

- Internal Sense Tap  
(External Sense Tap Optional)
- Diaphragm Operated/Spring Loaded
- Maintain Upstream Pressure
- Simplified Cleaning and Maintenance
- Sizes 2" Through 12"

## The Shand & Jurs Model 97150 Single Port Regulator

The S&J 97150 Single Port Back Pressure Regulator is a back pressure regulator with solenoid or thermally operated shut-off capabilities. The back pressure regulator function maintains a preset upstream pressure in low pressure (typically 2" - 10" w.c.) biogas lines such as those leading to flares and waste gas burners. Its normal operating position is closed until the set point is exceeded. A large spring-loaded diameter diaphragm reduces line bounce for smoother gas flow. Field adjustment of set point is easily done by changing position of the spring with visual pointer indicator. The components are easy to access providing for simplified cleaning and maintenance. When external sense line is used, it should be connected a minimum of 10 feet upstream from the regulator. The diaphragm-direct regulator can be ordered in two setting ranges: standard and high, which are defined for a given line size. The back pressure regulator's second function

is to positively shutoff gas flow in emergency flame conditions when combined with a solenoid controlled sense line or fusible element. This unit can be used alone, but its most common application is as a component in item numbers 97160 and 97161, Pressure Relief/Flame Trap Assembly. An accessory fusible element assembly actuates the valve to a complete line shut-off position in the presence of a fire or high thermal event. Standard materials of construction include an aluminum body with stainless steel pallet. The diaphragm is Nylon Reinforce Buna-N.

Its aluminum and stainless steel components withstand the severest of process environments. The S&J 97150 is especially designed for hydrogen sulfide and hot, wet methane which are the main components of digester gas streams in municipal waste water treatment facilities.

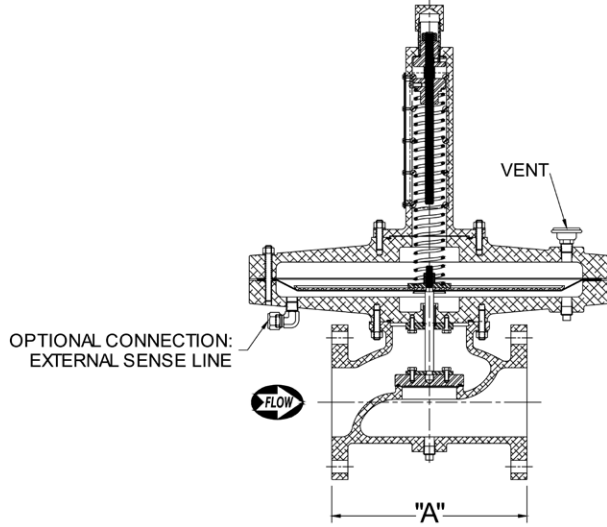
The 97150 is 100% U.S. made.

## Applications

- Anaerobic digester gas train**
- Fermentation off gas piping systems**
- Low pressure vent lines**

### DIMENSIONS

Line Diameter	A
2"	8 3/4
3"	10
4"	11 3/8
6"	15
8"	22 1/4
10"	27 13/16
12"	33



### AIR FLOW CAPACITY IN STANDARD CUBIC FEET PER HOUR x 1000 @ 60°F

Pressure Inches W.C.	Line Diameter						
	2"	3"	4"	6"	8"	10"	12"
1	1.3	2.3	5.9	13.5	25.0	35.0	55.0
2	1.9	4.5	8.9	19.5	37.1	54.0	88.0
3	2.3	5.4	10.8	24.2	46.5	73.0	115
4	2.7	6.3	12.6	28.5	54.2	86.0	137
5	3.1	7.2	14.3	32.0	60.3	97.0	153
6	3.4	8.2	15.8	35.0	66.8	110	170
7	3.8	8.8	17.1	38.0	73.0	119	183
8	4.0	9.5	18.6	40.7	78.0	128	193
9	4.3	10.2	19.6	43.3	82.6	137	208
10	4.6	10.7	20.9	45.5	87.0	146	218
11	4.8	11.2	21.8	47.8	90.9	153	227
12	5.1	11.7	22.7	49.8	95.1	160	237
13	5.3	12.2	23.8	51.6	99.0	165	245
14	5.5	12.7	24.7	53.7	103	170	252
15	5.8	13.2	25.4	55.5	106	175	258
16	6.0	13.8	26.1	57.4	109	180	265
17	6.2	14.3	26.8	58.9	112	184	271
18	6.4	14.7	27.4	60.2	115	188	276
19	6.5	15.0	28.0	62.0	118	191	281
20	6.6	15.3	28.6	63.1	120	194	285

### HOW TO ORDER

**97150 - AB - CD**

Line Size \_\_\_\_\_ Setting Range/Configuration

<u>(AB) Line Size</u>	<u>(C) Setting Range</u>	<u>(D) Sense Configuration/Solenoid</u>
02 = 2"	1 = Standard	0 = Internal (STD)
03 = 3"	2 = High	1 = External
04 = 4"		2 = Internal with Solenoid (CF)
06 = 6"		3 = External with Solenoid (CF)
08 = 8"		*Solenoid - 120VAC, NEMA 7
10 = 10"		
12 = 12"		

Design subject to change without notice