

100K Horizontal Centrifugal Casting Machines

Centrifugal Casting Machines for the Foundry Industry

The Model 100K Series Horizontal Centrifugal casting machines are designed to produce a variety of castings for the steel mill roll industry.

Castings produced in a horizontal axis approach 100% material yield and requires no gates or risers producing a "True Centrifugal" casting.

These trunnion type machines utilize permanent steel molds or sand lined flasks.

Mold designs, operating procedures, speeds, and centrifugal casting procedures are included.



Types of castings that can be produced:

- Steel Mill Rolls
- Forming Rolls
- Extrusion Billets
- Bi-Metal Rolls
- Alloy Tubes
- Reformer Tubes

Standard Equipment specifications

- Spinner Base Assembly
- Mold Thrust Assembly
- ASL-20 Spray Assembly
- Operators Control Console
- Pouring Car Assembly
- Hydraulic Unit Assembly
- Variable Speed Drive Unit
- Centrifugal Casting Manual



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

The Basic Centrifugal Roll Casting Process

Fig. 1 The steel mold is slowly rotated and preheated to a uniform temperature and sprayed with an insulating wash where the temperature of the mold immediately dries the mold wash.

Fig. 2 Once the mold has been sprayed, a predetermined amount of molten metal is poured into the pouring funnel that transfers the molten metal into the bore of the mold.

Fig. 3 The mold is allowed to rotate for a predetermined amount of time where a flux additive is introduced and upon solidification of the metal, the mold is removed from the centrifugal casting machine and rotated.

Fig. 4 The horizontal mold is rotated to a vertical axis and placed in a pit and assembled to the drag portion of the mold and topped with the cope portion of the mold.

Fig. 5 Metal is introduced into the assembled mold to complete the roll.