



## 5X CROSSOVER INJECTOR

### MPI 5X-25-24

The 5X Crossover has all the performance capabilities of our standard injector, including Smart Controls™, but is the first one capable of injecting pattern wax, runner wax, soluble wax, and ceramic materials—all equally well.

This is the first injector to truly allow for rapid and easy changeover from one material to another. The 5X features rigid, direct in-line injection with Smart Purge.

# MPI 5X Crossover Injector

## Our Most Versatile Injector Ever!

One of our most innovative developments is the 5X Crossover Injector. The 5X has all the performance capabilities of our standard injector, including Smart Controls™, but is the first one capable of injecting pattern wax, runner wax, soluble wax, and ceramic materials—all equally well.

The 5X features rigid, direct in-line injection with Smart Purge. It is the first injector to truly allow for rapid and easy changeover from one material to another. It utilizes a hot swappable reservoir system that allows for off-machine melting, preparing, and conditioning of materials. This means you can readily store full reservoirs, keeping them mixed, homogenous, and at proper temperature. The 5X comes in 25T, 50T, and 100T sizes and includes the same impressive range of options as all other MPI injectors.



### FEATURES

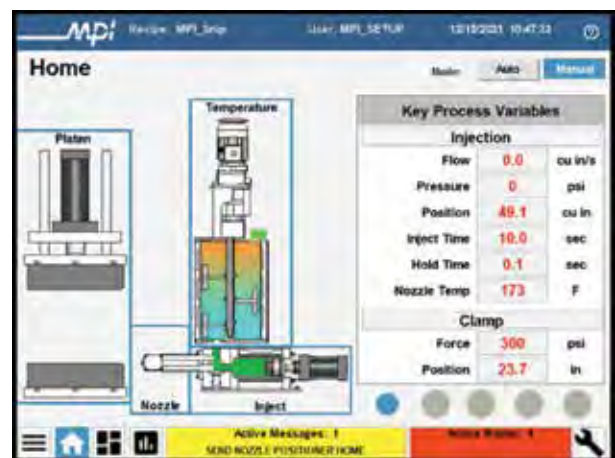
- All the performance capabilities of our standard injector
- One Injector (pattern, runner, soluble & ceramic)
- Rigid, direct in-line injection with Smart Purge
- Hot-swappable reservoir for easy material changeover
- MPI Smart Controls™ for total process optimization
- Available in 25T, 50T, and 100T sizes

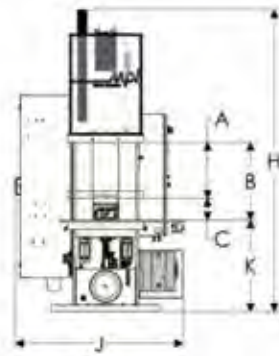
### SMART CONTROLS™ WITH PROCESS CONTROL

Real time graphical representation of pattern cycles compare material flow and pressure data to predetermined baselines.

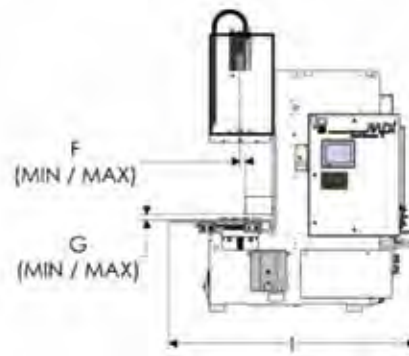
Adjustments are intelligently introduced if needed. This significantly reduces set up time.

**ASK ABOUT OUR FREE WAX-ROOM EVALUATION AND ROI ANALYSIS!**

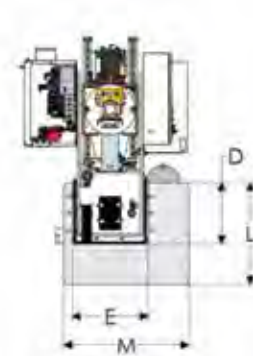




**SIDE VIEW**



**FRONT VIEW**



**TOP VIEW**

Model	5X-25-24	5X-50-30	5X-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
<b>A. Stroke</b>	<b>19 in</b>	<b>25 in</b>	<b>33 in</b>
<b>B. Daylight Maximum</b>	<b>24 in</b>	<b>30 in</b>	<b>38 in</b>
<b>C. Daylight Minimum</b>	<b>5 in</b>		
<b>D. Width of Platens</b>	<b>18 in</b>	<b>24 in</b>	<b>34 in</b>
<b>E. Depth of Platens</b>	<b>25.5 in</b>	<b>30 in</b>	<b>40 in</b>
<b>F. Nozzle In/Out Adjustment</b>	<b>1.5 – 9.5 in</b>	<b>4-12 in</b>	<b>10-18 in</b>
<b>G. Nozzle Up/Down Adjustment</b>	<b>2.25 – 8 in</b>	<b>2.25 – 13.25 in</b>	<b>2.25 – 13.25 in</b>
<b>H. Overall Height</b>	<b>106 in</b>	<b>119 in</b>	<b>132 in</b>
<b>I. Overall Width</b>	<b>85 in</b>	<b>97 in</b>	<b>140 in</b>
<b>J. Overall Depth</b>	<b>64 in</b>	<b>68 in</b>	<b>74 in</b>
<b>K. Work Area to Floor</b>	<b>36 in ±.5</b>		
<b>L. Standard Table Work Area Width</b>	<b>30 in</b>	<b>40 in</b>	<b>50 in</b>
<b>M. Standard Table Work Area Depth</b>	<b>44.13 in</b>	<b>49.25 in</b>	<b>59.25 in</b>
<b>P1. Operator Reach Position #1</b>	<b>27.25 in</b>	<b>31 in</b>	<b>36 in</b>
<b>P2. Operator Reach Position #2</b>	<b>21 in</b>	<b>28 in</b>	<b>33 in</b>
Die Mount Holes (without inserts)	3/8"-16		
Material Reservoir Capacity	8 or 20 gallon Heat Only, 16 gallon Wax Heat/Cool		
Material Temperature Limit (All Zones)	200°F		
Single Shot Capacity	50 or 170 cu in ±2%	50, 170, or 340 cu in ±2%	170 or 340 cu in ±2%
SA Injection Pressure	50 – 2000 PSI		
SA Injection Rate	0 – 15 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	7,000 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, worktable height, 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**  
=  
**ROI**

