



C-FRAME WAX INJECTOR

MPI 55

The MPI 55 series injector is an incredibly versatile machine. It is ideal for all types of applications from commercial medical and aerospace to thinned walled patterns, cored patterns and everything in between. The MPI 55 series is the most popular model... for good reason.

MPI's unique C-Frame design is the most ergonomically friendly system of its kind, offering the operator easy, unobstructed access to the work area while delivering the uniform die clamping capabilities you need.

MPI 55 Series

Semi Automatic Wax Injector

Some of the MPI 55 features

- MPI's Rigid C-Frame
- One or two Wax-Conditioning Reservoirs with 5-Zone, Temperature-Controlled Injection System
- Shuttle Tables, Single or Dual
- Programmable Nozzle Positioning Option
- Platen Heating and Cooling Options

MPI's Wax-Conditioning Reservoir

Accurately conditions wax to optimum viscosity, providing consistent results from pattern to pattern regardless of the source-wax temperature. We achieve highly controlled injection results through precise temperature management utilizing our Flex-noz® Injection Nozzle... an industry best.

Process Control

MPI 55 machines, models SA and SM, are equipped with Smart Controls™, our state-of-the-art process control technology that utilizes user-friendly, Windows-based, injection-control software and intuitive touch-screen display. MPI Smart Systems™ consistently monitor and control all variables in real time against your pre-established baselines for wax temperature, wax flow, wax pressure and injection time, 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. No one else even comes close. Best of all, MPI's remote-access technology allows the MPI service department to troubleshoot, diagnose, update or provide new features remotely — anywhere, anytime.

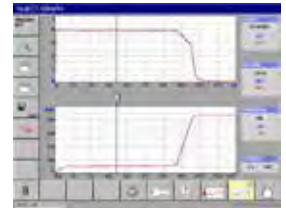
Flexibility & Options:

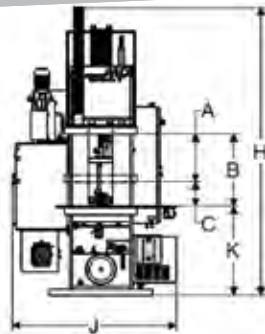
The MPI 55 series offers flexibility in creating the ideal machine for your needs. MPI offers models with clamping forces that deliver 25, 40, 50 and 100 ton capabilities, offering between 18" and 38" of daylight. Other options include Two Wax-Conditioning Reservoirs which allows for rapid wax changes at the touch of a button, providing a constant supply of accurate and repeatable temperature wax from a liquid to a heavy paste consistency. MPI systems are engineered with Quick-Change Technology with fast die change and setup to minimize change over time and maximize throughput.

MPI's optional independently operated Dual Shuttle Tables with Programmable Nozzle Positioning allows two different-size dies to be run independently from each die's stored injection recipe. Our Programmable-Platen-Control option reduces setup time by automatically recalling the platen parameters from the stored platen recipe. MPI also offers Smart Purge™, a unique system that re-circulates wax through the entire injection system. Smart Purge™ puts the wax in a dynamic state and supplies a fresh homogeneous wax from the reservoir to the nozzle tip prior to injection. Regardless of your needs, MPI engineers will build you a unique machine that delivers performance levels that are unmatched in the industry and will produce bottom-line results.

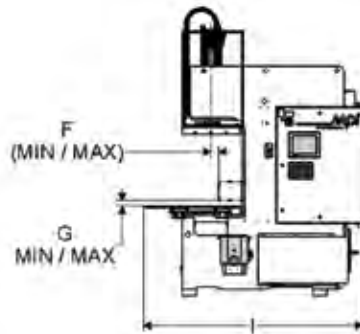
Injection Control

MPI delivers the tightest temperature control in the industry. The MPI 5-Zone, Temperature-Control System monitors wax temperature at specific locations, providing the most accurate temperature control with the highest throughput in the industry. By maintaining a set temperature through all zones, we are able to achieve extraordinary pattern-to-pattern repeatability.

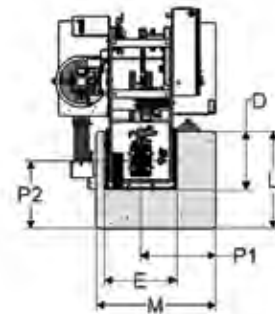




SIDE VIEW



FRONT VIEW



TOP VIEW

Model	55-25-24	55-50-30	55-100-38
Clamp Force	25 ton	50 ton	100 ton
Platen Speed Close Rapid	4 in/sec	2.2 in/sec	2 in/sec
Platen Speed Close Slow	2 in/sec	1.1 in/sec	1 in/sec
Platen Speed Open	3.8 in/sec	2.3 in/sec	1.9 in/sec
A. Stroke	19 in	25 in	33 in
B. Daylight Maximum	24 in	30 in	38 in
C. Daylight Minimum	5 in		
D. Width of Platens	18 in	24 in	34 in
E. Depth of Platens	25.5 in	30 in	40 in
F. Nozzle In/Out Adjustment	1.5 – 9.5 in	3 – 12.5 in	8 – 18 in
G. Nozzle Up/Down Adjustment	2.25 – 8 in	2.25 – 10 in	2.25 – 16 in
H. Overall Height	102 in	119 in	143 in
I. Overall Width	79 in	91 in	118 in
J. Overall Depth	65 in	70 in	74 in
K. Work Area to Floor (without shuttle)	36 in ±0.5		
L. Work Area Width	30 in	40 in	50 in
M. Work Area Depth	44.13 in	49.25 in	59.25 in
P1. Operator Reach Position #1	27.25 in	31 in	36 in
P2. Operator Reach Position #2	21 in	28 in	33 in
Die Mount Holes	3/8"-16		
Wax Reservoir Capacity	30 gallon		
Wax Reservoir Cooling Capacity	200 lb/hr @ ΔT of 30°F		
Wax Temperature Limit (All Zones)	200°F		
Single Shot Capacity	150 cu in	400 cu in	
Injection Pressure	50 – 1000 PSI		
Injection Rate	0 – 20 cu in/sec		
Injection Time	0 – 999 second		
Nozzle Tip	3/8 in radius		
Hydraulic Reservoir Capacity	22 gallon	30 gallon	50 gallon
Hydraulic Cooling Water	2.5 GPM @ 80°F		
Electrical Standard	460V, 60Hz, 3ph		
Power Requirement	18 KVA		28 KVA
Air Requirement	6 CFM @ 90 PSI		
Machine Weight	5,500 lb	10,000 lb	26,000 lb

Notes: Clearance is required for removable reservoir system and machine maintenance. Contact MPI sales department for configuration-specific details. 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. Shuttle work table work area reduced when supplied with platen guarding. Contact MPI sales department for available options. We reserve the right to change specifications without notice.

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
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ROI

