

## ***AUX Series Spray Dry Nozzles with integrated High Pressure Valve***

The new patent pending AUX spray dry nozzle series combines the function of our improved traditional spray dry nozzles with an integrated pneumatic operated high pressure valve. Unlike conventional nozzles with a check valve, this valve is operated independently from the feed stock pressure. The maximum working pressure of the AUX is 250 bar and can be operated at any given liquid pressure up to that pressure. The universal design will fit both the core type and whirlchamber type caps. The needle shut off seat is close to the inlet of the core and the whirl chamber thereby preventing the nozzles from dripping after shut off.



### **Performance**

For safety the AUX series are air actuated and will open between 8 and 10 bar air pressure. The AUX valves are controlled by either a normally open three-way or a normally closed three-way solenoid valve. The AUX series not only makes start up and shut down of the drying process easier, but also saves time.

The unit is remotely controlled and will open or close in 0.4 seconds making it possible to switch to a spare nozzle in case of clogging or other problems with another nozzle.

In conventional systems clogging limits the production time of the tower. With the AUX nozzle you can clean or replace the nozzle components and actually extend your production time.

Since the nozzle and valve are mounted on the end of the lance they are very easy to maintain, as compared to conventional high pressure valves that are mounted up stream in fixed piping systems. It only takes seconds to replace the cap with the orifice and core or whirl chamber even while the drying tower is in full operation and the nozzle under full pressure. You can also connect several nozzles to one feed stock lance by using our new AUX version with an inlet and outlet connection. Depending on the construction it is even possible to recirculate the feed stock.

### **Design**

Standard components are made of 303 and 316 stainless steel. The compact nozzle design includes a shut off needle which is air actuated with a valve seat for 100% shut off. The needle tip and the valve seat are specially hardened for wear resistance and complete shut off. The air section and the fluid section are separate from each other to prevent air and oil contaminating the feed stock. All wetted parts are made of FDA-approved materials.

**AUX nozzles are suitable for all combinations shown below.**



### **Advantages**

- Easy and controlled operating start up and shut off.
- Replaces pressure regulated check valves avoiding pressure loss.
- No dripping or fouling of the drying tower.
- Replaces expensive and hard to repair high pressure valves.
- The nozzle with valve can easily be connected to the CIP- couplings and shorten the cleaning time.
- Safe air operated cylinder.
- The components in the cap are replaceable while the tower is in operation offering longer production runs.
- Longer production runs you energy, water, and actually increases production.
- With one spare unit it is possible to open one unit and close the other at exact the same time.