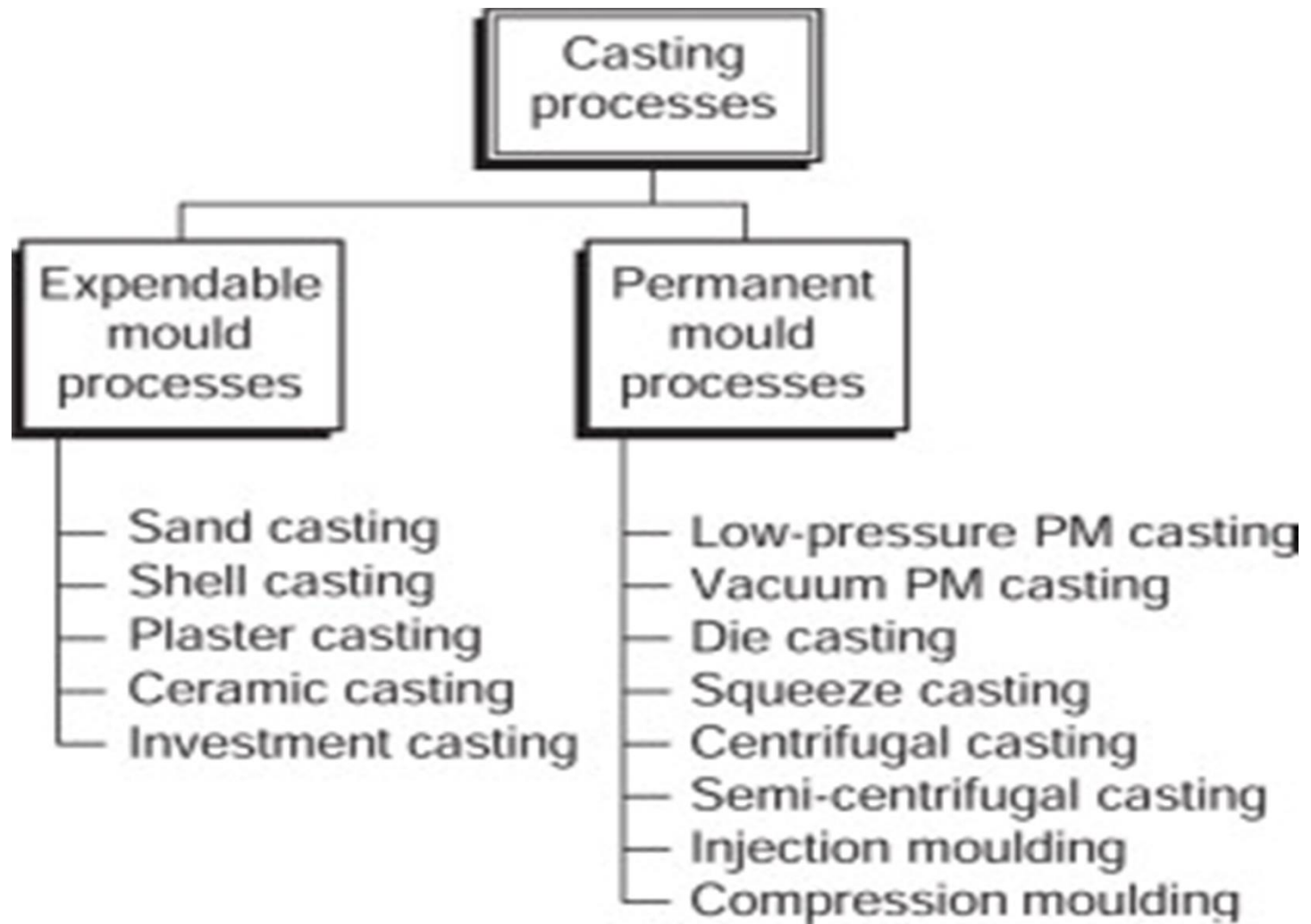
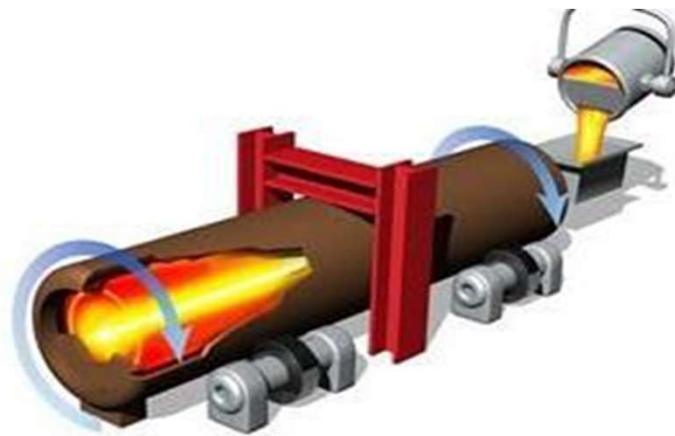


Classification of casting

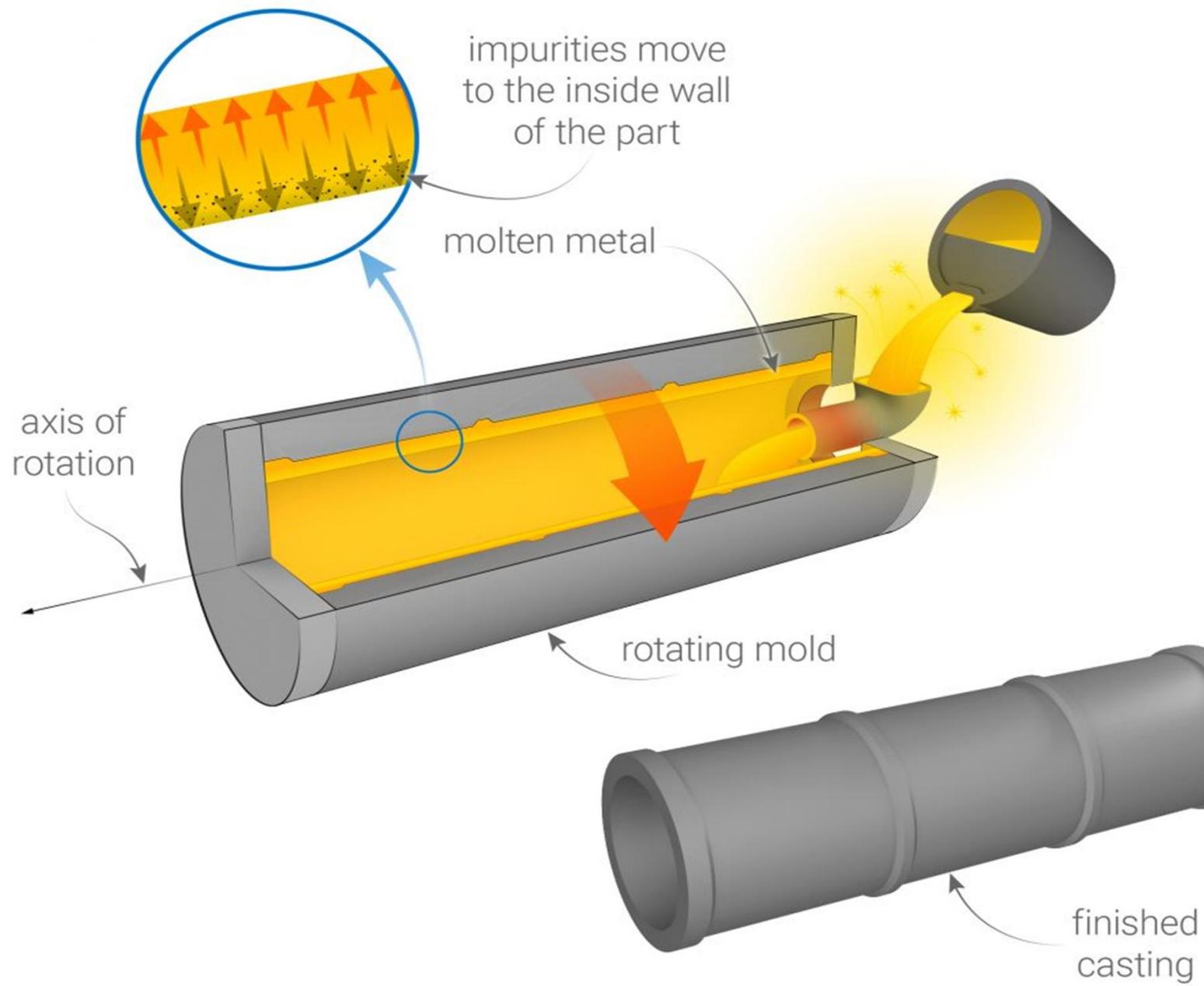


Centrifugal Casting

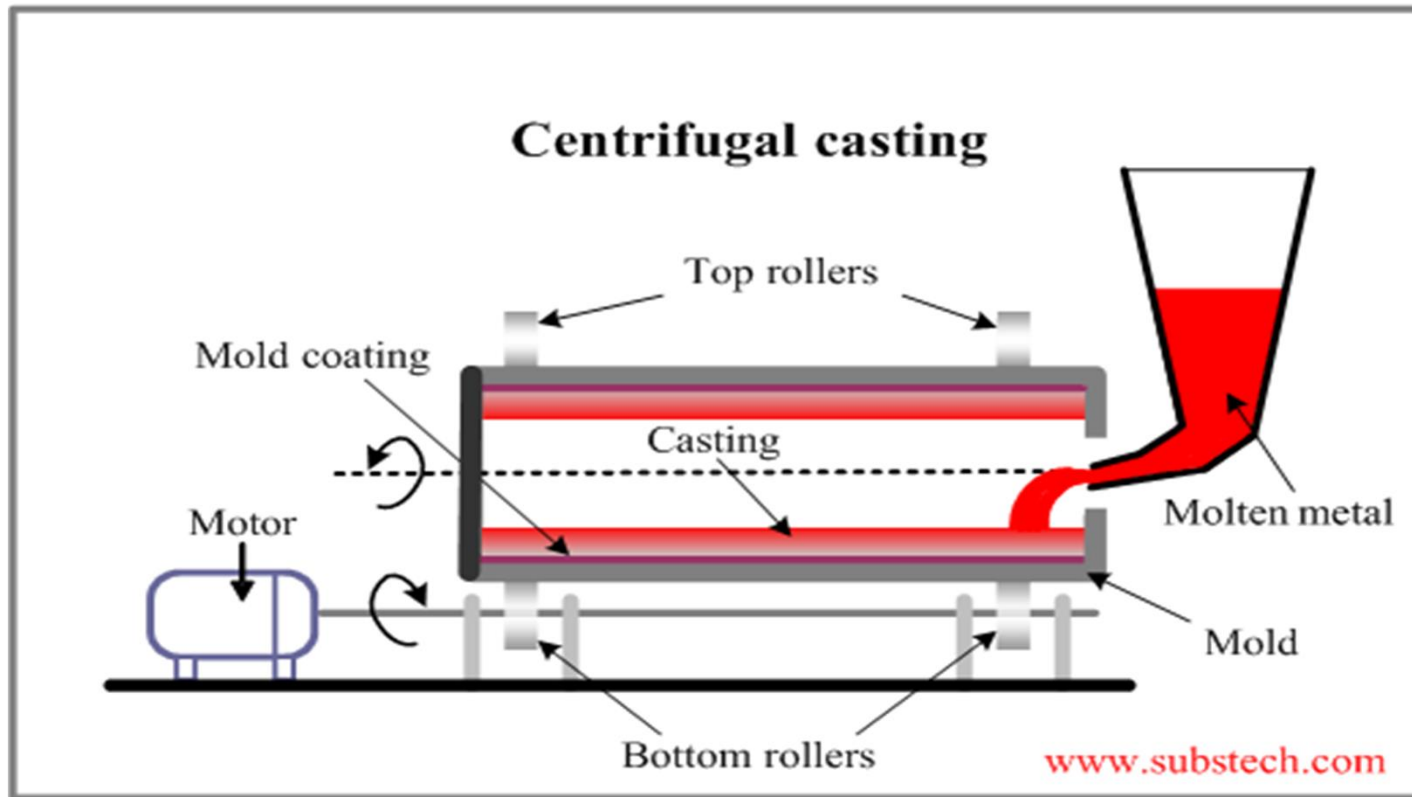
It works on basic principle of centrifugal force on a rotating Component. In this process, a mould is rotated about its central axis when the molten metal is poured into it. A centrifugal force acts on molten metal due to this rotation, which forces the metal at outer wall of mould. The mould rotates until the whole casting solidifies. The slag oxide and other inclusion being lighter, gets separated from metal and segregate towards the center.







True centrifugal casting is sometime known as centrifugal casting is a process of making symmetrical round hollow sections. This process uses no **cores** and the symmetrical hollow section is created by pure centrifugal action.



Semi Centrifugal Casting : This process is used to cast large size axi symmetrical object. In this process mould is placed horizontally and rotated along the vertical axis. A core is inserted at the center which is used to cast hollow section.

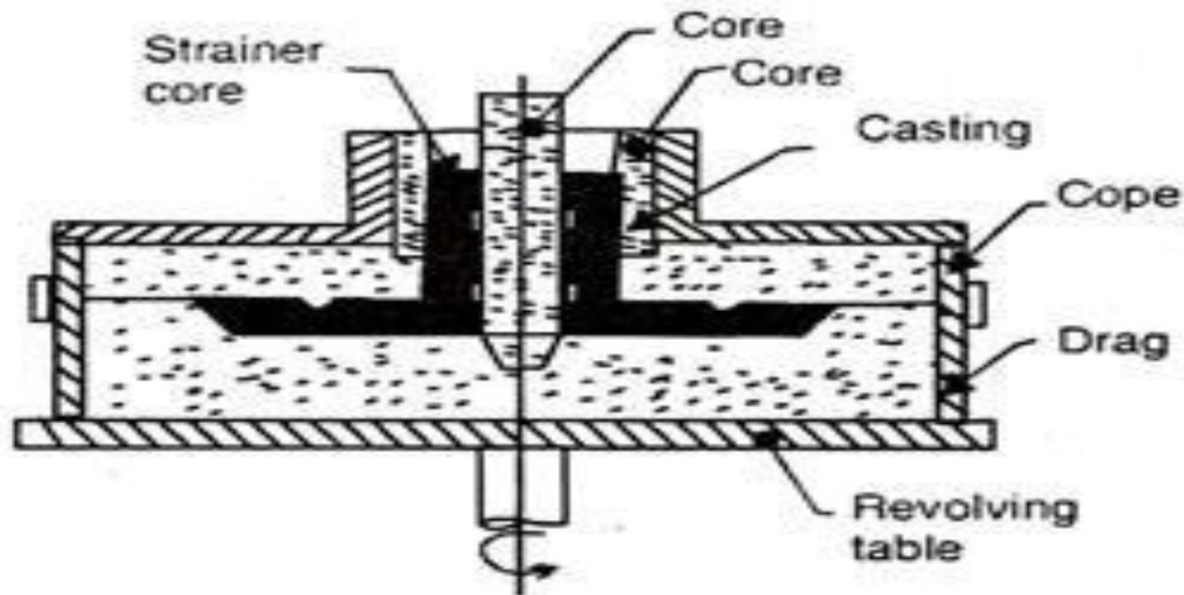
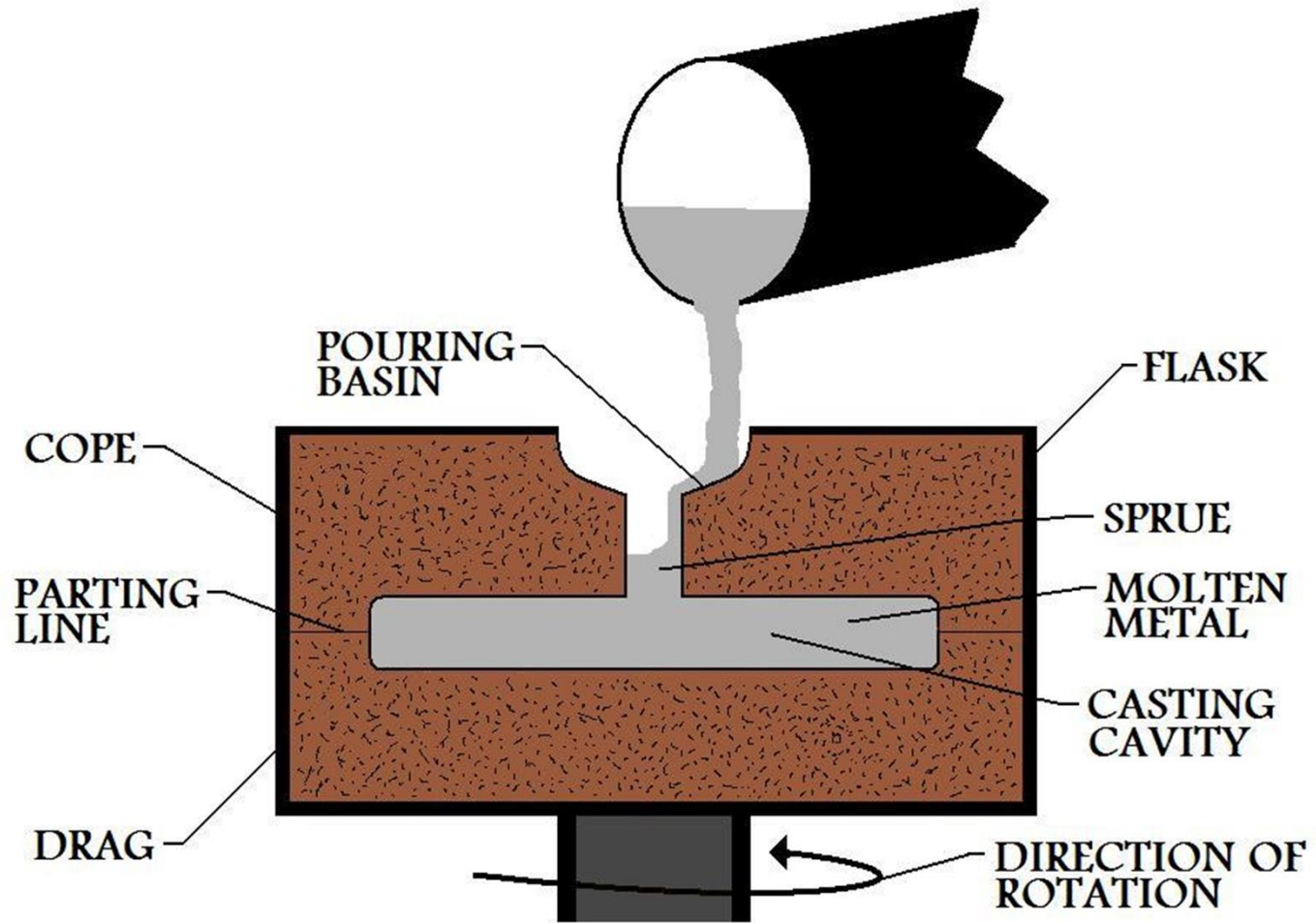


Fig. 4.16. Semi-centrifugal Casting.

SEMICENTRIFUGAL CASTING POURING OF A WHEEL



Centrifuging: In this process there are several mould cavities connected with a central sprue with radial gates. This process uses higher metal pressure during solidification. It is used to cast shapes which are not axi symmetrical. This is only suitable for small objects.

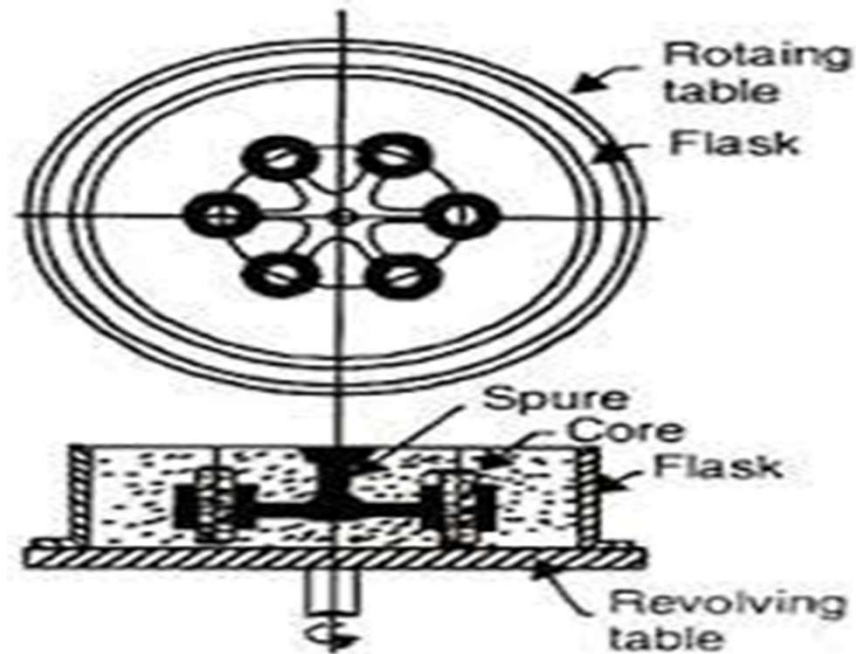


Fig. 4.17. Centrifuging casting.

- **Advantages:**

- It provides dense metal and high mechanical properties.
- Unidirectional solidification can obtain up to a certain thickness.
- It can use for mass production.
- No cores are required for cast hollow shapes like tubes etc.
- Gating system and runner are totally eliminated.
- All the impurity like oxide or other slag particles, segregated at center from where it can easily remove.
- It required lower pouring temperature thus save energy.
- Lower casting defects due to uniform solidification.