HUNTER®

THE HLM SERIES

MATCHPLATE MOLDING MACHINE

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THE HUNTER ADVANTAGE

Since 1964, our products and our reputation have been built on the fact that (using our prescribed methods of maintenance and genuine Hunter replacement parts) your Hunter equipment will last for decades. That's what we call THE HUNTER ADVANTAGE, and why more foundries use Hunter than any other matchplate molding and mold handling machinery in the world.

KEY BENEFITS OF THE HLM SERIES:

- Smoother, Quieter, More Energy-Efficient Operation.
- Greater Machine Stability And Improved Mold Quality.
- Lower Maintenance Requirements = Increased Productivity + Profitability.

To see the HLM in action, scan here or visit

www.hunterfoundry.com/HLM-10

50 YEARS SERVING THE FOUNDRY INDUSTRY 1964–2014

HUNTER®

American Owned American Made

OUR LATEST INNOVATION

Hunter's HLM is a patented, proprietary new concept in automated matchplate molding technology that combines and integrates magnetically coupled rodless cylinders with linear bearings for improved movement of all components.

HIGHLIGHT FEATURES OF THE HLM SERIES

The HLM's sealed linear bearings, motion slides, and magnetic rodless cylinders replace cam followers, wheels, tracks, and rails to provide smoother, quieter, more energy-efficient operation and greater machine stability, with less maintenance required.

Board feeder incorporates magnetically coupled rodless cylinders.

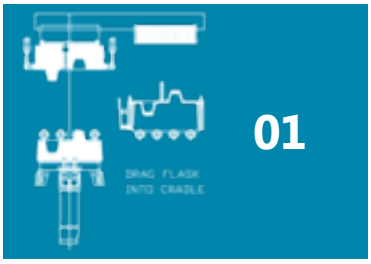
Linear bearings guide the hopper car to reduce maintenance needs and costs.

Hunter's "Human Machine Interface" (HMI) system digitally controls the compaction speed while monitoring the resistance producing a uniformly hard, superior quality mold.

AutoLock hydraulic pattern clamping system eliminates the need for pattern bolt-down and provides true drop-in pattern changing capabilities

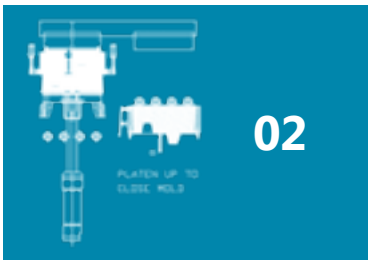
HLM MOLD CREATION SEQUENCE

Based on our proven gravity-fill design, the HLM Series has been engineered to produce high-volume, high-quality molds more efficiently, with closer tolerances than ever before, so customers can create near net-shape castings that require minimal cleanup.



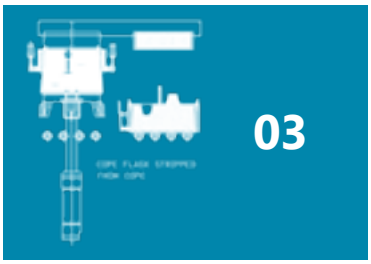
01

At the beginning of each cycle, the mold from the previous cycle is in the squeeze station, and available for coreset and/or inspection.



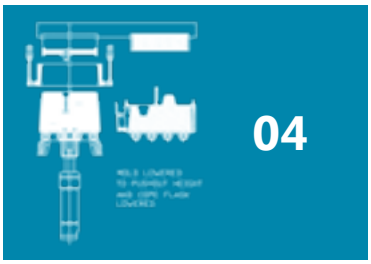
02

The platen lifts the drag mold up, to close with the cope mold. While the finished mold is closing and being prepared for discharge, the drag flask is rolled over and filed with sand.



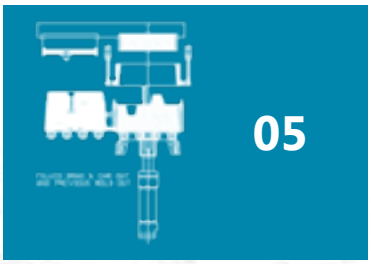
03

Once the mold closes, the cope flask is stripped up, off the mold. Then, after inserting a bottom board, the drag is rolled back over.



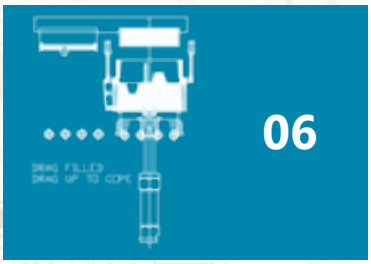
04

The finished mold is now lowered on the platen to the discharge position.



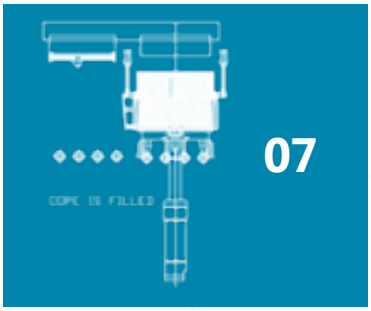
05

The filled drag flask is pushed out into the squeeze station, discharging the completed mold.



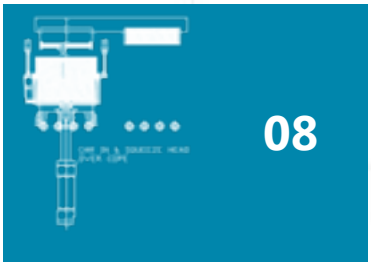
06

The hopper car is also pushed out to the squeeze station in preparation for filling the cope.



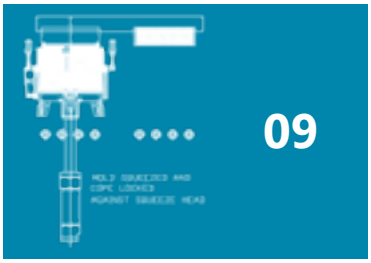
07

The rigid platen, as well as the cope flask, are aligned within the squeeze station by the zero-clearance linear guiding system. This maintains precise alignment of the drag and cope flasks as the platen raises the drag up to close the flasks. These features combine to eliminate any mold shift as the mold is produced.



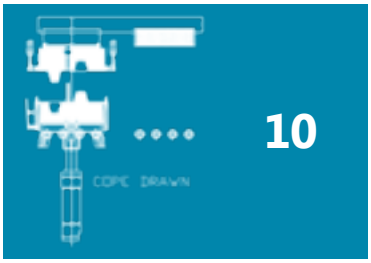
08

The cope flask is filled by the measuring hopper.



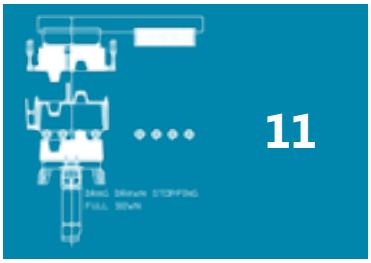
09

The hopper car is retracted, positioning the squeeze head over the cope flask in preparation of squeeze. With the flasks held in precise alignment, the platen goes up and the mold is squeezed under high pressure.



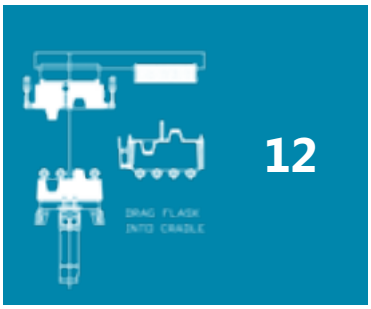
10

At the termination of squeeze the cope flask is locked against the squeeze head, preventing any dirt from accumulating on top of the mold.



11

The platen is lowered, drawing the cope side first, then the drag side.



12

After the drag mold has been lowered, the drag flask is retracted back into the cradle. During coresetting operations the drag flask can now be filled in preparation for the next mold while the squeeze station is available for coreset.

WHY THE HLM?

The HLM Series incorporates the industry's latest matchplate molding innovations and advancements, to help foundries produce higher quality, near net-shape castings, in less time.
The HLM's no-maintenance features maximize performance and minimize downtime, offering greater efficiency.

To see the HLM in action, visit: www.hunterfoundry.com/HLM-10.

WHAT MAKES THE HLM SERIES SO REVOLUTIONARY?

Hunter's advanced linear-motion technology and industry-proven ability to provide seamless, immediate transition from your old matchplate molding machinery are two good reasons to purchase our HLM. A third is our state of the art touch-screen Human Machine Interface (HMI) control panel. Its easy-to-understand graphics direct the operator through normal tasks, offering simplified controls and diagnostics, I/O status charts, variable speed and pressure settings, as well as simple, key-based security features.

For more reasons, and to learn how the HLM can meet your specific needs, visit: www.hunterfoundry.com/HLM

STANDARD OPERATING FEATURES:

- Pins and bushings maintain perfect alignment of the cope and drag flasks during mold squeeze and draw.
- The entire system of cope and drag flasks and platen are held in precise alignment eliminating mold shift, with the sealed linear bearings and mold lock pins.
- AutoLock Quick Pattern Change System, with hydraulically operated piston-style clamping, eliminates pattern bolt down time allowing true drop-in pattern changes.
- Optional Annunciator Light Tower indicates at a glance from across the foundry floor the operational status of the HLM.
- Larger, easily accessible mold and squeeze station openings allowing manual or automatic core setting from either or both sides of the HLM.
- The HLM Series eliminates the need for roller lift, platen swivel bearing, draw pins and seats, cope opening corners, platen stops, and volume booster. This radically reduces wear parts and maintenance.
- Heated bin gate measuring hopper for non-stick operation during sand fill.
- Heated squeeze board eliminates sand bulid up to provide a clean top of the mold.
- New basin design eliminates loose sand in basin and sprue.
- Easily adapted to existing Hunter Sand Feed and Mold Handling systems.
- Hydraulic power system can be remotely located.

HLM SERIES SPECIFICATIONS

Models	HLM-10	HLM-20 & 20/T*			HLM-30		HLM-32
MOLD SIZE							
Width	14"(355mm)	20"(508mm)			24"(610mm)		30"(762mm)
Length	19"(483mm)	24"(610mm)			30"(762mm)		32"(813mm)
Height		Shallow	Deep	*Tall (20/T only)	Shallow	Deep	
Cope	5-1/2"(140mm)	6-1/2"(165mm)	8-1/2"(216mm)	*11" (279.4mm)	10"(254mm)	12"(305mm)	12"(305mm)
Drag	4-1/2"(114mm)	5-1/2"(140mm)	7-1/2"(190mm)	*10" (254mm)	9"(229mm)	11"(280mm)	11"(280mm)
MOLDING SPEED Cycles per Hour	180	170	160	150	90		80
SAND REQUIREMENT							
Lbs/mold	150	300	400		627	760	1200
Kg/moid	68	136	181		289	350	544
SQUEEZE SURFACE PRESSURE Variable to Maximum	142 psi (10kg/cm²)	142 psi (10kg/cm²)			142 psi (10kg/cm²)		142 psi (10kg/cm²)
AIR CONSUMPTION PER MOLD							
Cubic Feet	1	1.5			2.5		3.7
Cubic Meters	.030	.045			.075		.110
MACHINE DIMENSIONS							
Length	132 " (3352mm)	156" (3990mm)	156" (3990mm)		168" (4775mm)		200" (5085mm)
Height	111" (2820mm)	125" (3180mm)	150" (3810mm) *20/T only		147" (3724mm)		156" (3990mm)
Width	66" (1676mm)	62" (1575mm)	62" (1575mm)		74" (1880mm)		74" (1880mm)
App. Weight	9000 lbs. (4018kg)	15,000lbs. (6804kg)	16,000 lbs. (7257kg) *20/T		20,000lbs. (9072kg)		25,000lbs.(11360kg)

SPECIAL FEATURES & OPTIONS

- In addition to the standard specifications noted above, Hunter can custom-design an HLM to meet your individual foundry's requirements and specifications.
- Optional linear motion-operated, programmable access doors reduce operator exposure to noise and parting spray.
- Separate Hydraulic Power System option provides cleaner and easier maintenance:

Length	58" (1473mm)
Height	82" (2083mm)
Width	46" (1168mm)
App. Weight	5050 lbs./2291kg (with oil) 3030 lbs./1374kg (without oil)

- Hunter's optional JetSlinger™ device (an air amplification apparatus based on the Venturi principle) accelerates sand into the cope-and-drag flasks on the HLM. To learn more, visit our website.
- Optional CESAR (Contain, Evacuate, Separate And Recover) vacuum pattern spray recovery system offers HLM customers a safer, cleaner environment for their workers, plus cost savings through efficient material usage. To learn more about the CESAR System, contact your Hunter sales agent.

To learn how the HLM can help you, contact us at info@hunterfoundry.com or 847-397-5110.