

94630 Pilot Operated Relief Valve (Magnetic Pilot)

The Shand & Jurs 94630 Pilot Operated Relief Valves are designed to meet low pressure applications within a relief range from 1.0 psi thru 15 psi. These **Magnavalves** are ideally suited for land or marine use, specifically marine cargo tankers transporting LNG, cryogenic or low temperature liquids.

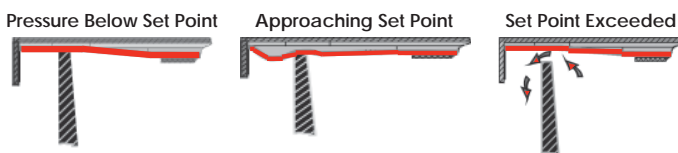
Available in 2" through 12" sizes, the 94630 provides extreme reliability by utilizing a magnetic pilot design. The magnetic pilot assures positive pressure relief at set pressure with no overpressure required and resets itself at the preset blowdown.

The main valve consists of a stainless steel bellows, which is not affected by temperature variations as are conventional diaphragm relief valves. The full area bellows provides for high lift and excellent flow characteristics. Provisions are also available for vacuum relief.

Expanda-Seal

Shand & Jurs "Expanda-Seal" option is available on all pressure pallet assemblies. This feature significantly reduces leakage. The ballooning effect of the Teflon diaphragm effectively seals the valve.

The "Expanda-Seal" feature ensures less than .5 SCFH of air at 95% of the set point.



Features

- Magnetic pilot opens fully, instantly, at set pressure with no overpressure required
- Heavy duty design suitable for severe environments
- Stainless steel construction NOT affected by low temperature variations
- Adjustable blowdown pilot design provides adjustment for extremely low blowdown
- Full area bellows provides for high lift and excellent flow
- Vacuum capability

Specifications:

Pressure Setting:

1.0 psi to 15 psi

Accuracy:

1.0 psi to 9.9 psi ± 0.1 psi
10.0 psi to 15.0 psi ± 0.2 psi

Reset Pressure Range:

External Pilot Valve Supply (1 to 4 psi):

0.2 to 0.4 psi less than nominal set pressure

Pilot Valve Supply (4 to 15 psi):

90%-95% of nominal set pressure

Internal Pilot Valve Supply (1 to 15 psi):

85% to 95% of nominal set pressure

Standard Blowdown:

5%

Temperature Range:

-300°F to +450°F (-20°F Steel)

Body Construction:

Aluminum, Steel, Stainless Steel

Bellows:

Stainless Steel

Type of Seal:

Soft Seat

Flange Connection:

150 lb. ANSI, DIN sizes available

Leakage, Max:

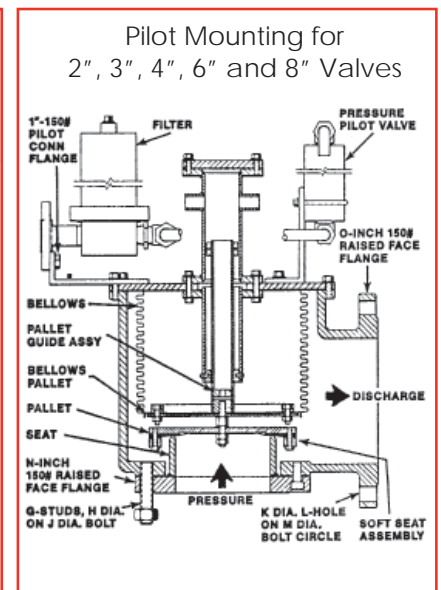
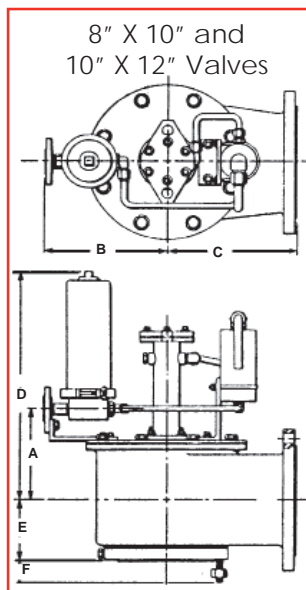
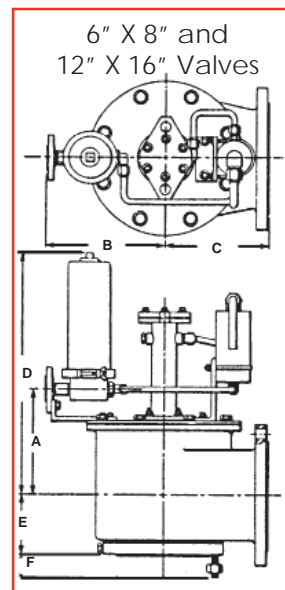
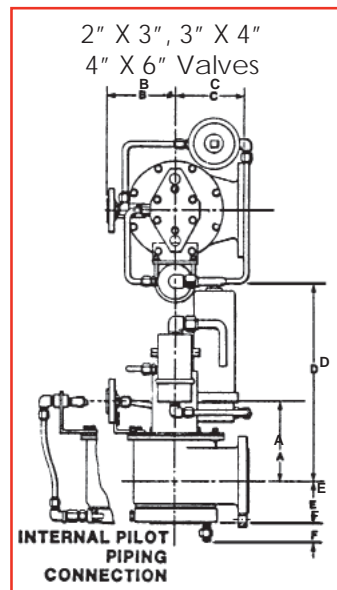
0.2 SCFH, Soft Seat

*Vacuum Operation: This relief valve may operate under vacuum conditions, unless the vacuum preventer option is selected. The 94630 may be mounted on top of a specially configured 94110 vacuum relief valve where precise vacuum control is desired. Consult Factory for specific vacuum setting requirements.

Dimensions:

Valve Size	Approximate Dimensions in Inches					
	A	B	C	D	E	F
2x3	8 ¾	6 ⅞	6 ⅞	23 ½	3 ½	1 ⅞
3x4	8 ⅞	6 ⅞	7 ⅞	23	4 ⅞	1 ⅞
4x6	10 ⅞	8 ⅞	8 ¼	25 ¾	5 ⅞	2
6x8	10 ⅞	10 ⅞	9 ¾	24 ½	6	3 ⅞
8x10	12 ¾	11 ⅞	13	26 ¾	7 ⅞	2 ⅞
10x12	10 ⅞	12 ⅞	15 ⅞	25 ⅞	8 ⅞	2 ⅞
12x16	11 ½	12 ⅞	18 ½	25 ¾	10 ⅞	2 ¼

Pressure Flange				Discharge Flange				Approx. Weight
G	H	J	N	K	L	M	O	
4	⅝	4 ¾	2	¾	4	6	3	90
4	⅝	6	3	¾	8	7 ½	4	135
8	⅝	7 ½	4	⅞	8	9 ½	6	150
8	¾	9 ½	6	⅞	8	11 ½	8	195
8	¾	11 ¾	8	1	12	14 ½	10	245
12	⅞	14 ½	10	1	12	17	12	375
12	⅞	17	12	1 ⅞	16	21 ¼	16	520



All designs subject to change. Certified dimensions and specifications available upon request.

94630 Ordering Guide

Model Number Selection

The model number will consist of a base number **94630** followed by 6 digit numbers. These digits will represent 3 option tables.

94630 - AB - CD - EF

Ordering Information

Specify:

- | | |
|--|------------------------------------|
| 1. Model 94630 Pilot Operated Relief Valve | 6. Set Point |
| 2. Type of Product | 7. Internal or External Connection |
| 3. Valve and Inlet and Outlet Size | 8. Need for a Vacuum Preventer |
| 4. Temperature Range of Product | 9. Need for a Test Connection |
| 5. Body Material | |

AIR FLOW CAPACITY

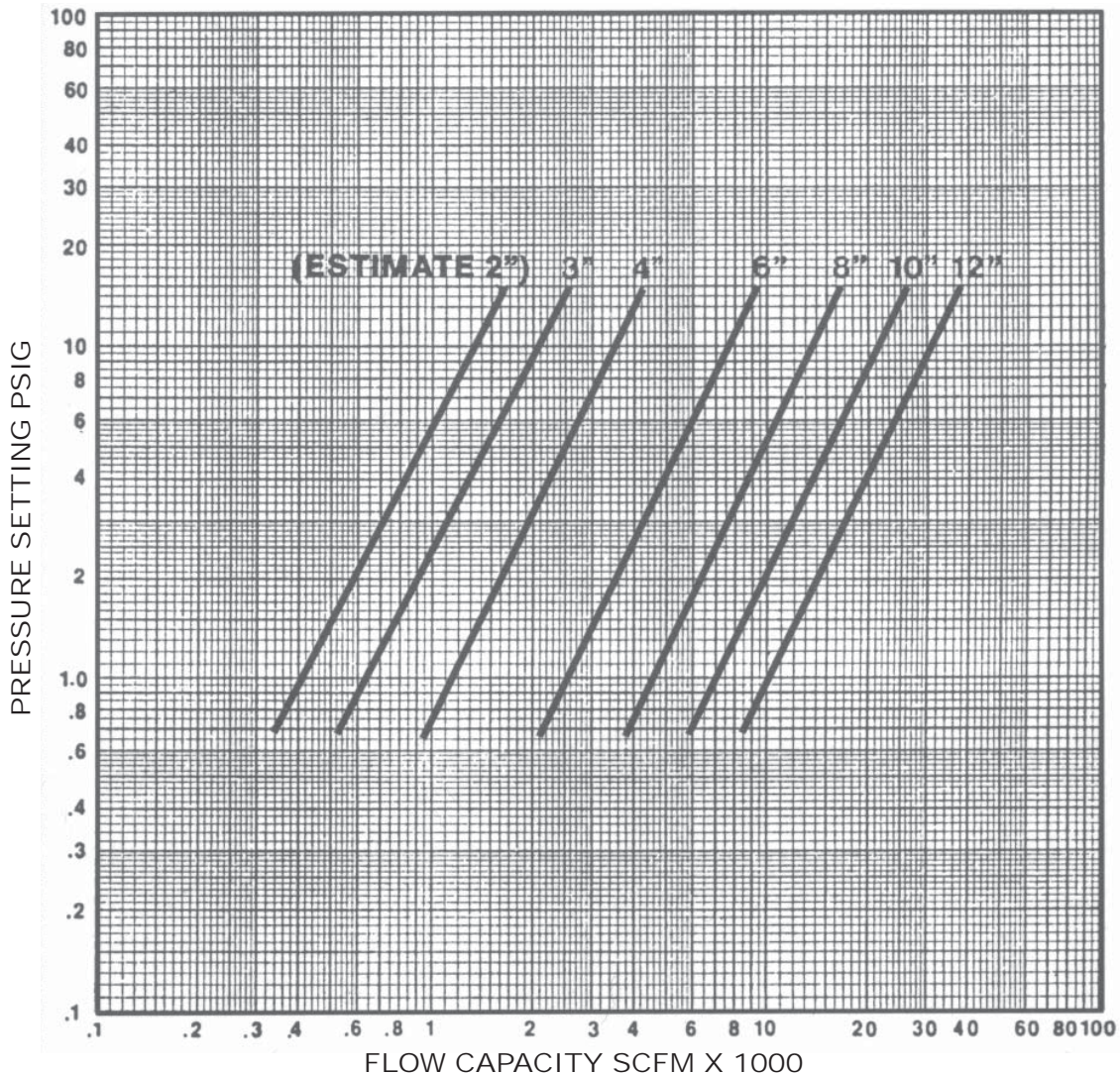


Table AB - Size/Housing Material

Option AB	Size	Pressure Range (PSI)		Housing Material
		Min	Max	
03	2" x 3"	1.0	6.0	Cast Steel
05	2" x 3"	1.0	6.0	316 Stainless Steel
08	2" x 3"	6.1	15.0	Cast Steel
10	2" x 3"	6.1	15.0	316 Stainless Steel
11	3" x 4"	1.0	6.0	Aluminum
13	3" x 4"	1.0	6.0	Cast Steel
15	3" x 4"	1.0	6.0	316 Stainless Steel
16	3" x 4"	6.1	15.0	Aluminum
18	3" x 4"	6.1	15.0	Cast Steel
20	3" x 4"	6.1	15.0	316 Stainless Steel
21	4" x 6"	1.0	6.0	Aluminum
23	4" x 6"	1.0	6.0	Cast Steel
25	4" x 6"	1.0	6.0	316 Stainless Steel
26	4" x 6"	6.1	15.0	Aluminum
28	4" x 6"	6.1	15.0	Cast Steel
30	4" x 6"	6.1	15.0	316 Stainless Steel
31	6" x 8"	1.0	6.0	Aluminum
33	6" x 8"	1.0	6.0	Cast Steel
35	6" x 8"	1.0	6.0	316 Stainless Steel
36	6" x 8"	6.1	15.0	Aluminum
38	6" x 8"	6.1	15.0	Cast Steel
40	6" x 8"	6.1	15.0	316 Stainless Steel
41	8" x 10"	1.0	6.0	Aluminum
43	8" x 10"	1.0	6.0	Cast Steel
45	8" x 10"	1.0	6.0	316 Stainless Steel
46	8" x 10"	6.1	15.0	Aluminum
48	8" x 10"	6.1	15.0	Cast Steel
50	8" x 10"	6.1	15.0	316 Stainless Steel
51	10" x 12"	1.0	6.0	Aluminum
53	10" x 12"	1.0	6.0	Cast Steel
55	10" x 12"	1.0	6.0	316 Stainless Steel
56	10" x 12"	6.1	15.0	Aluminum
58	10" x 12"	6.1	15.0	Cast Steel
60	10" x 12"	6.1	15.0	316 Stainless Steel
61	12" x 16"	1.0	6.0	Aluminum
63	12" x 16"	1.0	6.0	Cast Steel
65	12" x 16"	1.0	6.0	316 Stainless Steel
66	12" x 16"	6.1	15.0	Aluminum
68	12" x 16"	6.1	15.0	Cast Steel
70	12" x 16"	6.1	15.0	316 Stainless Steel

Table CD - Pressure Range

Option CD	Pressure Range (PSI)
01	0.50 - 1.49
02	1.50 - 2.49
03	2.50 - 6.00
04	6.01 - 10.00
05	10.01 - 15.00

Table EF - Piping Configuration

Option EF	Size	Piping	Test Connection	Vacuum Preventer	
01	2" x 3", 3" x 4" and 4" x 6"	Steel Internal	No	No	
02		Steel Internal	Yes	No	
04		Steel Internal	Yes	Yes	
05		Steel External	No	No	
06		Steel External	Yes	No	
08		Steel External	Yes	Yes	
11		316 Stainless Steel Internal	No	No	
12		316 Stainless Steel Internal	Yes	No	
14		316 Stainless Steel Internal	Yes	Yes	
15		316 Stainless Steel External	No	No	
16		316 Stainless Steel External	Yes	No	
18		316 Stainless Steel External	Yes	Yes	
21		6" x 8, 8" x 10" 10" x 12", and 12" x 16"	Steel Internal	No	No
22			Steel Internal	Yes	No
24	Steel Internal		Yes	Yes	
25	Steel External		No	No	
26	Steel External		Yes	No	
28	Steel External		Yes	Yes	
31	316 Stainless Steel Internal		No	No	
32	316 Stainless Steel Internal		Yes	No	
34	316 Stainless Steel Internal		Yes	Yes	
35	316 Stainless Steel External		No	No	
36	316 Stainless Steel External		Yes	No	
38	316 Stainless Steel External		Yes	Yes	