



DYNAMIC
TOOL CORPORATION
ISO 9001:2015 Certified

HIGH PRODUCTIVITY INJECTION MOLDS

Effective and efficient engineering, design, and development solutions for optimized production of plastic components



Engineering & Design for Manufacturing (DFM)

Comprehensive Process Simulation

Mold Building - with In-line Quality Inspection

Scientific Sampling and Process Qualification

Turnkey Manufacturing Systems

Prototype - Bridge - Production Molds

Team: 110+

- Toolmakers
- Designers / Programmers
- Mechanical / Electrical / Process Engineers
- Program Managers
- Apprentices / Interns

Facilities:

- 50,000+ square feet – Tooling Center
24 Hour Lights-out Manufacturing
- 120,000+ square feet – Development Center
Turnkey Cell Development
Metrology Lab



Machining Processes / In-line Metrology

Automated Hard Steel Cutting Cell

- 7 Machine Centers
- Robotically integrated CMM

Automated Sinker EDM Cell

- 5 Machine Centers
- Robotically integrated CMM

Automated Graphite Cutting Cell

- 4 Machine Centers
- Robotically integrated CMM

6 Wire EDM Centers (2 CNC hole-poppers)

6 Hurco VMXi Machine Centers

3D Print / Additive Manufacturing

CNC Lathes / Grinders / Jig-Grinders

Horizontal CNC Boring Mill

Prototype - Bridge - Production Molds

Optimized Production Molds -
from 1 to 256+ Cavities

Multishot / Multiple Material

- Core Back / Toggle
- Robotic Transfer
- Indexing / Rotary Stripper Plate
- Rotary Turntable
- Horizontal Rotary Stack (90° or 180°)
- Rotary Spindle System

Auto Unscrewing

In-Mold Close

Collapsible Core

Insert

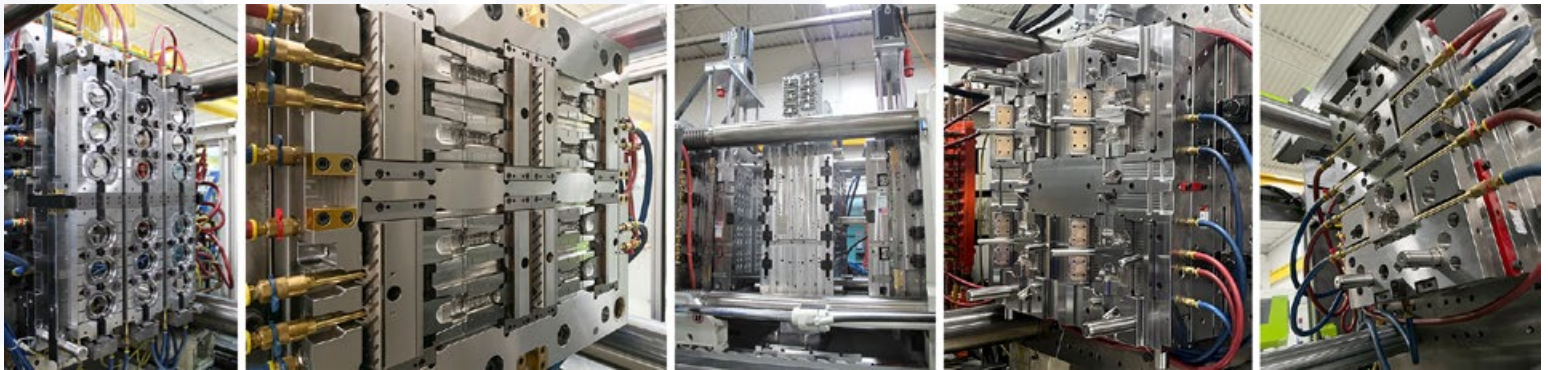
IMD / IML

Stack Molds

Thin Wall

High Complexity

Tight Tolerance



Scientific Sampling and Qualification

Every mold is given a comprehensive performance evaluation: mechanics, plumbing, plastics delivery, and ejection system

- 10 injection molding machines
- 22T – 900T dedicated to development
- Linear robotic part handling
- All multishot capable

Dynamic embraces Scientific Molding Principles as a proven method to yield the most repeatable processes for most applications, exploring key attributes:

- Mold Balance
- Velocity Curve
- Short Shot Study
- DOE – Design of Experiments
- Pack and Hold
- Window Study



Initial production runs available to suit customer launch plans

Process Development and Metrology Services

Transducer Process Monitoring

- Assist during mold qualification to determine process stability
- Confirm impact of process changes during DOE phase
- Aids when transferring molding parameters to the production facility
- In-nozzle, in-manifold, indirect, and direct sensing options

Quality / Metrology Lab

- FAI and Capability Studies
- Fixtures and Fixture design
- CMM, Vision, and Manual Inspection
- Structured Blue Light Scanning
- Aligned with CT Scanning Resources



Mold Refurbishment Services

Dedicated Production Mold Services Team

- Project manager, toolmaker, designer, process engineer, metrologist / quality engineer

Equipment and Technology Resources

- Ability to accommodate large molds / high cavitation / multiple inserts
- Reverse Engineering Services for cases when accurate data is not available or no data is available
- Quality Lab with Structured Blue Light Scanning, CMM, Vision, and Manual Inspection capabilities
- Complete scope of machining processes - including hard-cutting / wire & sinker EDM / 3D metal print
- Vast experience with medical tooling - (areas of lubrication, medical / food grade lubricants)
- Manifold testing, inspection, and preventive maintenance
- Thermocouple / wiring supplies in stock
- Close relationships with leading coating service suppliers

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