

# 44-5000 Series

## Regulators - Pressure Reducing

D44501795X012

### Specifications

For other materials or modifications, please consult TESCOM.

#### OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

**Maximum Inlet Pressure**

120, 400, 3500 psig / 8.3, 27.6, 241 bar

**Outlet Pressure Ranges**

50 mm Hg absolute - 15 psig / 1.0 bar

50 mm Hg absolute - 25 psig / 1.7 bar

50 mm Hg absolute - 50 psig / 3.4 bar

50 mm Hg absolute - 100 psig / 6.9 bar

**Design Proof Pressure**

150% maximum pressure

**Leakage**

**Internal:** Bubble-tight

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

**Operating Temperature**

-40°F to 165°F / -40°C to 74°C

**Flow Capacity**

**120 psig / 8.3 bar Inlet:**  $C_v = 0.24$

**400 psig / 27.6 bar Inlet:**  $C_v = 0.15$

**3500 psig / 241 bar Inlet:**  $C_v = 0.06$

#### MEDIA CONTACT MATERIALS

**Body**

316 Stainless Steel or Brass

**Diaphragm**

316 Stainless Steel

**Seat**

Teflon®

**Spring**

316 Stainless Steel

**Friction Sleeves (400 and 3500 psig / 27.6 and 241 bar inlet only)**

**Inner:** Teflon®

**Outer:** 316 Stainless Steel

**Remaining Parts**

316 Stainless Steel (Brass for Brass Bodies)

#### OTHER

**Cleaning**

CGA 4.1 and ASTM G93

**Weight (without gauges)**

2 lbs / 0.9 kg

Teflon® is a registered trademark of E.I du Pont de Nemours and Company.



TESCOM 44-5000 Series is a compact, lightweight, high purity absolute single-stage regulator for specialty, corrosive, and pyrophoric gases. Diffusion-resistant metal-to-metal diaphragm seal ensures gas purity and integrity. Excellent for sub-atmospheric outlet pressures.

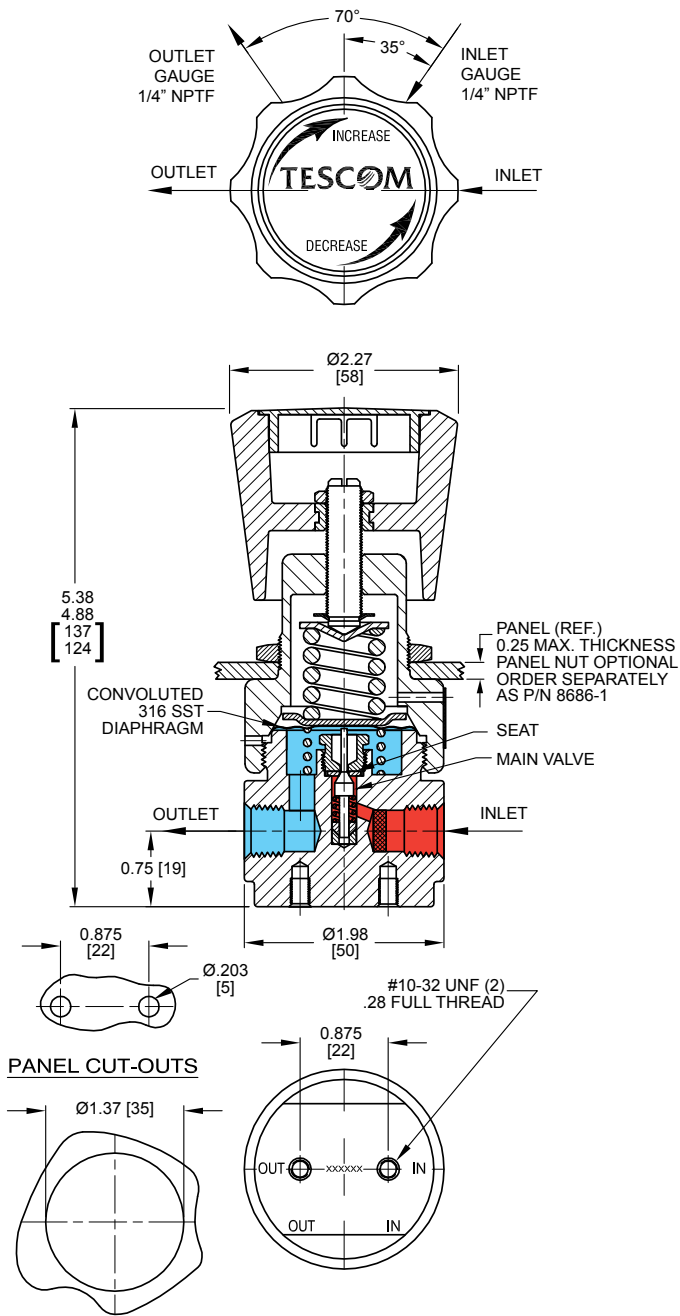
### Applications

- Gas chromatograph sampling systems
- Delivery system cylinder regulator
- Low vapor pressure hydrocarbon gases

### Features and Benefits

- Economical sub-atmospheric pressure control
- Compact size
- Three inlet pressure ratings allow adaptation to specific use
- Four outlet pressure ranges are available
- Panel mounting is available (requires panel nut 8686-1)
- Variety of porting options are available
- NACE compliant designs are available

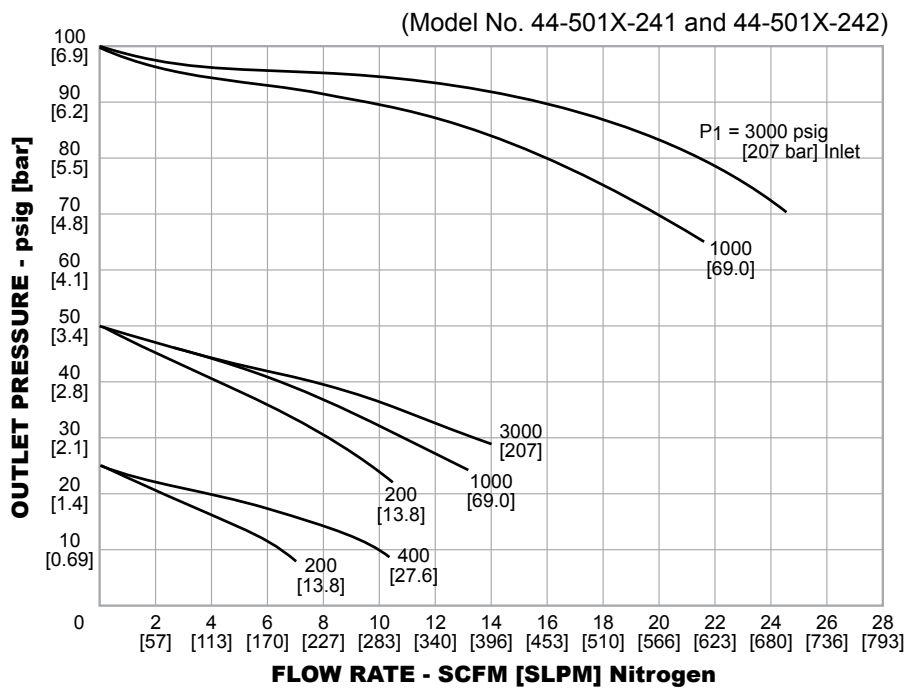
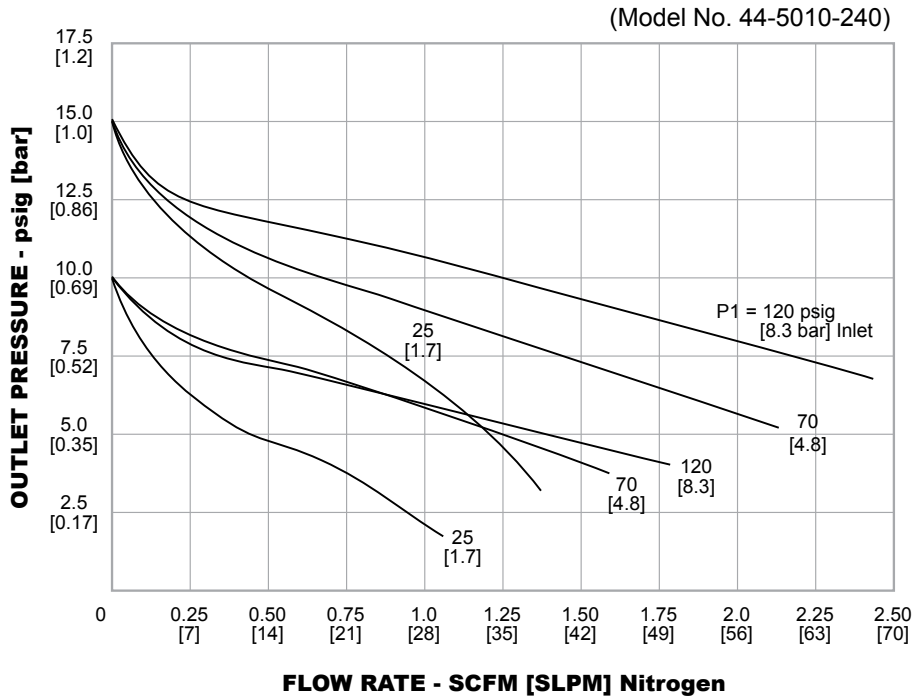
44-5000 Series Regulator Drawing



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

### 44-5000 Series Regulator Flow Charts

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).



## 44-5000 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:

BASIC SERIES	BODY MATERIAL	OUTLET PRESSURE RANGES <sup>1</sup>	INLET AND OUTLET PORT TYPE	INLET AND OUTLET PORT SIZE	MAXIMUM INLET PRESSURE	FLOW CAPACITY
44-50	1 – Brass 6 – 316 Stainless Steel	0 – 50 mm Hg absolute - 15 psig / 1.0 bar 1 – 50 mm Hg absolute - 25 psig / 1.7 bar 2 – 50 mm Hg absolute - 50 psig / 3.4 bar 3 – 50 mm Hg absolute - 100 psig / 6.9 bar  <span style="border: 1px solid black; padding: 2px;">1. 28" Hg = 50 mm Hg absolute</span>	2 – NPTF 3 – MS33649	4 – 1/4"	0 – 120 psig 8.3 bar 1 – 3500 psig 241 bar 2 – 400 psig 27.6 bar	C <sub>v</sub> = 0.24  C <sub>v</sub> = 0.06  C <sub>v</sub> = 0.15



**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*.

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