

Information On Casting Molds And Types Of Casting Molds

Casting is basically the manufacturing process through which a liquid material is emptied into a mold that includes a hollow opening of the desired art or shape and is then allowed to harden. This hardened casting is then removed and broken out in order to complete the process. Apart from using sand as the main mold material there is a metal that is used as the mold. Normally, a cast meehanite or an iron is used as the material for mold and the objects are made from the sand or metal. The cavity surface is basically covered with a thin layer of material that is heat resistant which can be either sodium silicate or clay.

Casting Molds: The casting molds are actually pre heated to nearly 392 degree Fahrenheit before the metal is pored in the cavity. The design of cavity for these casting molds does not chase the same principle for shrinkage like in the sand casting molds. This is because of the fact that the metal casting molds heat up and enlarge during the pouring process and so the cavity does not need to be expanded like in the sand castings. Nevertheless, care should be taken in order to ensure a correct thermal balance as you can use external water source for cooling or you can also opt for suitable radiation techniques.

Permanent Casting Molds: Although these permanent casting molds are not as flexible as the sand castings which allow to be used in different metal patterns or designs but these lower the cost of producing the part. When there is a production run of more than 1000 parts the permanent casting molds would produce much lower piece of cost part. Apart from this, the break even point also depends on the density of the part. There are more complex parts that are favored when you use these permanent casting molds. The typical part size would be around 50g to 70 kg and the basic materials used are medium and small parts that are made from magnesium, aluminum and brass and also their alloys.

Slush Casting Molds: The slush casting molds are actually a special type of permanent casting molds in which the molted metal is not allowed to solidify completely. After gaining the desired wall thickness the still not solidified molted metal is then poured out. This is basically used in order to make void ornamental objects like lamps, candlesticks and statues.

Corthias Casting Molds: This type casting molds is yet another variant of the permanent casting molds in which basically a plunger is used to pack the molted metal through the spure hole. This type of process allows thinner walls and to produce greater details.

Vacuum Permanent Casting Molds: This is also another type of permanent casting molds which is also similar to low pressure permanent casting molds. In this type vacuum is used rather than a pressure. You can make thin wall casting through this type of casting molds like in the other low pressure casting molds. Apart from this the results are high as there are no risers used.

About the Author

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