



GAS COOLING / QUENCHING

APPLICATION INFORMATION REQUEST FORM

All completed forms should be emailed back to: appeng@bete.com
Please fill out the following form as completely as possible to assist in the nozzle selection process.

The three sheets involved in the gas cooling / quenching application process are:

- This instruction sheet
- The data sheet (sheet A)
- The system sketch sheet (sheet B)

After reading this instruction sheet, the next step is to fill out the data sheet. Explanations of each piece of information we require are as follows.

Gas Cooling / Quenching Data Sheet:

Gas Conditions Section:

- **Pressure:** The pressure of the gas being cooled / quenched. Please be sure to indicate absolute or gauge.
- **Inlet Temperature:** The temperature of the gas at the inlet.
- **Target Temperature:** The final temperature you are trying to achieve at the outlet.
- **Inlet Humidity:** The absolute or specific humidity. While this is sometimes difficult to obtain, it is a critical piece of information. We ask you make every effort to include this with your inquiry.
- **Gas Flow:** The flow rate of the gas in terms of one of the units given.

Water Conditions Section:

- **Pressure:** The maximum available pressure your pumping system can provide.
- **Temperature:** The temperature of the water being used to cool / quench the gas.
- **Water Cleanliness:** If you answer "No" to this question please be sure to include the free passage requirement in the next question.
- **Air Availability:** The purpose of this question is to find out if an air atomizing nozzle can be used as air atomizing nozzles are almost always more effective in gas cooling/quenching applications. If air is available, please give the pressure and capacity that can be used.
- **Complete Evaporation:** Indicate if the droplets must be completely evaporated at the outlet.

System Geometry Section:

- This section asks for the basic system dimensions. Please indicate the geometry of the inlet and outlet. *We ask that this information be confirmed by drawing a basic sketch on sheet B.*

Gas Cooling / Quenching Sketch Sheet:

A sketch is important for us to know what is between the inlet and outlet in order to properly calculate the maximum allowable droplet size. The sketch does not have to be detailed, in fact the simpler, the better. Please label all basic dimensions.



DATA SHEET A

Company Information:

Company Name:
Contact Name:
Telephone:
Email:
Project / Reference:

Gas Conditions:

Pressure:	psi	bar	kPa	kg/cm ²	(Gauge	or Absolute)
Inlet Temperature:	°F	°C				
Target Temperature:	°F	°C				
Inlet Humidity:	lbm water / lbm Dry Air		kg water / kg Dry Air			
Gas Flow:	ACFM	SCFM	Nm ³ /hr	Am ³ /hr		

Water Conditions:

Pressure:	psi	bar	kPa	kg/cm ²	(Gauge or	Absolute)
Temperature:	°F	°C				
Is the water clean enough such that clogging is not a concern?					Yes	No
If you answered "No" to the above question, what free passage is required?						
Can air be used in the atomizing process to give a finer spray?					Yes	No
If air can be used, what is the available pressure and capacity?						
Is complete evaporation needed?					Yes	No

System Geometry:

Inlet Dimensions:	Inches	Feet	mm	meters
Inlet Geometry:	Round	Square	Rectangular	Other
Outlet Dimensions:	Inches	Feet	mm	meters
Outlet Geometry:	Round	Square	Rectangular	Other
Quench Length:	Inches	Feet	mm	meters



DATA SHEET B - SKETCH SHEET

Please provide a basic sketch of the quench system components. The sketch does not have to be detailed. In fact, the simpler, the better. Please include the following in the sketch:

- Basic dimensions
- Anticipated or known nozzle locations
- Gas direction
- Any other information you think will assist us in selecting the best nozzle for your application

