



## 603 Series Line Regulator

The 603 Series regulators are intended for secondary pressure control of pipeline applications with requirements up to 250 PSIG.

### Advanced Features

- **High Flow Delivery Regulator**  
ISOFLOW™ seat design
- **40-Micron Internal Filter**  
Limits possibility of gas contamination
- **Balance Stem Seat**  
Eliminates decaying inlet pressure fluctuation
- **Stainless Steel Diaphragm**  
UHP design



603-3011-TF8 shown

### Applications

- Laser Assist Gases**  
Air, Nitrogen, and Oxygen
- Microbulk or Bulk Supply Systems**
- Membrane Systems Assist or Beam Purge**
- Nitrogen and Clean Dry Air with Requirements Greater than 1000 CFH**
- Bulk Beam Purge Supply Nitrogen**
- Laser Welding Pipeline Shielding Gases**  
CO<sub>2</sub>, Argon, Helium

### Materials

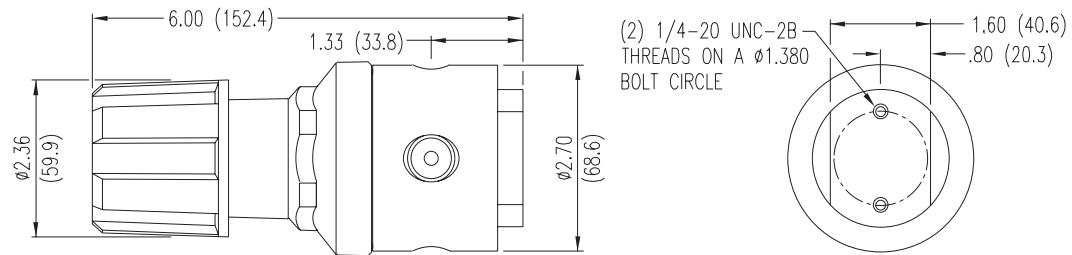
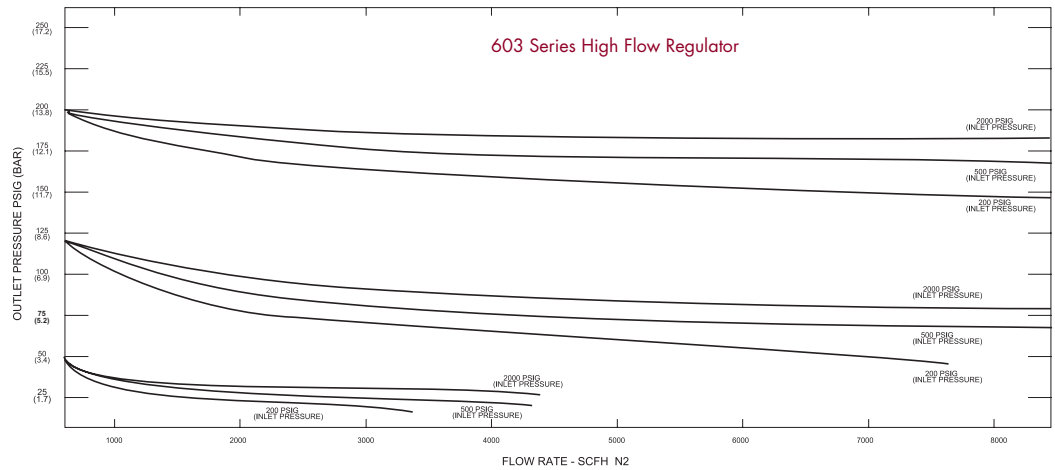
- Body**  
Brass barstock
- Bonnet**  
Chrome-plated die cast zinc
- Seat**  
PCTFE
- Filter**  
40-micron 316L stainless steel mesh
- Diaphragm**  
316L stainless steel
- Internal Seals**  
PTFE

### Specifications

- Maximum Inlet Pressure**  
3,000 PSIG (210 BAR)
- Temperature Range**  
-40°F to 140°F (-40°C to 60°C)
- Gauge**  
2" diameter brass
- Ports**  
1/2" FPT (inlet/outlet)  
1/4" FPT (gauges)
- Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec
- Cv**  
1.0
- Weight**  
4.4 lbs. (2 kg)
- Rear Panel Mountable**

Assist Gas Supply

## Flow Performance Curves



Assist Gas Supply

## Ordering Information

603	A	B	C	D	Inlet	
<b>Series 603</b>	<b>Outlet Pressure</b>	<b>Outlet Gauge</b>	<b>Inlet Gauge</b>	<b>Outlet Assemblies</b>	<b>Assembly/Gauges</b>	<b>Connections</b>
	1:0-15 PSIG	0-30 PSI	0:None	0:1/2" FPT Port	1:Right Hand Inlet (PSI/kPa Gauges)	000:1/2" FPT
	2:0-40 PSIG	0-60 PSI		1:1/2" Tube Fitting	2:Right Hand Inlet (BAR/PSI Gauges)	M12:12mm Tube Fitting
	3:0-120 PSIG	0-200 PSI		P:12mm Tube Fitting	6:Left Hand Inlet (PSI/kPa Gauges)	TF8:1/2" Tube Fitting
	4:0-200 PSIG	0-400 PSI			7:Left Hand Inlet (BAR/PSI Gauges)	
	5:0-250 PSIG	0-400 PSI				

## Related Options

Option	Order No.	Description
Laser Panels	See Page 9	Three Gas Panel delivery systems for the Laser Gases (Helium, Nitrogen and Carbon Dioxide)
Purge Devices	See Page 50	Tee and Straight Purge configurations to satisfy all requirements
Mounting Bracket	835-0204	Rear panel mount bracket kit