

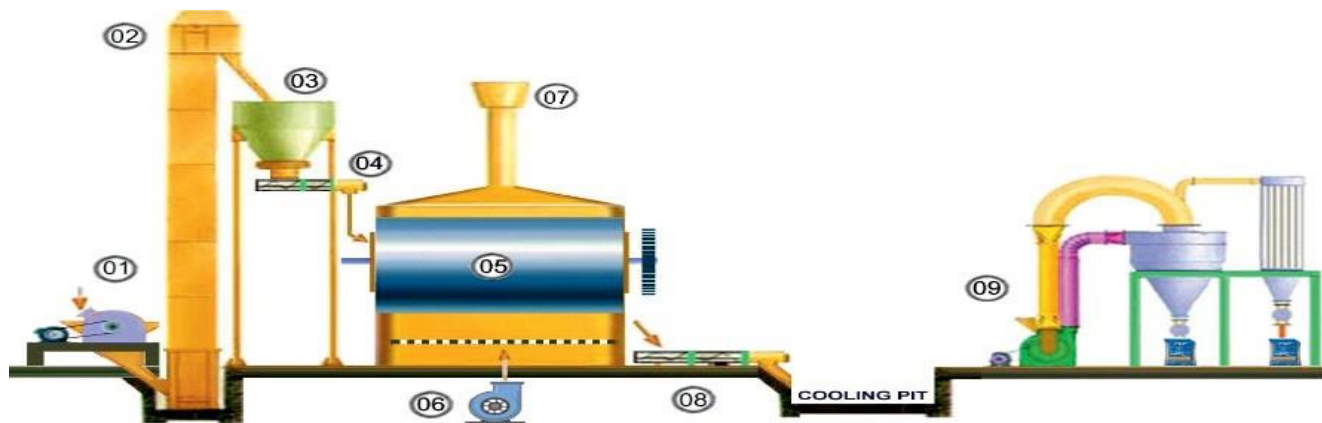
Concept Design of a Rotary Calcinator & Process for Manufacturing of Beta Hemihydrate Plaster (Plaster of Paris) from all Dehydrated Gypsum

Technology in Brief

In this technology, Raw Gypsum is crushed in an Impact Crusher/ Hammer Mill and stored automatically by means of a Bucket Elevator into a hopper. Gypsum ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$) sample is heated at $110\text{-}150^\circ\text{C}$ for 1-2 hours in a rotary calcinatory for conversion into β -hemihydrate plaster. The raw material is charged to the calcination by means of a screw feeder for calcination by batch. The calciner is enclosed by a masonry brick furnace in which wood/LDO fuel is fired for providing required heat for calcination. A combustion blower provides combustion air and flue gases escape out through a stack.

Salient Features/Advantages

- Setting time: 20-40 min, Transverse strength: Min-0.5 MPa.
- Low carbon foot print technology.



Properties & Standards	Meets the specification as per IS: 2547-1976, Part I
End Product(s)	Semi-Automatic Plaster of Paris (PoP) Plant
License/Commercialization	M/s AB Engitech, Jodhpur
TRL	8
Environmental Impact	Low carbon foot print technology
Setup - Equipment/Material required	Hammer Mill, Rotary Calcinatory, Dryer, Packing Equipment, Blender/Ball Mill etc.