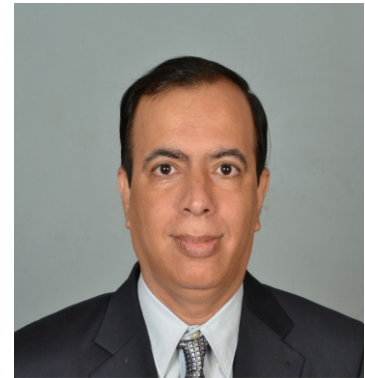


# FLUE-GAS DESULFURIZATION (FGD)

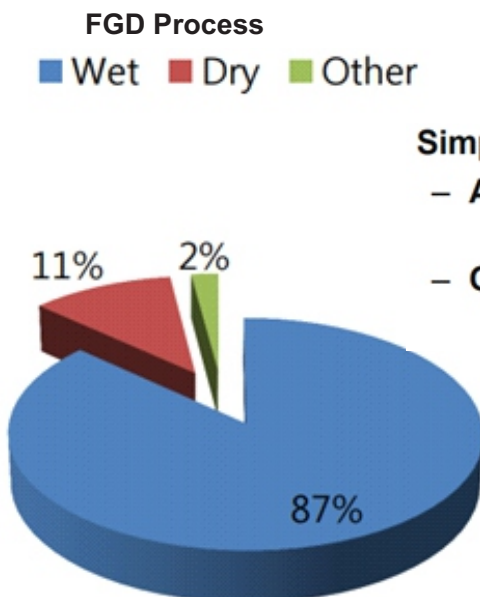


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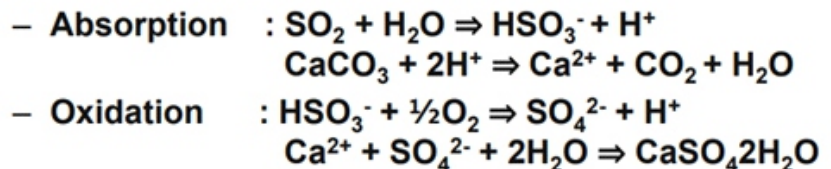
**F**lue-gas desulfurization (FGD) is a set of technologies used to remove sulfur dioxide (SO<sub>2</sub>) from exhaust flue gases of fossil-fuel power plants, and from the emissions of other sulfur oxide emitting processes.

Thermal power plant flue gas desulphurization device in order to fully oxidize calcium sulfite slurry to calcium sulfate, a desulfurization oxidation blower is especially provided to introduce air into the absorption tower. Oxidation blowers generally use Turbo/Roots blowers because of the high-pressure requirements. According to the level of absorption tower liquid level, that is, the need of blower head, it is divided into a primary oxidation blower and secondary oxygen weathering.

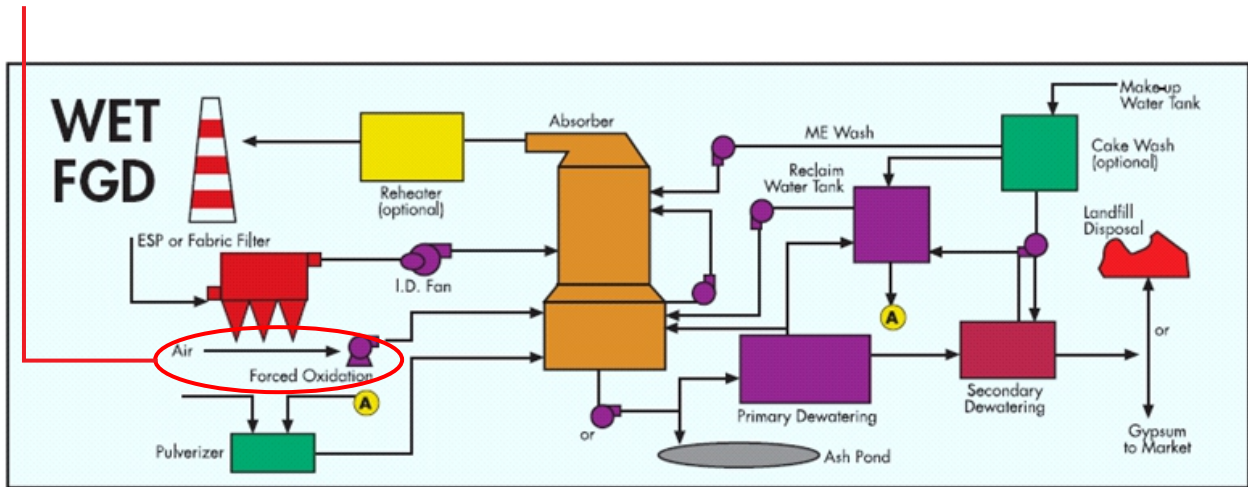
## Type of FGD Process



### Simplified Chemical Reaction in Absorber



**WET FGD SYSTEM**

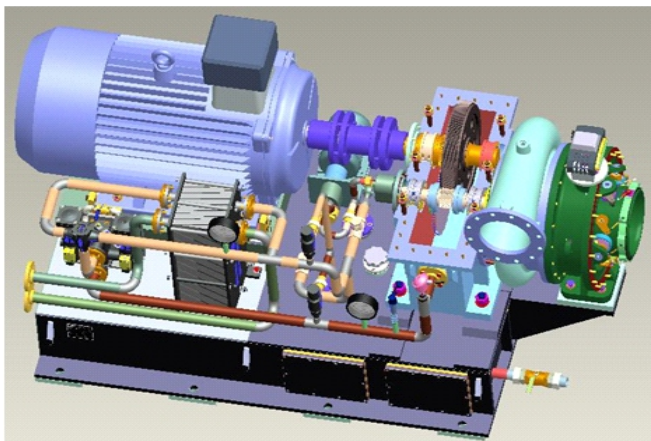


- Sulfur in the flue gas is “captured” by the water spray.H2S precipitates with limestone.
- Droplets collect in the slurry at the bottom of the absorber
- and react with the oxygen in the water to form Calcium Sulfate (Gypsum).
- Blowers are used to provide air (oxygen) for the appropriate reaction to occur.

Everest has a complete range of blowers (Turbo/Lobe blowers) to cater the FGD business. Everest 's Turbo Blowers can achieve maximum flow capacity upto 1000m<sup>3</sup>/min and discharge pressure upto 2.0 Kg/cm<sup>2</sup>.

Our Turbo blower has a smaller footprint, they are compact in size. Turbo Blowers are highly energy efficient & best in Class. Everest provides the widest range for Impeller material selection: Forged Aluminum, Forged Steel or Stainless Steel. We have an extensive Reference List of our Turbo blowers running successfully in FGD application all over the world for many years.

The Gear Box design for turbo blower is very robust as helical type gears are installed which are hardened by Nitrogen-Hardening process which have an operating life of more than 25 Years.



## ROOTS BLOWERS IN FGD

Everest is a leading manufacturer of Roots Blowers in India and Everest group have been manufacturing conventional twin/tri lobe roots blowers since past 40 years.

Everest offer a complete range of twin/tri lobe roots blower, available for flow rates from 25m<sup>3</sup>/hr. to 80,000 m<sup>3</sup>/hr. in single stage and working pressures upto 2 Kg/cm<sup>2</sup>.



- Silent Features of our state-of-the-art Roots Blowers:
- 100% oil free air delivery.
- Factory engineered, factory guaranteed, superior product.
- Horizontal & Vertical configurations available.
- Fail safe labyrinth sealing.
- Non-contact type labyrinth seals, with vent, offer lifelong sealing without any seal replacement need.
- Extended shaft design for cool running.
- Large inlet and outlet connections for minimal loss.
- All Blowers are manufactured on State-of-the-art CNC machines
- Extensive Reference List in FGD Application all over the world



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