



Master™ Cast Aluminum Plates

Four Basic Plate Styles Available

MASTER Cast Aluminum Plates are sand cast from the best pattern plate alloy and precision checked by our experienced personnel to insure uniformity. Every pattern plate is accurate, strong, and durable. Plates are available for all flask sizes to be used on manual and automatic molding machines.

Kindt-Collins meets the special requirements for all molding machines because we tailor-make MASTER pattern plates for any foundry or molding operation.

Aluminum pattern plates are cast and carefully finished to provide a strong, extremely accurate plate. Cast aluminum plates can be supplied with steel wear buttons at slight additional cost. Wear buttons along the flask line extend the life of the plates.

There are four basic plate styles: Flat, Offset, Recessed and Chain-Lock.

Flat Plates

Our flat cast-in-sand plates are made from a special aluminum alloy. Each plate is individually ground flat and parallel to any desired thickness to a tolerance of $\pm .003$ ". All edges are rounded for easy handling. Available in any thickness and all flask sizes with or without ears.

Offset Plates

Sand cast, hand straightened and finished. Offset plates offer 3/8" or 1/2" offsets (tapered 30°) set 1/2" inside the flask line. This serves as a non-shift device as well as allowing extra depth to half of the sand mold. Deeper offsets (1", 1-1/2", 2", 3") are available on some flask sizes. Offset plates come in 3/8", 1/2", 5/8", 3/4" and 1" thicknesses in many popular flask sizes with or without ears.

Recessed Plates

Made in the same way as our flat plates with the addition of a 1/32" recess inside the flask area on one side of the plate. This recess creates a crush in the mold to eliminate run out caused by old flasks that may be warped. Available in any thickness and many flask sizes with or without ears.

Chain-Lock Plates

Chain-Lock Plates are cast in sand, then hand straightened and finished. Each plate is checked and rechecked for accuracy. We offer a sand cast plate accurate to $\pm .020$ ". Our standard locks are located 1/2" inside the flask line. Plates are available in 3/8", 1/2", 5/8", 3/4" and 1" thicknesses with or without ears.

Wear Buttons

All Kindt-Collins plates are available with or without wear buttons.

Holes for Flask Pins

Holes for flask pins can be cast in any type of plate, at slight additional charge.

Kindt-Collins' plates are designed for use on manual machines as well as Hunter, Beardsley and Piper (B&P), Osborne, Robert Sinto, Harrison, Herman, and other automatic molding machines. If you have a specific application or need special size pattern plates, we are able to supply them.

Special Ears

All plates will be furnished with standard 3" ears to accommodate most types of flask pins. If special ears are required, please give full details or provide a blueprint if possible.

To Order Cast Aluminum Plates Specify:

- (1) Style of plate needed
- (2) Flask size
- (3) Overall dimensions
- (4) Plate thickness
- (5) Whether standard or special ears are required
- (6) Whether flask pin holes are needed
- (7) Whether wear buttons are required
- (8) Type of machine on which plate is to be used.

If possible, submit a specification sheet or a drawing for any of your unusual requirements.



Master™ Cast Aluminum Plates

Flat Plates...Standard for the Industry

High Quality Performance

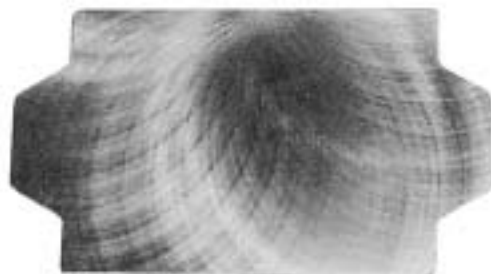
This is the standard line of MASTER plates which Kindt-Collins has made for many years. These plates have provided high-quality performance in every type of foundry.

MASTER Cast and Ground Aluminum Flat Plates offer these features:

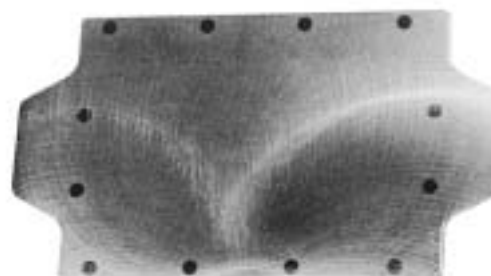
- Extreme flatness, $\pm .003$ " tolerance, flat and parallel
- A full 1" margin all around to accommodate the flask flange
- Cast-in flask-pin holes (available at low cost)
- Standard 3" ears to permit fitting of any type guide or vibrator
- Coarse ground finish helps prevent sand slippage
- "Live" plates that respond to vibrating
- Rounded corners and edges for safe handling
- Cast-in knurled steel wear buttons are available on request

MASTER Cast and Ground Aluminum Flat Plates are available in any flask size in increments of 1". Plates are available in 3/8", 7/16", 1/2", 5/8", 3/4" and 1" thicknesses. Special sizes, shapes and thicknesses are available on request.

If cast-in flask-pin holes are desired, please give details or provide blueprint if possible.



Flat Plate without wear buttons.



Flat Plate with wear buttons.

Recessed Plates...for High Production Castings

Increase the Quantity of Production Castings

This is another original Kindt-Collins development designed to help the foundryman improve the quality and increase the quantity of production castings.

MASTER Cast and Ground Aluminum Recessed Plates have a cast recess 1/32" deep on one side of the plate just inside the 1" flask line. This permits the sand in the cope and drag halves to meet and form a perfect joint. Thus finning, with its added cleaning costs, is practically eliminated and scrap is reduced. Optional cast-in steel inserts along the flask line increase plate life.

Many foundries are using MASTER Recessed Plates to assure a steady flow of high-production precision castings with a minimum of finishing room operations and plate replacement costs.

MASTER Cast and Ground Aluminum Recessed Plates are available in many flask sizes in increments of 1". Plates are available in 3/8", 1/2", 5/8", 3/4" and 1" thicknesses...thicker plates are available on request.

If cast-in flask-pin holes are desired, please give details or provide blueprint if possible.



Recessed Plate with wear buttons.

Pattern Shop/Foundry Supplies



Master™ Cast Aluminum Plates

Offset Plates...Maximizes Use of Flask Height

Maximizes Use of Flask Height

MASTER Cast Aluminum Offset Plates permit you to make a deeper cope or drag mold in the same size flask by shifting or "offsetting" the parting line within the mold. The offset also helps to produce more accurate castings by reducing mold shift.

These plates are cast from the same high-tensile aluminum alloy as all MASTER plates. The standard depth of the offset is 3/8" with a 30° draft, ensuring rigidity for casting with greater precision. Some sizes are available with a 1/2" offset.

All corners are rounded, and the corresponding fillet matches the other side. Ears are the standard 3" design.

While offset plates do aid in the elimination of mold shift, we direct your attention to our MASTER Chain-Lock Plates for another method of reducing this problem.

If cast-in flask-pin holes are desired,
please give details
or provide blueprint if possible.



Chain-Lock Plates...for Modern Molding Machines

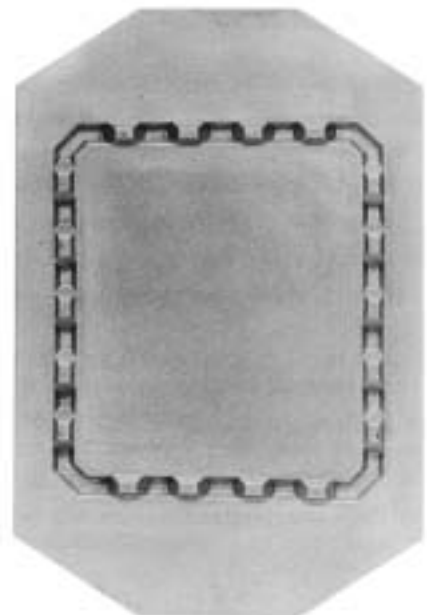
Reduces Mold Shift

Designed for manual and automatic molding machines. These chain-lock plates have tapered teeth (3/4" wide) which have exceptional locking capacity that helps reduce mold shift in any direction. Each consecutive lock created by these teeth alternates between the cope and drag to form a strong, positive hold. Standard locks are located 1/2" inside the flask line. Special locking arrangements are available on request.

The need in modern molding machines to hold sand firmly in all directions was the prime consideration in designing the MASTER Chain-Lock Aluminum Plate. By producing a tight non-shift lock over a significant percentage of the sand surface, these plates assist foundrymen in making accurate, high-quality castings with a minimum of scrap.

Chain-Lock plates are cast of special high-tensile aluminum pattern alloy to $\pm .020$ " thickness tolerance.

Special narrow Chain-Locks, which maximize working area, are available for specific sizes.



Master™ Cast Aluminum Plates



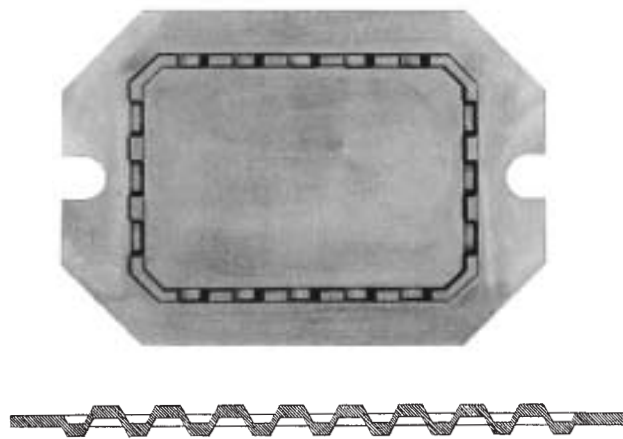
For Hunter Automatic Molding Machines

Flat and Offset Styles Available

We make sand cast pattern mounting plates for all sizes of Hunter Automatic Molding Machines. Each Hunter plate conforms to all Hunter specifications. However, many foundries have special requirements which we can

also furnish upon request. Pictured below are a few of the styles we offer. Cast-in wear buttons and drilled mounting holes are available on request.

CHAIN-LOCK



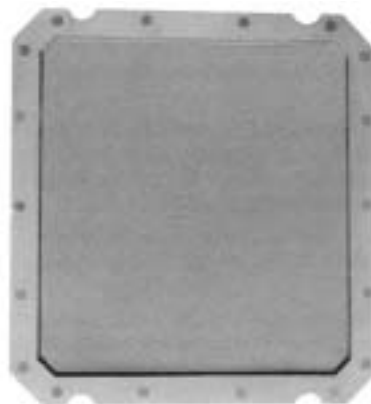
CROSS-SECTION

FLAT



CROSS-SECTION

OFFSET
with Wear Buttons



CROSS-SECTION

Pattern Shop/Foundry Supplies



Master™ Pattern Plates

For Hunter Automatic Molding Machines

Hunter Chainlock Plates

Flask Size	Working Area	Overall Size	Available Plate Thickness				
			3/8"	1/2"	5/8"	3/4"	1"
14 x 18	11-1/2 x 15-1/2 11-7/8 x 15-7/8**	17-1/2 x 26 17-1/2 x 26		• •	• •	• •	
14 x 19	12-5/8 x 17-5/8** 11-3/8 x 16-3/8 11-1/4 x 16-1/4* 11-5/8 x 16-1/2** 11-1/4 x 16-1/4 11-1/8 x 16-1/8 11-1/8 x 16-1/8† 11 x 16	17-1/4 x 24-1/4 16-3/8 x 23-1/2 17 x 25 17-1/8 x 25 16-3/8 x 21-5/8 17-1/2 x 24-7/8 17-1/4 x 25 17-1/4 x 25		• • • • • • •	• • • • • • • •	• • • • • • • •	
20 x 24	17 x 21 17-1/4 x 21-1/4 17-3/8 x 21-3/8* 17-7/8 x 21-7/8** 17-1/4 x 21-1/8	23 x 27-1/8 23-1/4 x 27-1/4 23-1/2 x 27-1/2 23-1/2 x 27-1/2 23-1/8 x 27-1/4			• • • •	• • • •	• • • •
24 x 30	21-1/4 x 27-1/4	28 x 34				•	•
30 x 32	27-5/8 x 29-5/8	34 x 36					•

*Has 1/32" recess

**Has narrow locks to maximize work area.

†Has large locks.

Hunter Offset Pattern Plates

Flask Size	Overall Size	Offset Size	Available Plate Thickness			
			1/2"	5/8"	3/4"	1"
14 x 18	17-1/2 x 26	1/2"	•	•	•	
14 x 19	17-1/2 x 26	3/8" 1/2" 3/4" 1" 1-1/2"	• • • • •	• • • • •	• • • • •	
18 x 20	21-1/4 x 23-1/4	1" 2"		• •	• •	
20 x 24	23-1/4 x 27-1/4	1/2" 1" 1-1/2" 2" 2-1/2" 3"	• •	• • • • •	• • • • •	• • • •
30 x 32	34 x 36	5/8" 1" 2"				• • •

Overall dimensions may be changed to suit your foundry's needs.

•Indicates availability.

To order specify quantity, thickness, flask size, style, plus overall size, and depth of offset where required.

Hunter Bottom Boards and Special Flasks with Adapters

We supply Hunter style cast aluminum bottom boards. They are designed for rugged use and are fixture checked for dimensional tolerance and flatness.

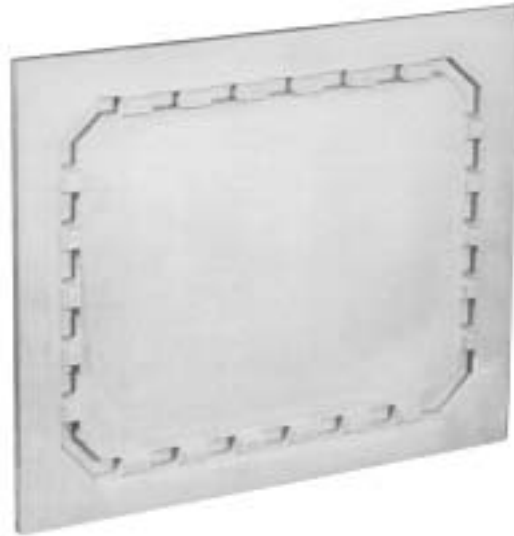
We also supply specially-developed Hines "Pop-Off" flasks with adapters for sampling molds on a squeezer prior to production on Hunter Automatic Molding

Machines. They are used to check gating, shrinkage and pattern accuracy. This method of proving molds before production saves costly machine set-up time and the regular downtime losses incurred in making samples and short order runs.

Additional information will be supplied upon request.



Matchplates for Beardsley and Piper Molding Machines



We make cast aluminum flat, chain-lock, and offset plates designed for use on Beardsley and Piper Match-Bromatic Molding Machines.

If plates with unusual requirements are needed, please submit a specification sheet or drawing if possible.

Mounting holes and cast-in wear buttons can be furnished at extra cost if required.

Flask Size	Plate Style or Offset Size	Working Area	Overall Size	Plate Thickness			
				1/2"	5/8"	3/4"	1"
MATCH-BLOMATIC							
16 x 20	Chainlock†	14 x 18	19-1/4 x 30		*	*	
	Chainlock	13-1/4 x 17-1/4	18-3/8 x 22-3/8	*	*	*	
	Chainlock	13-1/2 x 17-3/8	18-1/4 x 22-1/4			*	*
	Chainlock	13-1/4 x 17-1/8	17-7/8 x 21-7/8		*	*	
	1/2" Offset	14-1/4 x 18-1/4	18-1/4 x 22-1/4		*	*	
	3/4" Offset	14 x 18	19-1/4 x 29-3/4	*	*	*	
	1" Offset	14 x 18	19 x 29-3/4			*	*
	1-1/2" Offset	13-1/2 x 17-3/8	18-3/8 x 22-3/8	*	*	*	
	2" Offset	13 x 17	18-3/8 x 22-1/2		*	*	
	Chainlock with 1/2" Offset	13-1/2 x 17-1/2	18-1/4 x 22-1/4		*	*	
20 x 26	Chainlock	17-5/8 x 23-3/4	23-1/8 x 29-1/2			*	*
ROTO MATCH-BLOMATIC							
16 x 20	Chainlock	13-1/4 x 17-1/4	19 x 29-3/4	*	*	*	
	3/4" Offset	14 x 18	19-1/4 x 29-3/4	*	*	*	
	1" Offset	13-3/4 x 17-3/4	19 x 30	*	*	*	
	1" Offset	14 x 18	19 x 29-3/4			*	*
20 x 26	1" Offset	17-1/2 x 23-1/2	22-3/4 x 38			*	*
	2" Offset	13 x 17	18-3/8 x 22-1/2		*	*	

†Narrow Chainlocks to maximize work area. Overall dimensions may be adjusted to suit your foundry's needs.

*Indicates availability.