



INTEGRATED ENGINEERING SOLUTIONS

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



IATF
16949:2016

ISO
14001:2015

ISO
14064-1

ISO
45001:2018


GREEN FACTORY



INDEX

- 04 WHY LAYANA
- 05 INDUSTRY APPLICATIONS
- 06 OVERMOLDING & IN-MOLD ASSEMBLY
- 07 PLASTIC INJECTION MOLDING
- 08 PROGRESSIVE DIE STAMPING
- 09 CUSTOM METAL STAMPING
- 10 IN-HOUSE TOOLING WORKSHOP
- 11 PRE-PRODUCTION PROTOTYPING
- 12 BESPOKE AUTOMATION
- 13 CUSTOM ASSEMBLY
- 14 QUALITY ASSURANCE
- 15 OUR HISTORY



WHY LAYANA?



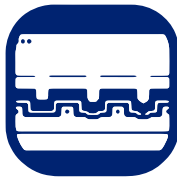
Overmolding & Insert Molding

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.



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.



Progressive Die Stamping

With **over 40 years of in-house tooling design**, research & development for high-volume contact manufacturing. We are world-leading OEMs and Tier 1 company, exceling in progressive die and transfer die manufacturing, including fine blanking, deep drawing and microstamping techniques.



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.



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.

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

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



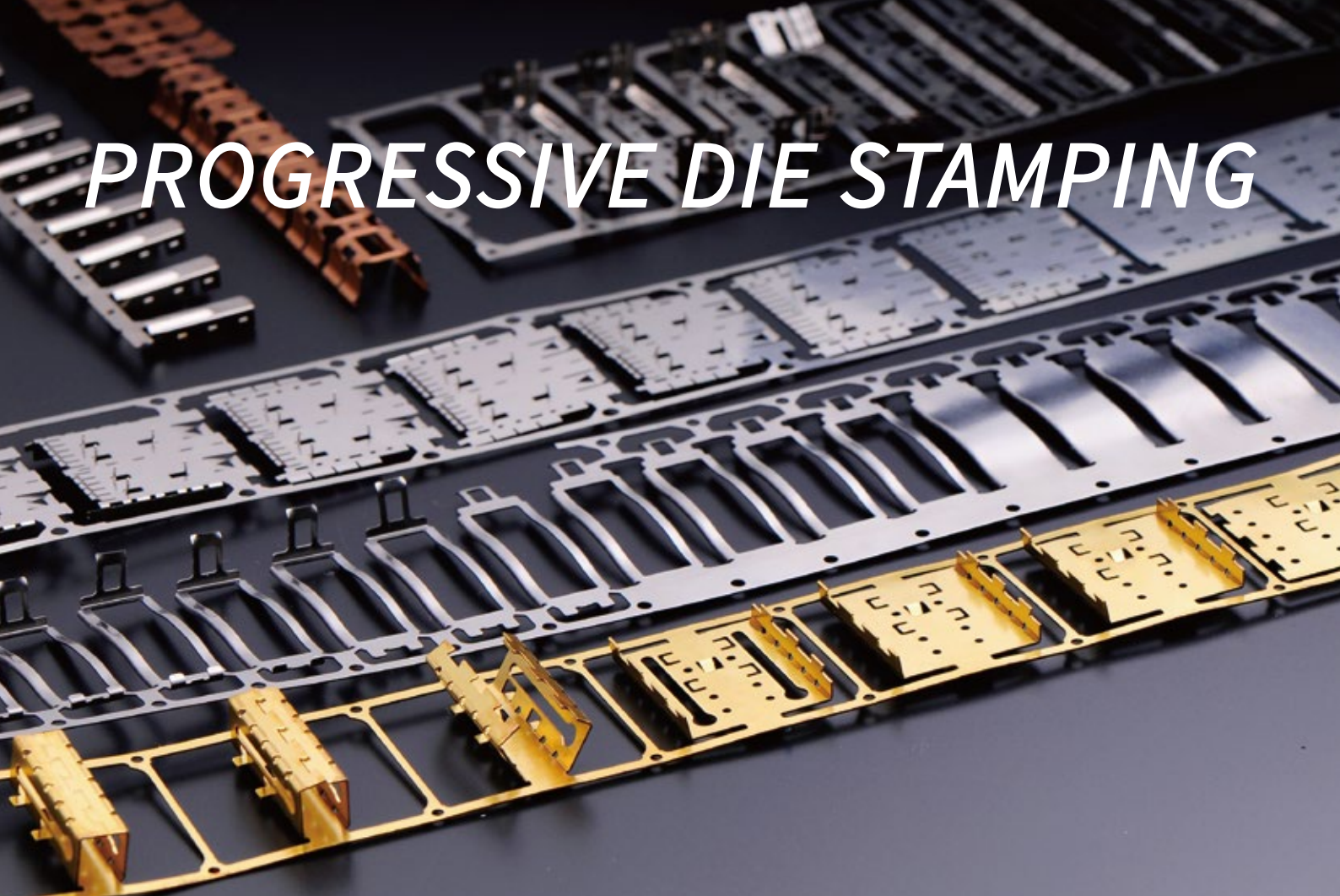
Item / Type : **Horizontal Injection Machines**

Tonnage Range : **From 60T to 200T**

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

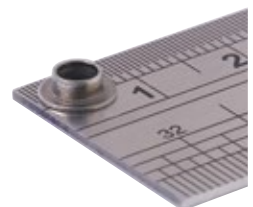
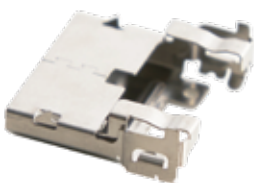
Category	Range
Tooling maximum size	Up to 2,500mm*1,000mm*550mm
Tooling maximum weight	Up to 1,200kg
Material thickness range	0.02mm~6mm
Tolerance range	Up to ± 0.01 mm
Productivity/month	10 sets of dies
Deep drawing ratio	1 : 3
Stamping machinery	25~300 Tons



CUSTOM METAL STAMPING

Layana combines advanced mechanical engineering tooling and hybrid metal-plastic manufacturing to deliver complex, tight-tolerance components with consistency and efficiency. Our capabilities encompass progressive die and transfer die stamping, fine blanking, deep drawing, microstamping, advanced stamping, automation, and a proven mastery of copper alloys, stainless steel, carbon steel, aluminum, titanium, and other specialized metals.

With rigorous process control, quality systems, and full support for plating, surface treatments, and post-processing, we minimize lead times and reduce the supply chain complexity to ensure stable production.



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

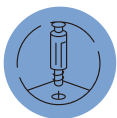
From Design To Mass Production



1-RFQ
Evaluation



2-R&D
Development



3-Tooling
Fabrication



4-Trial Run



5-Validation



6-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.

PRE-PRODUCTION PROTOTYPING

At the pre-production stage, choosing the right prototyping method is key to reducing development risk and avoiding costly revisions.

Metal Prototyping • Soft Tooling • 3D Prototyping • CNC Machining
Laser Cutting • Wire EDM • Surface Treatment • Metal etching • Silicon Molds



For products requiring functional validation, soft tooling enables prototypes that closely replicate final production parts—supporting early verification of assembly, material compatibility, and manufacturability while minimizing risks before mass production.

Typical lead time: 4–7 weeks, depending on product complexity and mold specifications.

Layana evaluates each project based on material selection, design complexity, and precision requirements to recommend the most effective prototyping approach—before tooling investment begins.



Multiple metal fabrication methods—including etching, laser cutting, bending, and CNC machining—are combined to produce functional prototypes without tooling.

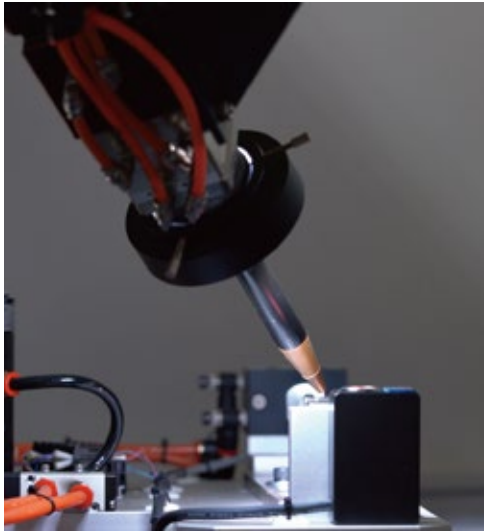
This flexible approach allows rapid validation of both design and functionality, significantly shortening development cycles.

Typical lead time: 1–2 weeks, depending on product complexity.

By validating both form and function early, Layana helps minimize development risk and ensures a smooth transition to mass production.

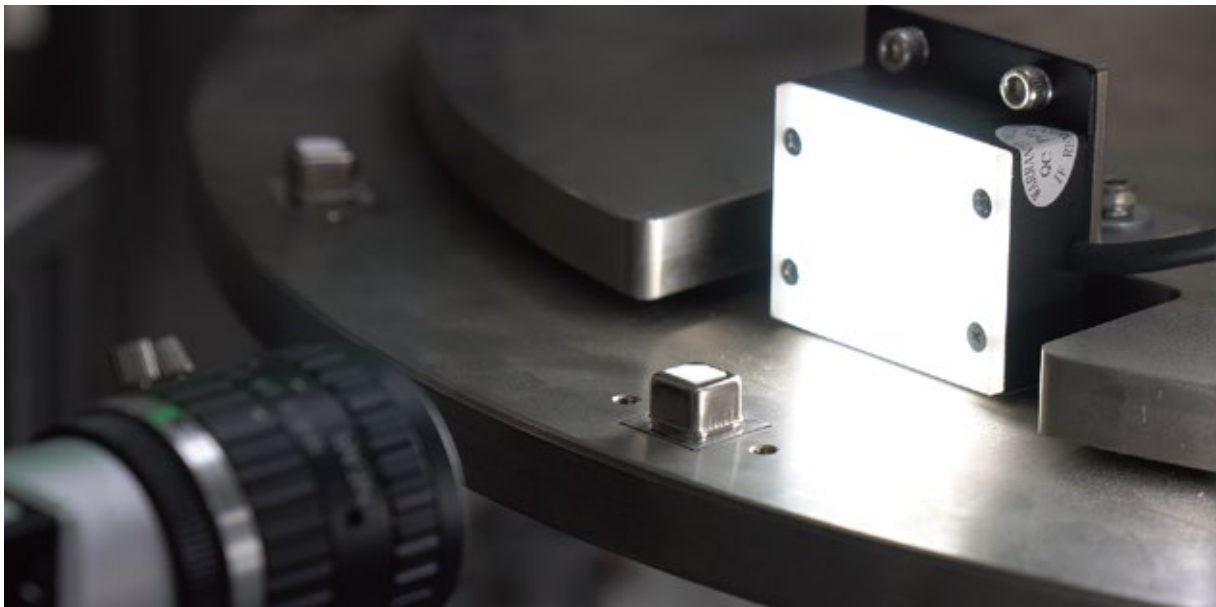
BESPOKE AUTOMATION

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. Non-standard automation can greatly save labor costs and increase daily production capacity.



Scable 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, Automated Optical Inspection System and 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
Atos Q 8M 3D Scanner with GOM ScanCobot	Chroma Hipot Tester
Hitachi X-ray Fluorescence Analyzer	Hioki Resistance Meter
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

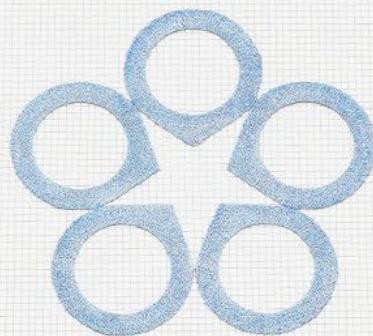
2001 ISO/QS9000:2018 Enterprise Certified

1998 ISO 9001 Certified

1996 ISO 9002 Certified

1990 The First Expansion in Taiwan

1982 Tooling Design Company Established

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