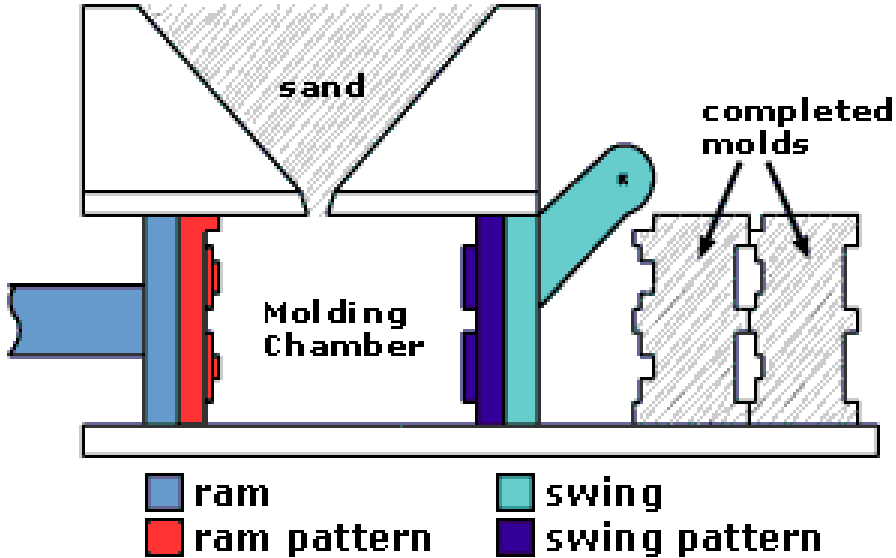


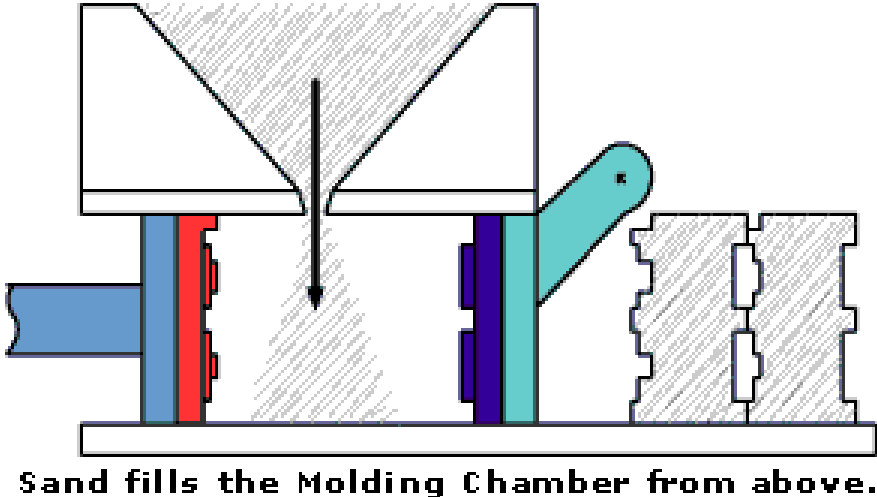
DISAMATIC® Molding Explained

Metal Technologies

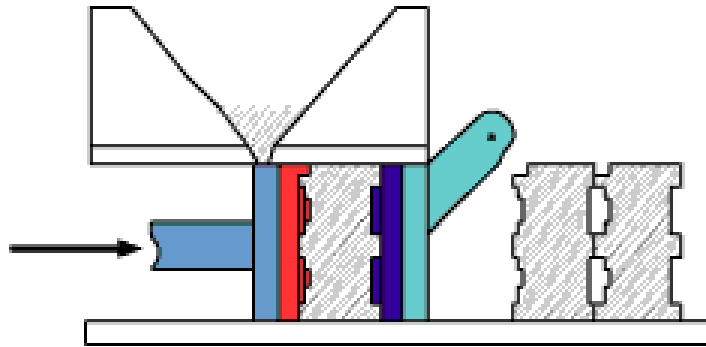
Currently, all Metal Technologies foundries utilize DISAMATIC® molding machines to produce molds for our castings. Disamatics offer a highly efficient means of rapidly and automatically creating a string of flaskless molds. These molds are built for vertical casting and are created in a vertical molding environment. The basic setup is shown below.



Step 1. Sand is blown into the Molding Chamber from above.

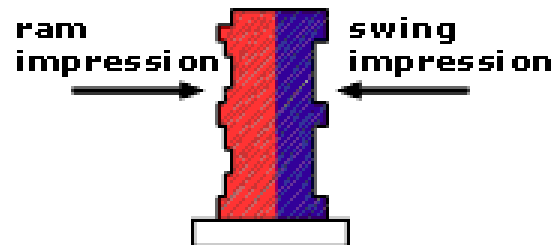


Step 2. The Ram advances, pushing the Ram Pattern. This compresses the sand in the Molding Chamber to form mold impressions.



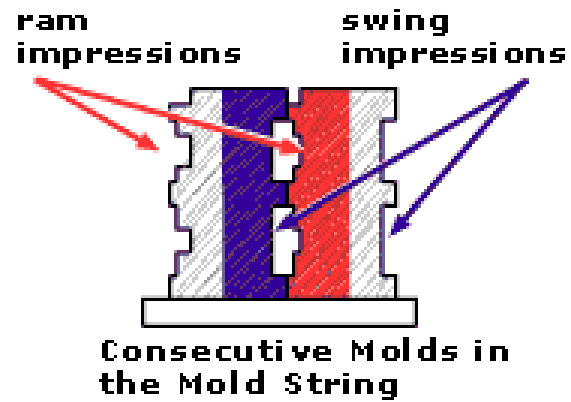
Ram pattern compresses sand to form mold impressions.

The compression creates opposite halves of consecutive molds placed in the mold string.

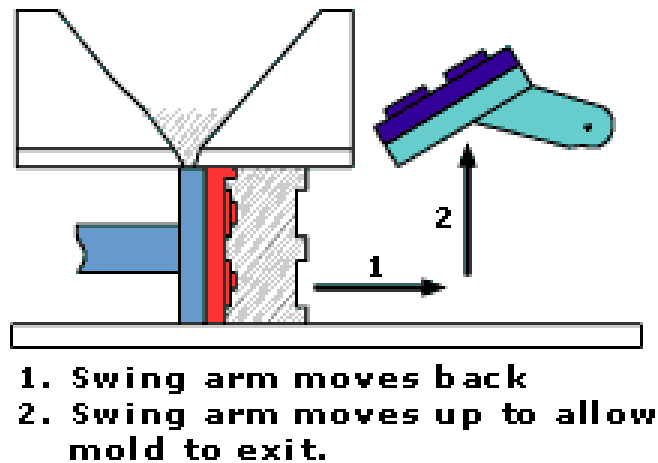


Single Mold inside the Molding Chamber

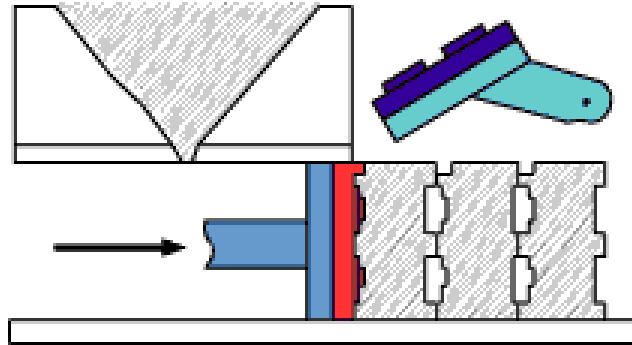
Castings cannot be formed using a single mold, but when a new mold is placed in the mold string; its leading edge meets the trailing edge of the previous mold to create a completed mold cavity.



Step 3. The Swing Pattern moves back and up to allow the mold to exit the Molding Chamber

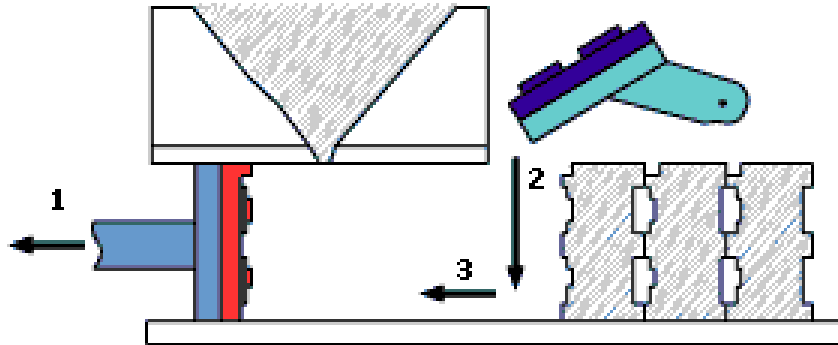


Step 4. The Ram extends, pushing the new mold into the existing mold string.



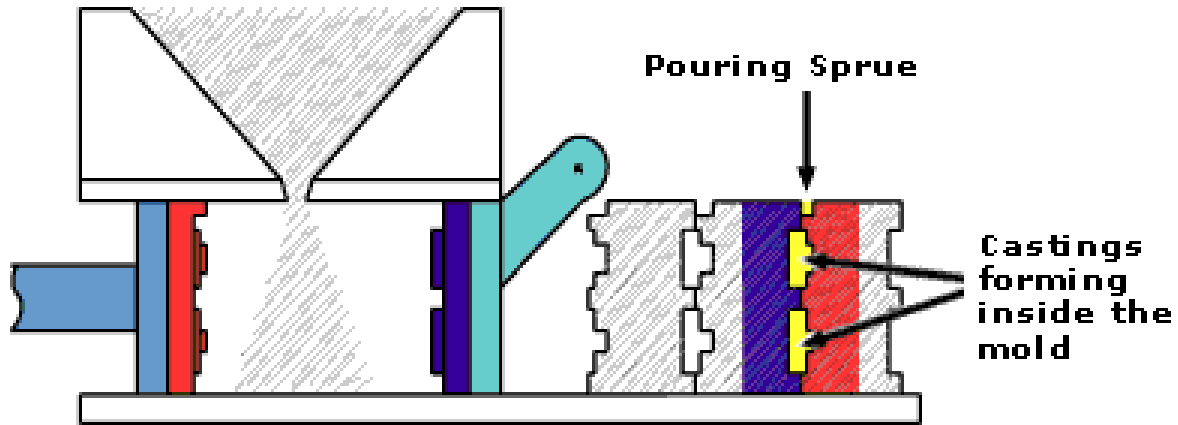
Ram extends, pushing the new mold into the existing mold string.

Step 5. The Ram and Swing patterns return to their original position to begin the process again.



- 1. Ram arm returns to original position.**
- 2. Swing arm descends.**
- 3. Swing arm returns to original position.**

Step 6. Sand is blown into the Molding Chamber for the next mold. A little further down the mold string, iron is poured into the top of a formed mold via the pouring sprue left by the pattern impressions.



Sand enters the Molding Chamber for the next mold. Iron is poured into the pouring sprue on top of the formed molds.