

# 44-1300 Series

## Regulators - Pressure Reducing

D44130549X012

### Specifications

For other materials or modifications, please consult TESCOM.

#### OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

##### Maximum Inlet Pressure

###### Stainless Steel Body

4500 psig / 310 bar  
6000 psig / 414 bar available

###### Brass Body

3750 psig / 259 bar  
5000 psig / 345 bar available

##### Outlet Pressure Ranges

0-300, 0-600, 0-1000 and 0-1500 psig  
0-20.7, 0-41.4, 0-69.0 and 0-103 bar  
0-2500 psig / 0-172 bar available

##### Design Proof Pressure

150% of rated pressure

##### Leakage

Bubble-tight

##### Operating Temperature<sup>1</sup>

-15°F to 220°F / -26°C to 104°C

##### Flow Capacity<sup>2</sup>

1/4" Main Valve:  $C_v = 0.8$

3/8" Main Valve:  $C_v = 2.0$

#### MEDIA CONTACT MATERIALS

##### Body

Brass, 303 or 316 Stainless Steel

##### Seat, Main Valve

CTFE (Except: 44-13X2-XXX2, Teflon®)

##### Seat, Vent Valve

Teflon®: 300 and 600 psig / 20.7 and 41.4 bar outlet

CTFE: 1000 and 1500 psig / 69.0 and 103 bar outlet

##### O-Rings

Viton-A®

##### Back-up Rings

Teflon®

##### Gaskets

CTFE

##### Remaining Parts

300 Series Stainless Steel, 17-4, 17-7 Stainless Steel, Teflon® and Brass

#### OTHER

##### Cleaning

CGA 4.1 and ASTM G93

##### Weight (without gauges)

6.25 lbs / 2.8 kg

1. For extended temperatures from -40°F to 400°F / -40°C to 204°C, consult TESCOM.

2. A secondary pressure drop due to the outlet cross-hole can significantly affect the rated flow capacity. Flow curves should be used for critical sizing applications.

Teflon® and Viton® are registered trademarks of E.I. du Pont de Nemours and Company.



DOME LOADED

SPRING LOADED

AIR LOADED

TESCOM 44-1300 Series is a high pressure, high flow pressure reducing regulator that offers a venting and balanced valve design. The 44-1300 Series provides  $C_v = 0.8$  and 2.0. Dome and air load options are available.

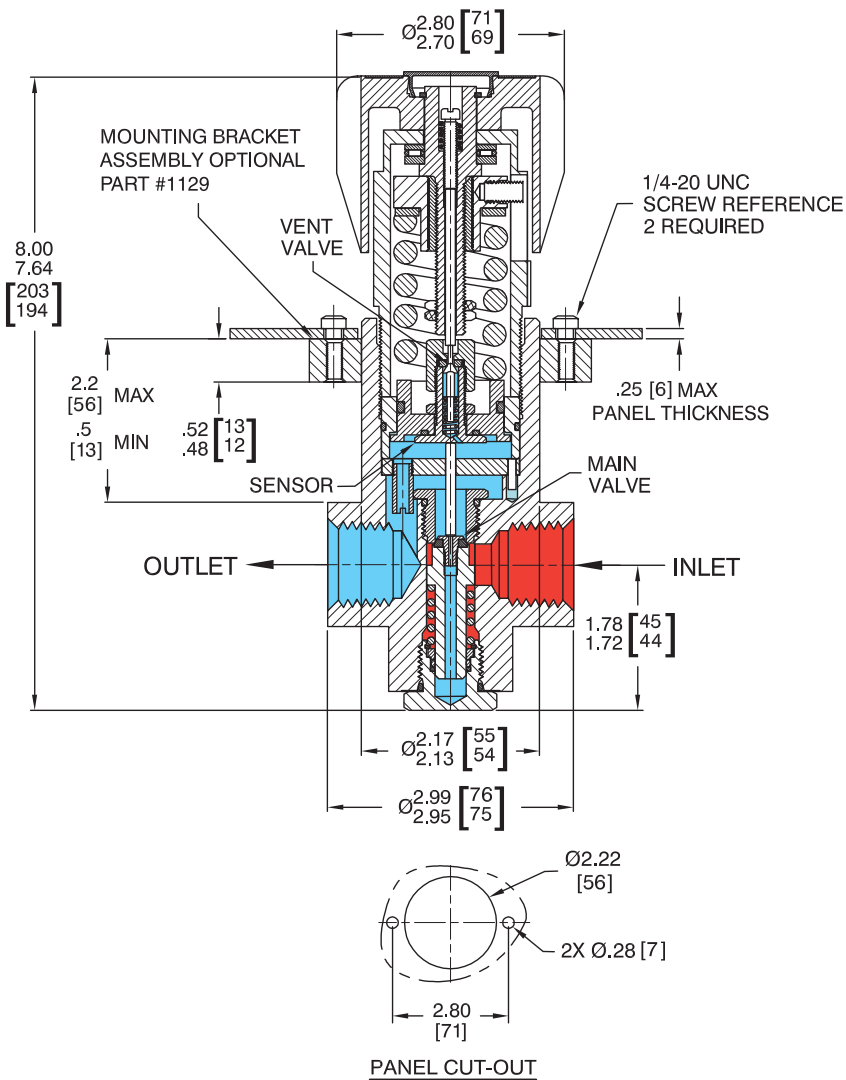
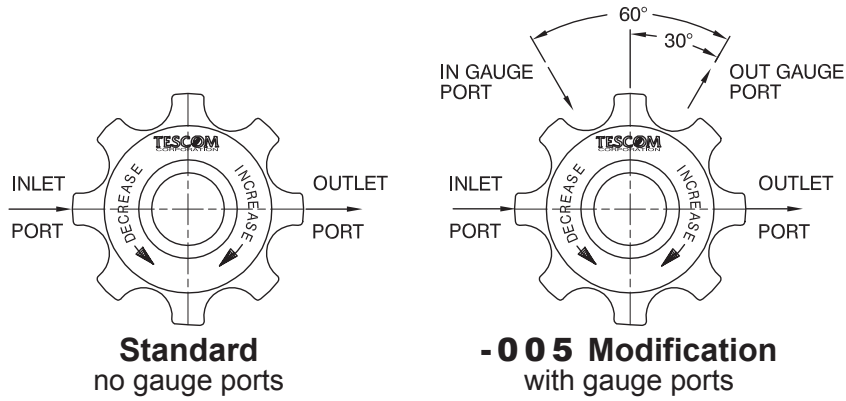
### Applications

- Commercial diving - breathing air
- Special gas mix regulation hard suit diving
- High pressure tube trailer gas reduction

### Features and Benefits

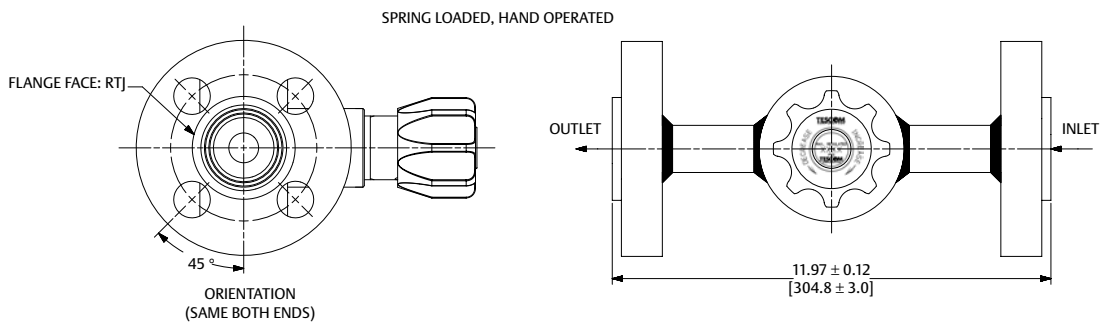
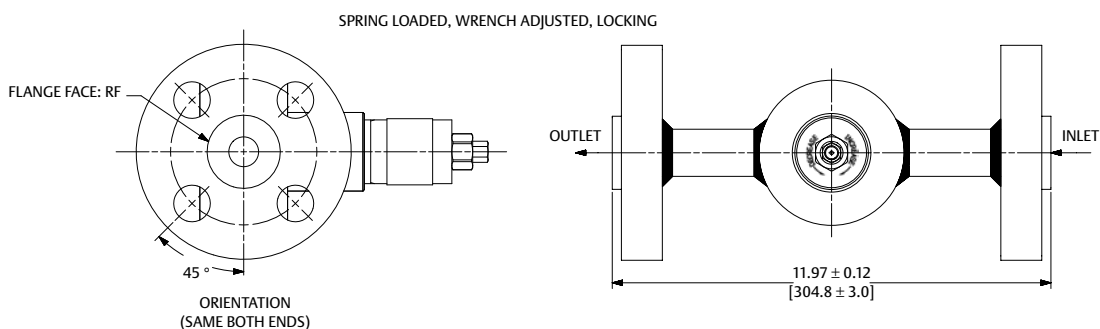
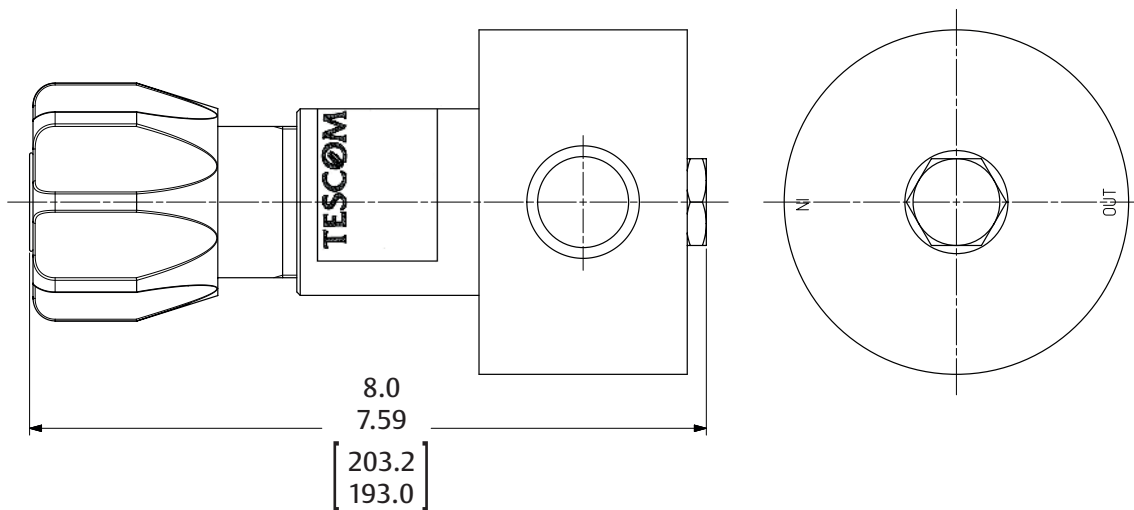
- Large piston sensor gives excellent sensitivity
- Balanced valve design ensures stable downstream pressure
- Large handknob provides fast low-torque pressure settings
- Venting is standard
- Available with gauge ports
- Dome and air loaded models are available (non-venting only)
- Flanged end connections available

44-1300 Series Regulator Drawing



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

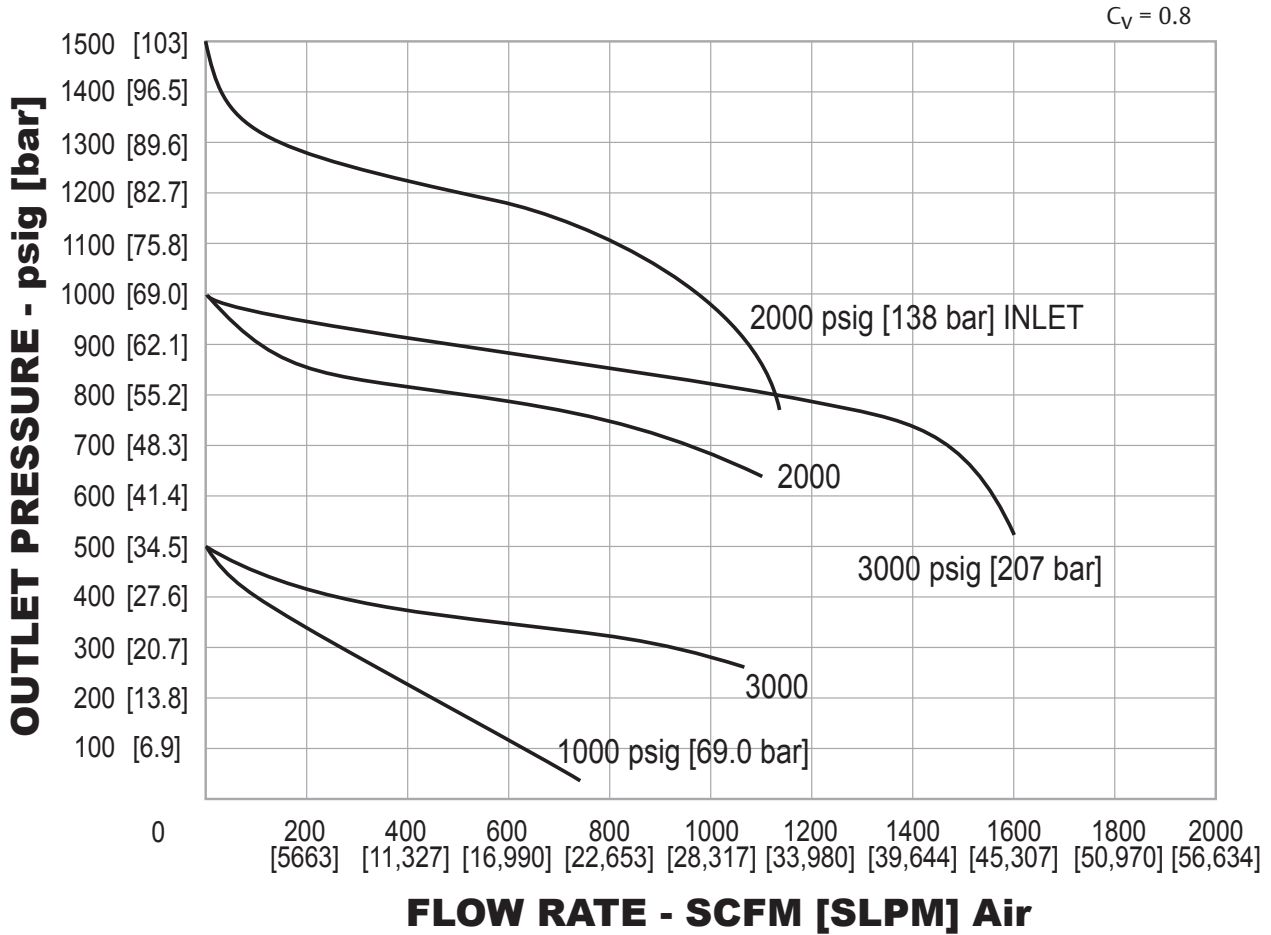
### 44-1300 Series Regulator with Flanges Drawing



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

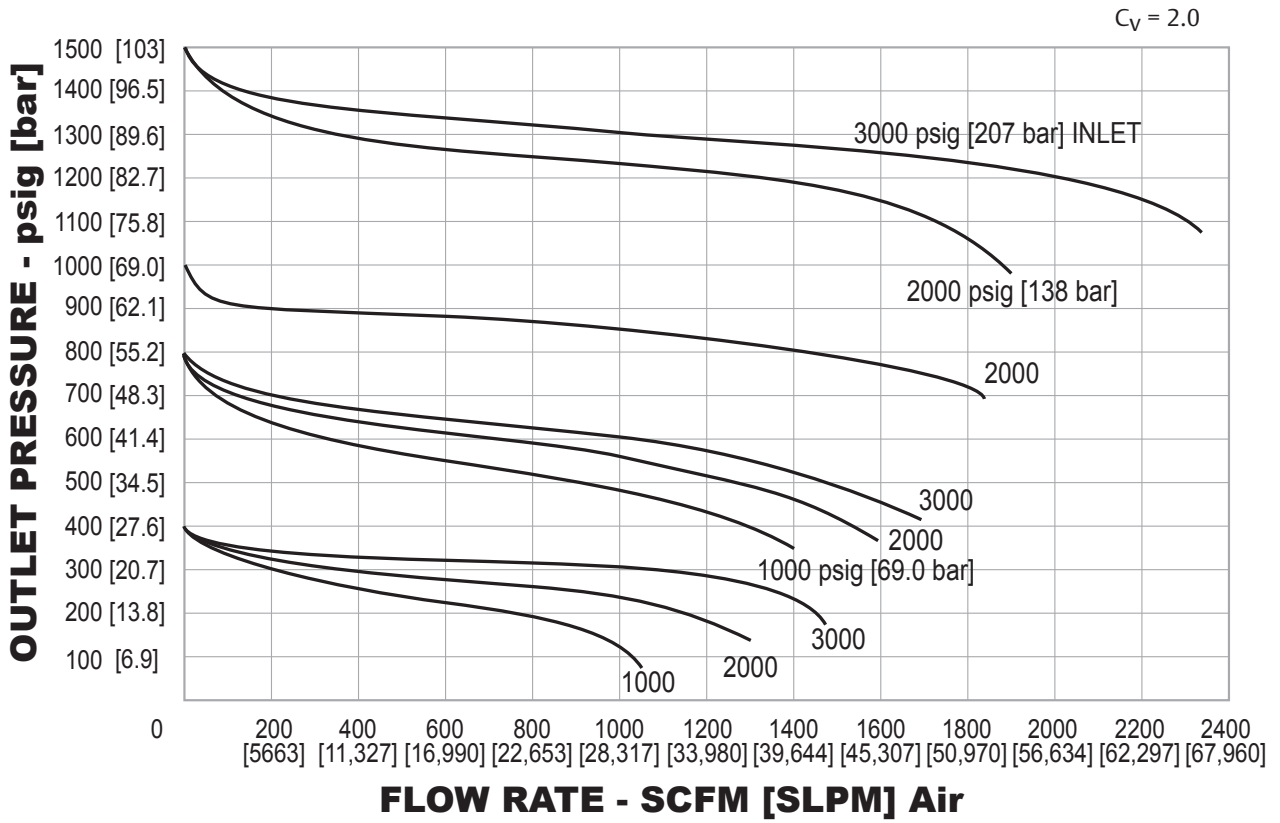
44-1300 Series Regulator Flow Charts

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.



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## 44-1300 Series Regulator Part Number Selector

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




Threaded End Connector Part Number Selection:

44-13      1                      3      -      2                      08                      1

BASIC SERIES	BODY MATERIAL	INLET PRESSURE	OUTLET PRESSURE RANGE	PORT TYPE	PORT SIZE	MAIN VALVE	OPTIONS
44-13	1 – Brass	3750 psig 259 bar	2 – 0-300 psig 0-20.7 bar	1 – SAE 2 – NPTF 3 – MS33649 9 – BSPP	08 – 1/2" 12 – 3/4"	1 – 1/4" C <sub>V</sub> = 0.8 2 – 3/8" C <sub>V</sub> = 2.0	-002 Modification – Non-venting, no gauge ports
	2 – 303 Stainless Steel	4500 psig 310 bar					3 – 0-600 psig 0-41.4 bar
	6 – 316 Stainless Steel	4500 psig 310 bar	5 – 0-1000 psig 0-69.0 bar		-019 Modification – Non-venting with gauge ports		
			6 – 0-1500 psig 0-103 bar		-056 Modification – 6000 or 5000 psig / 414 or 345 bar inlet pressure with 2500 psig / 172 bar outlet pressure		
			7 – 0-2500 psig 0-172 bar (-056 Mod only)		-183 Modification – Corrosion Resistant Top Works		

Flanged End Connector Part Number Selection:

44-13W      H                      6                      2                      1    A    1                      52                      1

BASIC SERIES	LOAD TYPE	BODY, PIPE & FLANGE MATERIAL	OUTLET PRESSURE PSIG/ BAR	FLOW CAPACITY (CV)	DASH NO.	VENTING OPTION	SEAT	O-RING	OPERATING TEMPERATURE	GAUGE PORT OPTIONS	FLANGE SIZE	FLANGE CLASS	FLANGE FACE
44-13W	H – Hand operated W – Locking wrench adjusted	6 – 316 SST	2 – 0-300/ 0-20.7 3 – 0-600/ 0-41.3 5 – 0-1000/ 0-69 6 – 0-1500/ 0-103.4	1 – 0.8 2 – 2.0	A B C D E F G H I J K L M N O P Q R	Non Venting	PTFE	BUNA-N	-20 to 140°F/-29 to 60°C	A – R.H. Inlet, no gauge port 	1 – 1/2" 3 – 1"	21 – 300# 41 – 600# 52 – 900# /1500# 63 – 2500#	1 – RF 2 – RTJ
								FKM	-15 to 140°F/-26 to 60°C				
								Kalrez®	0 to 140°F/-17 to 60°C				
							PTFE	BUNA-N	-20 to 165°F/-29 to 74°C	B – R.H. Inlet, in & out gauge port at 60° 			
								FKM	-15 to 200°F/-26 to 93°C				
								Kalrez®	-0 to 200°F/-17 to 93°C				
			Vespe®	BUNA-N	-20 to 165°F/-29 to 74°C	J – R.H. Inlet, 2 outlet gauge port at 90° 							
				FKM	-15 to 200°F/-26 to 93°C								
				Kalrez®	0 to 200°F/-17 to 93°C								
			PTFE	BUNA-N	-20 to 140°F/-29 to 60°C								
				FKM	-15 to 140°F/-26 to 60°C								
				Kalrez®	0 to 140°F/-17 to 60°C								
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				FKM	-15 to 200°F/-26 to 93°C								
				Kalrez®	0 to 200°F/-17 to 93°C								

**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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