

# 445 Series Regulator

CRN OH 5216.5C

*Single Stage*

*Rear Entry*

*316L Stainless Steel  
Barstock Body*

*Five-Port  
Configuration*

*316L Stainless Steel  
Diaphragm*

The 445 Series regulators are intended for secondary pressure control of ultra-high purity and corrosive gases or as point-of-use pressure control in high purity gas distribution systems.

## Advanced Features

- *Stainless steel barstock body*  
Smooth surface finish
- *Front and rear panel-mountable*  
Versatile system configuration
- *Pressure ranges 0-15 to 0-500 PSIG*  
Broad range of applications
- *3000 PSIG inlet pressure rating*  
Safe use with high pressure cylinders

## Typical Applications

- *Bulk gas distribution systems*
- *Gas and liquid chromatography*
- *Ultra-high purity carrier gases*
- *Zero, span and calibration gases*
- *High purity chamber pressurization*
- *Liquefied hydrocarbon gas control*
- *Control of cryogenic gases*
- *Corrosive service*



445-2021 shown

## 400 Advantage

## Materials

## Specifications

- *Metal-to-metal diaphragm seal*  
No possibility of gas contamination
- *Capsule® seat*  
Increased serviceability and life
- *316L stainless steel diaphragm*  
No inboard diffusion
- *Orientable captured vent capable*  
Safety in any installation
- *Low wetted surface area*  
Minimal purge requirements
- *Field-adjustable pressure limit*  
Safeguard downstream equipment
- *Pipe away relief valve*  
Safely vents exhaust gases

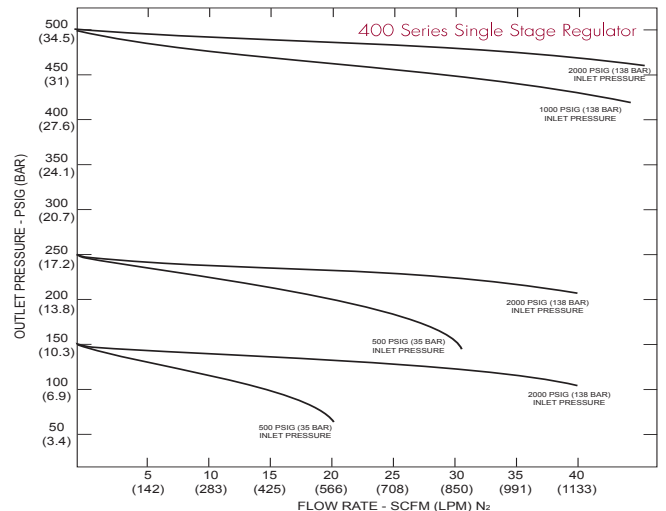
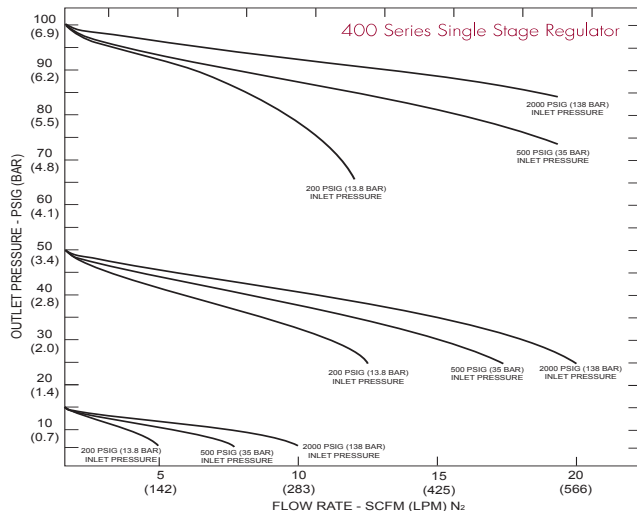
<i>Body</i>	316L stainless steel barstock
<i>Bonnet</i>	Chrome-plated brass barstock
<i>Seat</i>	PTFE
<i>Filter</i>	10 micron stainless steel multi-layer mesh
<i>Diaphragm</i>	316L stainless steel
<i>Internal Seals</i>	PTFE

<i>Maximum Inlet Pressure</i>	3000 PSIG (210 BAR)
<i>Temperature Range</i>	-40°F to 140°F (-40°C to 60°C)
<i>Gauge</i>	2" diameter stainless steel
<i>Ports</i>	¼" FPT
<i>Helium Leak Integrity</i>	1 x 10 <sup>-9</sup> scc/sec
<i>Cv</i>	0.1 (Max outlet 50 PSIG or below) 0.2 (Max outlet above 50 PSIG)
<i>Weight (445-2021-TF4)</i>	2.57 lbs. (1.17 kg)

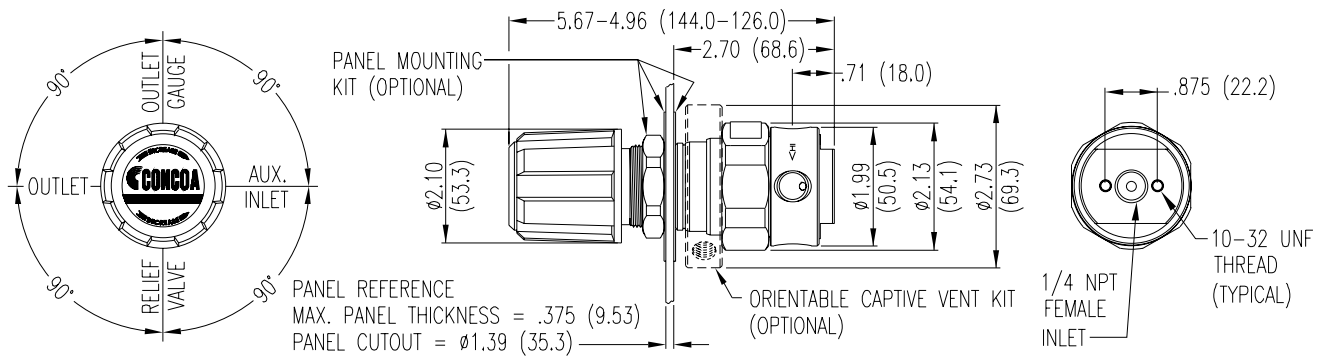
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# Flow Performance Curves



400 Series Rear Inlet Regulators



## Ordering Information *(For information about how to use this table please see page 4.)*

445	A	B	C	D	-Inlet	Options
<b>Series 445</b> <b>Outlet Pressure</b> 1: 0-15 2: 0-50 3: 0-100 4: 0-250 5: 0-500** 7: 0-150  **Standard assembly does not include relief valve	<b>Outlet Gauge</b> 30"-0-30 PSIG 30"-0-100 PSIG 30"-0-200 PSIG 0-400 PSIG 0-1000 PSIG 30"-0-200 PSIG	<b>Inlet Gauge</b> 0: None	<b>Outlet Assemblies</b> 0: 1/4" FPT Port 1: 1/4" MPT 2: 1/4" Tube Fitting 3: Diaphragm Valve 1/4" Tube Fitting 4: Diaphragm Valve 1/4" MPT 5: Needle Valve 1/4" MPT 6: 1/8" Tube Fitting 7: 3/8" Tube Fitting 8: Diaphragm Valve 1/8" Tube Fitting 9: Diaphragm Valve 1/4" FPT M: 6mm Tube Fitting S: Diaphragm Valve 6mm Tube Fitting	<b>Assembly/ Gauges</b> 0: Bare Body 1: Standard Assembly (PSIG/kPa Gauge) 2: Standard Assembly (BAR/PSIG Gauge) 4: Cleanroom Assembly (PSIG/kPa Gauge) 5: Cleanroom Assembly (BAR/PSIG Gauge)	<b>Inlet Connections</b> 000: 1/4" FPT TF2: 1/8" Tube TF4: 1/4" Tube TFG: 3/8" Tube M06: 6mm Tube	<b>Installed Options</b> S: Stainless Steel Bonnet
<b>Related Options</b>		<ul style="list-style-type: none"> <li>Panel Mount Kit (550-0002)</li> <li>Captured Vent Kit (550-0001)</li> <li>Helium Leak Certification (476-0002)</li> </ul>				