

#### Welcome

We are a dynamic, high-performance company specializing in manufacturing top-quality contact elements, compounds, and assemblies for customers in the electronics, communications, and appliance industries.







### **Patterer Group**

Mr. Hans Patterer founded the firm of Patterer GmbH on 19.01.1991 with its registered office at 87669 Rieden, Germany. He simultaneously took over the management and in the meantime can look back on 40 years of professional experience as a manager in both the technical and also the commercial field.

Patterer GmbH engages in the production of electrical and electronic components including tool design and construction. In addition, precision contact parts are produced according to customer-specific requirements. All the operating equipment and tools needed for production – particularly high capacity punching dies – are made in house. The latest technology in the production area has provided Patterer GmbH with a loyal clientele and thus secure jobs up to now.

To fulfill the increasing needs of the customers in Southeast Asia Region Mr. Patterer has decided to establish an affiliated company in Thailand, namely Patterer Technical Parts Co., Ltd. (PTP) on 10.02.2006 with its registered office at 7/238 Moo 6, T. Mapyangporn, A. Pluakdaeng, Rayong 21140. Patterer Technical Parts Co., Ltd. engages in the manufacturing of precision parts for electronics and electric as well as automotive industries.

Our Group is characterized by flexibility, most advanced equipment as well as qualified employees, which assure a perfect guaranty for the conversion of the demand specifications. This ranges from the provision of tools and operating materials to the series production.

www.patterer-thailand.com info@patterer-thailand.com

#### Management

Chairman of the Group: Mrs. Anna Patterer

Managing Directors: Mr. Markus Egger (Patterer GmbH)

Mr. Lim Hock Chuan

(Patterer Technical Parts Co., Ltd.)



### Patterer Group (Cont.)

#### Services:

- Planning, construction and development of stamping, bending and follow-on composite tools
- Tool construction for stamping, bending and follow-on composite tools
- Production of precision stamping, bending, in-die tapping, in-die riveting and in-die welding
- Production and assembly of composite plastic parts (manually and fully automatically)
- Aid for our customers through construction phase for hand sample, soft tool and construction phase for tool series for the test of pilot series

#### **Machineries and Equipment:**

#### PATTERER TECHNICAL PARTS CO., LTD.: PATTERER GMBH

- "Charmilles" Wire Eroding Machine
- "Charmilles" EDM Machine
- "Agie" Super Drill Machine
- "Okamoto" Surface Grinding ACC-450V "Okamoto" Surface Grinding ACC-350II
- "Okamoto" Precision Surface Grinding 63ST
- "Yamada Dobby" NXT-80XL "Yamada Dobby" NXT-50XL
- "Bruderer" High Speed Blanking Press BSTA-80HL
- "Bruderer" High Speed Blanking Press BSTA-50HL (2 Units)
- "Bruderer" High Speed Blanking Press BSTA-40HL
- "Bruderer" High Speed Blanking Press BSTA-25HL
- "Bruderer" High Speed Blanking Press BSTA-25
- "Bihler" Multi-slide Forming Machine RM30E
- "Bihler" Multi-slide Forming Machine RM30 (2 Units)
- "Bihler" Multi-slide Forming Machine RM35 (2 Units)
- "Arburg" 370U 500-170 Injection Moulding
- "Teca Print" TPE 150 Pad Printing
- "Axxel" Fully Automatic Hydrocarbon Vacuum Cleaning
- "ACTFIVE" Machine Model IIDS-L221-E

- "Agie" Wire Eroding Machine (2 Units)
- "Agie" Vertical Spark Eroding Machine
- "Agema" Starting Hole Drilling Machine
- "DMC" CNC milling m/c DMC 815
- "Jung" Surface Grinding Machine (4 Units)
- "Weiler" Turning Machine
- "Bihler" GRM 80
- "Bihler" MC 42 (5 Units)
- "Bihler" RM 35
- "Bihler" RM 40
- "Patterer" UMP (4 Units)
- "Buch" (2 Units)
- "Bruderer" 20to -> 110to (6 Units)
- "UP10" (2 Units)
- "Arburg" All Rounder 370U 270S (2 Units)



### Patterer Group (Cont.)

#### **MAIN PRODUCTS:**

Precision Parts for the electronics, communications, and appliance industries.

#### **MATERIALS USED:**

#### **BRASS STRIP:**

C2600, C2680, CuZn37, CuZn15, CuZn36 Tin plated, CuZn5 Tin plated

#### **PHOSPHOR BRONZE STRIP:**

C5210, C5191, CuSn6, CuSn8, CuSn6 Hot Dip Tinned

#### STAINLESS STEEL STRIP:

1.4310, SUS-301, SUS-304, SUS-430

#### **ANODIZED ALUMINIUM STRIP:**

Miro-2 (4200 GP), Miro-2 Silver (4270 AG), Miro-4 (4400 GP), Sumitomo A370-H18

#### STEEL STRIP:

C35, C60, SPCC, SPCD, DC03-pre copper plated, Nicor NT3D DC01

#### **SPECIAL STRIP:**

STOL194, M400-50A, Imphy-Bimetal AS, CuNi2Be, Ni 99,2

#### **CONTACT WELDING AND RIVETING:**

AgNi90/10, AgNi85/15, Ag rivets, AgCu rivet

#### **PLASTIC RESIN:**

PBT, LCP, PA







## **Factory Size**

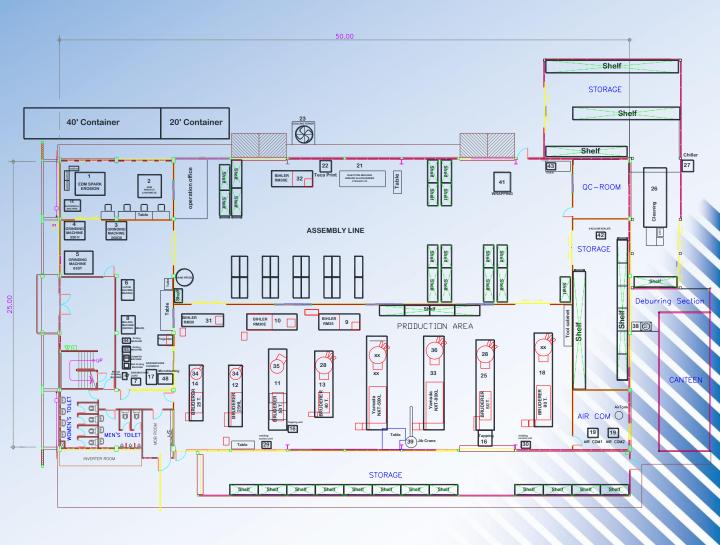
Land area : 3,795 sq.m. Usable area: 1,610 sq.m.







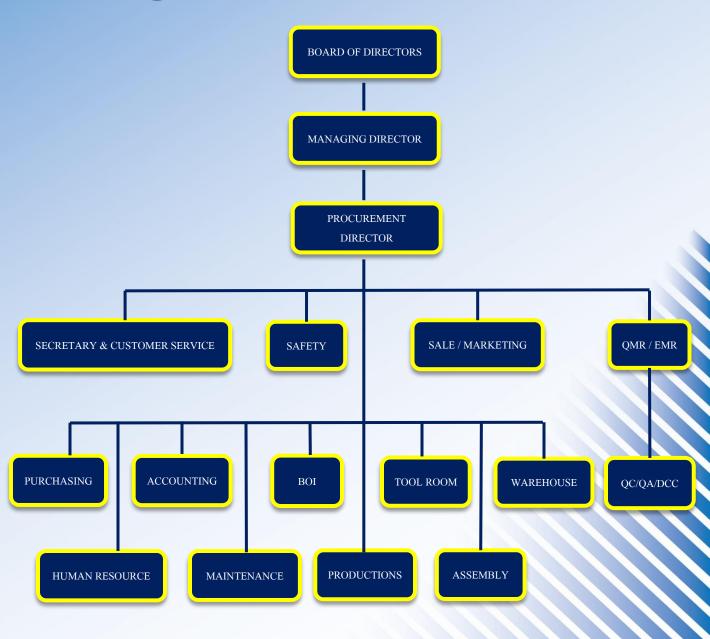
## **Plant Layout**







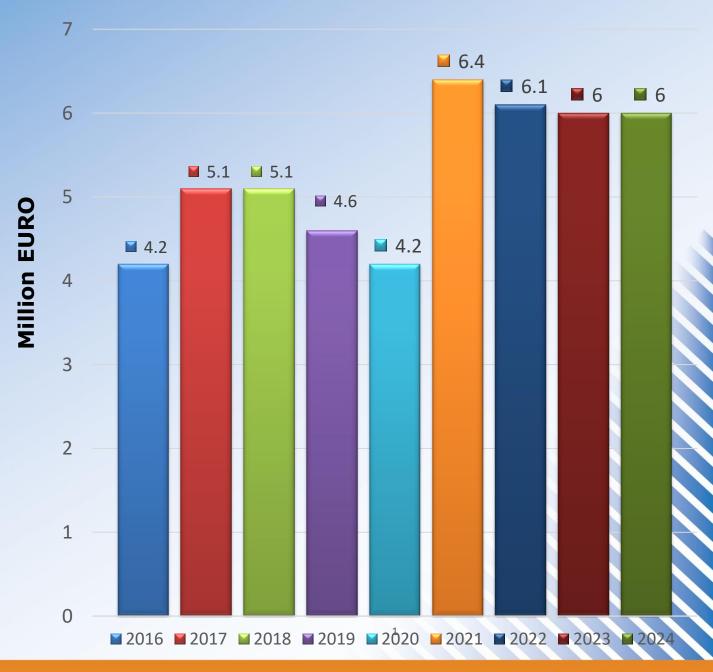
### **Organization chart PTP**







### **Turnover of Patterer Thailand**





#### **Our Customers**



















www.patterer-thailand.com info@patterer-thailand.com

#### **Our Address**

Amata City Industrial Estate 7/238 Moo 6, T. Mapyangporn, A. Pluakdaeng, Rayong 21140

Tel: +66 (0) 38 650 480-2 Fax: +66 (0) 38 650 484

Tax ID. No: 0105549020172





## **Technology**

- ✓ 2D and 3D Design
- √ Tool room Department
- ✓ Stamping Department
  - Welding Technology
  - Riveting Technology
  - Tapping Technology
- ✓ Moulding Department
- ✓ Assembling Department
- ✓ Part Degreasing



### 2D and 3D Design



Our experienced development team has extensive specialized knowledge and consulting expertise. Supported by the latest CAD/CAM systems, we construct customer-specific stamping, bending, and assembly tools, as well as fully autonomous production lines using both 2D and 3D systems. This allows us to efficiently produce plastic, metal, and composite products.



#### **Tool Room**



With an extensive range of the most up-to-date machineries and sophisticated equipment we manufacture high precision progressive dies and multi-forming tools.

Our tooling is engineered and built to provide top quality components, meets demanding tolerances, and is constructed of tool grade steel for repeatable performance and longevity.

In-house capabilities allow us to control every aspect of the tool build including fabrication and maintenance to ensure quality for the lifetime of the tool.

GF Agie Charmilles Wire Cut Machine Model FI 240 ccS GF Agie Charmilles EDM Model SP1 Agie Superdrill Machine Model Agiedrill Okamoto Surface Grinding Machine Model PFG-350DX Okamoto Surface Grinding Machine Model ACC 450V Okamoto Precision Surface Grinding Machine Model 63ST Deckel Maho Milling Machine Model FPI-2102 Le-Bond Makino Lathe Machine





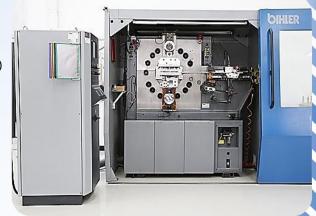
#### **Production - Stamping Department**



From quantities of 20,000 to millions, the high-speed presses and multi-slide machines at Patterer Technical Parts Co., Ltd. Thailand are ready to produce precision metal stampings of any shape out of virtually any raw material.

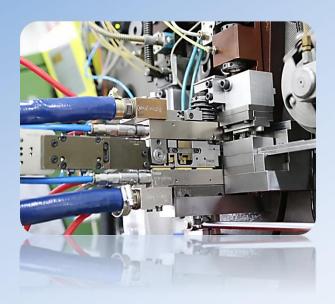
We offer complete manufacturing solutions with integrated contact welding processes, In-Die Tapping or In-Die riveting Modules for progressive dies or Bihler Multi-Forming Machines.

Bruderer High Speed Blanking Press Model BSTA-80HL Bruderer High Speed Blanking Press Model BSTA-50HL (2x) Bruderer High Speed Blanking Press Model BSTA-40 Bruderer High Speed Blanking Press Model BSTA-25HL Bruderer High Speed Blanking Press Model BSTA-25 Bihler Multi-Forming Machine Model RM 30E Bihler Multi-Forming Machine Model RM 30 (2x) Bihler Multi-Forming Machine Model RM 35 (2x) Yamada Dobby NXT-80XL Yamada Dobby NXT-50XL





### **Production - Welding Technology**



Patterer Technical Parts Co., Ltd. offers complete manufacturing solutions with integrated welding processes for progressive dies and Bihler Multi-Forming Machines.

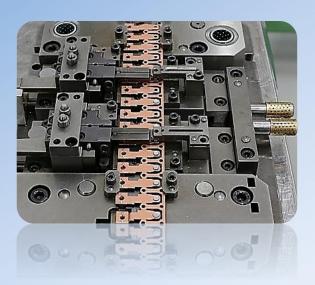
Intelligent welding controls used in conjunction with highly-flexible peripherals for greatest process safety and maximum productivity ensure that these every changing demands are met.



F1=TIME F2=CINNEMT F3=LIMIT WALKS /5-MINI

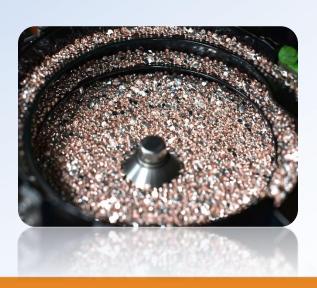


### **Production - Riveting Technology**



Patterer Technical Parts Co., Ltd. developed a complete new concept for In-die riveting! Our tool design combine the stamping/bending module and one riveting module, in any progressive die. With our break through concept we are able to assembly up to 300 rivets per minute!

#### **High-Speed Riveting**







### **Production - Tapping Technology**



Patterer Technical Parts Co., Ltd. using Pronic & Intercom tapping units for all in-die tapping demands. With a production speed of up to 120 RPM, complete production lines are possible, in conjunction with in-die welding or riveting!

#### **Intercom Servo Tapping Unit SL.2005.1**







#### **Production - Injection Moulding Department**



We produce the required plasticcompound parts on our own Arburg Arburg 370U 500-170 injection moulding machine.

The used plastics resin for the automotive and electrical industry are e.g. PBT, LCP and PA

SELOGICA control system (modular, graphic multi-processor system). Swiveling monitor unit located close to the mold. Interface for printer with documentation program for quality evaluation. Quality assurance program with fault evaluation and monitoring chart are the highlights of this machine!





### **Production - Assembling Department**



Patterer Technical Parts Co. Ltd. produces high quality stamping parts, contact elements, compound and assembly parts for customers in the electronics, automobile, communication and appliance industries.

Our Assembly Line is committed to excellence. We provide quality products and services that meet or exceed both the initial and continuing needs and expectations of our customers.



### **Production - Degreasing Department**



Environmental Friendly Industrial Cleaning System with all-in-one system.

High cleaning performance by ultrasonic along with vacuum technology and low running cost by built-in recycle unit.

#### **Automatic Hydrocarbon Part Washing Machine from Axxel**





### **Products**



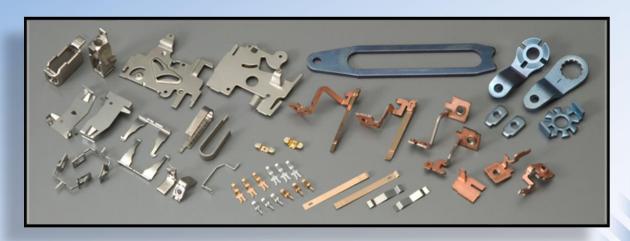
- ✓ Electronic
- ✓ Electrical
- ✓ IDC Contact
- √ Hardware





### **Product Assortments (Cont.)**

Electronic Parts / In-Die Welding / In-Die Tapping / In-Die Riveting Parts



**Power Socket PCE** 





#### **Product Assortments (Cont.)**

**SLIO I/O System / Connector Parts** 



**IDC Connectors** 







### **Product Assortments (Cont.)**

**Miscellaneous Stamping Parts** 





## **Quality Management**

We are certified according to ISO 9001:2015

The quality management is practiced uniformly in accordance with the standards of DIN ISO 9001.

Quality control with Mitutoyo computer assisted profile projector, Keyence IM 6125 , Keyence LM 1100 measurement system, Dual Microscope, measuring microscope, product specific measurement fixture. Testing and control of process capability.





## To Exceed Customers Expectations Through:

- \* Quality Precision Products
- \* On Time Delivery
- \* Excellent Customer Service





## **Quality Management (Cont.)**

#### **Quality Policy**

WE FOCUS AND ENHANCE ON THE VALUE OF CUSTOMER SATISFACTION BY COMMITTING TO SUPPLY:

- GOOD QUALITY PRODUCTS
- •ON TIME DELIVERY
- SATISFACTORY CUSTOMER SERVICE

OUR MANAGEMENT HAS COMMITTED THAT QUALITY MANAGEMENT SYSTEM BASED ON THE REQUIREMENT OF ISO 9001:2015 IS ENSURED AND COMPLIED WITH AND ALSO COMMITED TO ALL REQUIREMENTS SET BY CUSTOMERS AS WELL AS APPLICABLE LEGAL REGULATIONS AND INSTITUTIONAL CODES.

THUS QUALITY, RELIABILITY AND SUITABILITY OF OUR PRODUCTS AND SERVICES ARE THE RESPOSIBILITY OF ALL EMPLOYEES WITH CONTINUALLY IMPROVEMENT PHILOSOPHY.

Mr. Lim Hock Chuan



## **Quality Management (Cont.)**

## นโยบายคุณภาพ

ความพึงพอใจของลูกค้าเป็นสิ่งสำคัญ ซึ่งบริษัทฯ ให้ ความสนใจและมุ่งมั่นปรับปรุงให้ดียิ่งขึ้นตลอดเวลา เพื่อให้ลูกค้ามีความมั่นใจใน

- ผลิตภัณฑ์ที่มีคุณภาพ
- •การจัดส่งที่ตรงเวลา
- การบริการที่ลูกค้าพึงพอใจ

ฝ่ายบริหารของบริษัทฯ ขอให้คำมั่นสัญญาว่า ระบบ การบริหารจัดการคุณภาพบนพื้นฐานของข้อกำหนด ISO 9001:2015 นั้น ได้รับการดำเนินการและปฏิบัติ ตามข้อกำหนดที่ลูกค้าต้องการ รวมทั้งตามกฎระเบียบ และข้อบังคับที่เกี่ยวกับกฎหมายและที่ชอบด้วย กฎหมาย ที่ใช้บังคับอยู่ทุกประการ ดังนั้น คุณภาพ ความเชื่อถือได้ และความเหมาะสม ของสินค้าและบริการของบริษัทฯ จึงเป็นหน้าที่ความ รับผิดชอบของพนักงานทุกคนที่มีความมุ่งมั่นปรับปรุง ให้ดียิ่งขึ้นอย่างต่อเนื่องตลอดไป





## **Quality Management System**

#### ISO 9001:2015 Certification







## **Environmental Management System**

ISO 14001:2015 Certification







## **Company Location**





### **PTP Team**



We thank you for your kind support!