



# INTEGRATED ENGINEERING SOLUTIONS

Overmolding & In Mold Assembly  
Plastic Injection Molding  
Progressive Die Stamping  
Custom Automation  
Rapid Prototyping  
Part Assembly  
Bespoke Automation



**IATF**  
16949:2016

**ISO**  
14001:2015

**ISO**  
14064-1

**ISO**  
45001:2018

  
GREEN FACTORY



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# WHY LAYANA?



## Overmolding & Insert Molding

Layana specializes in micro to medium-large **metal insert injection molded parts**. Backed by a strong R&D team and robust supply chain, Layana assesses manufacturability and complexity using advanced composite materials.

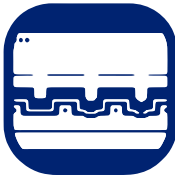
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## Plastic Injection Molding

Layana delivers a **full-service solution** covering material selection, mold flow analysis, manufacturability assessment, mold assembly, production, and quality inspection, all aligned with IATF 16949 standards.

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## Progressive Die Stamping

With over **40 years of in-house experience**, Layana excels in combining metals with dissimilar materials, streamlining complex processes, and reducing communication needs across multiple suppliers.

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## Custom Assembly

Layana integrates **post-processing operations**, including functional testing, soldering, and packaging, to shorten lead times, boost efficiency, and maintain IATF 16949 quality standards.

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## Bespoke Automation

Layana designs custom **fully automated production lines**, automated packaging, and quality inspection systems, enabling "lights-out manufacturing," ensuring operator safety, and adding significant value to client projects.

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# INDUSTRY APPLICATIONS

## Automotive



## Power & Electronics



## Medical



## Consumer Goods



# OVERMOLDING & INSERT MOLDING & IN MOLD ASSEMBLY



Item / Type : **Vertical Injection Machines**

Tonnage Range : **From 35T to 250T**

Maximum Product Size : **23.6 x 15.7 x 6 inches or 600 x 400 x 150mm**  
(thickness depending on the product)

Maximum Product Weight : **0.1g~1000g**

Precision : **Mold  $\pm 0.005\text{mm}$  | Product  $\pm 0.03\sim 0.05\text{mm}$**

# PLASTIC INJECTION



## Product Materials

• ABS • PP • PBT • PC • PA Nylon • PEEK • PPS • TPU • TPE • POM • PPA • SPS • PC+ABS



Item / Type : **Horizontal Injection Machines**

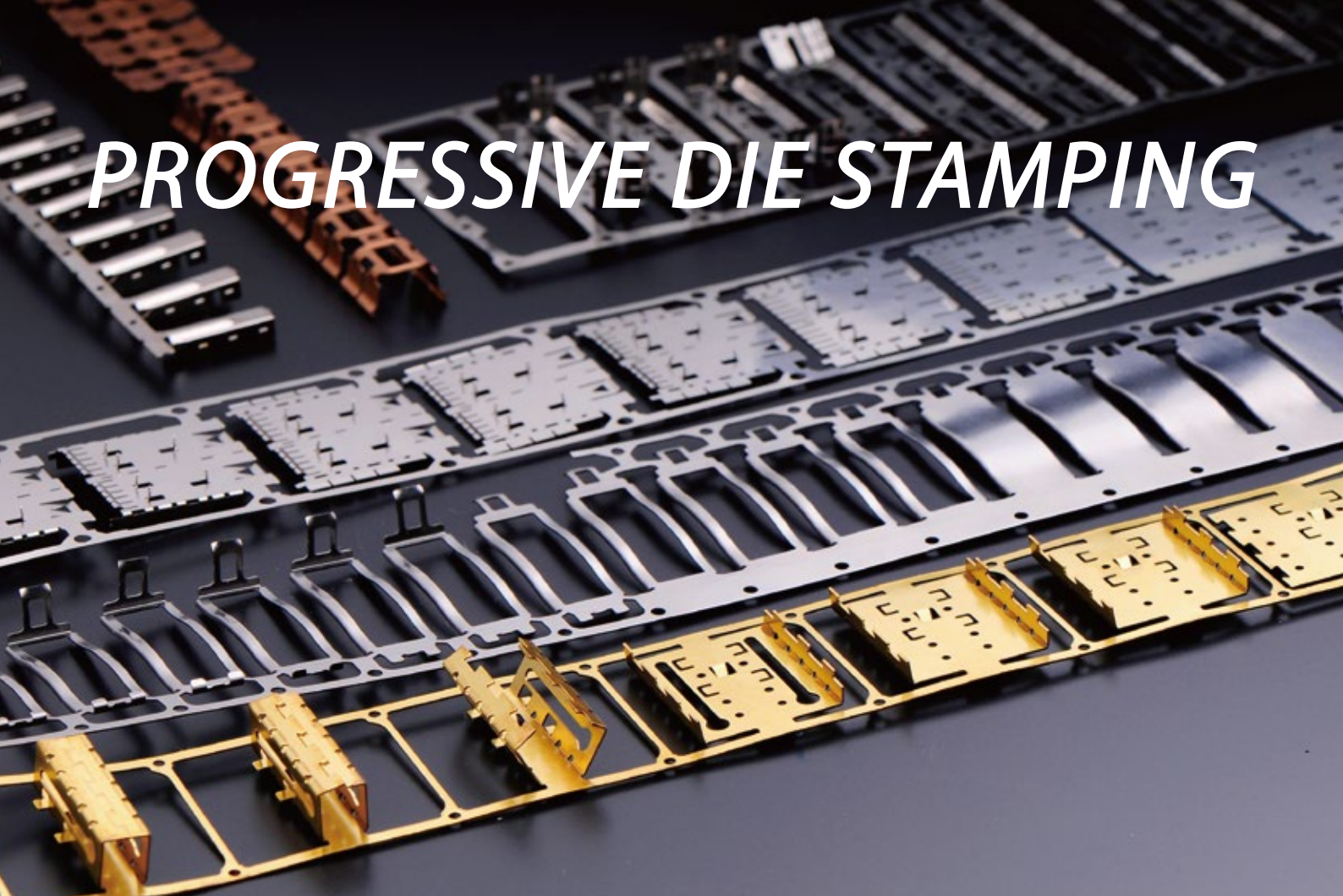
Tonnage Range : **From 60T to 300T**

Maximum Product Size : **23.6 x 15.7 x 6 inches or 600 x 400 x 150mm**  
(thickness depending on the product)

Maximum Product Weight : **0.1g~1000g**

Precision : **Mold  $\pm 0.005\text{mm}$  | Product  $\pm 0.03\sim 0.05\text{mm}$**

# PROGRESSIVE DIE STAMPING



- Custom Metal Stamping • Micro Stamping • Fine Blanking
- Deep Drawing • Progressive Dies • Transfer Dies

Category	Range
Tooling maximum size	Up to 2,500mm*1,000mm*550mm
Tooling maximum size	Up to 1,200kg
Material thickness range	0.02mm~6mm
Tolerance range	Up to $\pm 0.01$ mm
Productivity/month	10 sets of dies
Deep drawing ratio	1 : 3
Stamping Machinery	25~300 Tons



# ***CUSTOM METAL STAMPING***

Custom metal stamping is a complex metal forming technology that requires a dedicated stamping press machine and tooling. The process of custom metal stamping consists of applying pressure on different types and different specifications of metal (steel coil or sheet materials) and, through the machine punching, producing different shapes (and often very complex) parts or products in the cold material processing process.



## Product Materials

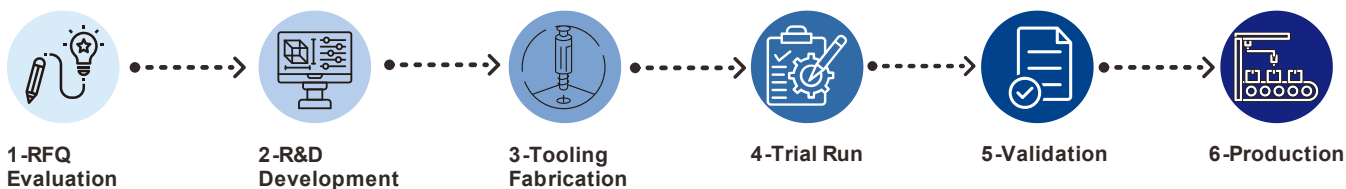
- Brass • Copper • Aluminum • Mild Steel • Nickel Sliver • Stainless Steel
- Phosphor Bronze • Beryllium Copper • Galvanized Bronze • SPCC • SPHC • SPHE



# IN-HOUSE TOOLING SHOP

## PRODUCT DEVELOPMENT PROCESS

From Design To Mass Production



Layana's core team of toolmakers—backed by 40 years of expertise—carries out tooling development in-house, from simple dies to advanced progressive dies.

# PROJECT-BASED PROTOTYPING

- Metal Prototyping • Soft Tooling • 3D Prototyping • CNC Machining
- Laser Cutting • Wire EDM • Surface Treatment



During product development, Layana accelerates small-batch prototyping for design validation, prototype testing, environmental testing, and extensive functional testing to verify compatibility with target market and product applications. Rapid testing, optimization, and improvement of new concepts confirm mass-production feasibility.

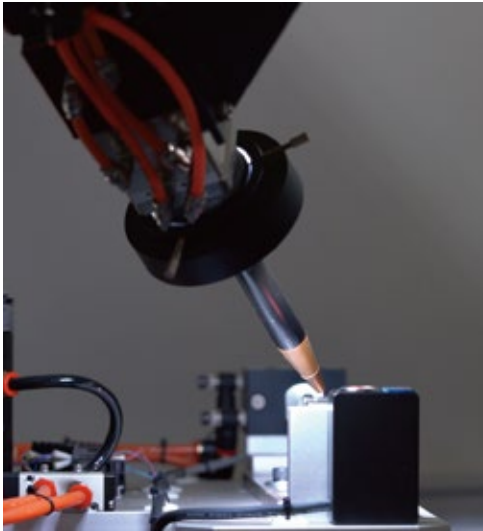
**Plastic Prototyping:** 3D printing, silicone molds, soft tool; lead time  $\approx$  2 weeks (depending on the complexity of the product).



**Metal Prototyping:** Wire EDM, laser cutting, bending, spin forming, simple molds, single-operation molds, laser welding, riveting; lead time  $\approx$  1–2 weeks (depending on the complexity of the product).

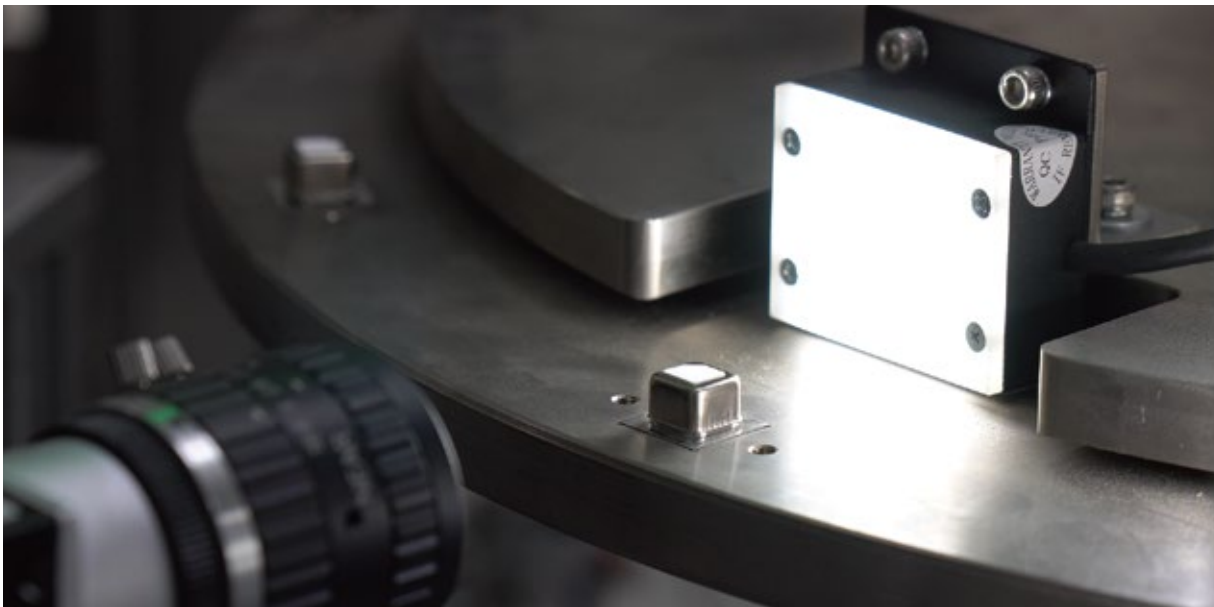
# BESPOKE AUTOMATION

- Automated Material Handling • Laser Welding • Epoxy Potting • Automated Polishing
- CCD Inspection • Automatic Punching & Film Pasting • T&R Packaging



## **Fully Automated Production**

Layana focuses on continuous process optimization, replacing manual laser and hand polishing with robotic arms and customized automated equipment in its proprietary product. Non-standard automation can greatly save labor costs, and increase daily production capacity.



## **Custom Automation (Semi-automation) Production**

Products are processed through a series of integrated automation steps including vibratory bowl sorting, punching mechanisms, precise feeding mechanisms, film application mechanisms, AOI Automated Optical Inspection System and PLC Programmable Logic Controller for signal interaction, achieving consistent automated production from feeding, film application to packaging.

# CUSTOM ASSEMBLY



- Mechanical Fastening • Welding (laser, capacitor, TIG) • Soldering
- Custom Fixtures & Tooling Solutions • Tailored Inspection Solutions
- SPC & FMEA Quality Control



## FULL AUTOMATION SCALABILITY

Production Adapts as Real Demand Changes



**FULLY AUTOMATED ASSEMBLY LINES**

**SEMI-AUTOMATED ASSEMBLY LINES**

**MANUAL ASSEMBLY LINES**

# QUALITY ASSURANCE



Our quality policy is based on the requirements of IATF 16949:2016, we define clear quality objectives for each department and implements standard operating procedures, continually improving and enforcing its quality management system to achieve the goal of sustainable corporate development.

## Equipment List

Zeiss Coordinate Measuring Machine (CMM)	CCD Auto detector
Atmos Q 8M 3D Scanner with GOM ScanCobot	Chroma Hipot tester, Model 19053
Hitachi X-ray Fluorescence Analyzer	Hioki Resistance Meter, Model:RM3544-01
Keyence Image Dimension Measuring system	Metallography Equipment
Micro-Vu Video Measuring System	Moisture balance Testing Equipment
Tomas 2.5D Video Inspection System	Precision Microscopes
Tension & Compress Testing Equipment (from 20kgf to 500kgf)	Vickers hardness Testing Equipment
Rockwell hardness Testing Equipment	Torque Checking Equipment
Salt Spray Testing Equipment	Electronic Balance Testing Equipment



# OUR HISTORY

2025 ISO 45001 Certified

2024 ISO 14064-1 Certified

2022 Obtained Green Factory & Cleaner Production, and renewed IATF 16949:2016

2019 ISO 50001 Certified & Green Building Certified

2018 The Second Factory Expansion in Taiwan, and IATF 16949:2016 Certified

2016 ISO 14001 Certified

2005 ISO/TS 16949:2002 Certified

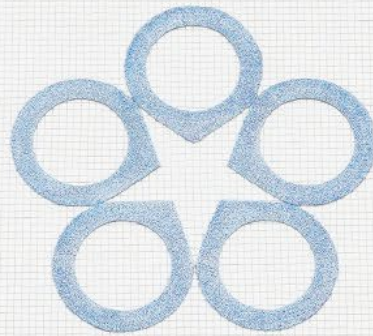
2001 ISO/QS9000:2018 Enterprise Certified

1998 ISO 9001 Certified

1996 ISO 9002 Certified

1990 The First Expansion in Taiwan

1982 Tooling Design Company Established

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