



**FLOMAX NOZZLES PROVIDE UNMATCHED EFFICIENCY IN EVAPORATIVE GAS COOLING**



Very few air atomizing nozzles are suitable for use in gas conditioning since tight control of drop size and spray coverage is required to cool hot gases and reduce gas volume. And, of those that are suitable, none offer the performance of our FloMax Air Atomizing nozzles. FloMax nozzles use a patented three-stage atomization process to produce very small drops using less air than competitive nozzles.

The competitive advantages of FloMax nozzles extend beyond drop size.

- Higher turndown ratios
- Large flow rates per nozzle so fewer nozzles are required for cooling
- Special materials such as Hastelloy® and Stellite® are available in addition to 316 and 310 stainless steel
- Large free passage allows flexibility in water sources

FloMax nozzles are available in a wide range of flow rates:

Nozzle Type	Capacity (gpm)	Capacity (l/min)
FM 1	0.5 to 2.5	1.8 to 9.5
FM 5	2.0 to 7.0	7.6 to 26.5
FM 10	4.0 to 13.0	15.0 to 49.2
FM 25	15.0 to 30.0	57.0 to 114
FM 40	14.0 to 52.0	53.0 to 197

**FLOMAX PRINCIPLE OF OPERATION**

**34% Smaller**

Drop size reduces dwell time for complete evaporation.

**Stage Three: Final Mixing**

Air cap acts as a final mixing chamber. As liquid crosses multiple orifices, an additional pressure drop provides the final atomization.

**Stage One: Primary Fluid Breakup**

Air and liquid combine behind the air guide. The pressure drop across the air guide orifice provides primary atomization of the liquid stream.

**Stage Two: Secondary Fluid Breakup**

Focused stream impacts the target bolt forcing additional mechanical breakup.





## **AUTOJET GAS CONDITIONING SYSTEMS: A COMPLETELY AUTOMATED SOLUTION THAT RESULTS IN EVEN GREATER EFFICIENCIES**

Many mills can benefit from a totally automated solution to ensure optimal gas cooling and reduce labor costs and downtime. Our AutoJet® Gas Conditioning System is designed to maximize the performance of FloMax nozzles and provides total automation.

### **System Overview:**

- Our AutoJet Spray Controller, with patent-pending SprayLogic® firmware and software, monitors and automatically adjusts the closed loop system. By regulating liquid and air flow to the nozzles based on data gathered from RTD temperature sensors, the controller offers the highest level of reactivity and accuracy for the system.
- The AutoJet Spray Controller is pre-programmed with parameters and function screens specific to gas conditioning applications, saving time and money during system implementation.
- All system components – nozzles, pumps, sensors and other hydraulic/pneumatic components – are controlled by the AutoJet Spray Controller. If a problem is detected that the controller can't resolve automatically, operator warnings will be displayed or sounded.
- Multiple lance zones can be configured to allow greater turndown of flow rate under variable system conditions. The AutoJet Spray Controller can precisely control spray performance of multiple FloMax nozzle lances in multiple lance zones.
- Variable Frequency Drive (VFD) pumps provide proportional liquid regulation and significant electricity savings. In addition, energy-efficient proportional air regulation reduces air consumption and operating costs.
- The AutoJet Spray Controller is easy to use and is equipped with complete spray "knowledge". Just provide information about your operation using the menu system and the controller will essentially configure itself.
- The AutoJet Gas Conditioning System can operate independently or can be integrated with other plant control systems.



**For more information on the AutoJet Gas Conditioning System, [click here.](#)**

**Need hydraulic nozzles? [Click here.](#)**