

# 54-2300 Series

## Regulators - Relief / Backpressure

D54231641X012

### Specifications

For other materials or modifications, please consult TESCO.

#### OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

##### Maximum Inlet Pressure

**Spring and Dome Loaded:** 5000 psig / 345 bar

**Air Actuated:** 10,000 psig / 690 bar

##### Control Pressure Ranges

1000, 1500, 2500, 3500, 5000 and 10,000 psig

69.0, 103, 172, 241, 345 and 690 bar

##### Design Proof Pressure

150% of maximum rated

##### Leakage

2 drops/min at 150 S.U.S. at 2500 psig / 172 bar

##### Operating Temperature (media)<sup>1</sup>

-40°F to 165°F / -40°C to 74°C

##### Flow Capacity

$C_v = 1.6$

#### MEDIA CONTACT MATERIALS

##### Body

303 or 316 Stainless Steel

##### Seat, Poppet and Sensor

17-4 PH Stainless Steel

##### O-Rings

Buna-N, Viton®, Ethylene Propylene or Polyurethane

##### Back-up Rings

PTFE

##### Bonnet (Spring load only)

303 Stainless Steel

##### Remaining Parts

300 Stainless Steel

#### OTHER

##### Cleaning

CGA 4.1 and ASTM G93

##### Weight

**Spring and Dome Loaded:** 15 lbs / 6.8 kg

**Air Actuated:** 30 lbs / 13.6 kg

<sup>1</sup> Operating temperature range dependent on o-ring material.

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TESCOM 54-2300 Series backpressure hydraulic regulator is capable of flows from 5-50 GPM and is available in air load for use with the TESCO ER5000 Electropneumatic Controller.

### Applications

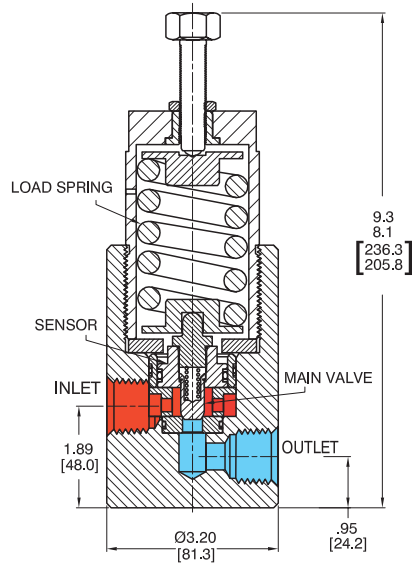
- Hydraulic test stands
- Process control

### Features and Benefits

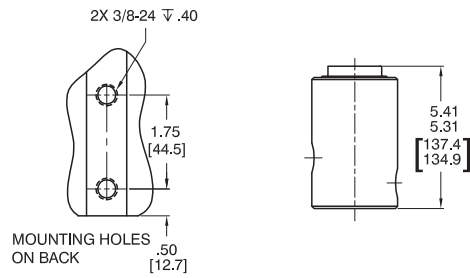
- Wear rings available for non-lubricating media
- Control pressure up to 10,000 psig / 690 bar
- Flow Capacity  $C_v = 1.6$
- Excellent crack-to-reseat ratio
- Hardened metal-to-metal seats for heavy duty service
- Choice of spring, dome and air actuated loading
- Standard side mounting holes

**54-2300 Series Regulator Drawing**

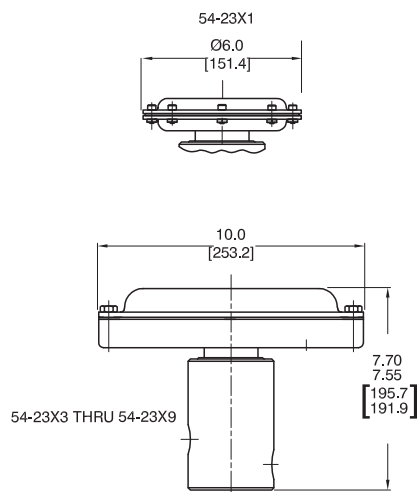
**SPRING LOAD**



**DOME LOAD (1/2) SCALE**



**AIR LOAD (1/2) SCALE**

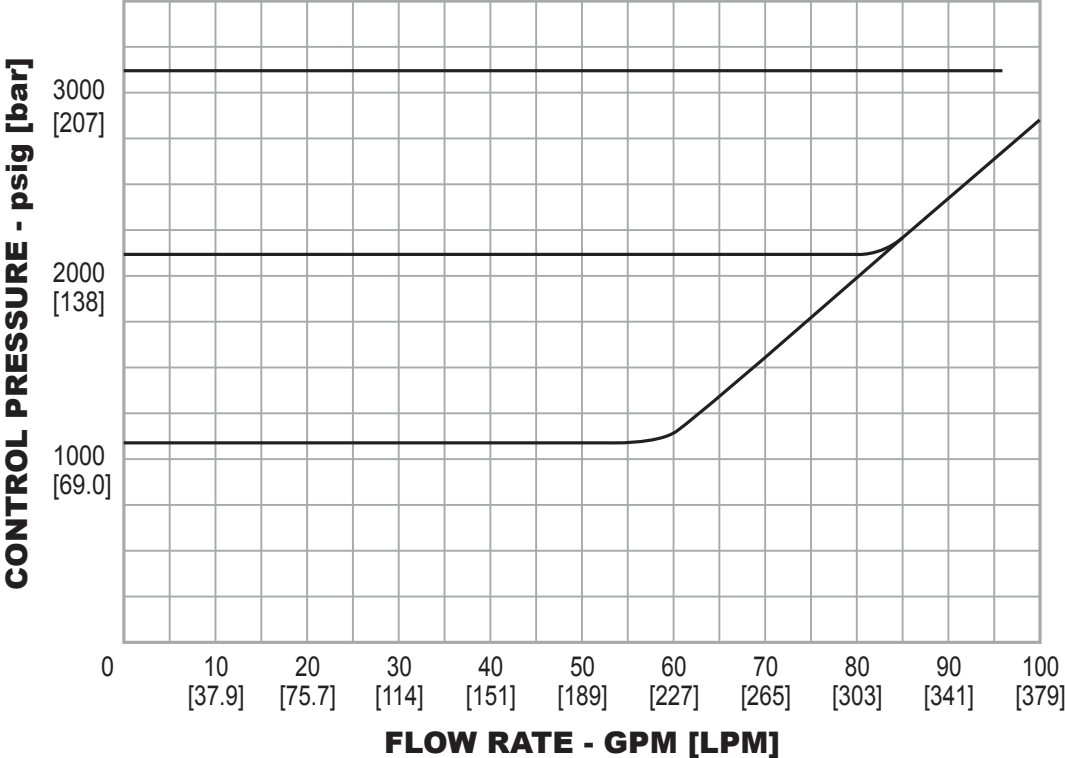


All dimensions are reference & nominal  
Metric [millimeter] equivalents are in brackets

### 54-2300 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).

Model 54-2325D212H  
E.I. No. 0428 and 0429  
(Hydraulic Loading Option)



## 54-2300 Series Regulator Part Number Selector

**i Learn more about common options.**  
For modifications, repair kits and accessories, contact factory.

Example for selecting a part number:

54-23	2	1	T				2	12	S
			SOFT GOODS MATERIAL						
			O-RINGS		SEAT	TEMPERATURE (MEDIA ONLY)			
DYNAMIC	STATIC								
BASIC SERIES	BODY MATERIAL	CONTROL PRESSURE RANGES					PORT TYPE	PORT SIZE	LOADING METHOD
54-23	2 – 303 Stainless Steel	0 – 20-1000 psig 1.4-69.0 bar (spring only)	D – Buna-N	Buna-N	17-4 Stainless Steel	-40°F to 165°F -40°C to 74°C	1 – SAE 2 – NPTF	08 – 1/2" 12 – 3/4"	S – Spring H – Dome A – Air
	6 – 316 Stainless Steel	1 – 20-1500 psig 1.4-103 bar (spring and air only)	T – Viton®	Viton®	17-4 Stainless Steel	-15°F to 300°F -26°C to 149°C			
		3 – 50-3500 psig 3.4-241 bar (spring only) 50-2500 psig 3.4-172 bar (air only 30:1*)	U – Polyurethane	Polyurethane	17-4 Stainless Steel	-15°F to 125°F -26°C to 52°C			
		5 – 200-5000 psig 13.8-345 bar (spring and dome 1:1 and air 75:1)	Z – Ethylene Propylene	Ethylene Propylene	17-4 Stainless Steel	-40°F to 225°F -40°C to 107°C			
		9 – 250-10,000 psig 17.2-690 bar (air only 125:1*)					*Ratio is for reference only.		



**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*.