Application Note Issue Date Y90

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Y90 Series Inlet Fitting

Applications

The Y90 inlet fitting controls the flow of gas to a pilot burner. The orifice hole size and counterbore/coining, along with the applied gas pressure, determine flame size and characteristics.

Pilot burner inlet fittings consist of an inlet tip (containing the orifice holes) and a threaded inlet body allowing connection of the pilot line. The orifice holes are used to direct and control the flow of gas to a pilot burner. The inlet fitting positions the orifice holes in relation to the pilot burner's aeration opening and pilot

The majority of inlet fittings Johnson Controls manufactures have two orifice holes offset at an angle. In an inlet fitting with counterbore/coining, the pilot gas streams intersect. The turbulence caused by this intersection provides better gas and air mixing for combustion. Figure 1 illustrates the counterbore/coining of an orifice. The two holes are drilled at 90° to the counterbore/coining surface.

The gas flow rate and pattern is dependent upon the gas pressure, drill size, counterbore, and wall thickness (or web) of the inlet tip.

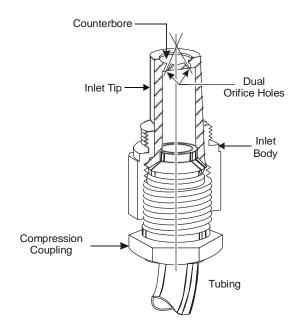


Figure 1: Counterbore/Coining of Orifice

Technical Specifications

Product	Y90 Series Inlet Fitting	
Material	Inlet Tip: Aluminum Inlet Body: Brass	
Maximum Temperature	Inlet Tip: 635°F (33 Inlet Body: 750°F (39	,
Maximum Applied Gas Pressure	Natural Gas Liquefied Petroleum (LF	10.5 in. W.C. (26.15 mbar) 14 in. W.C. (35 mbar)
Specification Standards	ANSI Z21.20 CAN1-6.4	

Performance specifications are nominal and conform to acceptable industry standards. All agency certification of BASO products is performed under dry and controlled indoor environmental conditions. Use of BASO products beyond these conditions is not recommended and may void the warranty. Product must be protected if exposed to water (dripping, spraying, rain, etc.) or other harsh environments. The original equipment manufacturer or end user is responsible for the correct application of BASO products. Consult BASO Gas Products LLC for questionable applications. BASO Gas Products LLC shall not be liable for damages or product malfunctions resulting from misapplication or misuse of its products.

Refer to the J Series Pilot Burners/Y90 Series Inlet Fitting Product Bulletin (BASO-PB-PILOTS/Y90) for necessary information on operating and performance specifications for this product.

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