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Fundamental Research Dissension between Hot and Cold Chamber High Pressure Die Casting

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Abstract : This paper is focused on to define the basic difference between hot and cold chamber high pressure die casting process which is not fully defined in a research before paper which we have studied. The pressure die casting is basically defined into two types (1) Hot chamber Die Casting (2) Cold chamber Die Casting. Cold chamber die casting is used for casting alloys that require high pressure and have a high melting temperature, such as brass, aluminum, magnesium, copper based alloys and other high melting point nonferrous alloys. Hot chamber die casting is suitable for casting zinc, tin, lead, and low melting point alloys. In hot chamber die casting machine, the molten metal is an integral pan of the machine. It mainly consists of hot chamber and gooseneck type metal container made of cast iron. This machine is mainly used for low melting alloys and alloys of metals like zinc, lead etc. Metals and alloys having a high melting point and those which are having an affinity for iron cannot be cast by this machine, which could otherwise attack the shot sleeve and damage the machine.

Keywords : hot chamber die casting, cold chamber die casting, metals and alloys, casting technology
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