

623 Series Delivery System

*Laser Assist Gas
Dual Body Design
Ultra High Flow
Dome Loaded*



623-5002 shown

The 623 is an Ultra High Flow gas delivery system for laser purity gases. Typically these gases are supplied from low pressure (less than 600 PSIG/42 BAR) cryogenic supply systems. The 623 is designed for direct installation to the external vaporizer. The dome-loaded, balanced stem seat design allows for full flow capacity that may be required for the assist or process gases and ensures constant delivery flow and pressure regardless of supply source inlet pressure fluctuations.

Advanced Features

- *Up to 4,500 PSIG Inlet Available*
Liquid or high pressure use
- *High Flow Delivery Regulator*
ISOFLOW™ seat design
- *40-Micron Internal Filter*
Limits possibility of gas contamination
- *Variable Line Pressure*
Line pressure adjustable on site
- *Wall Mounting Bracket*
Easy installation
- *Right and Left Hand Inlets Available*
Flexible installation options
- *0-500 PSIG Model*
Lower static loss yields better performance for cryogenic applications

Applications

Assist Gases from Cryogenic Supply
Nitrogen and Oxygen
(Use low inlet models for MVE Laser-Cyl™*, TW™ VHP liquid cylinder*, MVE Trifecta™, CTR Laser Maid™, and TW™ Laser Pak Systems)

**Requires optional external ambient air vaporizers for maximum flow capacity.*

Assist Gases from High Pressure Supply
Nitrogen and Oxygen
(Use high inlet models with "Gas Paks", cradles, and tube trailers)

Materials

Delivery Regulator

Brass barstock body and bonnet
PTFE seat* or PCTFE seat†
PTFE and Viton® (internal)

Pilot Regulator

Brass barstock body and bonnet
PTFE seat* or PCTFE seat†
PTFE and Viton® (internal)

Tubing and Tube Fittings

316L stainless steel

Pressure Gauges (PSIG/BAR Dual Scale)

Brass (Socket)
Bronze (Bourdon tube)
Brass (Case)

**3,000 PSIG (208 BAR) inlet
†4,500 PSIG (310 BAR) inlet*

Specifications

Maximum Inlet Pressure

600 PSIG (42 BAR),
3,000 PSIG (210 BAR) or
4,500 PSIG (310 BAR)

Temperature Range

-40 to 140°F (-40 to 60°C)

Maximum Flow (Nitrogen)

10,000 SCFH (4700 lpm)

Inlet Connection

½" FPT

Outlet Connection

½" FPT

Weight

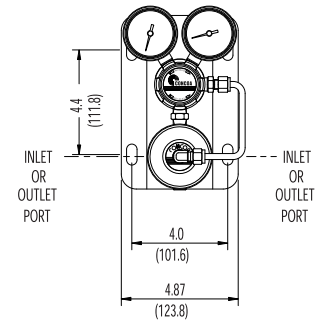
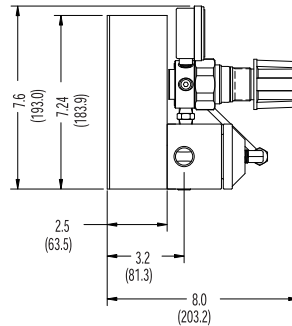
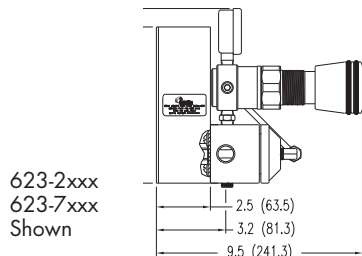
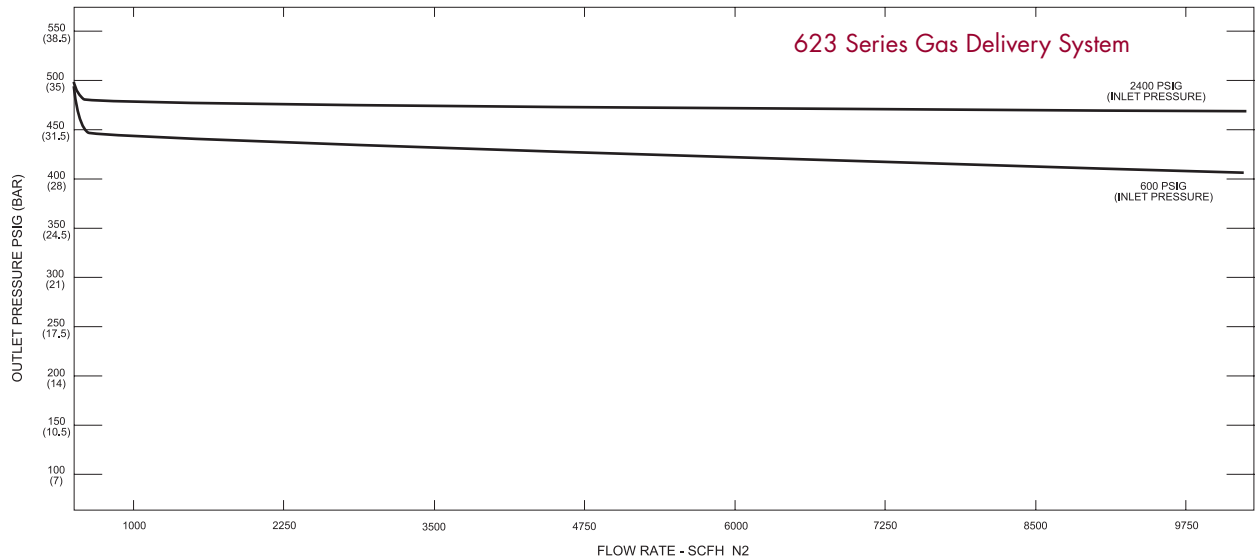
12.6 lbs. (5.7 kg)

CONCOA

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Flow Performance Curves



Ordering Information

623-	A	B	C	D
Series 623	Outlet Pressure	Inlet Connection	Outlet Connection	Assembly Orientation/ Maximum Inlet Pressure
	2: 0-2,000 PSIG (0-136 BAR) 5: 0-500 PSIG (0-35 BAR) 7: 0-725 PSIG (0-50 BAR)	0: ½" FPT Port 1: ½" Stainless Steel Compression Tube 2: Diaphragm Valve ½" FPT 3: Diaphragm Valve ½" Tube 4: 36" Pigtail 5: Diaphragm Valve with 36" Pigtail 6: 72" Pigtail 7: Diaphragm Valve with 72" Pigtail 8: Manifold Connector* 9: Manifold Connector with Master Valve* <i>*Not available with 4,500 PSIG inlet</i>	0: ½" FPT Port 1: ½" Stainless Steel Compression Tube 2: Diaphragm Valve ½" FPT 3: Diaphragm Valve ½" Tube 4: 3/8"-37° JIC Male Flare	0: Right Hand Inlet 600 PSIG (42 BAR) 1: Left Hand Inlet 600 PSIG (42 BAR) 2: Right Hand Inlet 3,000 PSIG (210 BAR) 3: Left Hand Inlet 3,000 PSIG (210 BAR) 4: Right Hand Inlet 4,500 PSIG (310 BAR) 5: Left Hand Inlet 4,500 PSIG (310 BAR)

Related Options

Option	Series	Description
Cryogenic liquid hoses	See page 53	Supply liquid gas to vaporizers
Tube trailer hoses	See page 51	Connection from high pressure tube trailer to gas delivery systems
Vaporizer	See page 53	Vaporizer specifically designed for use with the 623 gas delivery system

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