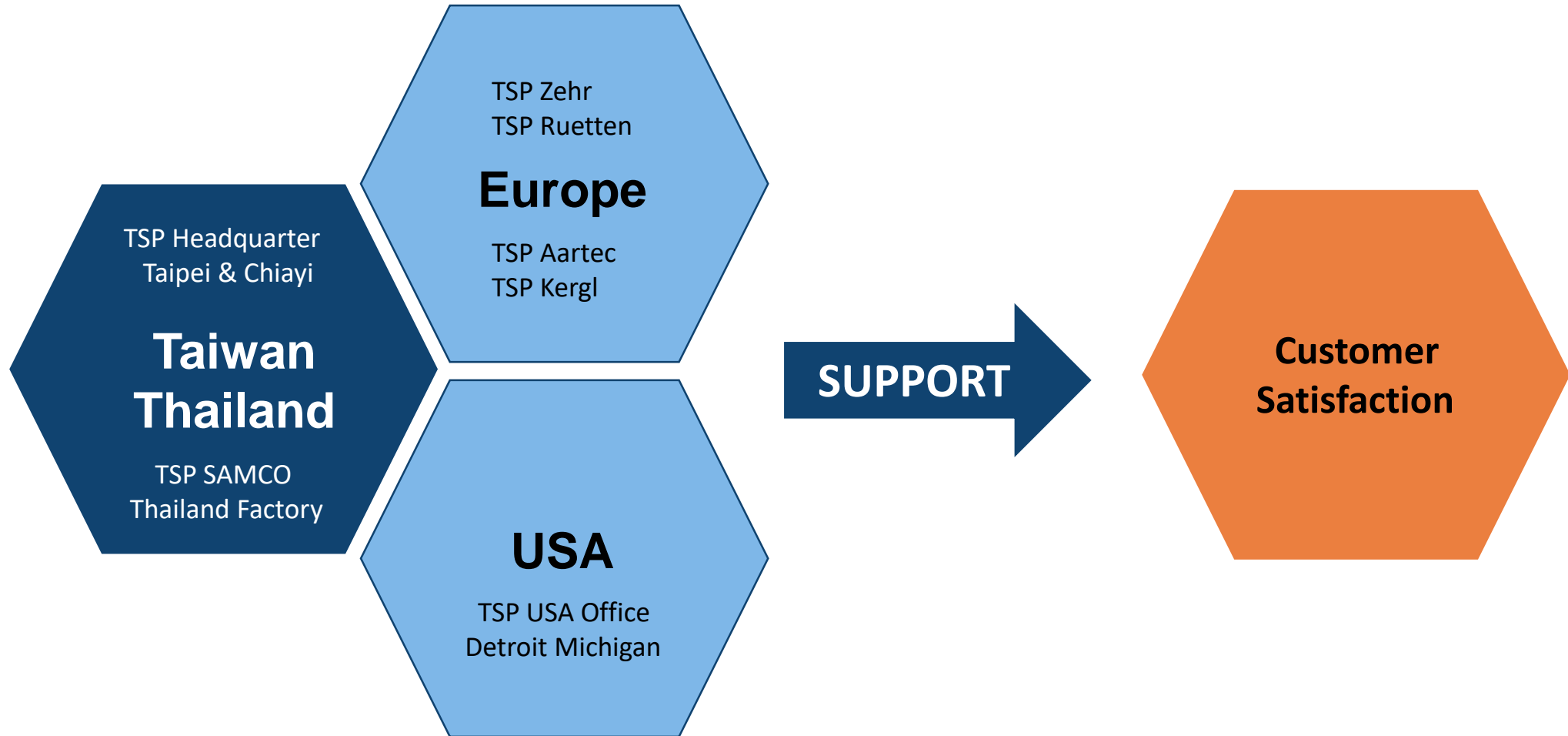
TSP Team Taiwan/Thailand

- Industrialization
- SQE / SQA
- Project Management
- Production



- Local Business Relationship
- Goal: Cost Reduction

Our Organization



Our Workforce

TSP is an organization with 350 workforces. 50 in Taiwan and 300 in Thailand.

Division	Workforce		English Spoken	Focus
	TWN	THA		
Sales	10	4	10	
Logistic	7	8	7	<ul style="list-style-type: none"> • Stock Management & Control
Engineering	14	12	12	
Quality	12	75	6	<ul style="list-style-type: none"> • Designate CONTROL PLAN • Double Confirm EMPB / ISIR • Perform PROCESS AUDIT • Leading the 8D Report when occurs
Production		185	8	
Others	9	20	0	

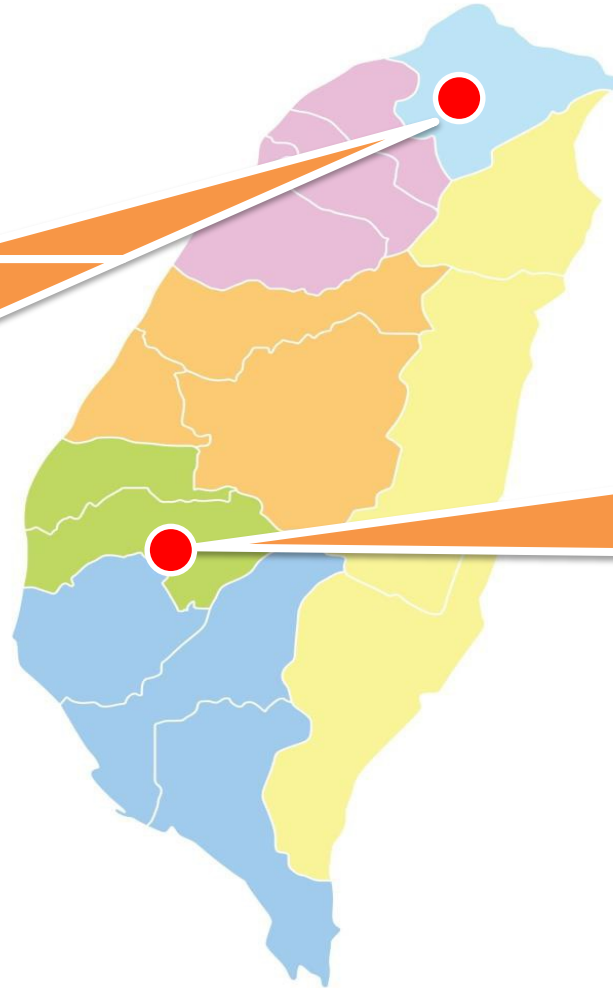
TSP Headquarter

New Taipei City, Taiwan

Tel : + 886 2 2998 7388

Fax : + 886 2 2998 7778

- Finance & Accounting
- Procurement & Purchasing
- Engineering
- Project Management
- Quality
- Logistic
- Supplier Management



TSP Chiayi Office

Chiayi County, Taiwan

Tel : + 886 5 213 2103

Fax : + 886 5 213 2303

- Procurement & Purchasing
- Engineering
- Project Management
- Quality
- Logistic
- Supplier Management



TSP SAMCO Thailand

Ayutthaya, Thailand

Tel : + 886 5 213 2103

Fax : + 886 5 213 2303

- Precise Machining
- Grinding/Lapping
- Cleaning
- Quality Control
- Sub-Assembly

Factory is located in Ayutthaya, about 60 Km away from Bangkok International Airport.



Machine Lists

Description	Brands	Country	Unit
CNC Auto-Lathe	Tsugami BM16C	Japan	15
CNC Auto-Lathe	Techno Wasino JD-1	Japan	1
CNC Auto-Lathe	Tsugami BO12J	Japan	7
CNC Auto-Lathe	Tsugami BO12N	Japan	4
CNC Auto-Lathe	Tsugami BO16MF	Japan	7
CNC Auto-Lathe	Tsugami BO20MF	Japan	3
CNC Auto-Lathe	Tsugami BM165	Japan	8
CNC Auto-Lathe	Hanwa SL20S	Korea	1
CNC Auto-Lathe	Hanwa SL12Se	Korea	1
CNC Auto-Lathe	Tsugami BS18	Japan	3
CNC Auto-Lathe	Tsugami BS20	Japan	1
CNC Auto-Lathe	Tsugami BS12	Japan	2
CNC Auto-Lathe	Tsugami BO12 S	Japan	1
CNC Auto-Lathe	Tsugami BA26	Japan	1
CNC Auto-Lathe	Cincom A20VII	Japan	5
CNC Auto-Lathe	Cincom B12E	Japan	1
CNC Auto-Lathe	Cincom L32	Japan	1

Description	Brands	Country	Unit
CNC	L30	Japan	4
CNC	Miyano BND-51S2	Japan	1
CNC	Space Turn LB 3000 EXR (Okuma)	Japan	1
CNC	Space Turn LB 300 (Okuma)	Japan	1
Compact Lathe	Takahashi TNC L00	Japan	5
Compact Lathe	Microstar L2-P	Japan	46
Compact Lathe	Tsugami C004-III	Japan	4
Compact Lathe	Seibu SNC-20Pi	Japan	1
CNC Compact Lathe	Takahashi L60FB	Japan	2
Compact Lathe	Microstar L2-P NCL (Robot)	Japan	2
Lapping Machine	ADL700	Korea	2
CNC Machining Center	Brother R450X1	Japan	2
CNC Machining Center	Brother S700X1	Japan	1
Centerless Grinding Machine	Palmary PC-18s-NC	Taiwan	1
Cleaning Machine	Delichem MRA0292	Singapore	2



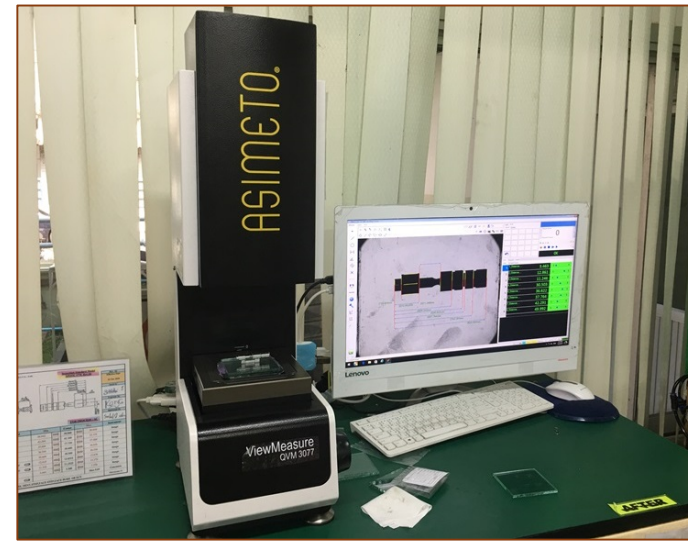


Inspection Equipment

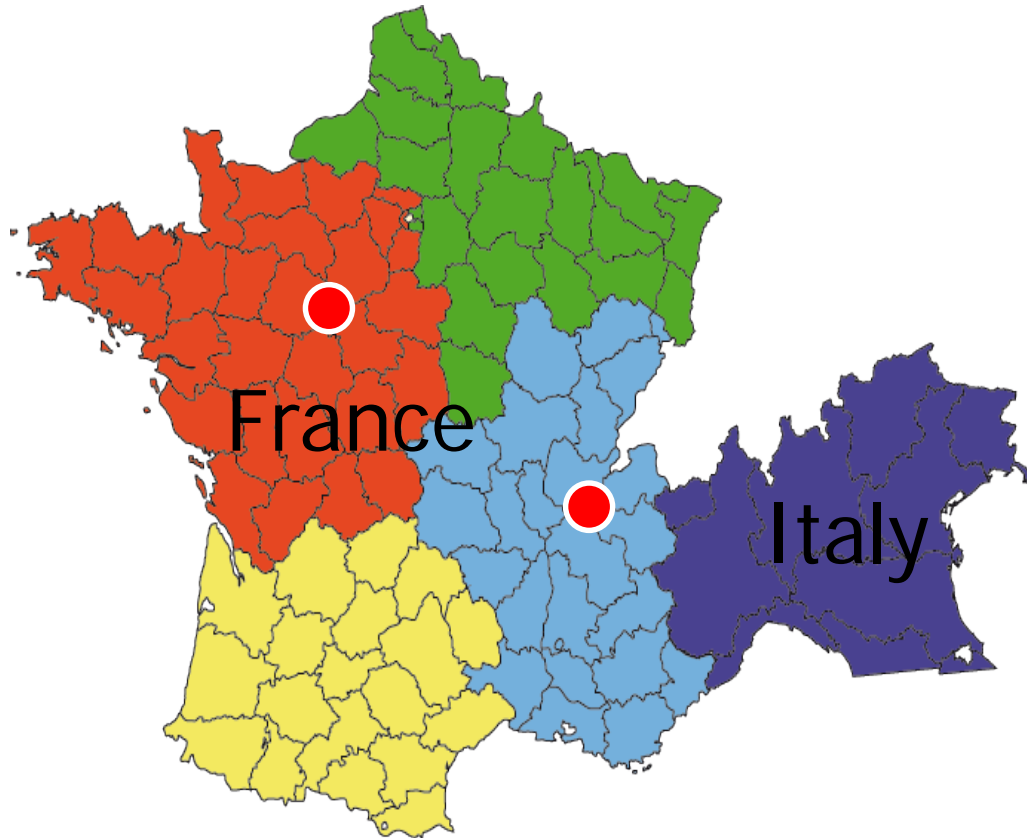
Brands	Unit
Pin Gauge	185
Borematic Mitstoyo	3
QM Height	1
Surface Roughness Tester Machine	1
Weighttting Machine Machine	1
Weighttting Machine Yamato	1
Weighttting Machine UWE	1
Weighttting Machine Shimadzu	5
Tape Measuring	1
Stand for Indicator	33
Stand for Micrometer	29
Concentricity Gauge Machine	4

Brands	Unit
Mitutoyo 7106 Microcord CMM	1
Brown & Sharpe Micoval PFX DCC CMM	1
Roundcom 43C TokyoSeimitsu	2
Contourecord 1600D-12 TokyoSeimitsu	2
View Measure QVM-3077 Asimeto	1
Microscope 10X Carton NSW	35
Microscope 10X Nikon	1
Microscope 5X	6
Tool- Maker Microscope Mitutoyo	2
Roughness Tester Mitutoyo	2
Digimatic Indicator & Height gage Mitutoyo	20
Digimatic Calliper Mitutoyo	3
Dial Indicator Mitutoyo	84
Dial Indicator Citizen	8
Digimatic Micrometer Mitutoyo	26
Snap Micrometer Mitutoyo	5

Brands	Unit
Profile Projector S-T Industries	1
Air Micrometer Nidec Tasok	5
Rockwell Hardness tester	1
Comparator Gage	42
Imseries IM-700	1
Microscope 3X	3
Dial Indicator New Pic-Tesl	2
Air Micrometer Western Gauge	1
Weight Block	3
Micrometer Setting Rod Mitatoyo	2
Block Gauge	9
Ring Gauge	40
Magnetic Field Meter	1
Leak Test Machine	1
Thread Plug Gauge	33
Thread Ring Gauge	13



France & Italy



France N.E.& Belgium :

Mr. Jacques WILLI

TSP Taiwan :

Mr. Paul HUNG

France N.W. :

Mr. Guillaume BEAUFILS

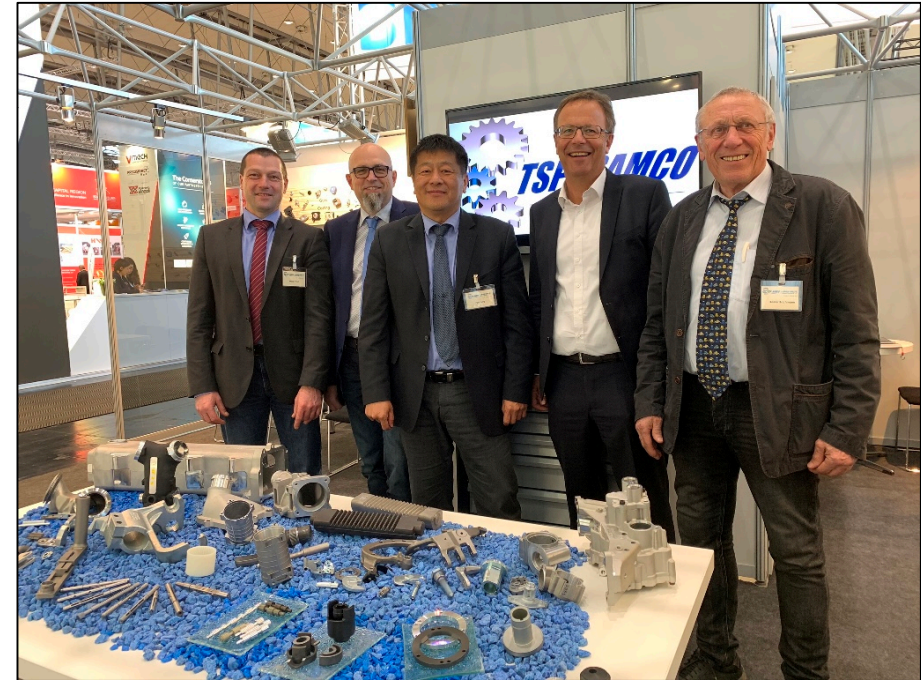
France S.E. & Italy :

Mr. Julien NEGRE

France S.W. :

Mr. Hugues PICARD

Germany



TSP _ Aartec:

Mr. Martin WOLF

TSP _ Ruetten :

Mr. Roger WEISSMANN

TSP _ Taiwan :

Mr. Paul HUNG

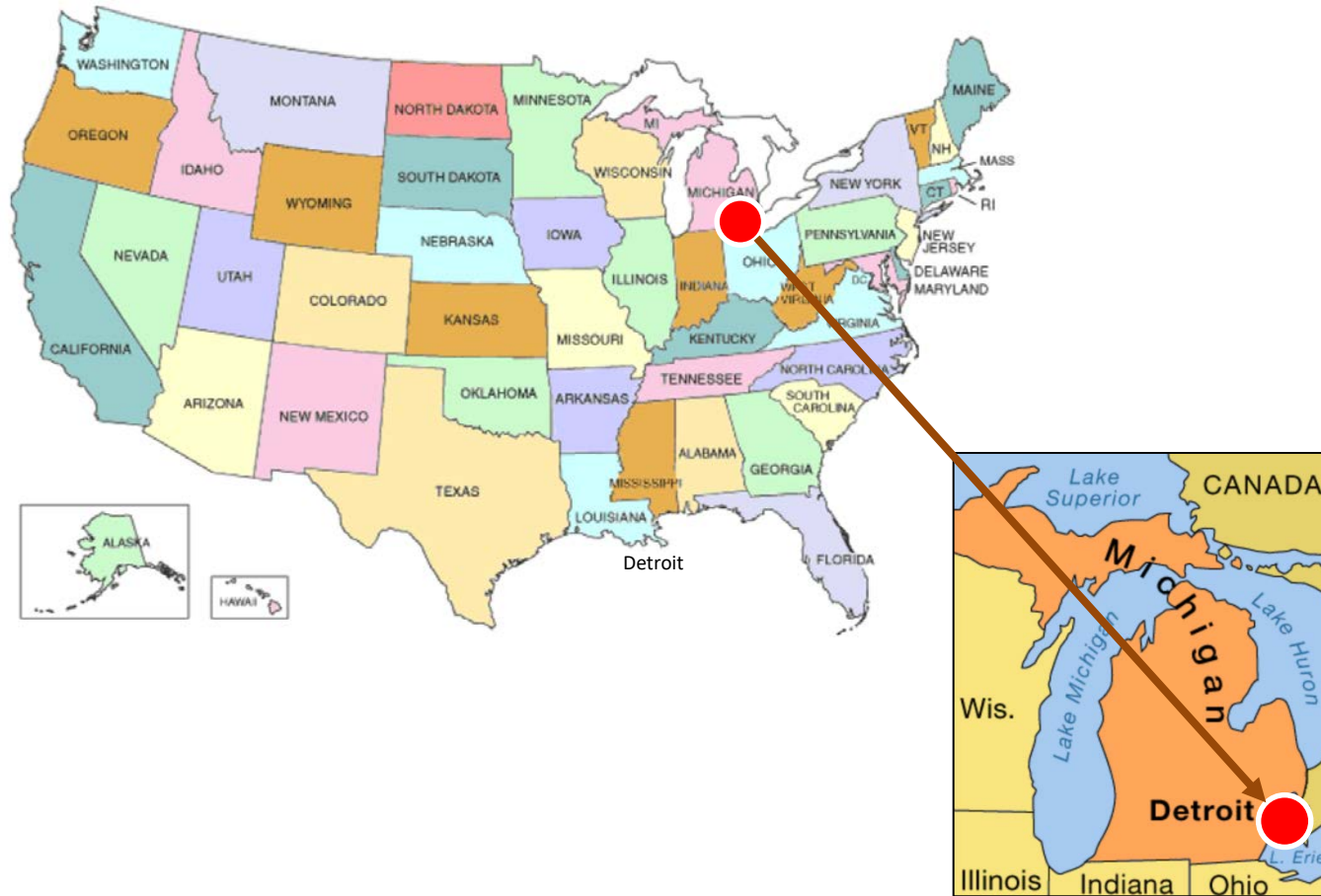
TSP _ Kergl :

Mr. Hans Ettl

TSP _ Aartec :

Mr. Rainer BACHMANN

NAFTA



TSP _ NAFTA :

Mr. Rudi HEINZE

Logistic Center in Europe

TSP makes DDP Terms in EU



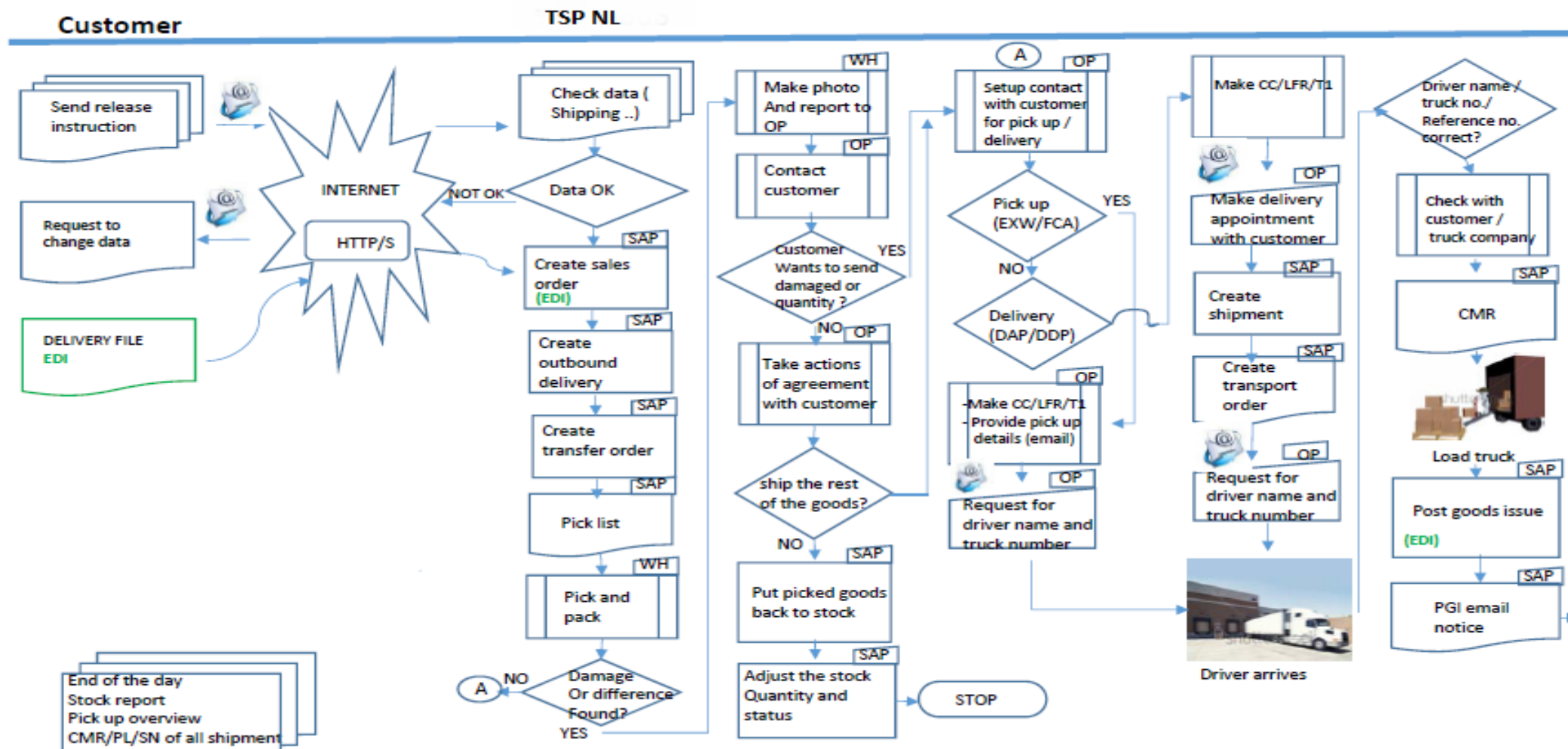
TSP Samco Precision Co., Ltd.

- Address :
Tradeboulevard 3
4761 RL Zevenberg
The Netherlands
- VAT -ID : NL.8242.330.74.B01

72 Hours Delivery within 500 Km

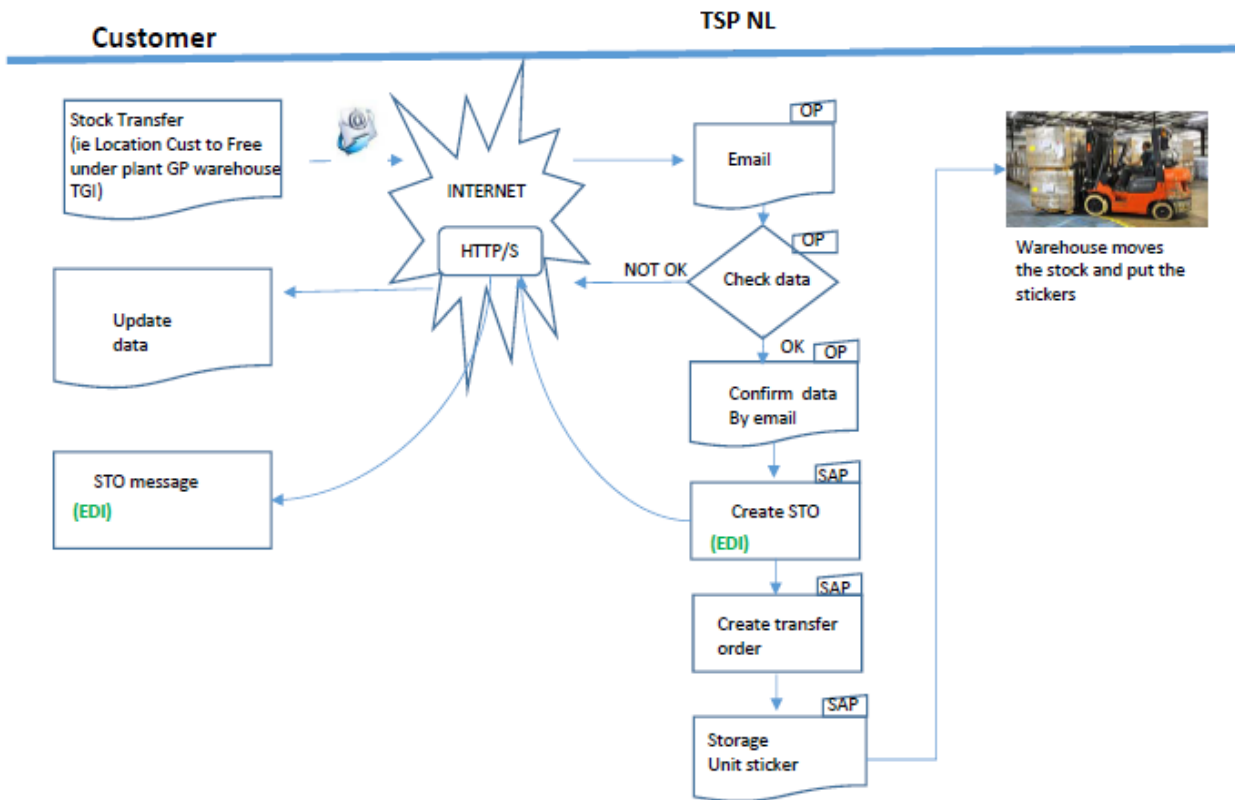


Logistics Flow

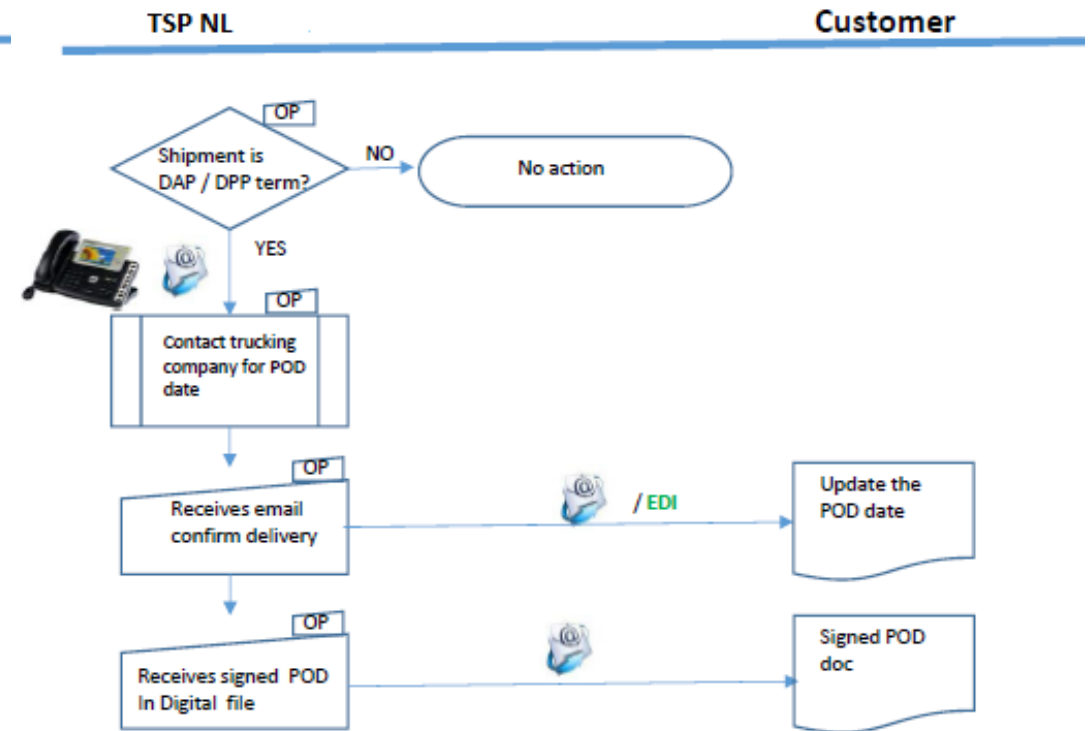


Logistics Flow

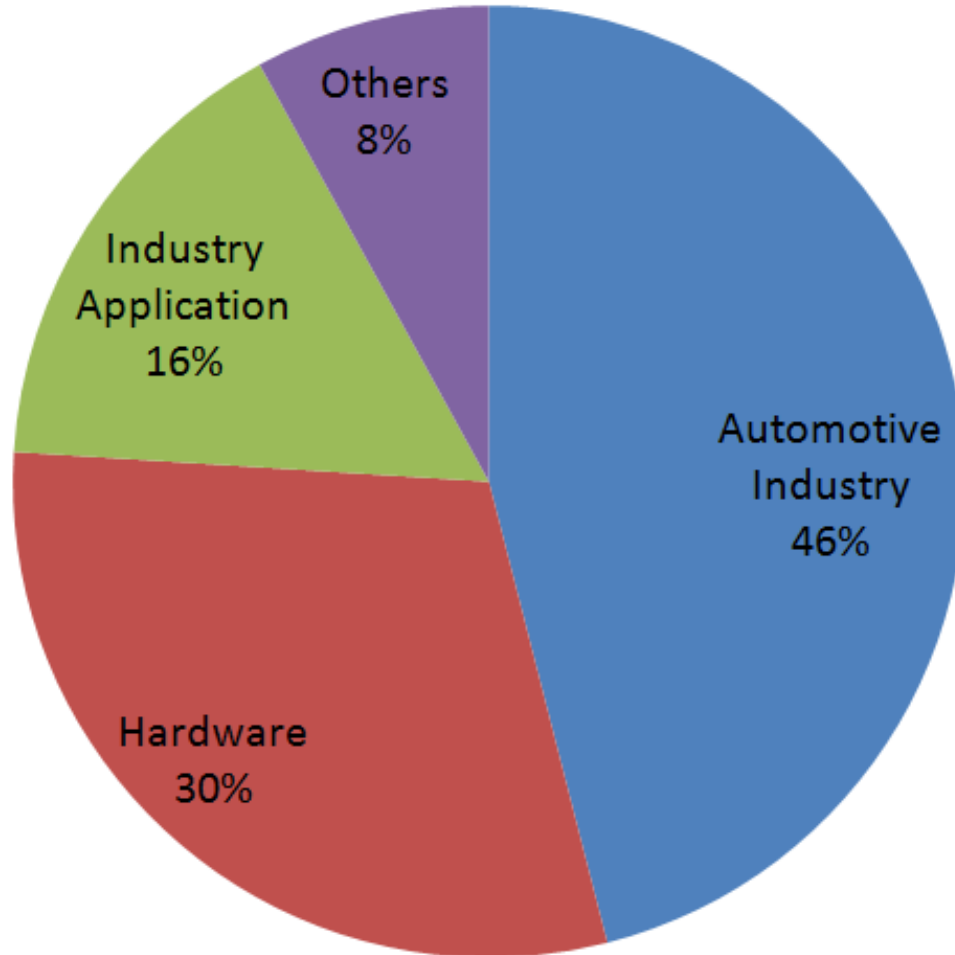
Stock Transfer



POD goods flow



Market Segments



Automotive Industry:	46%
Hardware:	30%
Industry Application:	16%
Others:	8%

TOP 6 Customers

BODE: Sliding Door System for Passenger Cars, Bus and Trains.

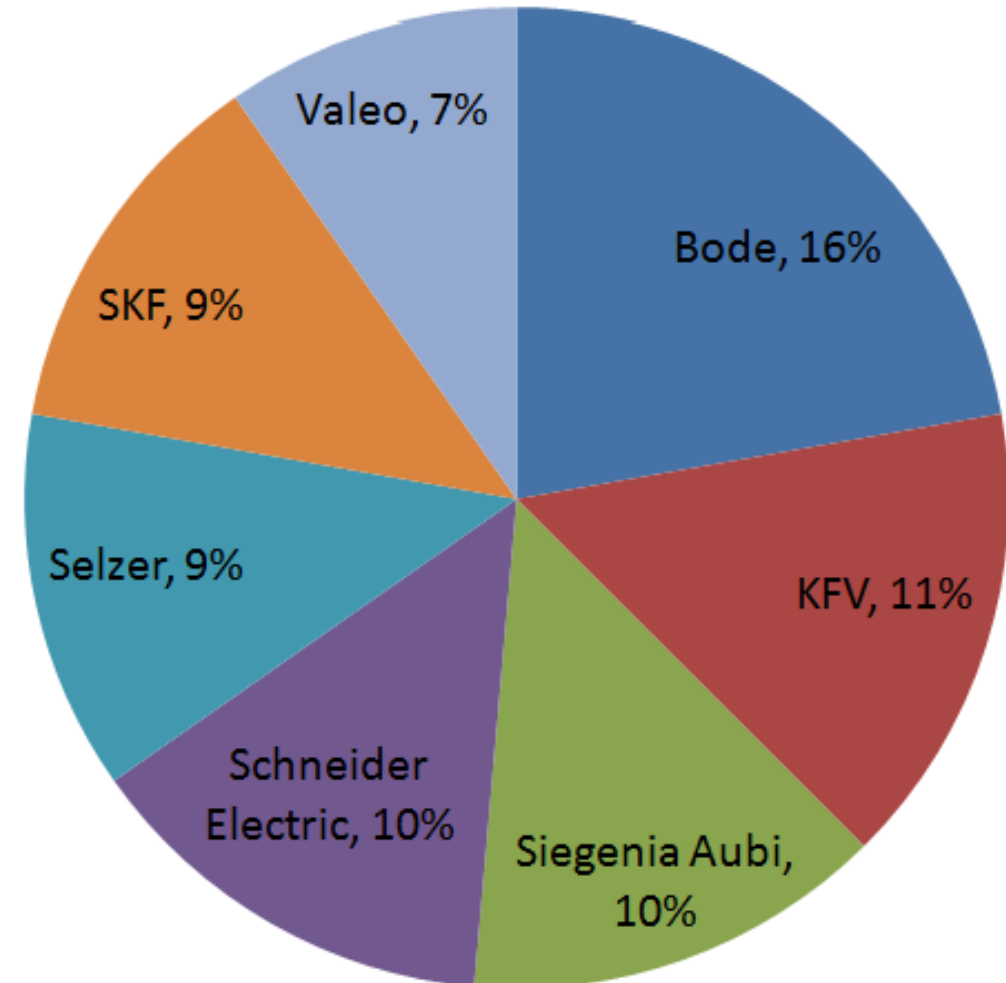
KFV & Siegenia Aubi : Windows & Door System for Household.

Schneider Electric: Micro Motors & Sensors

Selzer: Shifting System for Manual Gearbox in PKW & LKW

SKF: Automotive Components & Bearing

Valeo: EGR System & Engine Management System



Customer Reference



Linde Material Handling



JOHN DEERE



Certifications

Certificate TH18/10833

The management system of

Samco Seiki (Thailand) Co., Ltd.

129/21-22 Moo 3, T.Wangchula, A.Wangnoi,
Ayutthaya 13170, Thailand

has been assessed and certified as meeting the requirements of


ISO 9001:2015

For the following activities




Manufacturing of Precision Turned parts


This certificate is valid from 27 February 2018 until 27 February 2021 and remains valid subject to satisfactory surveillance audits.
Re certification audit due before 9 November 2020
Issue 1. Certified since 27 February 2018

Authorised by



SGS United Kingdom Ltd
Rossmore Business Park, Ellesmere Port, Cheshire, CH85 3EN, UK
t +44 (0)151 350 6666 f +44 (0)151 350 6600 www.sgs.com
HC SGS 9001 2015 0118
Page 1 of 1



This document is issued by the Company subject to its General Conditions of Certification Services accessible at www.sgs.com/terms_and_conditions.htm. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. The authenticity of this document may be verified at <http://www.sgs.com/certified-clients-and-products/certified-client-directory>. Any unauthorised alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Certificate IATF 0292106
Certificate SGS TH18/10832

The management system of

Samco Seiki (Thailand) Co., Ltd.

129/21-22 Moo 3, T.Wangchula, A.Wangnoi,
Ayutthaya 13170, Thailand

has been assessed and certified as meeting the requirements of

IATF 16949:2016

Edition 1

For the following activities

Manufacturing of Precision Turned parts

EXCLUSIONS: 8.3 product Design

3 Year certification is valid from 26 February 2018 until 25 February 2021 and remains valid subject to satisfactory surveillance audits.
Version no.01 Current version updated 26 February 2018

Authorised by



Veto Power Authority

Contracted Office: SGS United Kingdom Ltd, Station Road, Oldbury, B69 4LN, UK.
E-mail: Neil.Hall@sgs.com
SGS IATF 16949 0417
Page 1 of 1

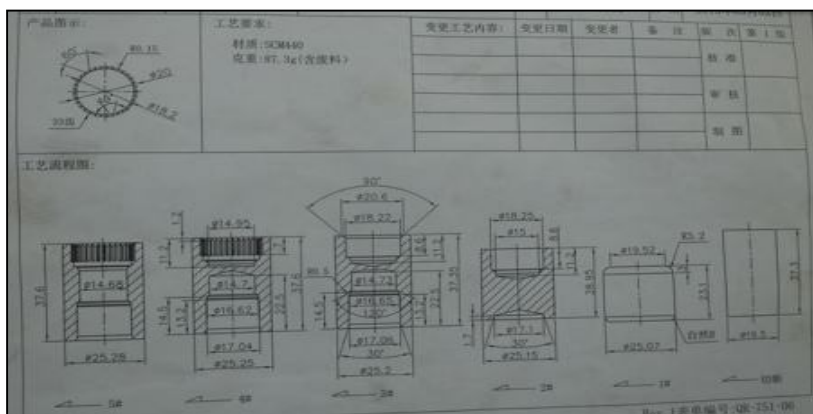





This document is issued by the Company subject to its General Conditions of Certification Services accessible at www.sgs.com/terms_and_conditions.htm. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. The authenticity of this document may be verified at <http://www.sgs.com/certified-clients-and-products/certified-client-directory>. Any unauthorised alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

VA/VE Cold Forging

Design to Result : TSP + Partner



Forging Process Design



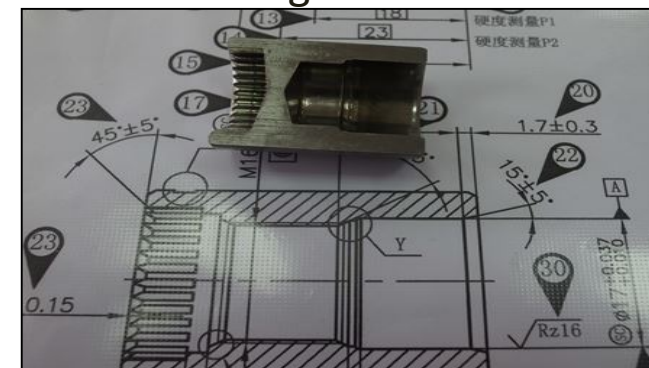
Real Forging Process



Customer Confirmation



Control acc. to Drawing.

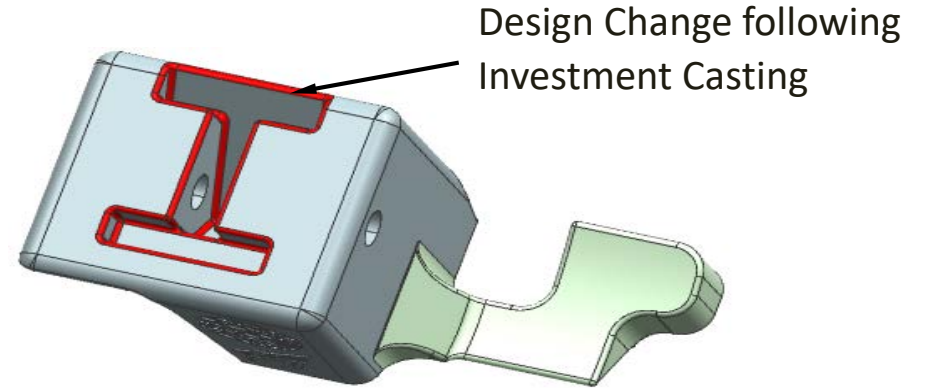


VA/VE Investment Casting

From Concept to Design : Zinc Die Casting to Investment Casting



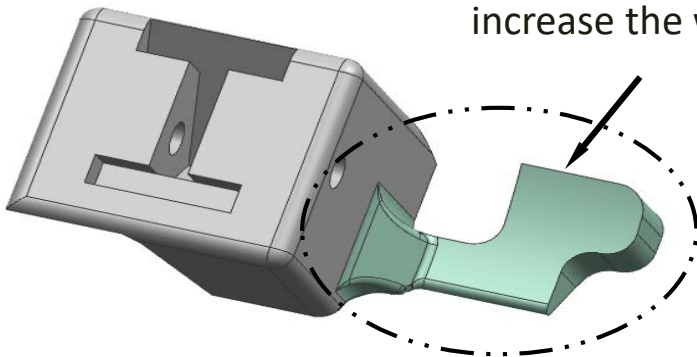
Zinc Die Casting Designed & Produced.



Design Change following Investment Casting



Investment Casting Designed: In order to increase the weight.



Feasibility Study SPPC

SPPC sheet

PIN		101241894		版次		A1		零件名稱		TSP案號		TSP-102173	
生產品次													
No.	特性說明	尺寸	尺寸上差	尺寸下差	製成Cpk	銅殼	銅殼	銅殼	銅殼	銅殼	銅殼	銅殼	銅殼
10	產品	4	H12	4.12	4								
11	產品	5.5	h-1	5.5	5.4								
12	產品	12.5	h-1	12.6	12.5								
15	產品	0.3 A B C	0.3	0		*							
2	產品	4	h-1	4.1	4								
3	產品	15	h-1	15.1	15								
28	產品	8.5	h-1	8.5	8.4								
29	產品	13	h-1	13	12.9								
	製程	鍍加工處理											
	製程	30 - 31 - 34 - 35位製造											

圖外說明

公差物.12對於機械加工公差範圍的尺寸
公差物.01對於機械加工公差範圍的尺寸
公差物.005對於機械加工公差範圍的尺寸
1.C 註明公差，請注意公差是標準的
2.公差尺寸不加工公差物.005，公差
冷卻過程及生熱形，公差物.005

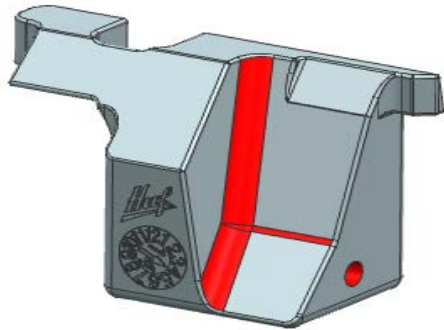
此項尺寸為標準公差，公差尺寸公差範圍
應以公差物.005的公差為準，公差尺寸
對於大尺寸公差物.005的公差為準

公差物.005公差物.005公差物.005，公差物.005
此項公差物.005的公差，公差物.005公差物.005
公差物.005公差物.005公差物.005，公差物.005



VA/VE Investment Casting

Design to Result : TSP + Partner



Final Design for Raw Parts & Machined Parts.



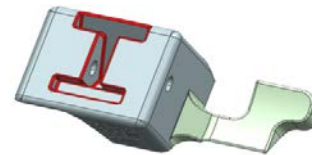
Final Assembly Confirmation



Tool Design



Raw Part & Finished Part



Verified by Inspection Gauge



VA/VE Die Casting

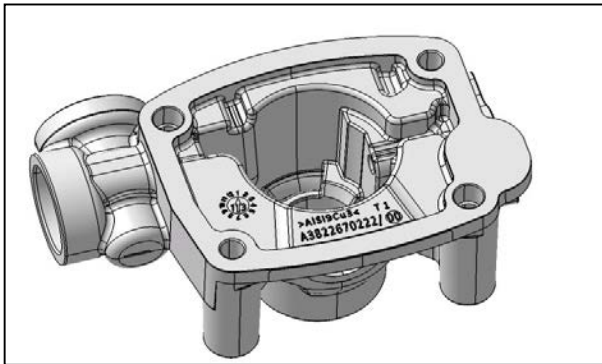
From Concept to Design : Gravity to Die Casting



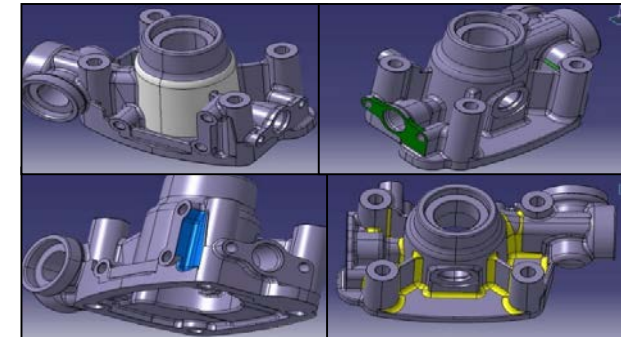
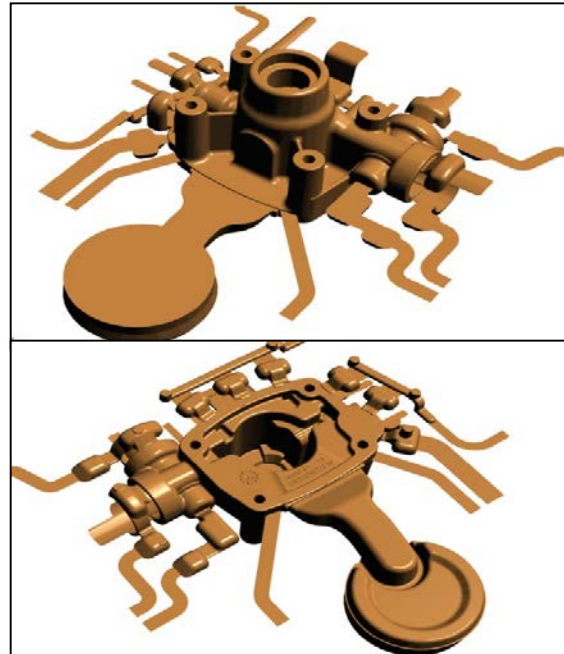
Gravity Casting Designed & Produced.



Design Draft

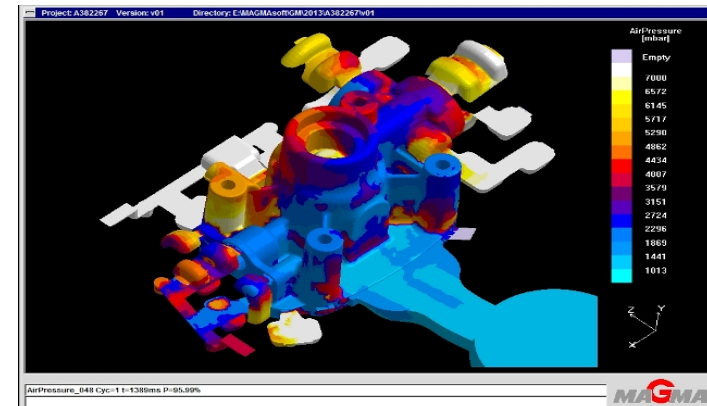


Casting Design



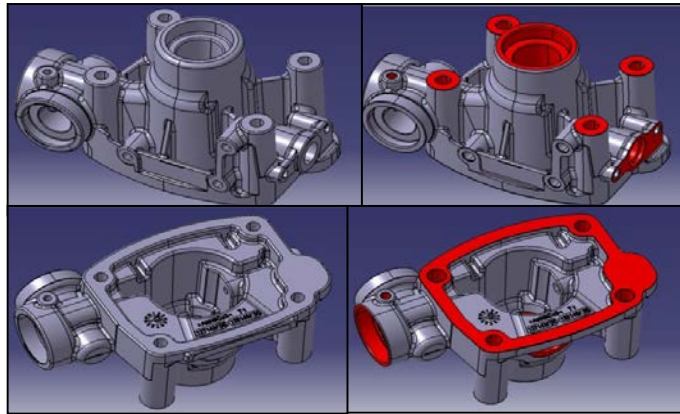
Final Design Turning

Verified by Mold Flow



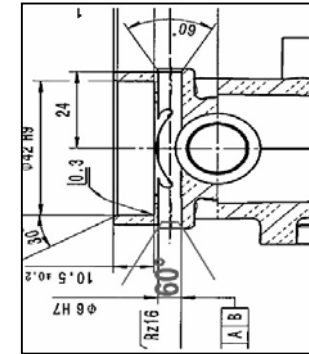
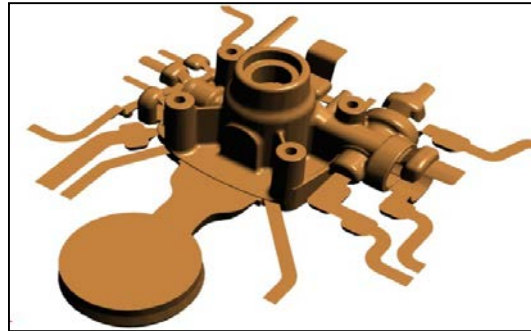
VA/VE Die Casting

Design to Result : TSP + Partner



Final Design for Raw Parts & Machined Parts.

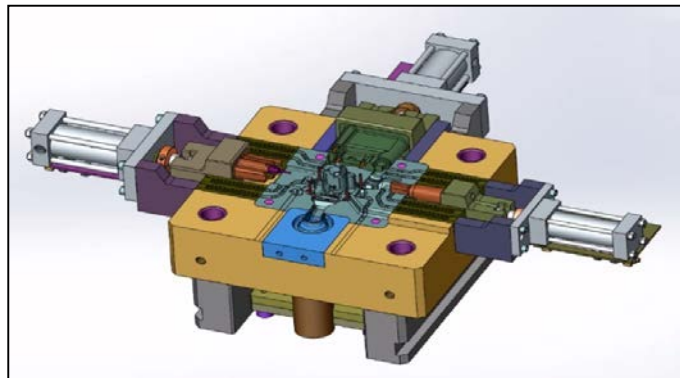
Casting Design



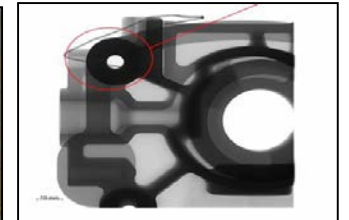
Further Discussion & Exchange for Improvement



Tool Design



Verified by X-Ray & Cut-Off Section Parts.

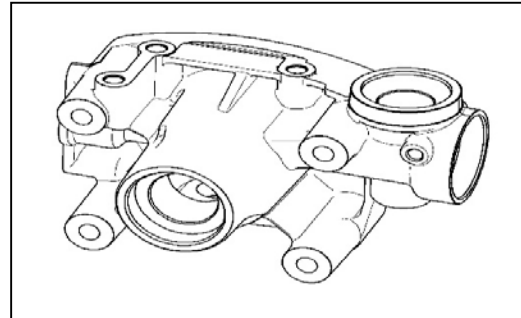
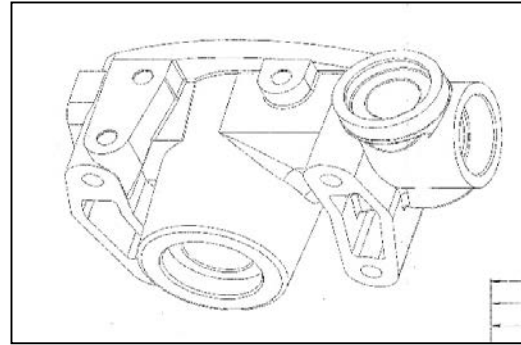


VA/VE Die Casting

Concept to Design to Result : TSP + Partner



1. Weight Saving more than 24%.
2. Cost Saving more than 30%.

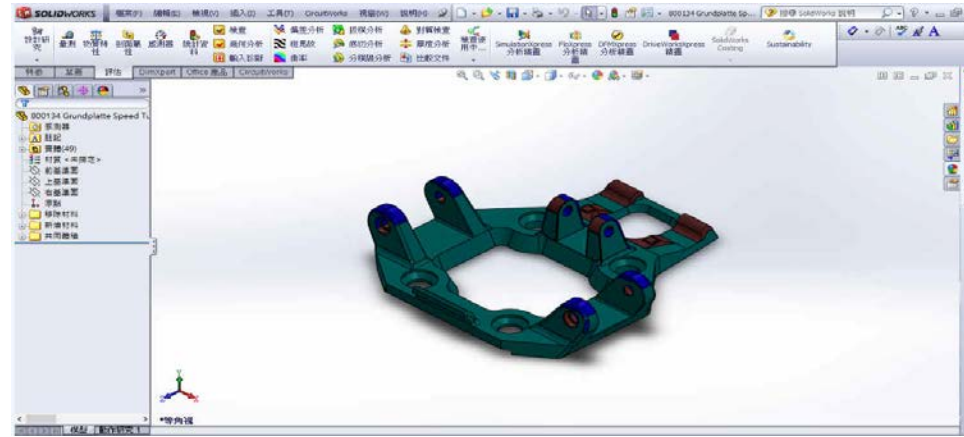


3. Production Lead Time reduced by 3 Weeks.
4. Surface & Dimension Quality are improved.

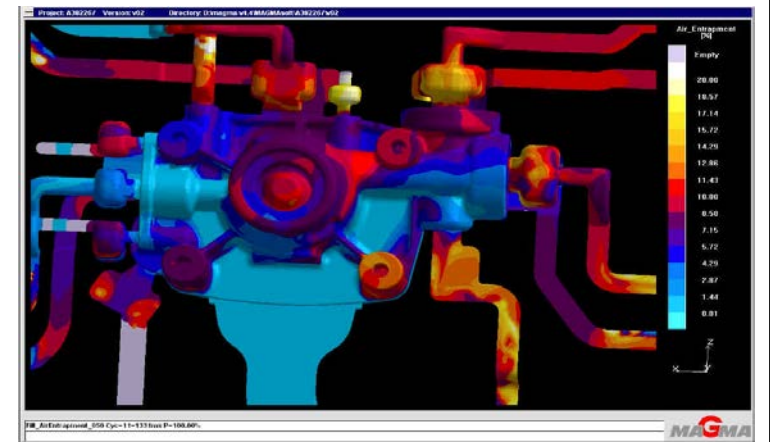
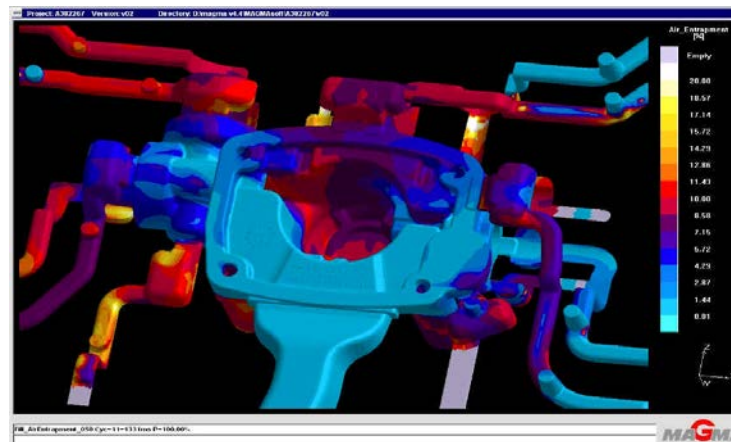


Software System

3D CAD Design Software
SOLIDWORKS



Casting Simulation
Software with MAGMA

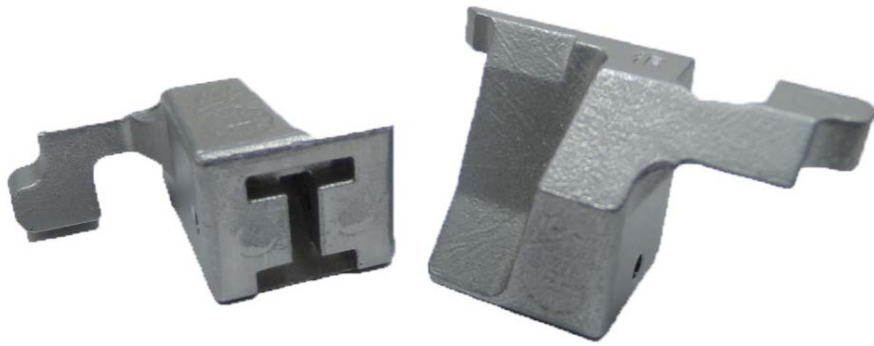


Production Processes

- Investment Casting
- Gravity Casting
- Die Casting
- Precision Forging
- Sintering
- Precision Machining

Investment Casting

Process Technology



-Description / Explanation

Counter Weight
/ Automotive Door Handle Counterweight

-Material

SUS 304

-Yearly Quantity

90,000 PCs

Information

-Production Equipment

- CNC finishing machine
- Shell building machines
- De-waxing machines
- HF industrial casting furnaces
- Post casting shell removal
- Coordinate Measuring Machine(CMM)
- Vertical and horizontal wax injection machines
(Tool molding size, max. 520 x 580 x 600 mm)
- Cutting and blasting machines

-Material in Common Use

Except Ni-Co alloy and Pig iron

Gravity Casting

Process Technology



-Description / Explanation

Shell-Cast and Machined / Automotive Exhaust System

-Material

356-T6

-Yearly Quantity

30,000 PCs

Information

-Production Equipment

Gravity Casting Machine (Turn/Vertical-Type)

(Tool molding size, max. 800 x 600 x 500 mm)

Degas Machine

Sawing Machine,

Sandblasting Machine

Melting Furnace

Air Compressor

Leakage Test Bench

-Material in Common Use

A356 -T6, AC4B

Die Casting

Process Technology



-Description / Explanation

Anschlag / Stop - Automotive Door System

-Material

AlSi9Cu3 / AlSi10Mg

-Yearly Quantity

200,000 PCs

Information

-Production Equipment

Cold & Hot Chamber

Polish Machine

Vertical Hi-Speed Cutting Machine Center

Vertical & Horizontal Machining Center

(Max. 2,500 tons, Min. 150 tons)

Vertical Drilling and Tapping Machine

CNC Horizontal & Vertical Lathes

Trim Press

-Material in Common Use

ADC10, ADC12, AlSi9Cu3

Squeeze Die Casting Process Technology



-Description / Explanation

Cover / Automotive Gearshift System

-Material

AlSi9Cu3

-Yearly Quantity

300,000 PCs

Information

-Production Equipment

Aluminum Die Casting Machine

-Material in Common Use

AlSi9Cu3, AlSi10Mg

Precision Forging

Process Technology



-Description / Explanation

Grundplatte Radical / Base Plate Sled Application System

-Material

Aluminum 7075

-Yearly Quantity

200,000 PCs

Information

-Production Equipment

Vertical Hot-Forging Machine
Vertical Cold-Forging Machine
Heat-Treatment Equipment T6

-Material in Common Use

6082, 7075

Precision Forging

Process Technology



-Description / Explanation

Lock Gear / Window Application System

-Material

10B21

-Yearly Quantity

6,000,000 PCs

Information

-Production Equipment

Horizontal Forging Machine

Honing Machine

CNC Turning Machine

Tapping Machine

Centerless Grinder

Ultrasonic Cleaner

-Material in Common Use

10B21, 6061, SUS302HQ,

Precision Forging

Process Technology



-Description / Explanation

Valve Head / Automotive EGR System

-Material

SUS 304L

-Yearly Quantity

3,000,000 PCs

Information

-Production Equipment

Horizontal Forging Machine

Cutting Machine

Measuring Projector

Oil filled equipment

Vickers-hardness machine

-Material in Common Use

10B21, 6061, SUS302HQ

Precision Machining Process Technology



-Description / Explanation

Throttle shaft / Automotive Exhaust System

-Material

SUS 420F

-Yearly Quantity

400,000 PCs



Information

-Production Equipment

CNC Automatic Lathe
Index-machine
Centerless Grinder
Automatic Deburring and Cleaning
Knurling Machine

-Material in Common Use

SUS303Cu, SUS304L, SUS430F

Your Qualified Partner

TSP Samco Precision Co., Ltd.

Taipei Office

10F., No.316, Zhongzheng Rd., Xinzhuang Dist.,
New Taipei City 242, Taiwan (R.O.C.)

TSP Samco Precision Co., Ltd.

Chia Yi Office

No. 21-7 Huotanpu, Sioulin Village,
62147 Minsyong, Chiayi County, Taiwan R.O.C.

TSP Samco Precision Co., Ltd.

Ayutthaya, Thailand

TSP Samco Germany GmbH

Römersberg 9
D-65329 Hohenstein

TSP Samco South Europe

63 rue de Gergovie F-75014 PARIS

TSP Samco USA office

48478 Cardinal St. Shelby Twp., Michigan, USA