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casting method like Endurance, who is one of the leading aluminium die casting firm One interesting thing that about aluminium casting is that during the invention of this method, aluminium was not the first choice for the making of castings. Fragile metals like tin and lead were used at that time. However after the discovery of aluminium, no one went again to use lead and tin again!

Commonly Used Aluminium Molds

The following mentioned are some of the commonly used processes that are used for the process of aluminium casting. Different types of molds are needed in todayâ€™s industries. These molds are broadly categorized into two categories, temporary mold and permanent mold.

Die Casting: Aluminium die casting is one of the widely used methods of aluminium casting, especially in large industries wherein many castings are required. Aluminium die casting method is generally used in automobile, aerospace and power tool industries. In the process of die casting, aluminium or other molten metal is forced into the molds under high pressure. There are four sub-types of die casting method viz. low-pressure die casting, vacuum die casting, squeeze die casting and semi-solid die casting. Each type of the method works according to its name.

Permanent Casting: These types of molds are made from steel or iron. Permanent aluminium mold castings are quite cheap and hence are used in industries where large number of casting are required. Gravity or vacuum is used to cast molten metal into the mold.

Sand Casting: This is one of the oldest methods that have been used for aluminium casting. As the name suggests, sand casting method is used for making sand moulds only. The created sand moulds can re-used, this method is in fact used for making permanent patterns only. Aluminium sand casting has been used since the Egyptian times, the purpose however has changed. Today the same is used for making manifolds, blocks and other heavy castings for engines. The method of creating a sand casting mold is very interesting. For creating a sand cast mold, a cavity is made in the sand and held in a box.

Plaster Casting: This type of mold is made by the baking method. Pour plaster slurry around wax (even foam will do) then bake it. By doing so, the pattern will melt which will leave give you the desired shape. You can then pour the molten metal in any of the plaster molds.

Shell Casting: Shell castings are used for producing castings with accurate dimension. Unlike permanent casting method, shell casting method is quite expensive and hence is not used on a large scale.

These were some of the commonly used molds for aluminium castings. Of the above mentioned methods, aluminium die casting method is one of the most complex methods. So do make sure to buy your aluminium castings from a reliable aluminium die casting manufacturer only.

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