# **Model H Series**

### HORIZONTAL CENTRIFUGAL CASTING MACHINES



# **Centrifugal Casting Offers:**

- More efficient use of metal
- Reduced cleaning room costs
- Casting with:

Superior Metallurgical Structure

Uniform Wall Thickness

Smooth Surface Finish



# **Centrifugal Casting Machine Company, Inc.**

The world leader in centrifugal casting and permanent mold technology

www.centrifugalcastingmachineco.com



### **PRODUCTION RATE**

The production rate of these machines is usually determined by the length of time required for the solidification of the metal. Complete cycle time for these machines varies from 30 minutes to over an hour for large heavy-walled castings.

#### **TYPES OF PRODUCTS**

The castings may be processed into products such as corrosion or heat resistant pipe or tubes for chemical plant and heat treating furnaces. Other products are pump liners, ship-shaft liners, bearings, bushings, hollow billets, hollow rolls, etc.

Model H Series Standard Models									
Model	Spin Load Capacity	Minimum Casting Diameter	Maximum Casting Diameter	Length					
H15	33,075 lbs. (15,000 Kgs.)	6" (150 mm)	40" (1000 mm)	197" (5,000 mm)					
H20	44,100 lbs. (20,000 Kgs.)	6" (150 mm)	40" (1000 mm)	197" (5,000 mm)					
H30	66,150 lbs. (30,000 Kgs.)	6" (150 mm)	50" (1270 mm)	236" (6,000 mm)					
HS	99,225 lbs. (45,000 Kgs.)	10" (250 mm)	63" (1600 mm)	278" (7,000 mm)					
H120	120,000 lbs. (54,000 Kgs.)	12" (305 mm)	75" (1778 mm)	278" (7,000 mm)					
НТ	220,500 lbs. (100,000 Kgs.)	12" (305 mm)	80" (2000 mm)	278" (7,000 mm)					



Model H Series Foundation Data										
MAX MOLD LENGTH	AREA WIDTH	AREA LENGTH	FLOOR SPACE	CON- CRETE CU YARDS	80 psi AIR CFM	40 psi WATER GPM	.4 psi GAS CFM			
96"	168"	408"	476 sq. ft.	50	40	240	5.5			
(2438mm)	(6096mm)	(10363mm)	(44.222m <sup>2</sup> )							
144"	168"	504"	588 sq. ft.	57	40	360	8			
(3600mm)	(6096mm)	(12802mm)	(54.627m <sup>2</sup> )	The s		3				
168"	168"	552"	644 sq. ft.	70	40	420	9.4			
(4200mm)	(6096mm)	(14021mm)	(59.830m <sup>2</sup> )							
240"	168"	696"	812 sq. ft.	90	40	600	13.4			
(6096mm)	(6096mm)	(17678mm)	(75.437m²)							

#### **MODEL H SERIES MACHINES**

Model H Series Horizontal Centrifugal Casting Machines are heavy duty machines designed to accommodate metal permanent molds primarily, although they may be used with flasks and sand lined molds. The machines are especially suited for the production of long tubular castings. They lend themselves to jobbing foundry work as well as production work. As the molds are efficiently cooled in the machine they may be kept in the machine and castings poured repeatedly until the order is filled.

#### **CASTING DIMENSIONS**

Model H series machines can be supplied with one position or multiple positions in order to provide the required range of casting diameters. When changing positions it is necessary to adjust the runner pot elevation and spray car lance.

#### **ELECTRIC DRIVE**

Model H series machines are driven by an electronically controlled variable speed drive which is flexible and provides complete control of the speed over the maximum range required for the centrifugal casting work. It also provides very low rotating speeds for cleaning the mold and preheating the mold. It is only necessary to preset the dial to the desired speed and then push the start button. The mold will accelerate up to the preset speed and maintains this speed within +/- 2%.

#### **MOLD SPRAY**

Automatic spray equipment is supplied as a standard part of a machine system. The spray lance is readily adjustable vertically so that the lance may be positioned accurately onto the centerline of the mold. Valves and regulators are used to control the amount of wash being sprayed on the inside of the mold. A continuously variable speed electric motor is used to provide the forward and reverse drive of the spray car. The spray car rides on tracks of a suitable length for the particular centrifugal casting machine.

#### **MOLD COOLING**

The Model H Series machines include a type of water-cooling which impinges high velocity jets of water on the mold. The high velocity of this water wipes away steam that may be formed on the hot mold, increases the rate of heat transfer, thus providing a highly efficient transfer of heat from the mold to the water.

#### **MOLD HEATING**

Gas mold heaters are supplied for preheating the mold preliminary to spraying and/or casting. Natural gas, manufactured gas, butane, propane, etc. may be used with these burners. The heating system supplied on CCMCO horizontal trunnion type machines should not be the only source of mold heating in the customer facility. Supplied mold



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