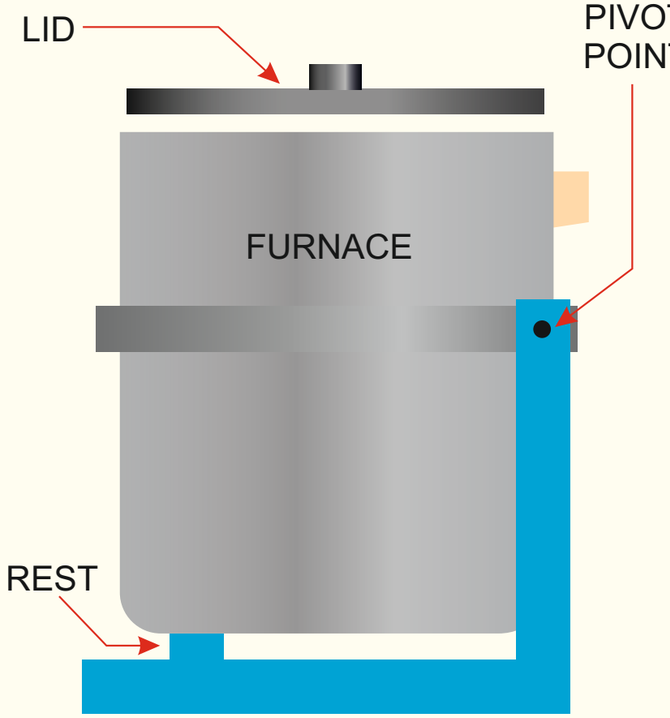
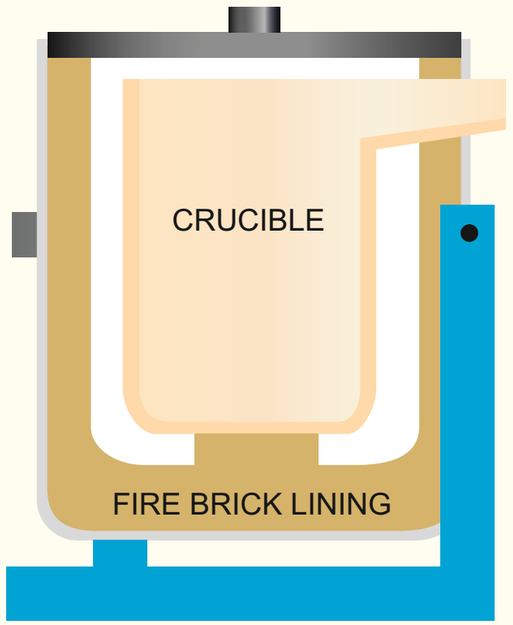
MODERN SAFETY CRUCIBLE FURNACE

Modern Safety Crucible Furnaces, are the type preferred in most schools. They are ideal for casting aluminium.

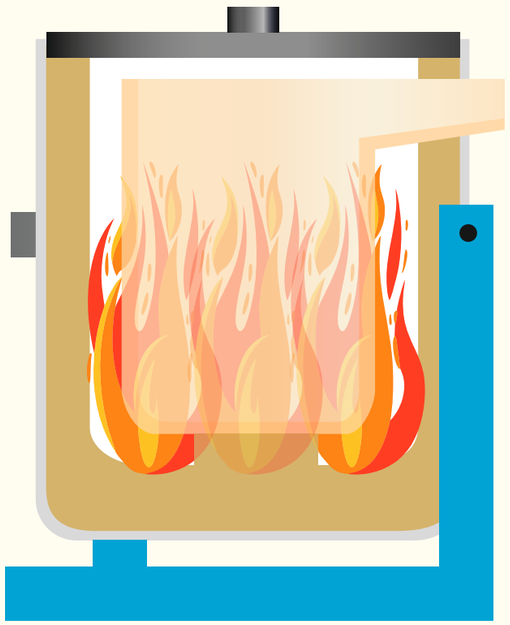
The entire furnace, including the 'charged crucible', pivots at one point of rotation. This reduces the potential for an accident, because the pouring procedure is much easier to control, compared to a typical cylindrical shaped furnace, which requires up to three trained people to pour. One person can control and pour the safety crucible.



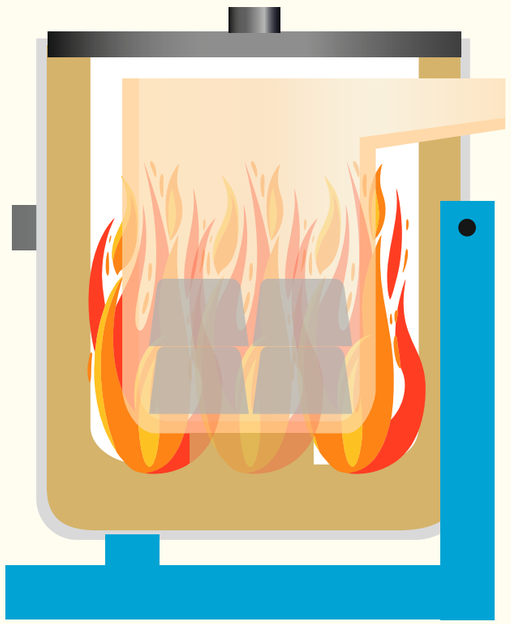
1. CHECK THE CONDITION OF THE FURNACE AND CRUCIBLE.



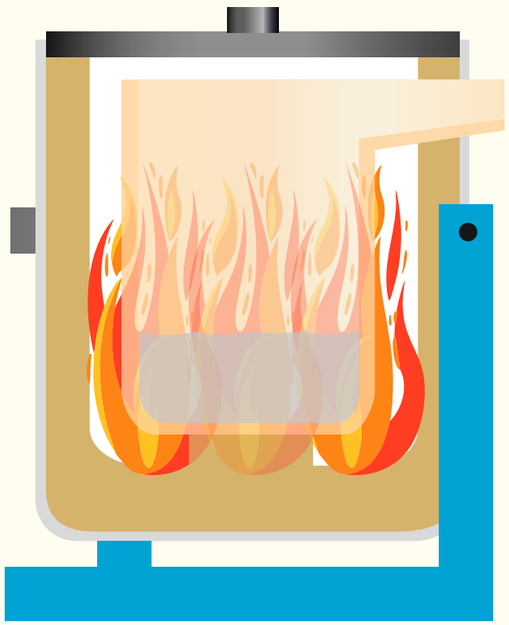
2. PREHEAT THE FURNACE TO WARM UP AND EVAPORATE MOISTURE.

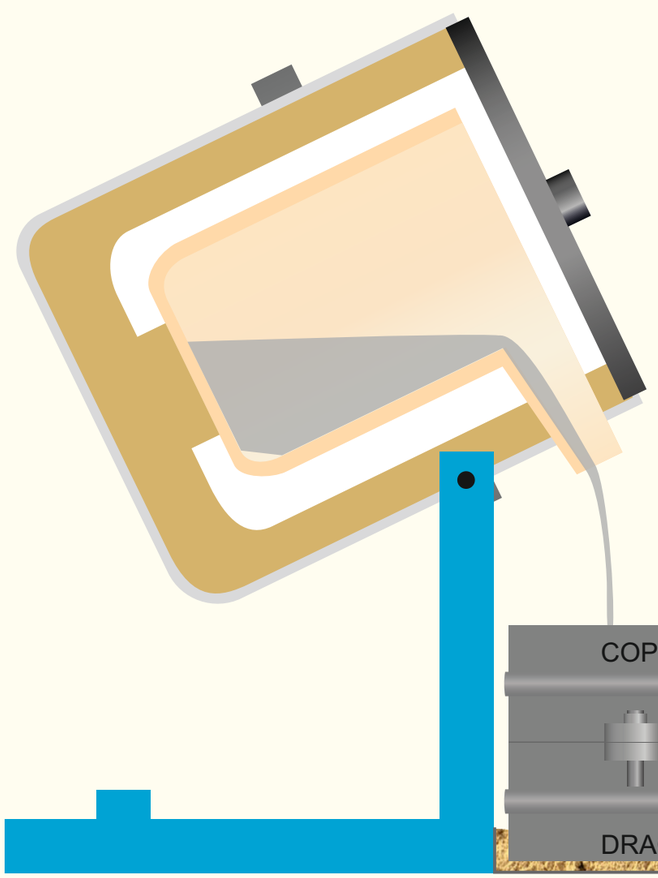


3. ADD SUFFICIENT INGOTS FOR THE CASTING PROCEDURE (CALLED 'CHARGING' THE CRUCIBLE).
Flux can be sprinkled over the aluminium to prevent oxidation.



4. HEAT THE ALUMINIUM UNTIL IT BECOMES MOLTEN AND THE TEMPERATURE REACHES 700 DEGREES CENTIGRADE.
A degassing tablet can be added at this stage, if required.





5. POUR THE ALUMINIUM USING THE HANDLE AT THE SIDE OF THE FURNACE. THIS LIFTS AND ROTATES THE FURNACE AND THE CRUCIBLE, POURING THE MOLTEN ALUMINIUM.
Note the sand under the casting boxes.
If a spill occurs, the molten aluminium lands on the sand.