



MG – Spray Dry Nozzle

A spraydry process performs the action of separating water or another liquid from a solution, an emulsion or a suspension, for the purpose of obtaining the solid part of the feed fluid under the form of powder.



This is obtained pumping the liquid feed product into a tower, where the same is atomized into drops and put in contact with a stream of hot air. By heating through thermal convection, the liquid part of each drop evaporates, leaving the solid residue of the drop falling to the bottom of the tower as a powder grain.

Air Assisted Lances

In these nozzles an additional fluid, compressed air, supplies most of the energy required for dispersing the liquid flow fed to the nozzle into minute droplets. The liquid, which is admitted to the whirl chamber under a relatively low pressure, is broken into small droplets by means of a three stage process, that is:

- ✓ the liquid flow is first led to impact against a solid surface, thus being broken into drops
- ✓ the resulting drops are then applied noticeable shear forces by the high speed air flow
- ✓ the drops impinge onto the deflector and are finally entrained into the air flow existing the atomizer.

In those cases where it is possible to accept the higher energy cost required from the supply of compressed air, very fine droplets can be obtained. Air assisted atomizers are specially effective when viscous liquids need to be atomized.