

# 44-4700 Series

## Regulators - Relief / Backpressure

D44471777X012

### Specifications

For other materials or modifications, please consult TESCOM.

#### OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

**Maximum Inlet Pressure**

50 mm Hg absolute - 15 psig / 1 bar  
50 mm Hg absolute - 50 psig / 3.4 bar  
50 mm Hg absolute - 100 psig / 6.9 bar  
50 mm Hg absolute - 150 psig / 10.3 bar

**Design Proof Pressure**

150% maximum rated

**Leakage**

**Internal:** Bubble-tight

**External:**  $\leq 2 \times 10^{-8}$  atm cc/sec He

**Ambient Operating Temperature**

-40°F to 165°F / -40°C to 74°C

**Flow Capacity**

$C_v = 0.04$

$C_v = 0.30$  (optional)

**Maximum Operating Torque**

25 in-lbs / 2.8 N•m

#### MEDIA CONTACT MATERIALS

**Body**

316 Stainless Steel

**Bonnet**

Electroless Nickel Plated Brass

**Seat**

Teflon®

**Spring Main Valve and Bias**

316 Stainless Steel

**Diaphragm**

316 Stainless Steel

**Remaining Parts**

316 Stainless Steel

#### OTHER

**Cleaning**

CGA 4.1 and ASTM G93

**Weight (without gauges)**

2.75 lbs / 1.2 kg

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TESCOM 44-4700 Series is an extremely sensitive, high purity, backpressure regulator for specialty, flammable and industrial gases for low pressure, and sub-atmospheric pressure control. Diffusion-resistant metal diaphragm seal ensures gas purity and leak integrity.

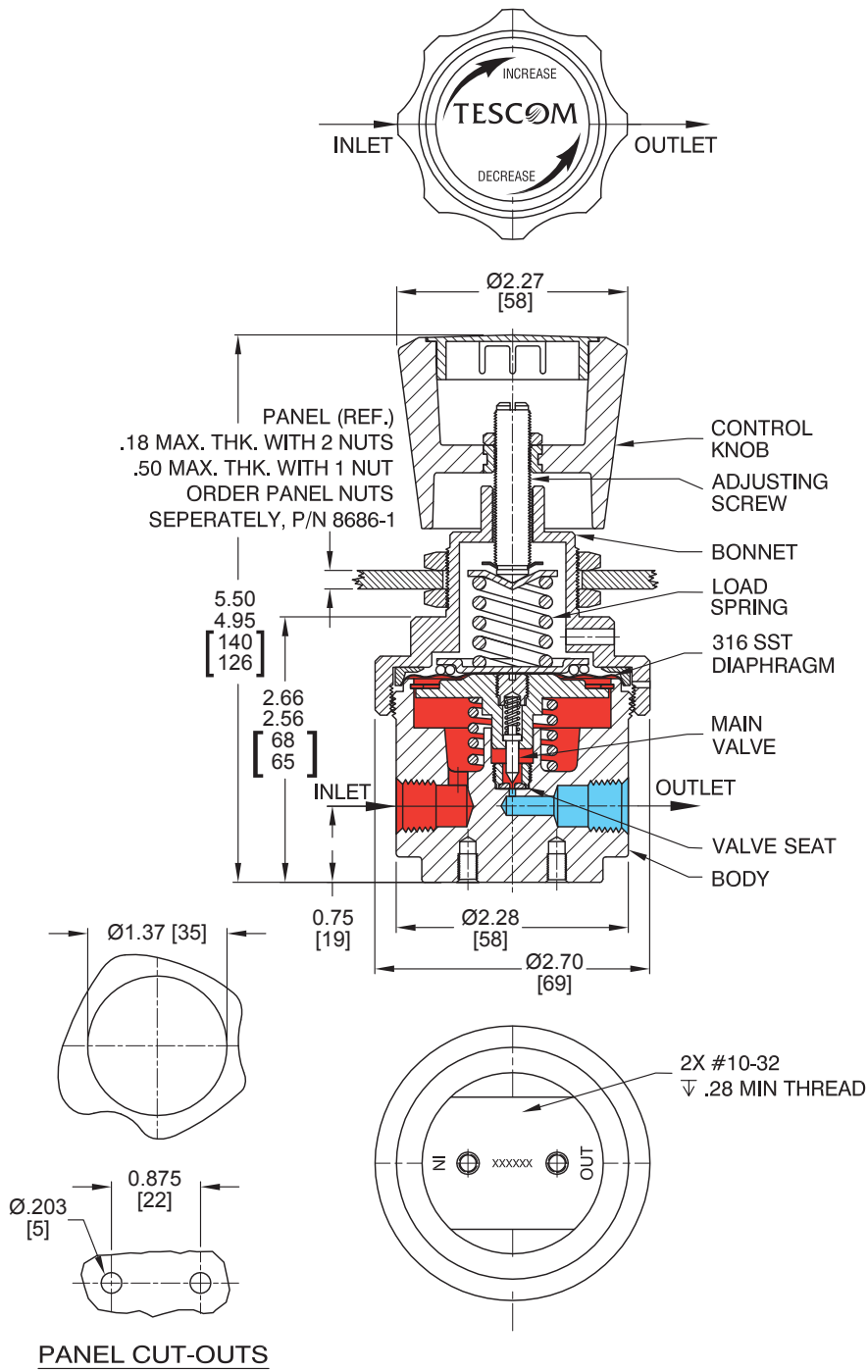
### Applications

- Analytical systems
- Sample systems
- Pilot plants

### Features and Benefits

- 316 Stainless Steel diaphragm provides metal-to-metal sealing integrity and good sensitivity
- Large sensing seat area ratio provides a low crack-to-reseat pressure differential and excellent repeatability
- Negative spring bias for vacuum systems
- Adjustable stop limits maximum outlet pressure
- NACE compliant designs are available

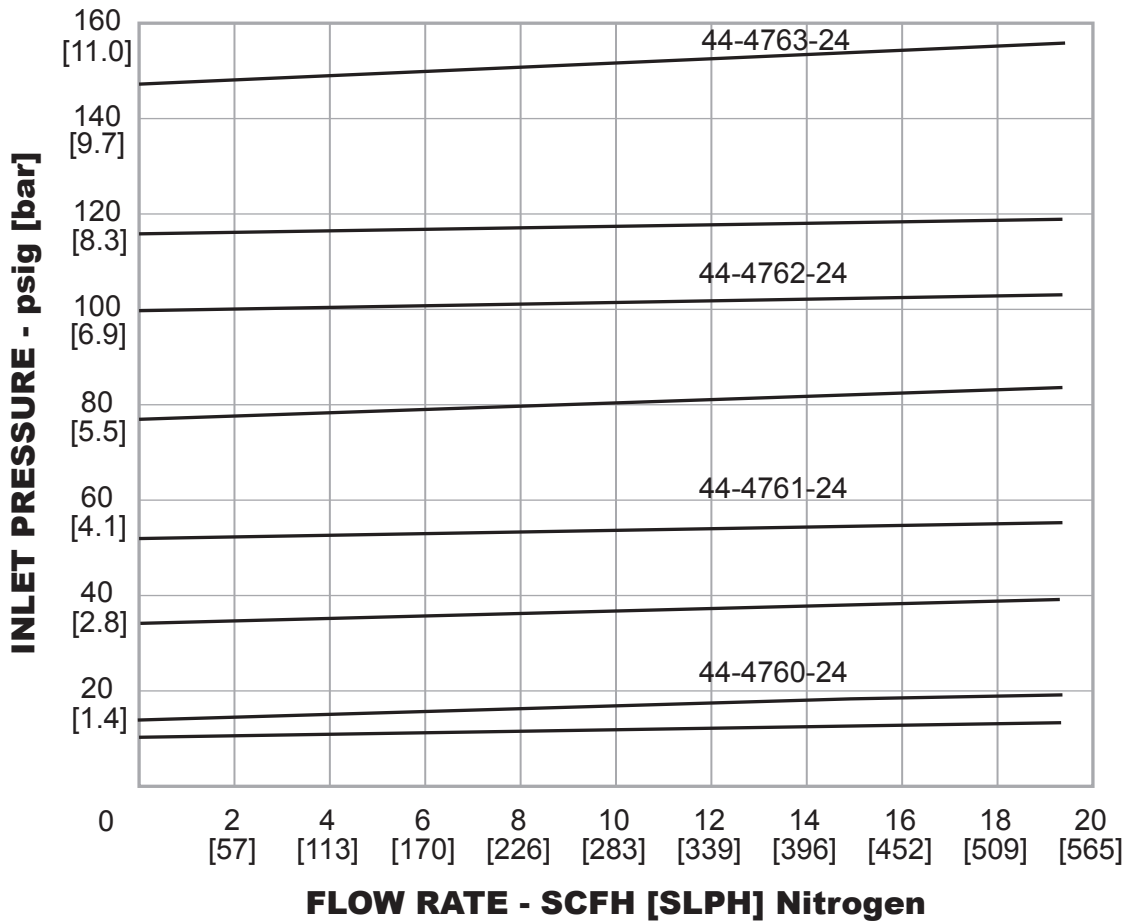
44-4700 Series Regulator Drawing



All dimensions are reference & nominal  
Metric [millimeter] equivalents are in brackets

### 44-4700 Series Regulator Flow Chart

For more information on how to read flow curves, please refer to the Flow Curves and Calculations document (debul2007x012) in the TESCOM catalog or on [www.tescom.com](http://www.tescom.com).



## 44-4700 Series Regulator Part Number Selector

Repair Kits, Accessories & Modifications may be available for this product. Please contact TESCOM for more information.

Example for selecting a part number:

44-47	6	0	-	2	4	
BASIC SERIES	BODY MATERIAL	INLET PRESSURE RANGES <sup>1</sup>		INLET AND OUTLET PORT TYPE	INLET AND OUTLET PORT SIZE	OPTIONS
44-47	6 – 316 Stainless Steel	0 – 50 mm Hg absolute - 15 psig / 1 bar 1 – 50 mm Hg absolute - 50 psig / 3.4 bar 2 – 50 mm Hg absolute - 100 psig / 6.9 bar 3 – 50 mm Hg absolute - 150 psig / 10.3 bar		1 – SAE 2 – NPTF 3 – MS33649 H – HPIC	4 – 1/4" 6 – 3/8"	-501 – C <sub>v</sub> = 0.30
		<div style="border: 1px solid black; padding: 2px; width: fit-content;">                         1. 28" Hg = 50 mm Hg absolute                     </div>				



**WARNING!** Do not attempt to select, install, use or maintain this product until you have read and fully understood the *TESCOM Safety, Installation and Operation Precautions*.