



Osborn • SPO • Sutter • Herman

# EMI Matchplate Solutions

## High Performance Matchplate Molding Machines

### Machine Highlights:

- Reduce Cycle Times and Improve Mold Quality
- Reduce Maintenance Costs
- Available in all HMP Matchplate Sizes
- Enhance Performance and Machine Reliability

### Mechanical Benefits:

- Draw Guides with Linear Shafts and Precision Bushings
- Tapered Mold pins that center the bottom board in the same location every time
- Tapered Mold Pins accurately center the bottom board on the squeeze platen and eliminate board movement
- Bin Gate operated by single cylinder using extended force to close gate

### System Components:

- Eliminated Mold Shift related to Squeeze Station misalignment
- Reduced Machine cycle time, typically 25-40%
- Existing Matchplate Patterns and Tooling can be used
- Prepared sand feeder, spill collection, mold handling system, etc. can all be used with little or no modification
- New machine is plug and play with your existing system, and can be installed during a weekend

### Hydraulic & Pneumatic Components:

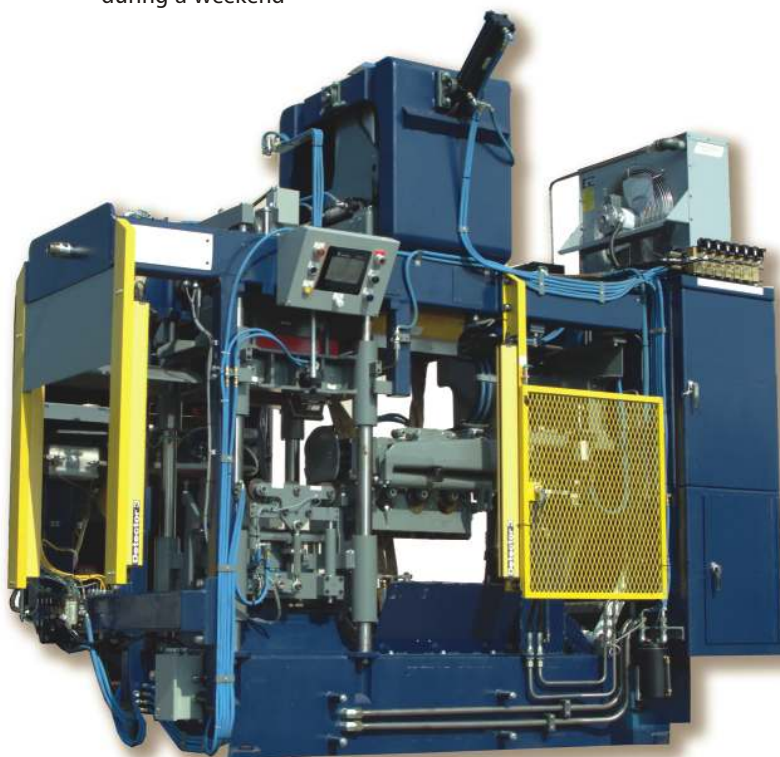
- Dual Pump Hydraulic System
- Hydraulic system simplified to standard OEM components (pumps, manifold, valves and tubing)
- Troubleshooting is greatly simplified
- Large capacity oil reservoir with proportional valves for fast and smooth control of Drag Flask, Hopper Car, Platen, Board Feeder, and Rollover
- Oil temperature control to maintain maximum operational performance for the entire production period
- Lower compressed air requirements

### Electrical Components:

- Control System can be remotely located to reduce vibration and extend electronic component life
- Position Transducer installed within the Platen and Hopper Car cylinder
- Hydraulic and Pneumatic Pressure transducers
- Integrated Light Curtains for easy access and increased operator safety
- Proximity sensors with quick-connect wiring harnesses.
- Position Transducer for Rollover control

### Operator Interface:

- Cycle Time Breakdown
- Productivity Measurement Tools
- Motion Alarms to warn against problem cylinders
- Alarms and Diagnostic Tools
- Maintenance Reminders
- Recipe Management



**American Made  
American Owned**

**At EMI we have  
specific solutions to your  
molding and core room  
production requirements**

# Specifications

MODELS	<b>EMI 1419</b> 355 x 483mm	<b>EMI 2024</b> 508 x 610mm	<b>EMI 2430</b> 609 x 762mm	<b>EMI 3032</b> 762 x 813mm
<b>Mold Size</b>				
Width	<b>14.0"</b> (355mm)	<b>20.0"</b> (508mm)	<b>24.0"</b> (610mm)	<b>30.0"</b> (762mm)
Length	<b>19.0"</b> (483mm)	<b>24.0"</b> (610mm)	<b>30.0"</b> (762mm)	<b>32.0"</b> (813mm)
Cope Height	<b>5.5"</b> (140mm)	<b>Shallow / Deep</b> <b>6.5" / 8.5"</b> (165mm / 216mm)	<b>Shallow / Deep</b> <b>10.0" / 12.0"</b> (254mm / 305mm)	<b>12.0"</b> (305mm)
Drag Height	<b>4.5"</b> (114mm)	<b>5.5" / 7.5"</b> (140 mm / 190 mm)	<b>9.0 / 11.0"</b> (229mm / 280mm)	<b>11.0"</b> (280mm)
Molding Speed Cycles/Hour	<b>200</b>	<b>180</b>	<b>140</b>	<b>100</b>
Sand Requirements lbs. (kg) / Mold	<b>150 lbs.</b> (68 kg)	<b>400 lbs.</b> (181 kg)	<b>760 lbs.</b> (350 kg)	<b>1200 lbs.</b> (544 kg)
Squeeze Surface Pressure Variable to Maximum	<b>140+ psi</b>	<b>140+ psi</b>	<b>140+ psi</b>	<b>140+ psi</b>
Pump Motor (horsepower)	<b>20</b>	<b>40</b>	<b>50</b>	<b>60</b>
<b>Machine Dimensions</b>				
Length	<b>137"</b> (3485mm)	<b>157"</b> (3990mm)	<b>188"</b> (4775mm)	<b>200"</b> (5085mm)
Width	<b>62"</b> (1575mm)	<b>62"</b> (1575mm)	<b>74"</b> (1880mm)	<b>62"</b> (1575mm)
Height	<b>116"</b> (2950mm)	<b>125"</b> (3190mm)	<b>147"</b> (3734mm)	<b>157"</b> (3990mm)
Weight	<b>9980 lbs.</b> (4536 kg)	<b>15,000 lbs.</b> (6804 kg)	<b>20,000 lbs.</b> (9072 kg)	<b>27,000 lbs.</b> (12273 kg)

## EMI's Growth Continues...

EMI is actively promoting this "best-in-class" automatic matchplate molding machine to its customers, while continuing to provide on-going support to the existing customers who have already taken advantage of this technology.

EMI is well-positioned to support the automatic matchplate molding requirements of customers, having served the foundry industry for 27+ years with a broad range of high-quality, market-leading product lines such as EMI, Osborn, SPO, Sutter, +Impact+, and Herman along with an equally diverse range of core competencies, including design engineering, turnkey installations, manufacturing, and long-term service support.