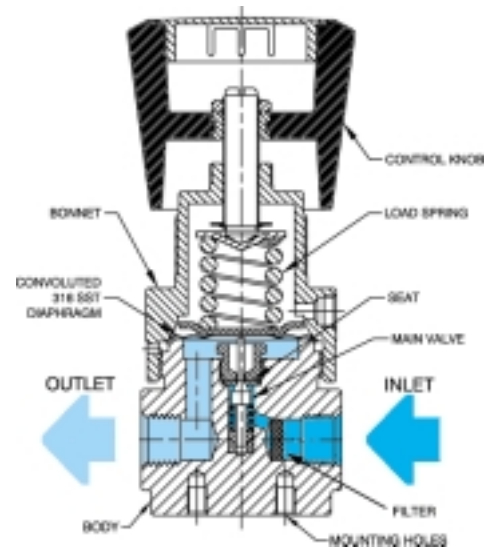
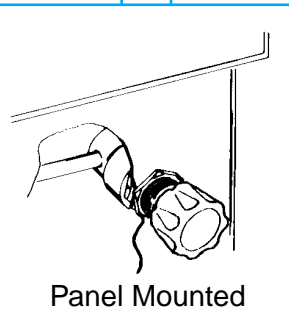


# GENERAL PURPOSE PRESSURE REDUCING REGULATOR

# 44-2200 SERIES



FUNCTIONAL SCHEMATIC

## COMPACT • CORROSION RESISTANT • DIAPHRAGM SENSED

The compact 44-2200 Series is a hand adjustable, spring-loaded, diaphragm-sensed, pressure reducing regulator designed to reduce contamination and provide accurate regulation of any corrosive, non-corrosive or toxic gas. All parts in model 44-226X exposed to the media are constructed of 316 stainless steel or Teflon®. The 44-221X model brass regulator provides added economy for the control of non-corrosive media.

The metal to metal diaphragm to body seal assures minimum inboard and outboard leakage. The specially designed convoluted stainless steel diaphragm gives excellent accuracy and long life. Five outlet pressure ranges are available: 1-25, 1-50, 1-100, 2-250 and 2-500 PSIG (.1-1.7, .1-3.4, .1-6.9, .1-17.2 and .1-34.5 bar).

- Low cost 316 stainless steel or brass regulator
- Design maximum inboard leak rate:  $< 2 \times 10^{-8}$  atm cc/sec Helium\*
- Five outlet pressure ranges available
- Metal-to-metal diaphragm to body seal
- Convoluted 316 SST diaphragm
- Dome loaded version available
- Panel mounting optional

\* Does not apply to venting models

## TYPICAL APPLICATIONS

Regulating Corrosive & Specialty Gases

Gas Chromatography

Liquid Chromatography

Research Labs

Research Sampling Systems

Petrochem Applications

Instrumentation

**TESCOM**  
CORPORATION

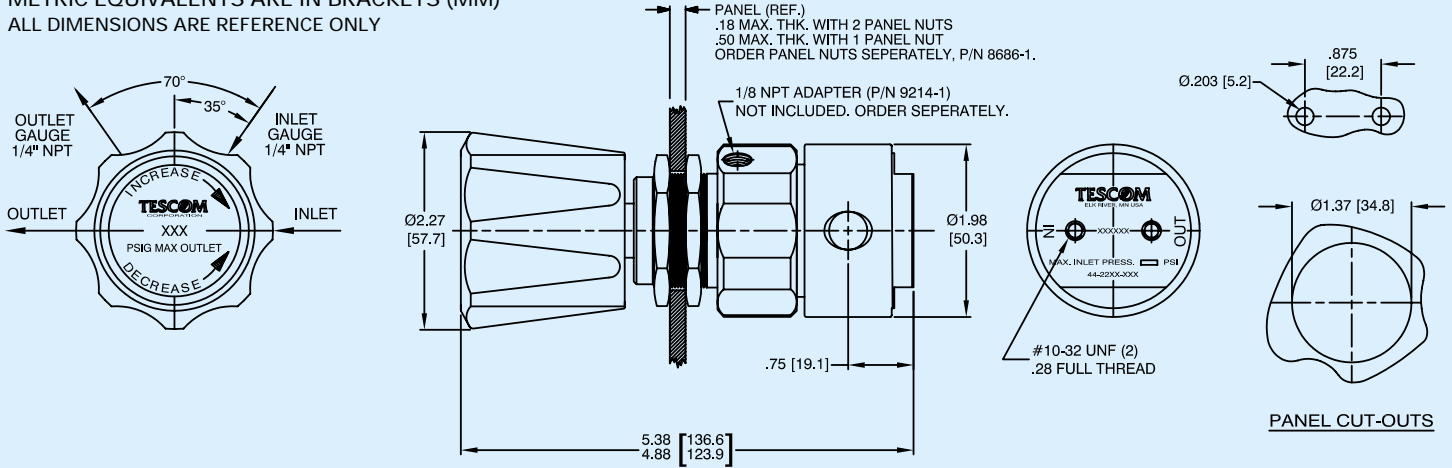
INDUSTRIAL CONTROLS DIVISION  
12616 Industrial Boulevard  
Elk River, Minnesota 55330-2491  
1-800-447-1250 (612) 241-3238  
Fax: (612) 241-3224

e-mail: [icd@tescom.com](mailto:icd@tescom.com)  
[www.tescom.com](http://www.tescom.com)

# INSTALLATION DIMENSIONS

# 44-2200 SERIES

METRIC EQUIVALENTS ARE IN BRACKETS (MM)  
ALL DIMENSIONS ARE REFERENCE ONLY



## SPECIFICATIONS

**FLUID MEDIA** – All gases corrosive or non-corrosive that are compatible with materials of construction. For other media, consult factory.\*

**PRESSURE RATING** - Per criteria of ANSI / ASME B31.3.

Control pressure ranges . . . 1-25, 1-50, 1-100, 2-250 and 2-500 PSIG  
(.1-1.7, .1-3.4, .1-6.9, .1-17.2 and .1-34.5 bar)

Materials in contact with media:

- Body . . . . . Brass, 316 SST, Hastelloy-C<sup>®</sup>\*\* or Monel<sup>®</sup>\*\*
- Bonnet . . . . . Nickel plated brass
- Diaphragm & trim . . . . . 316 Stainless Steel
- Seat . . . . . Teflon<sup>®</sup>
- Vent seat (venting models only) . . . . . PCTFE
- Friction sleeve (inner) . . . . . Teflon<sup>®</sup>

Flow capacity . . . . . High pressure:  $C_V = .06$   
Low pressure:  $C_V = .15$

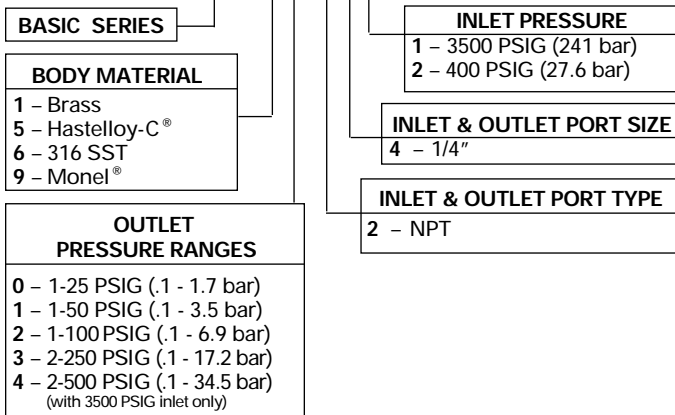
Design maximum inboard leak rate . . . . .  $2 \times 10^{-8}$  atm cc/sec He  
Operating temperature . . . . . -40°F to +165°F (-40°C to +74°C)  
Weight (w/o gauges) . . . . . 2 lbs. (.9 kg)  
Ports- Low pressure (2) . . . . . 1/4" NPT inlet & outlet ports  
High pressure (4) . . . . . 1/4" NPT inlet & outlet ports & gauge ports  
Maximum operating torque . . . . . 30 lb.-in. (3.4 Nm)

\*NOTE: Tescom may make suggestions for a material to use with a specific media. These suggestions will be based on technical compatibility resources both through associations and manufacturers. Tescom does not guarantee the material to be compatible with the specific media – this is the responsibility of the user – users must test under their own operating conditions to determine the suitability of any material in a particular application.

\*\* Consult factory for materials used in Hastelloy-C<sup>®</sup> or Monel<sup>®</sup> regulators.

## ORDERING INFORMATION

EXAMPLE: 44-2260-241



## ACCESSORIES (additional cost)

**REPAIR KITS:**

Model Number	Standard Repair Kit	Soft Goods Kit
44-22XX-241	P/N 389-6342	P/N 389-6341
44-22XX-242	P/N 389-6350	P/N 389-6348

Consult factory for Repair Kits for regulator modifications and for kit part numbers for Hastelloy<sup>®</sup> or Monel<sup>®</sup> regulators.

- PANEL MOUNTING NUT(S) . . . . . P/N 8686-1
- MOUNTING BRACKET . . . . . P/N 7743
- 1/8" NPT Adapter for captured vent port . . . . . P/N 9214-1

**GAUGES:** Consult GAUGES catalog page.

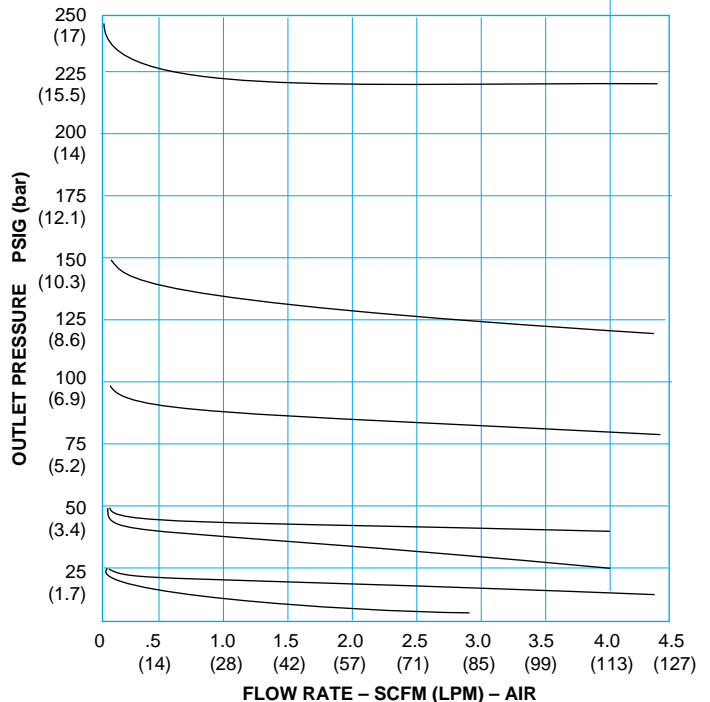
## CLEANING

**STANDARD CLEANING:** Regulators are cleaned in accordance with the "intermediate" level of ASTM-G93 and CGA 4.1. The "intermediate" level assures removal of visible particles and combustible residues.

**OXYGEN SERVICE:** System designers must verify the compatibility of materials used in this product before installation and operation. Specification of materials for oxygen service is the USER'S RESPONSIBILITY. Cleaning for oxygen service per the "intermediate" level requirements of ASTM-G93 and CGA 4.1 is supplied by Tescom.

## FLOW CHARTS (metric units are in parentheses)

**REGULATOR DISCHARGE CHARACTERISTICS CURVES**



Teflon<sup>®</sup> is a registered trademark of DuPont.  
Hastelloy<sup>®</sup> is a registered trademark of Haynes Int'l  
Monel<sup>®</sup> is a registered trademark of Huntington Alloys