

PRESSURE REGULATORS

EQA S-502/503/525/527

The model S-500 is a gas or air pressure reducer regulator for a variety of applications.

It features a protection system to keep the outlet pressure regulated by a shutoff (SSV) system that can be reseted manually (only for models 527 and 525). This system is used in cases where it isn't possible to install a vent for safety relief.

This is a pilot-operated valve that uses fluid to operate.

To cover all regulated outlet pressure ranges, the pilot is used according to the following characteristics:

- Low pressure from 0.160 bar to 0.5 bar. (For outlet pressures less than 0.160 bar consult sales personnel)
- Medium pressure from 0.5 bar to 7 bar.
- High pressure from 7 bar to 40 bar.

Regulators with SSV (527 and 525) work in a range of 0.160 bar to 4 bar outlet pressure.

Regulators without SSV (502 and 503) work in a range of 0.160 bar to 40 bar outlet pressure.

If required, a silencer may be added to the system according to the acoustic pressure generated by the valve.



TECHNICAL DATA

CONNECTIONS	Models 527/502		Threaded 2" (BSP or NPT) (DN50) Flange 2" ANSI B16.5 S150			
	Models 525/503		Flange 2" ANSI B16.5 S300			
OPERATING TEMPERATURE			-20°C to 60°C (-4°F to 140°F)			
WEIGHT	Model 527	25/28 Kg. (55/62 lbs)	Model 503	36 Kg. (80 lbs)		
	Model 525	36 Kg. (80 lbs)	Model 502	24/27 Kg. (53/60 lbs)		
WORKING RANGE		527	525	503	502	
Maximum Inlet Pressure (bar)		19	36	19	50	
Maximum Outlet Pressure (bar)		4	4	15	40	

MATERIALS

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MAIN BODY	(502/527) Nodular cast iron ASTM A 536 GR. 65- 45-12 (IRAM 700 42012). (503/525) Cast steel ASTM A-216 WCB.
DIAPHRAGM	NBR
SEATS	AISI 410 Stainless steel
SEALS AND GASKETS	NBR



Note: Consult flow rates for high outlet pressures greater than 8 Bar.

CAPACITY CHART - NATURAL GAS in Nm³/hour | Density 0.6 | (min. DP 1 bar.)

Regulated Pressure (Bar)																
Inlet Pressure (bar)	0.16	0.2	0.3	0.4	0.5	0.7	1	1.5	2	2.5	3	4	5	6	7	8
1.5	1500	1500	1500	1500	1500											
1.75	1650	1650	1650	1650	1650	1600										
2	1750	1800	1850	1850	1850	1800	1700									
2.5	1750	1800	1850	2100	2100	2100	2100	1900								
3	1750	1800	1950	2100	2250	2400	2400	2350	2100							
4	1750	1800	1950	2100	2250	2550	3000	3050	2985	2750	2400					
5	1750	1800	1950	2100	2250	2550	3000	3650	3650	3600	3400	2700				
7			1950	2100	2250	2550	3000	3700	4500	4850	4800	4700	4200	3200		
10				2100	2250	2550	3000	3750	4500	5250	6000	6700	6650	6400	5950	5150
15				2100	2250	2550	3000	3750	4500	5250	6000	7400	9000	9700	9700	9600
20					2250	2550	3000	3750	4500	5250	6000	7500	9000	12000	12000	12700
25					2100	2500	2900	3700	4450	5200	5900	7400	8900	12000	12000	13500

Regulator with and without SSV

Regulator without SSV

In order to calculate capacities with other gases, multiply the values of the chart by K factor.

GAS	DENSITY	K FACTOR
Butane	2	0.55
Propane (LPG)	1.5	0.63
Carbonic Anhydride	1.5	0.63
Oxygen	1.1	0.74
Air	1	0.77
Nitrogen	0.97	0.79

GAS	DENSITY	K FACTOR
Acetylene	0.9	0.82
Ammonia	0.59	1.02
Hydrogen	0.07	3
Biogas*	max 1.2	0.7
	min 0.8	0.75

*The proper operation is guaranteed only for treated Biogas (Low content of sulfur)



INSTALLATION

The installation position is as indicated in the installation diagram.

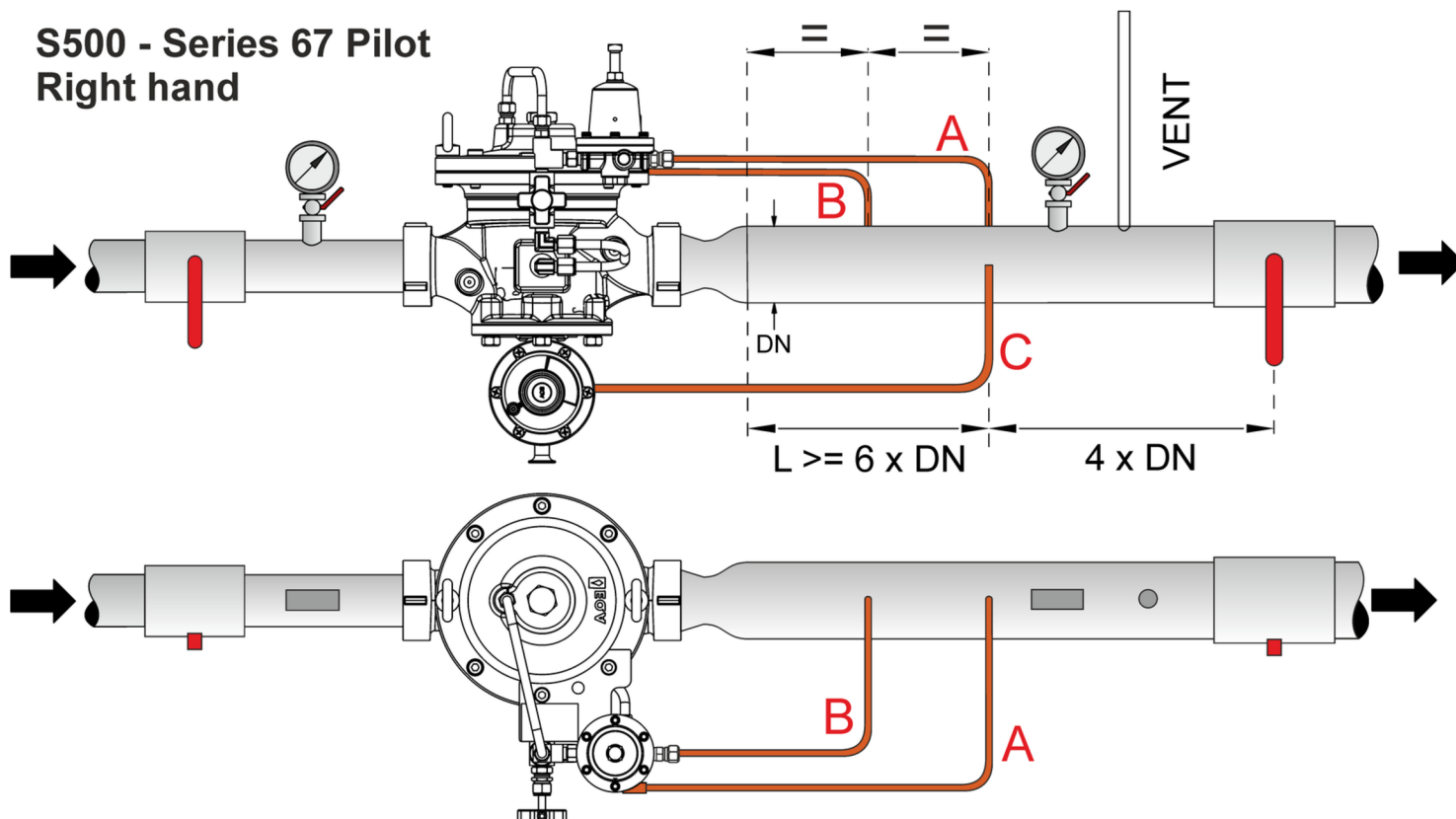
Make sure that the flow follows the direction indicated by the arrow on the body.

Connections A, B and C are to be installed by the user.

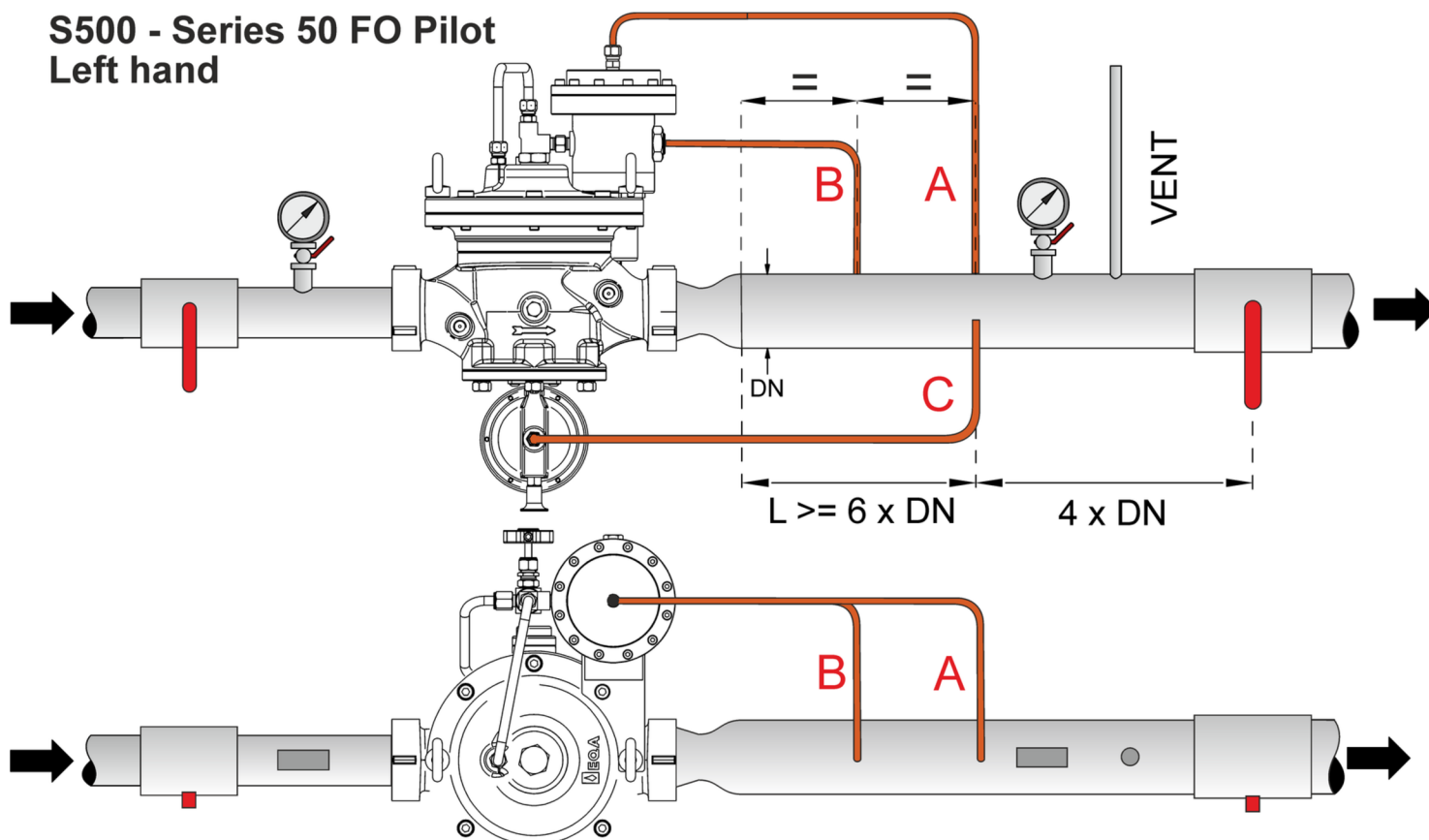
The tube diameter for connections **A** and **B** is 3/8" x 1 mm, the tube for SSV connection **C** is 1/4" x 0.8 mm.

Ensure minimum distances as per the installation diagram.

S500 - Series 67 Pilot Right hand



S500 - Series 50 FO Pilot Left hand





DIMENSIONS

Height (h) S502-503 (no SSV): 340mm with Series 67 / 355mm with Series 50 FO.

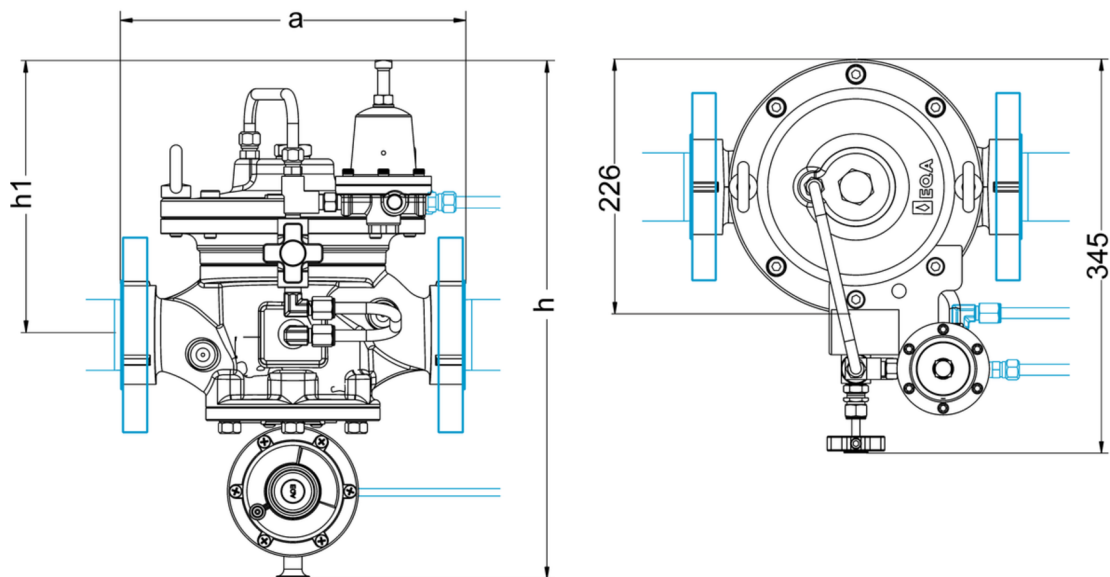
Height (h) S527-525 (SSV): 460mm with Series 67 / 475mm with Series 50 FO.

S503-525 (threaded): Width (a) 294mm and Height (h1) 250mm with Series 67, 265mm with Series 50 FO.

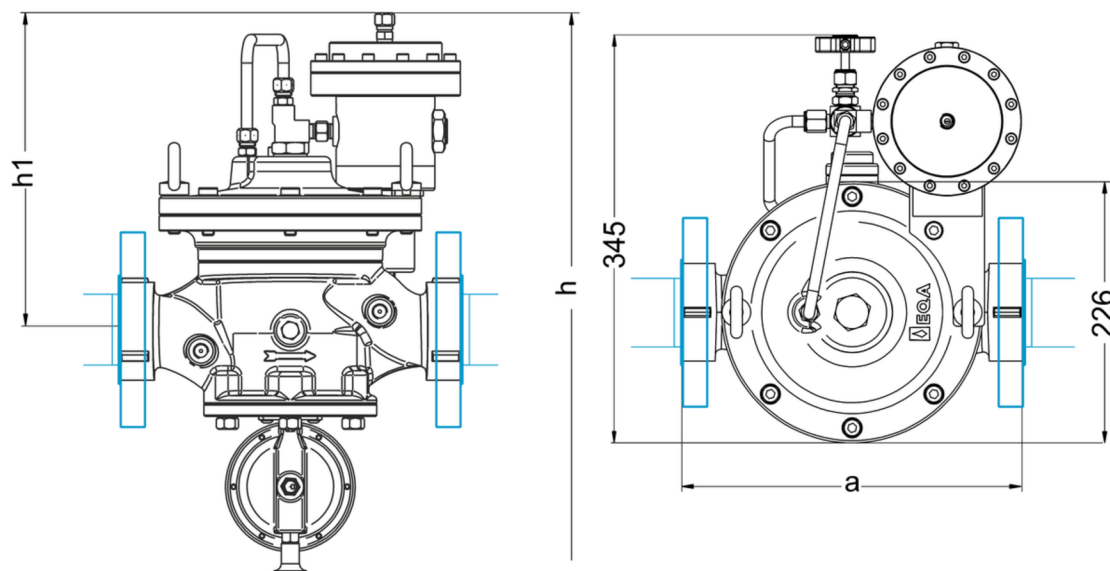
S502-527 (threaded): Width (a) 254mm and Height (h1) 250mm with Series 67, 265mm with Series 50 FO.

S502-527 (threaded): Width (a) 267mm and Height (h1) 250mm with Series 67, 265mm with Series 50 FO.

S500 - 67 Pilot



S500 - 50 FO Pilot



At EQA, we strive to minimize our environmental impact through sustainable and responsible practices. Therefore, we encourage you to join our commitment and, at the end of the product's lifecycle, adhere to the current Municipal, Provincial, and National regulations regarding the classification, recycling, destruction, or disposal of the product, spare parts, non-reusable parts, and packaging. By doing so, we prevent environmental damage and promote reuse and recycling whenever possible. Thank you for your commitment and efforts in joining these actions.