

LIMITLESS POSSIBILITIES



EXPERIENCE THE DIFFERENCE

MPI is the worldwide leader in wax-room and ceramic core equipment and the acknowledged leader in wax-room innovations. MPI has developed and introduced more systems and products than all its competitors combined and offers wax-room solutions that can't be found anywhere else.

WAX INJECTORS

MPI's wax and ceramic injection machines are the most sophisticated in the industry and generate higher casting yields, more patterns per hour, reduced scrap, and increased productivity. They're also the most reliable in the industry, which means higher system availability, lower maintenance costs, and better performance.

AUTOMATION

MPI is at the forefront of automation, having automated some of the most complex processes in the investment casting industry for well over a decade. MPI's automated injection and assembly cells provide the capability to make and assemble wax patterns from the simplest commercial parts to complex patterns required by the medical and aerospace industries, including single crystal turbine blades. MPI can automate a single process or implement full-scale automation for your facility.



SA55-25-24
C-Frame Wax Injector



SA20-06-06
Automated Pattern Injection Cell

MPI TECHNOLOGY CENTER

MPI is at its best when it can innovate. MPI prides itself at being able to look at problems and then customize solutions that help clients achieve their goals. The MPI Technology Center is a state-of-the-art wax room that allows MPI to do just that. Located at MPI's world headquarters in New York, the Technology Center is a hub of innovation, ingenuity, and problem solving. Customers and suppliers visit this sophisticated facility to discover new ways to solve their unique wax-room challenges and to experience a totally automated facility in full operation.

MPI EXCELS

Most important, return on investment (ROI) is where MPI excels. MPI supports its customers' bottom line with creative, customized products and services that fit their evolving needs. Through collaboration, we innovate, design, build, and integrate solutions that deliver measurable results.

MPI = ROI



C-FRAME CERAMIC INJECTOR

MPI 56

The MPI 56 Semi-Automatic C-Frame Ceramic Injector is engineered specifically for operation with thick viscosity, abrasive mixtures used to produce ceramic cores, ceramic parts, and MIM (metal injection molding) patterns. The MPI 56 features easy maintenance and fast material changeover. Precise temperature control prevents binder separation and a unique injection valve system reduces wear.

The MPI 56 is available with clamping force of 25, 38, 50, or 100 tons. An impressive list of standard features and a wide range of options are available. Our engineering support staff is prepared to help determine the configuration that will meet your needs and optimize your throughput.

MPI 56 Series

C-Frame Ceramic Injector

The MPI 56 features:

- Injection capacity: 10.6, 200, 323 cu in (.17, 3.2, 5.3 liter)
- Horizontal parting line injection
- 2-Axis nozzle positioner
- Ceramic reservoir
- Smart Controls
- Easy Maintenance
- Operator Interface Terminal
- 3 Injection Modes
- Accurate 6-zone ceramic temperature control
- Sliding spool transfer valve
- Hardened injection components
- CE conformity

Optional Features:

- Platen Temperature Control
- QuickChange Die Clamping
- Pattern Ejection

Process Control

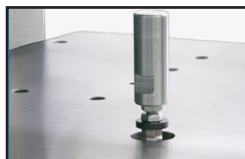
All MPI machines are equipped with **Smart System Process** Controls that provide state-of-the-art process control utilizing user-friendly Windows-based injection control software that features an intuitive touch-screen display. Our Smart System consistently monitors and controls all variables in real time against your pre-established baselines for injection temperature, injection flow, injection pressure, injection time and viscosity, resulting in patterns that are consistent and of the highest quality. This technology eliminates the possibility of accidentally making an out-of-tolerance wax pattern.



Features & Options:

HYDRAULIC PATTERN EJECTION

Controlled pattern removal from the lower stationary platen.



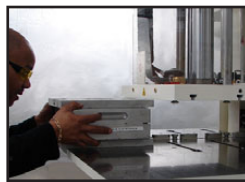
TEE SLOTS

T slots on each platen provide full coverage die clamping and eliminate stripped threads.



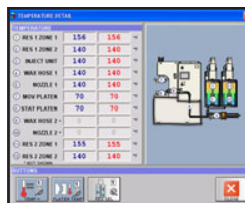
QUICK CHANGE DIE CLAMPING

Rapid hydraulic clamping of the die to the platens with nozzle to die alignment provides one minute die mounting.



TWO PLATEN HEATING/COOLING

This option provides superior die temperature control in production and allows for temperature changes above and below room temperature during die changeover.

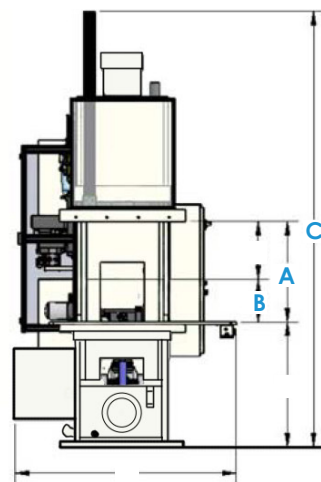


CERAMIC RESERVOIR

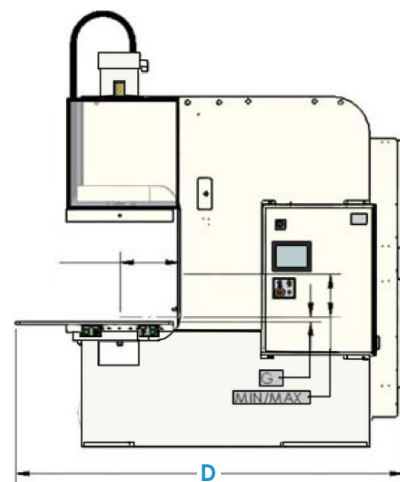
Easy removal of the mixer motor assembly for reservoir clean out and mix changeover.

INJECTION CYLINDER PISTON

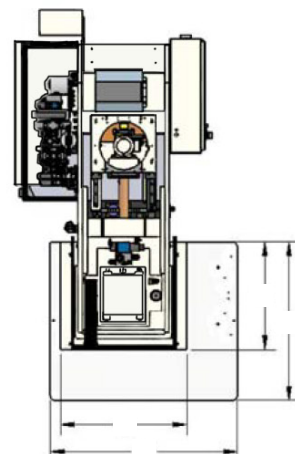
The unique design allows easy seal replacement with no tools required. In maintenance mode, the face of the injection piston descends below the cylinder wall. A tee slot allows for quick removal. A new seal can then be installed and the piston quickly repositioned into the cylinder.



SIDE VIEW



FRONT VIEW



TOP VIEW

MODEL	56-25-24 US (60 HZ)	56-38-27 US (60 HZ)	56-50-27 US (60 HZ)	56-100-32 US (60 HZ)	56-100-38 US (60 HZ)
Clamp Force	25 ton	38 ton	50 ton	100 ton	100 ton
A. Daylight Maximum	24 in	27 in		32 in	38 in
B. Daylight Minimum	4 in	6 in		4 in	
C. Overall Height	101 in	104 in		124 in	132 in
D. Overall Width	86 in	81 in		115 in	
Ceramic Reservoir Capacity	8 gallon		20 gallon		
Single Shot Capacity	10.6 cu. in		200 cu. in		
Injection Pressure	50-2,000 psi		50-1183 psi		
Injection Rate	0-9.6 cu in/sec		0-15 cu in/sec		
Injection Time			0-999 second		
Electric Standard			460V, 60Hz, 3ph		
Air Requirements			90 psi		
Machine Weight	6,250 lb	9,000 lb	9,200 lb	26,000 lb	

Notes: Shuttle work table work area reduced when supplied with platen guarding. Optional equipment may alter the machines overall dimensions, weight, and power requirements. The daylight described herein is a nominal dimension. The actual daylight for your machine may be up to 3/8"(9.5mm) less than this dimension. Contact MPI sales department for additional information. We reserve the right to change specifications without notice.

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