

## Parts List

Mechanical			
Part Number	Description	Standard (US)	European
20-1179	Level Control Valve w/Power Element (115 Volt)	✓	✓
20-1647	Level Control Valve w/Power Element (230 Volt)	✓	✓
20-1441	Power Element, Level Control (115 Volt)	✓	✓
20-1739	Power Element, Level Control (230 Volt)	✓	✓
20-1752	15 Watt Heater for Level Control (115V)	✓	✓
20-1753	15 Watt Heater for Level Control (230V)	✓	✓
HLLSW	Float Switch Assembly	✓	
HLLSWE	Float Switch Assembly		✓
20-1738	Float Ball Assembly Kit, includes: 20-1142 Float Ball Assembly 20-1212 Gasket-Top Adapter 77-0037 Screws (2)	✓	✓
20-1772	Water Bubbler Assembly, antisiphon (w/end connections)	✓	✓
20-1186	Metering Valve	✓	
20-1198	Metering Valve Seal Kit	✓	
70-0213	Metering Orifice		✓
20-1648	Metering Valve Strainer	✓	
20-1648	Metering Orifice Strainer		✓
20-1737	Screen Assembly Replacement Kit for above strainers, includes: 20-1535 Screen Assembly 78-0016 Strainer Gasket	✓	✓
70-1059	Plunger Kit for all purger solenoid valves	✓	✓
20-1183	Check Valve, 1 psid (.07 bar)	✓	✓
20-1184	Check Valve, 30 psid (2.1 bar)	✓	✓
20-1185	Check Valve, 225 psid (15.5 bar)—Replaces older 200 psid (13.8 bar) check valve	✓	✓
20-1214	Check Valve Seal Kit, for 1, 30, and 200/225 psid (.07, 2.1, and 13.8/15.5 bar) check valves	✓	✓
20-1776	Air Indicating Column for halocarbon purger	✓	✓
20-1311	Liquid Drainer	✓	✓

### PURGE POINT SOLENOID VALVES

For the customer-supplied purge point solenoid valves, Hansen recommends our HS8 with close-coupled strainer. This is a 1/2" port, heavy-duty, pilot-operated solenoid valve with stainless steel piston. The purge point solenoid valve must be a minimum of 1/2" port size to avoid excess pressure drop across the valve.



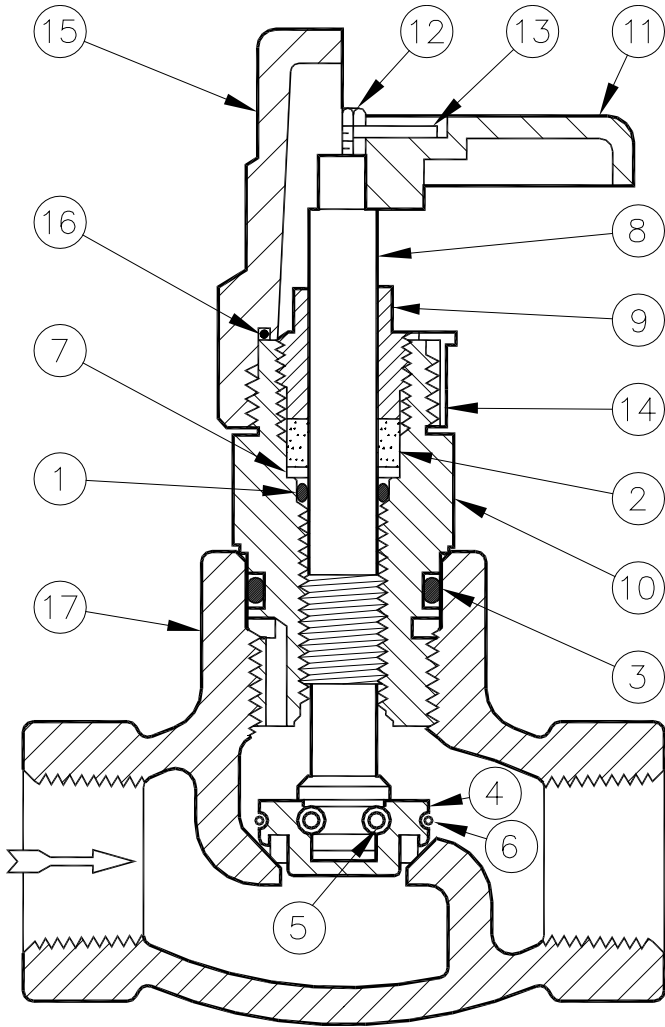
**HS8ST 1/2" Solenoid Valve with Close-Coupled Strainer**

The standard molded coil is for 115V, 208/230V, or 24V. Flange connections available are 1/2", 3/4", and 3/8" FPT, socket weld, and weld neck. Also available is 5/8" ODS. To order, specify catalog number HS8ST, required connection style and size, and volts. Specify DIN plug solenoid connection if needed.



**HS8ST 1/2" Solenoid Valve with DIN Plug Connection and Close-Coupled Strainer**

**REPLACEMENT PARTS – SCREWED BONNET**  
**3/8" THROUGH 1-1/4" (10MM THROUGH 32MM)**



ITEM	DESCRIPTION	QTY	PART NO
	<b>Gasket Kit consist of:</b>		<b>50-1040†</b>
1	Stem O-Ring	1	50-0179
2	Stem Packing	1	50-0045
3a	Bonnet O-Ring 3/8", 1/2", 3/4"	1	50-0453
3b	Bonnet O-Ring 1", 1-1/4"	1	50-0017
7	Stem Washer	1	50-0046
16	Seal Cap O-Ring	1	50-0432
9	Packing Nut	1	50-0013
	<b>Bonnet Assembly Kit 3/8", 1/2", 3/4"</b>		<b>50-1041†</b>
	<b>Bonnet Assembly Kit 1", 1-1/4"</b>		<b>50-1021</b>
	<i>Above kits consist of:</i>		
4a	Disc Assembly 3/8", 1/2", 3/4"	1	50-0803
4b	Disc Assembly 1", 1-1/4"	1	50-0804
5	Balls	10	50-0016
6a	Ball Retainer 3/8", 1/2", 3/4"	1	50-0439
6b	Ball Retainer 1", 1-1/4"	1	50-0026
8	Stem	1	50-0012
10a	Bonnet 3/8", 1/2", 3/4"	1	50-0422
10b	Bonnet 1", 1-1/4"	1	50-0429
	Gasket Kit	1	50-1040
	<b>Disc Assembly Kit 3/8", 1/2", 3/4"</b>		<b>50-1042†</b>
	<b>Disc Assembly Kit 1", 1-1/4"</b>		<b>50-1004</b>
	<i>Above kits consist of:</i>		
4a	Disc Assembly 3/8", 1/2", 3/4"	1	50-0803
4b	Disc Assembly 1", 1-1/4"	1	50-0804
5	Balls	10	50-0016
6a	Ball Retainer 3/8", 1/2", 3/4"	1	50-0439
6b	Ball Retainer 1", 1-1/4"	1	50-0026
3a	Bonnet O-Ring 3/8", 1/2", 3/4"	1	50-0453
3b	Bonnet O-Ring 1", 1-1/4"	1	50-0017
	<b>Handwheel Kit consists of:</b>		<b>50-1005</b>
11	Handwheel	1	50-0027
12	Screw	1	50-0479
13	Name Plate	1	50-0094
14	Bonnet Thread Cap	1	50-0434
	<b>Seal Cap Kit consists of:</b>		<b>50-1036</b>
15	Seal Cap	1	50-0423
16	Seal Cap O-Ring	1	50-0432
17a	Body, Globe FPT 3/8" (10 mm)	1	50-0504
17b	Body, Globe FPT 1/2" (13 mm)	1	50-0505
17c	Body, Globe FPT 3/4" (20 mm)	1	50-0506
17d	Body, Globe FPT 1" (25 mm)	1	50-0035
17e	Body, Globe FPT 1-1/4" (32 mm)	1	50-0036
17f	Body, Angle FPT 3/8" (10 mm)	1	50-0507
17g	Body, Angle FPT 1/2" (13 mm)	1	50-0508
17h	Body, Angle FPT 3/4" (20 mm)	1	50-0509
17i	Body, Angle FPT 1" (25 mm)	1	50-0037
17j	Body, Angle FPT 1-1/4" (32 mm)	1	50-0038

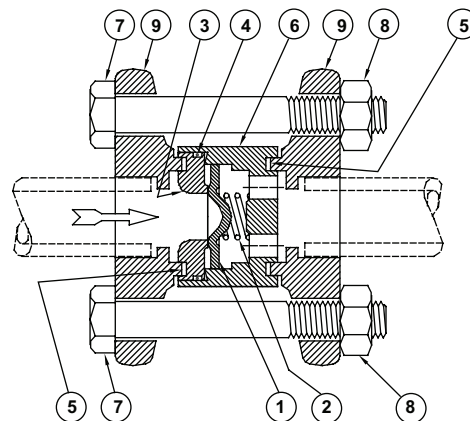
† Replacement part kits for older, larger style 1/2" and 3/4" shut-off valves (GT050, AT050, GT075, AT075): Gasket Kit, 50-1040; Bonnet Assembly Kit, 50-1028; Disc Assembly Kit, 50-1042 (includes bonnet O-ring 50-0017).

## PARTS LIST

### HCK4-2 (2-BOLT)

ITEM	DESCRIPTION	QTY	PART NO
	<b>Valve Assembly Kit</b> <i>Above kits consist of:</i>		
1	Seat Disc	1	72-0069
2	Closing Spring	1	72-0070
3	Seat Cartridge	1	72-0068
4	Seat Cartridge O-Ring	1	72-0071
5	Flange Gasket	2	70-0065
6	Body, HCK4-2	1	72-0067
7	Bolt (7/16" - 14x3.25")	2	70-0225
8	Nut (7/16" - 14)	2	70-0055
9	Flange (FPT, SW, WN, ODS)	2	FACTORY

### HCK4-2 (2-BOLT)

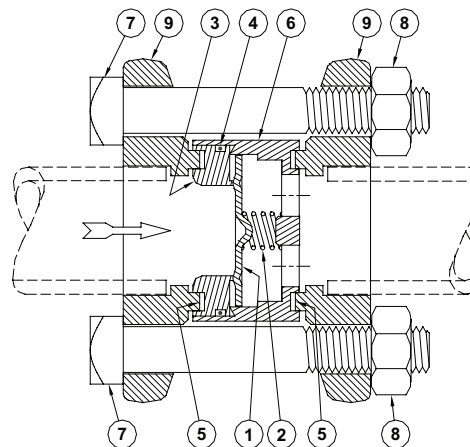


Socket weld shown. FPT, WN, ODS: Available.

### HCK4-3, -4, -5 (2-BOLT)

ITEM	DESCRIPTION	QTY	PART NO
	<b>Valve Assembly Kit</b> <i>Above kits consist of:</i>		
1	Seat Disc	1	72-0006
2	Closing Spring	1	70-0204
3	Seat Cartridge	1	72-0002
4	Seat Cartridge O-Ring	1	72-0003
5	Flange Gasket	2	70-0132
6a	Body, HCK4-3	1	72-0004
6b	Body, HCK4-4	1	72-0008
6c	Body, HCK4-5	1	72-0001
7	Bolt (5/8" - 11x4")	2	72-0005
8	Nut (5/8" - 11)	2	70-0136
9	Flange (FPT, SW, WN, ODS)	2	FACTORY

### HCK4-3, -4, -5 (2-BOLT)

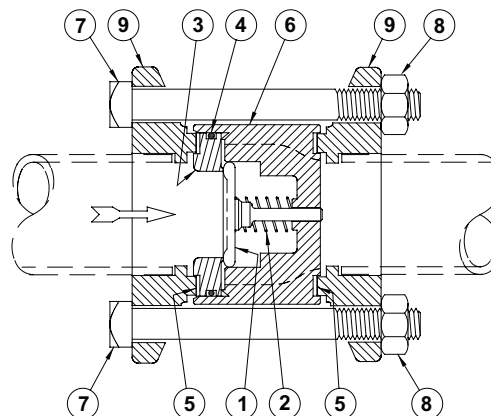


Socket weld shown. FPT, WN, ODS: Available.

### HCK4-7, -8, -9, -0, -1 (4-BOLT)

ITEM	DESCRIPTION	QTY	PART NO
1a	Seat Disc 1-1/2", 2"	1	72-0016
1b	Seat Disc 2-1/2", 3"	1	72-0034
1c	Seat Disc 4"	1	72-0053
2a	Closing Spring 1-1/2", 2"	1	72-0021
2b	Closing Spring 2-1/2", 3"	1	72-0032
2c	Closing Spring 4"	1	72-0048
3a	Seat Cartridge 1-1/2", 2"	1	72-0020
3b	Seat Cartridge 2-1/2"	1	72-0029
3c	Seat Cartridge 3"	1	72-0028
3d	Seat Cartridge 4"	1	72-0047
4a	Seat Cartridge O-Ring 1-1/2", 2"	1	72-0017
4b	Seat Cartridge O-Ring 2-1/2", 3"	1	72-0027
4c	Seat Cartridge O-Ring 4"	1	72-0049
5a	Flange Gasket 1-1/2", 2"	2	75-0138
5b	Flange Gasket 2-1/2"	2	75-0125
5c	Flange Gasket 3"	2	75-0137
5d	Flange Gasket 4"	2	75-0253
6a	Body, HCK4-7	1	72-0042
6b	Body, HCK4-8	1	72-0019
6c	Body, HCK4-9	1	72-0025
6d	Body, HCK4-0	1	72-0026
6e	Body, HCK4-1	1	72-0046
7a	Bolt, HCK4-7, -8 (5/8" - 11x6")	4	70-0268
7b	Bolt, HCK4-9, -0 (3/4" - 10x7")	4	72-0033
7c	Bolt, HCK4-1 (7/8" - 9x7.5")	4	72-0051
8a	Nut, HCK4-7, -8 (5/8" - 11)	4	70-0136
8b	Nut, HCK4-9, -0 (3/4" - 10)	4	75-0210
8c	Nut, HCK4-1 (7/8" - 9)	4	75-0280
9	Flange (FPT, SW, WN, ODS)	2	FACTORY

### HCK4-7, -8, -9, -0, -1 (4-BOLT)



Socket weld shown. WN, ODS: Available.

## HS9B PARTS LIST

1-1/4" thru 4" (32 mm thru 100 mm)

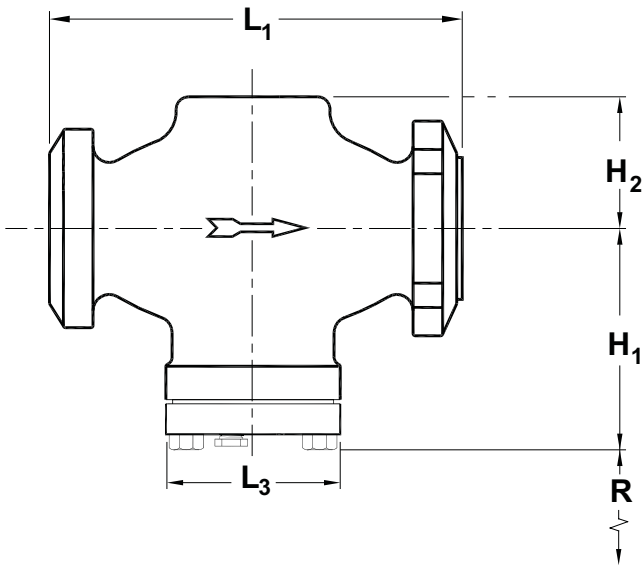
ITEM	DESCRIPTION	QTY	PART NO
	<b>Piston/Seat Kit 1-1/4"</b>		<b>75-1115</b>
	<b>Piston/Seat Kit 1-1/2"</b>		<b>75-1116</b>
	<b>Piston/Seat Kit 2"</b>		<b>75-1117</b>
	<b>Piston/Seat Kit 2-1/2"</b>		<b>75-1118</b>
	<b>Piston/Seat Kit 3"</b>		<b>75-1119</b>
	<b>Piston/Seat Kit 4"</b>		<b>75-1120</b>
	<i>Above kits consist of:</i>		
1a	Piston/Seat 1-1/4"	1	75-0486
1b	Piston/Seat 1-1/2"	1	75-0597
1c	Piston/Seat 2"	1	75-0282
1d	Piston/Seat 2-1/2", 3"	1	75-0281
1e	Piston/Seat 4"	1	75-0244
2a	Piston Seal Ring 1-1/4"	1	75-0512
2b	Piston Seal Ring 1-1/2", 2"	1	75-0292
2c	Piston Seal Ring 2-1/2", 3"	1	75-0293
2d	Piston Seal Ring 4"	1	75-0236
3a	Spring 1-1/4"	1	75-0446
3b	Spring 1-1/2", 2"	1	75-0130
3c	Spring 2-1/2"	1	75-0131
3d	Spring 3"	1	75-0195
3e	Spring 4"	1	75-0240
28	Upper Body O-Ring (1-1/4" only)	1	70-0131
29	Lower Body O-Ring (1-1/4" only)	1	70-0130
4a	Cover Gasket 1-1/2", 2"	1	75-0196
4b	Cover Gasket 2-1/2", 3"	1	75-0128
4c	Cover Gasket 4"	1	75-0234
21	Disc Strainer Flange Gasket	1	70-0065
	<b>Gasket Kit 1-1/4"</b>		<b>75-1056</b>
	<b>Gasket Kit 1-1/2", 2"</b>		<b>75-1007</b>
	<b>Gasket Kit 2-1/2"</b>		<b>75-1008</b>
	<b>Gasket Kit 3"</b>		<b>75-1009</b>
	<b>Gasket Kit 4"</b>		<b>75-1017</b>
	<i>Above kits consist of:</i>		
28	Upper Body O-Ring (1-1/4" only)	1	70-0131
29	Lower Body O-Ring (1-1/4" only)	1	70-0130
4a	Cover Gasket 1-1/2", 2"	1	75-0196
4b	Cover Gasket 2-1/2", 3"	1	75-0128
4c	Cover Gasket 4"	1	75-0234
5a	Back-up Washer 1-1/2", 2", 2-1/2", 3"	1	75-0245
5b	Back-up Washer 4"	1	50-0351
6a	Stem O-Ring 1-1/4"	1	70-0010
6b	Stem O-Ring 1-1/2", 2", 2-1/2", 3"	1	50-0179
6c	Stem O-Ring 4"	1	50-0253
7a	Stem Washer 1-1/4"	1	70-0026
7b	Stem Washer 1-1/2", 2", 2-1/2", 3"	1	50-0046
7c	Stem Washer 4"	1	50-0247
8a	Packing 1-1/4"	1	70-0025
8b	Packing 1-1/2", 2", 2-1/2", 3"	1	50-0045
8c	Packing 4"	1	50-0248
9a	Packing Nut 1-1/4"	1	70-0019
9b	Packing Nut 1-1/2", 2", 2-1/2", 3"	1	50-0013
9c	Packing Nut 4"	1	50-0251
10a	Seal Cap O-Ring 1-1/4"	1	70-0011
10b	Seal Cap O-Ring 1-1/2", 2", 2-1/2", 3"	1	50-0432
10c	Seal Cap Gasket 4"	1	50-0270
21	Disc Strainer Flange Gasket	2	70-0065
16a	Flange Gasket 1-1/4"	2	70-0132
16b	Flange Gasket 1-1/2", 2"	2	75-0138
16c	Flange Gasket 2-1/2"	2	75-0125
16d	Flange Gasket 3"	2	75-0137
16e	Flange Gasket 4"	2	75-0253

ITEM	DESCRIPTION	QTY	PART NO
11a	Stem 1-1/4"	1	75-0506
11b	Stem 1-1/2", 2", 2-1/2"	1	75-0118
11c	Stem 3"	1	75-0135
11d	Stem 4"	1	75-0242
12a	Seal Cap 1-1/4"	1	50-0411
12b	Seal Cap 1-1/2", 2", 2-1/2", 3"	1	75-0139
12c	Seal Cap 4"	1	50-0260
30	Cover 1-1/4"	1	70-0279
13a	Cover 1-1/2", 2"	1	70-0279
13b	Cover 2-1/2", 3"	1	75-0107
13c	Cover 4"	1	75-0121
14a	Cover Bolts 1-1/2", 2"	4	75-0175
14b	Cover Bolts 2-1/2", 3"	4	65-0057
14c	Cover Bolts 4"	4	75-0291
15a	Body 1-1/4"	1	75-0492
15b	Body 1-1/2", 2"	1	75-0197
15c	Body 2-1/2"	1	75-0221
15d	Body 3"	1	75-0198
15e	Body 4"	1	75-0238
17	Flange	2	FACTORY
18a	Flange Bolt 1-1/4" (5/8"-11x2.75")	4	70-0339
18b	Flange Bolt 1-1/2", 2" (5/8"-11x3.25")	8	70-0135
18c	Flange Bolt 2-1/2", 3" (3/4"-10x3.75")	8	75-0202
18d	Flange Bolt 4" (7/8"-9x4")	8	75-0279
19a	Flange Nut 1-1/4" (5/8"-11)	4	70-0136
19b	Flange Nut 1-1/2", 2" (5/8"-11)	8	70-0136
19c	Flange Nut 2-1/2", 3" (3/4"-10)	8	75-0210
19d	Flange Nut 4" (7/8"-9)	8	75-0280
20	Disc Strainer Screen Assembly	1	78-0065
21	Disc Strainer Flange Gasket	2	70-0065
22	Nipple (1/2" x 3.5)	1	75-0677
23	Flange 1/2" FPT (Standard)	1	70-0023
24	Flange 1/2" FPT (Standard) SW, WN, ODS Available	1	70-0023
25	Flange Nut	2	70-0055
26	Flange Bolt	2	70-0054

75-0512

## INSTALLATION DIMENSIONS

inches (mm)



CAT NO	H <sub>1</sub>	H <sub>2</sub>	L <sub>1</sub>	L <sub>3</sub>	R	W	SCREEN AREA in <sup>2</sup> (cm <sup>2</sup> )
ST050	3.32 (84)	0.68 (17)	2.03 (52)	1.38 (35)	3.00 (76)	2.03 (52)	5.40 (35)
ST050D	3.82 (95)	0.68 (17)	2.03 (52)	1.38 (35)	3.00 (76)	2.03 (52)	5.40 (35)
ST100	5.15 (130)	1.56 (40)	3.75 (95)	4.59 (117)	3.00 (76)	4.59 (117)	63.00 (407)
ST200	5.34 (136)	2.79 (71)	9.88 (251)	4.25 (108)	4.00 (102)	4.58 (116)	84.50 (545)
ST250	6.10 (155)	3.62 (92)	9.88 (251)	5.38 (137)	4.50 (114)	5.62 (143)	134.50 (868)
ST300	6.56 (167)	4.06 (103)	12.25 (311)	5.38 (137)	4.75 (121)	6.50 (165)	134.50 (868)
ST400	7.38 (187)	4.73 (120)	14.12 (359)	6.75 (171)	5.75 (146)	8.06 (205)	219.00 (1413)
STW500	14.34 (364)	6.40 (163)	20.40 (518)	12.75 (324)	8.00 (203)	12.75 (324)	536.50 (3462)
STW600	14.34 (364)	6.40 (163)	20.40 (518)	12.75 (324)	8.00 (203)	12.75 (324)	536.50 (3462)

W = Maximum width of strainer body

R = Clearance for screen assembly removal

## SERVICE AND MAINTENANCE

Repeated inspection of strainers during system start-up or repairs is essential for optimum benefit. Before opening a strainer or any other component, be sure it is isolated from the system, and all refrigerant is removed (pumped out to zero pressure). The ¾" through 6" strainers have a drain plug in the bottom cover for connecting a drain valve and hose for proper and safe removal of any trapped liquid refrigerant.

**Screen Removal and Cleaning:** Be careful to avoid any refrigerant which may still be in the strainer. For the ½" strainer, slowly remove the hex bottom cap, then remove the screen assembly. For ¾" through 6" strainers, loosen the bottom cover bolts and bottom cover, check for refrigerant presence, and then remove the bolts, cover, and screen assembly. Clean the screen assembly with a good solvent, blow dry, and inspect. If the screen is damaged or sediment cannot be removed from the screen, replace the screen assembly. Carefully align the screen assembly in the center of the strainer body and replace the bottom cover. Pressure test for leaks before returning to service.

T479e  
JUL 2006

## CAUTION

Hansen strainers are for refrigeration systems only. Read these instructions and related safety precautions completely before selecting, using, or servicing these strainers. Only knowledgeable, trained refrigeration mechanics should install, operate, or service these strainers. Stated temperature and pressure limits should not be exceeded. The bottom cover should not be removed from strainers unless the system has been evacuated to zero pressure. See also Safety Precautions in the current List Price Bulletin and the Safety Precautions Sheet supplied with the product. Escaping refrigerant can cause injury, particularly to the eyes and lungs.

## WARRANTY

All Hansen products, except electronics, are guaranteed against defective materials or workmanship for one year F.O.B. factory. Electronics are guaranteed against defective materials or workmanship for 90 days F.O.B. factory. No consequential damages or field labor is included.

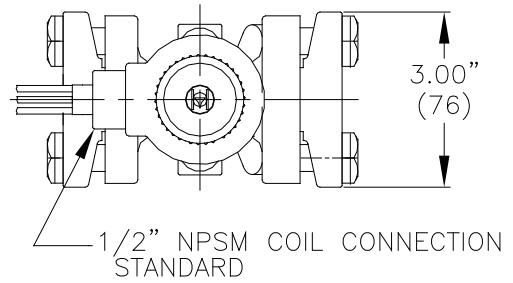
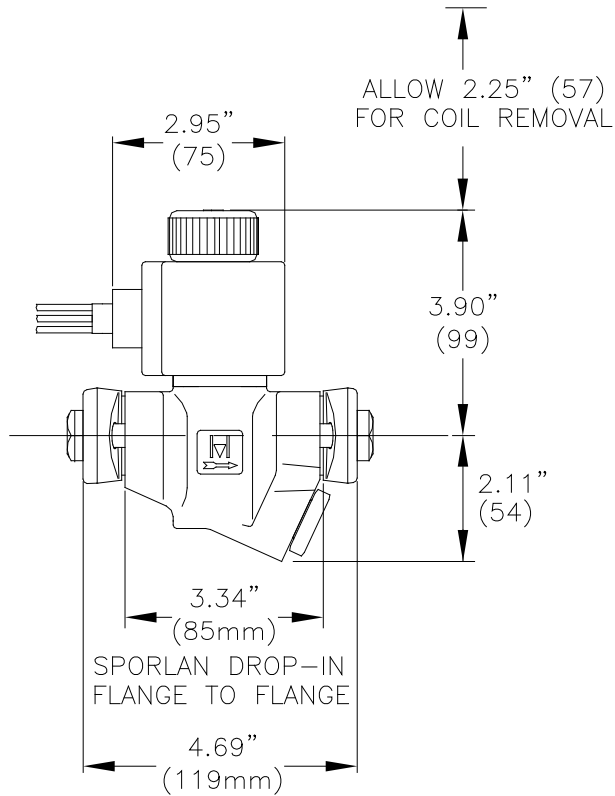
## REPLACEMENT SCREEN KITS

DESCRIPTION	QTY	PART NO 60 MESH	PART NO 100 MESH
<b>Screen Kit for ST050/ST050D</b>		—	<b>78-1001</b>
Screen Assembly	1		78-0005
Bottom Cap Gasket	1		78-0016
<b>Screen Kit for ST100 (Standard)</b>		<b>78-1003</b>	—
Screen Assembly	1	78-0028	
Bottom Cover Gasket	1	78-0026	
<b>Screen Kit for ST100HD, ST100/100</b>		<b>78-1013</b>	<b>78-1014</b>
Screen Assembly	1	78-0135	78-0137
Bottom Cover Gasket	1	78-0026	78-0026
<b>Screen Kit for ST200, ST200/100</b>		<b>78-1005</b>	<b>78-1025</b>
Screen Assembly	1	78-0052	78-0198
Bottom Cover Gasket	1	75-0196	75-0196
<b>Screen Kit for ST250, ST250/100</b>		<b>78-1006</b>	<b>78-1026</b>
Screen Assembly	1	78-0040	78-0199
Bottom Cover Gasket	1	75-0128	75-0128
<b>Screen Kit for ST300</b>		<b>78-1007</b>	—
Screen Assembly	1	78-0054	
Bottom Cover Gasket	1	75-0128	
<b>Screen Kit for ST400</b>		<b>78-1008</b>	—
Screen Assembly	1	78-0057	
Bottom Cover Gasket	1	75-0234	
<b>Screen Kit for STW500/STW600</b>		<b>78-1009</b>	—
Screen Assembly	1	78-0071	
Bottom Cover O-Ring, Inner	1	75-0605	
Bottom Cover O-Ring, Outer	1	75-0606	

# HANSEN

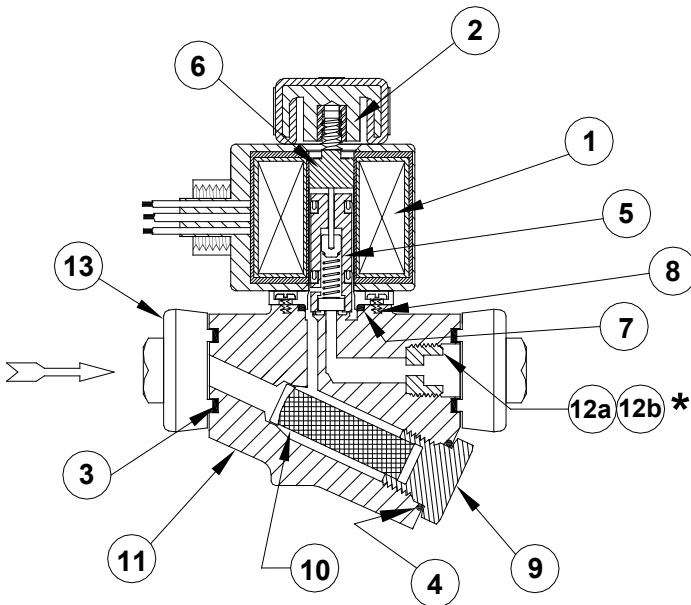
Hansen Technologies Corporation  
6827 High Grove Boulevard  
Burr Ridge, Illinois 60527 USA  
Tel: 630.325.1565 Fax: 630.325.1572 Toll: 800.426.7368  
Email: info@hantech.com Web: www.hantech.com  
USA · Asia · Europe · India · Latin America · Middle East  
© 2006 Hansen Technologies Corporation

## PXV INSTALLATION DIMENSIONS INCHES (MILLIMETERS)



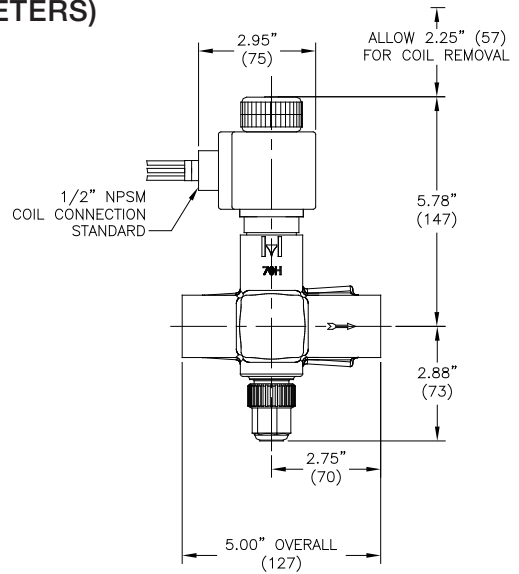
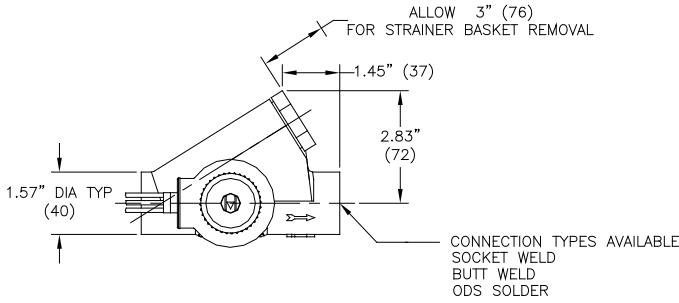
\*NOTE: REMOVE EXPANSION ORIFICE PLUG WHEN VALVE IS USED WITH DISTRIBUTOR.

## PXV PARTS LIST

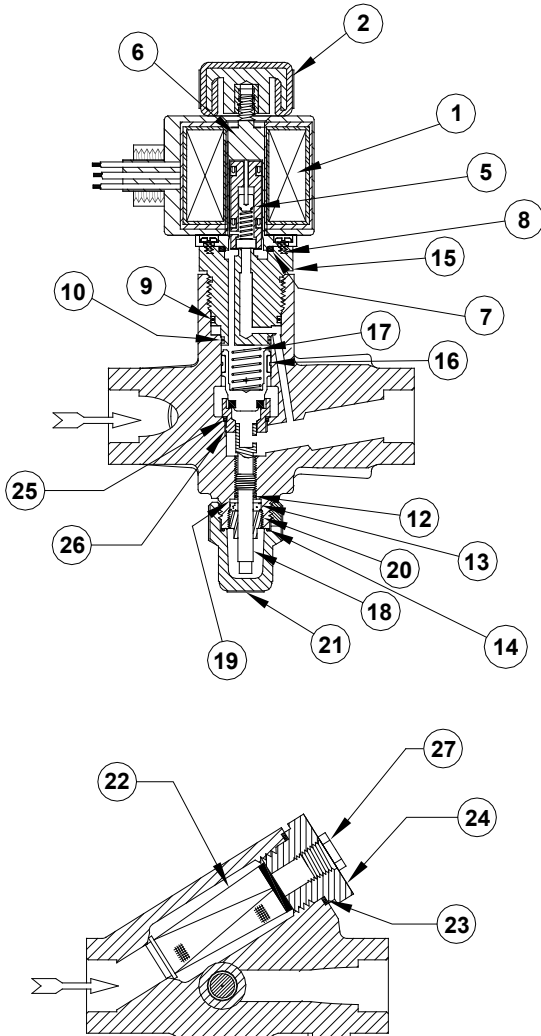


ITEM	DESCRIPTION	QTY	PART NO.
	<b>Coil Kit(115V) 1/2" Fit w/ Leads</b>	<b>1</b>	<b>70-1085</b>
	<b>Coil Kit(208/230V) 1/2" Fit w/ Lds</b>	<b>1</b>	<b>70-1086</b>
	<b>Coil Kit (24V) 1/2" Fit w/ Leads</b>	<b>1</b>	<b>70-1087</b>
	<b>Coil Kit (Other Voltages)</b>	<b>1</b>	<b>FACTORY</b>
	Above kits consist of:		
1a	Bare Coil, 115V 50/60HZ w/ Leads	1	70-0580
1b	Bare Coil, 208/230V 50/60HZ w/ Lds	1	70-0581
1c	Bare Coil, 24V 50/60HZ w/ Leads	1	70-0582
1d	Other Voltage Coils	1	<b>FACTORY</b>
2	Coil Knob	1	70-0579
	<b>PXV Solenoid Tube/Plunger Kit</b>	<b>1</b>	<b>70-1072</b>
	Above kit consists of:		
5	Long life Plunger	1	70-0467
6	Solenoid Tube	1	70-0298
7	Solenoid Tube O-Ring	1	72-0066
8	Tube Screws	4	70-0297
2	Coil Knob	1	70-0579
	<b>PXV Gasket Kit</b>	<b>1</b>	<b>70-1134</b>
	Above kit consists of:		
7	Solenoid Tube O-Ring	1	72-0066
4	Strainer Cap O-Ring	1	72-0066
3	Flange Gasket	2	20-2390
	<b>Strainer Screen Kit</b>	<b>1</b>	<b>78-1010</b>
	Above kit consists of:		
10	Screen Assembly, 100 mesh	1	78-0072
4	Strainer Cap O-Ring	1	72-0066
9	Strainer Cap	1	72-0065
11	PXV Body	1	<b>FACTORY</b>
12a	Expansion Orifice Plug, 5 Ton(3/64")	1	70-0745
12b	Expansion Orifice Plug, 15 Ton (5/64")	1	70-0746
13a	1/2" FPT Flange	2	20-1520
13b	1/2" SW Flange	2	30-0164

## PXVW INSTALLATION DIMENSIONS INCHES (MILLIMETERS)

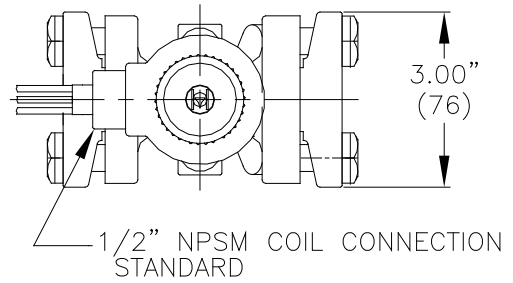
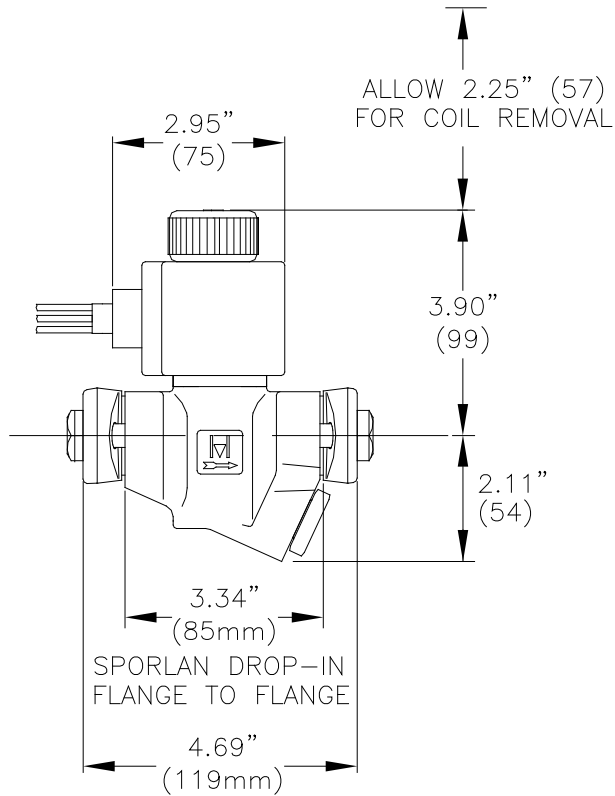


## PXVW PARTS LIST



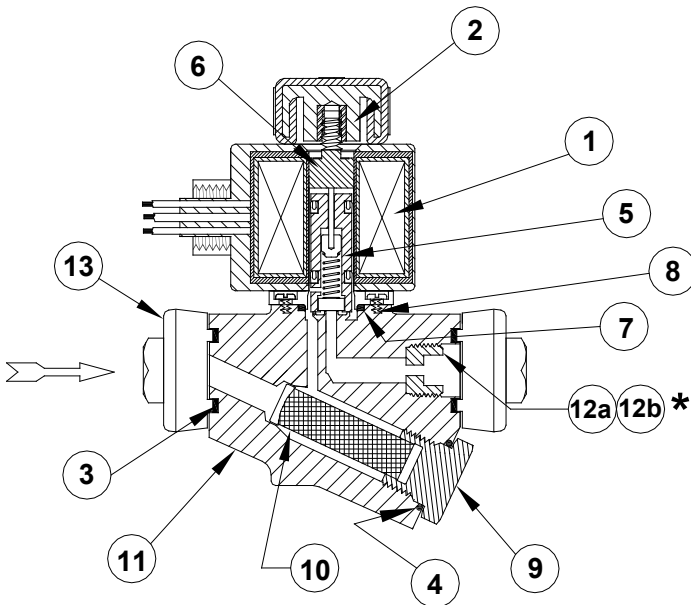
ITEM	DESCRIPTION	QTY	PART NO.
	<b>Coil Kit(115V) 1/2" Fit w/ Leads</b>	<b>1</b>	<b>70-1085</b>
	<b>Coil Kit(208/230V) 1/2"Fit w/ Lds</b>	<b>1</b>	<b>70-1086</b>
	<b>Coil Kit (24V) 1/2" Fit w/ Leads</b>	<b>1</b>	<b>70-1087</b>
	<b>Coil Kit (Other Voltages)</b>	<b>1</b>	<b>FACTORY</b>
	Above kits consist of:		
1a	Bare Coil, 115V 50/60HZ w/ Leads	1	70-0580
1b	Bare Coil, 208/230V 50/60HZ w/ Lds	1	70-0581
1c	Bare Coil, 24V 50/60HZ w/ Leads	1	70-0582
1d	Other Voltage Coils	1	FACTORY
2	Coil Knob	1	70-0579
	<b>PXVW Solenoid Tube/Plunger Kit</b>	<b>1</b>	<b>70-1072</b>
	Above kit consists of:		
5	Long-life Plunger	1	70-0467
6	Solenoid Tube	1	70-0298
7	Solenoid Tube O-Ring	1	72-0066
8	Tube Screws	4	70-0297
2	Coil Knob	1	70-0579
	<b>PXVW Gasket Kit</b>		<b>70-1125</b>
	Above kit consists of:		
7	Solenoid Tube O-Ring	1	72-0066
9	Upper Body O-Ring	1	70-0009
10	Lower Body O-Ring	1	70-0011
12	Stem O-Ring	1	70-0010
13	Packing	1	70-0025
14	Seal Cap O-Ring	1	70-0011
19	Packing Washer	1	70-0026
20	Packing Nut	1	70-0499
25	Seat O-Ring	1	70-0675
	<b>PXVW Stem Kit</b>	<b>1</b>	<b>70-1128</b>
	Above kit consists of:		
18	Capacity Adjustment Stem	1	70-0735
	Gasket Kit	1	70-1125
	<b>Bonnet Cartridge Kit</b>	<b>1</b>	<b>70-1133</b>
	Above kit consists of:		
15	Cartridge Assembly, PXVW	1	70-0703
	<b>Piston/Seat Kit</b>	<b>1</b>	<b>70-1129</b>
	Above kit consists of:		
16	Piston Assembly	1	70-0748
17	Closing Spring	1	70-0494
	Gasket Kit	1	70-1125
26	Beaded Seat	1	70-0739
15	Cartridge Assembly	1	70-0703
	Seat Removal Tool	1	70-0721
	<b>Seal Cap Kit</b>		<b>70-1075</b>
	Above kit consists of:		
21	Seal Cap	1	75-0798
14	Seal Cap O-Ring	1	70-0011
	<b>Strainer Screen Kit</b>	<b>1</b>	<b>78-1001</b>
	Above kit consists of:		
22	Screen Assembly, 100 mesh	1	78-0005
23	Strainer Cap Gasket	1	78-0016
	<b>Strainer Cap Kit</b>	<b>1</b>	<b>78-1022</b>
	Above kit consists of:		
24	Strainer Cap	1	78-0168
23	Strainer Cap Gasket	1	78-0016
27	Plug	1	75-0189

## PXV INSTALLATION DIMENSIONS INCHES (MILLIMETERS)



\*NOTE: REMOVE EXPANSION ORIFICE PLUG WHEN VALVE IS USED WITH DISTRIBUTOR.

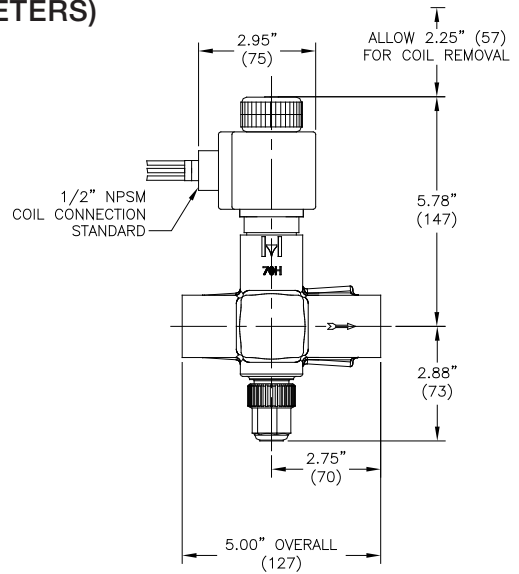
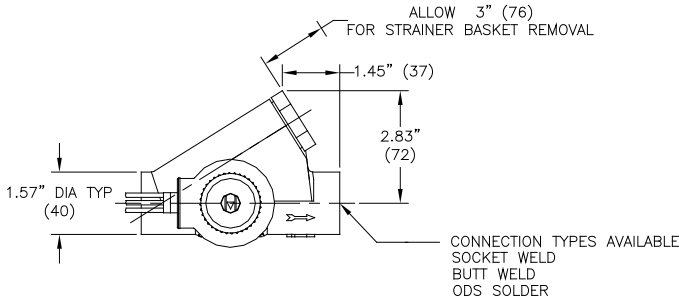
## PXV PARTS LIST



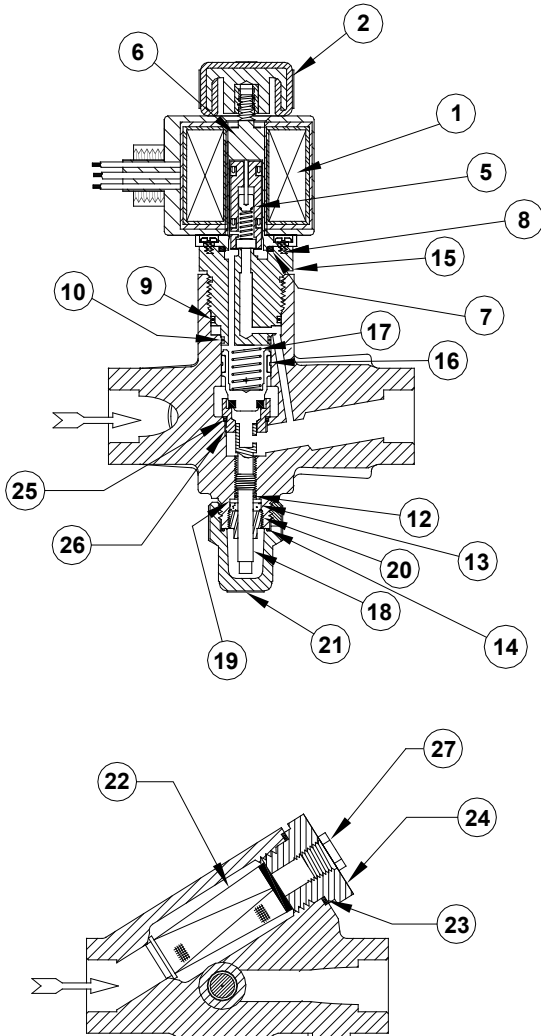
ITEM	DESCRIPTION	QTY	PART NO.
	<b>Coil Kit(115V) 1/2" Fit w/ Leads</b>	<b>1</b>	<b>70-1085</b>
	<b>Coil Kit(208/230V) 1/2" Fit w/ Lds</b>	<b>1</b>	<b>70-1086</b>
	<b>Coil Kit (24V) 1/2" Fit w/ Leads</b>	<b>1</b>	<b>70-1087</b>
	<b>Coil Kit (Other Voltages)</b>	<b>1</b>	<b>FACTORY</b>
	Above kits consist of:		
1a	Bare Coil, 115V 50/60HZ w/ Leads	1	70-0580
1b	Bare Coil, 208/230V 50/60HZ w/ Lds	1	70-0581
1c	Bare Coil, 24V 50/60HZ w/ Leads	1	70-0582
1d	Other Voltage Coils	1	<b>FACTORY</b>
2	Coil Knob	1	70-0579
	<b>PXV Solenoid Tube/Plunger Kit</b>	<b>1</b>	<b>70-1072</b>
	Above kit consists of:		
5	Long life Plunger	1	70-0467
6	Solenoid Tube	1	70-0298
7	Solenoid Tube O-Ring	1	72-0066
8	Tube Screws	4	70-0297
2	Coil Knob	1	70-0579
	<b>PXV Gasket Kit</b>	<b>1</b>	<b>70-1134</b>
	Above kit consists of:		
7	Solenoid Tube O-Ring	1	72-0066
4	Strainer Cap O-Ring	1	72-0066
3	Flange Gasket	2	20-2390
	<b>Strainer Screen Kit</b>	<b>1</b>	<b>78-1010</b>
	Above kit consists of:		
10	Screen Assembly, 100 mesh	1	78-0072
4	Strainer Cap O-Ring	1	72-0066
9	Strainer Cap	1	72-0065
11	PXV Body	1	<b>FACTORY</b>
12a	Expansion Orifice Plug, 5 Ton(3/64")	1	70-0745
12b	Expansion Orifice Plug, 15 Ton (5/64")	1	70-0746
13a	1/2" FPT Flange	2	20-1520
13b	1/2" SW Flange	2	30-0164



## PXVW INSTALLATION DIMENSIONS INCHES (MILLIMETERS)

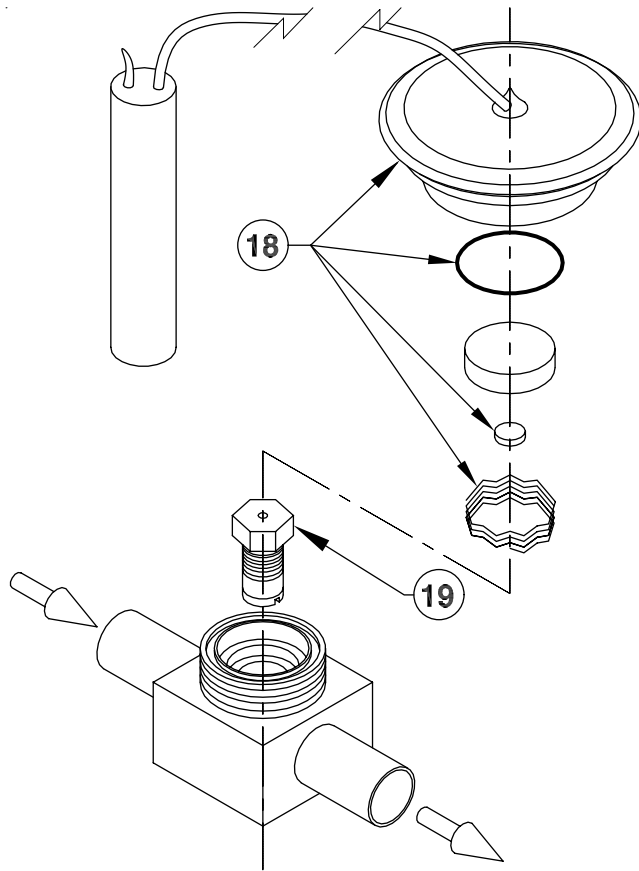


## PXVW PARTS LIST

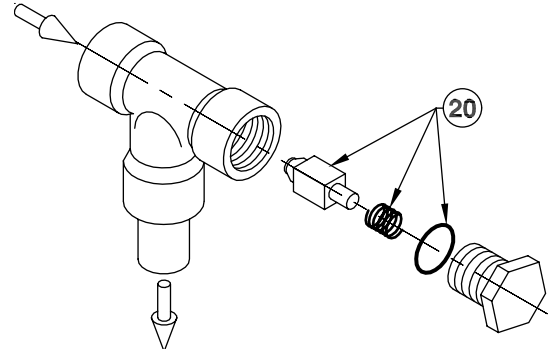


ITEM	DESCRIPTION	QTY	PART NO.
	<b>Coil Kit(115V) 1/2" Fit w/ Leads</b>	<b>1</b>	<b>70-1085</b>
	<b>Coil Kit(208/230V) 1/2"Fit w/ Lds</b>	<b>1</b>	<b>70-1086</b>
	<b>Coil Kit (24V) 1/2" Fit w/ Leads</b>	<b>1</b>	<b>70-1087</b>
	<b>Coil Kit (Other Voltages)</b>	<b>1</b>	<b>FACTORY</b>
	Above kits consist of:		
1a	Bare Coil, 115V 50/60HZ w/ Leads	1	70-0580
1b	Bare Coil, 208/230V 50/60HZ w/ Lds	1	70-0581
1c	Bare Coil, 24V 50/60HZ w/ Leads	1	70-0582
1d	Other Voltage Coils	1	FACTORY
2	Coil Knob	1	70-0579
	<b>PXVW Solenoid Tube/Plunger Kit</b>	<b>1</b>	<b>70-1072</b>
	Above kit consists of:		
5	Long-life Plunger	1	70-0467
6	Solenoid Tube	1	70-0298
7	Solenoid Tube O-Ring	1	72-0066
8	Tube Screws	4	70-0297
2	Coil Knob	1	70-0579
	<b>PXVW Gasket Kit</b>		<b>70-1125</b>
	Above kit consists of:		
7	Solenoid Tube O-Ring	1	72-0066
9	Upper Body O-Ring	1	70-0009
10	Lower Body O-Ring	1	70-0011
12	Stem O-Ring	1	70-0010
13	Packing	1	70-0025
14	Seal Cap O-Ring	1	70-0011
19	Packing Washer	1	70-0026
20	Packing Nut	1	70-0499
25	Seat O-Ring	1	70-0675
	<b>PXVW Stem Kit</b>	<b>1</b>	<b>70-1128</b>
	Above kit consists of:		
18	Capacity Adjustment Stem	1	70-0735
	Gasket Kit	1	70-1125
	<b>Bonnet Cartridge Kit</b>	<b>1</b>	<b>70-1133</b>
	Above kit consists of:		
15	Cartridge Assembly, PXVW	1	70-0703
	<b>Piston/Seat Kit</b>	<b>1</b>	<b>70-1129</b>
	Above kit consists of:		
16	Piston Assembly	1	70-0748
17	Closing Spring	1	70-0494
	Gasket Kit	1	70-1125
26	Beaded Seat	1	70-0739
15	Cartridge Assembly	1	70-0703
	Seat Removal Tool	1	70-0721
	<b>Seal Cap Kit</b>		<b>70-1075</b>
	Above kit consists of:		
21	Seal Cap	1	75-0798
14	Seal Cap O-Ring	1	70-0011
	<b>Strainer Screen Kit</b>	<b>1</b>	<b>78-1001</b>
	Above kit consists of:		
22	Screen Assembly, 100 mesh	1	78-0005
23	Strainer Cap Gasket	1	78-0016
	<b>Strainer Cap Kit</b>	<b>1</b>	<b>78-1022</b>
	Above kit consists of:		
24	Strainer Cap	1	78-0168
23	Strainer Cap Gasket	1	78-0016
27	Plug	1	75-0189

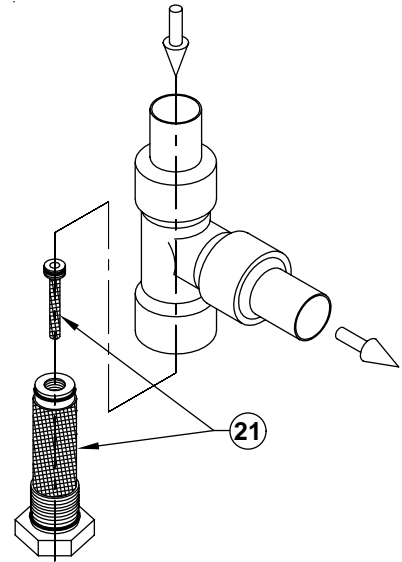
PARTS LIST



**Combination Temperature/Check Valve (9)**



**225 psid Check Valve (10)**

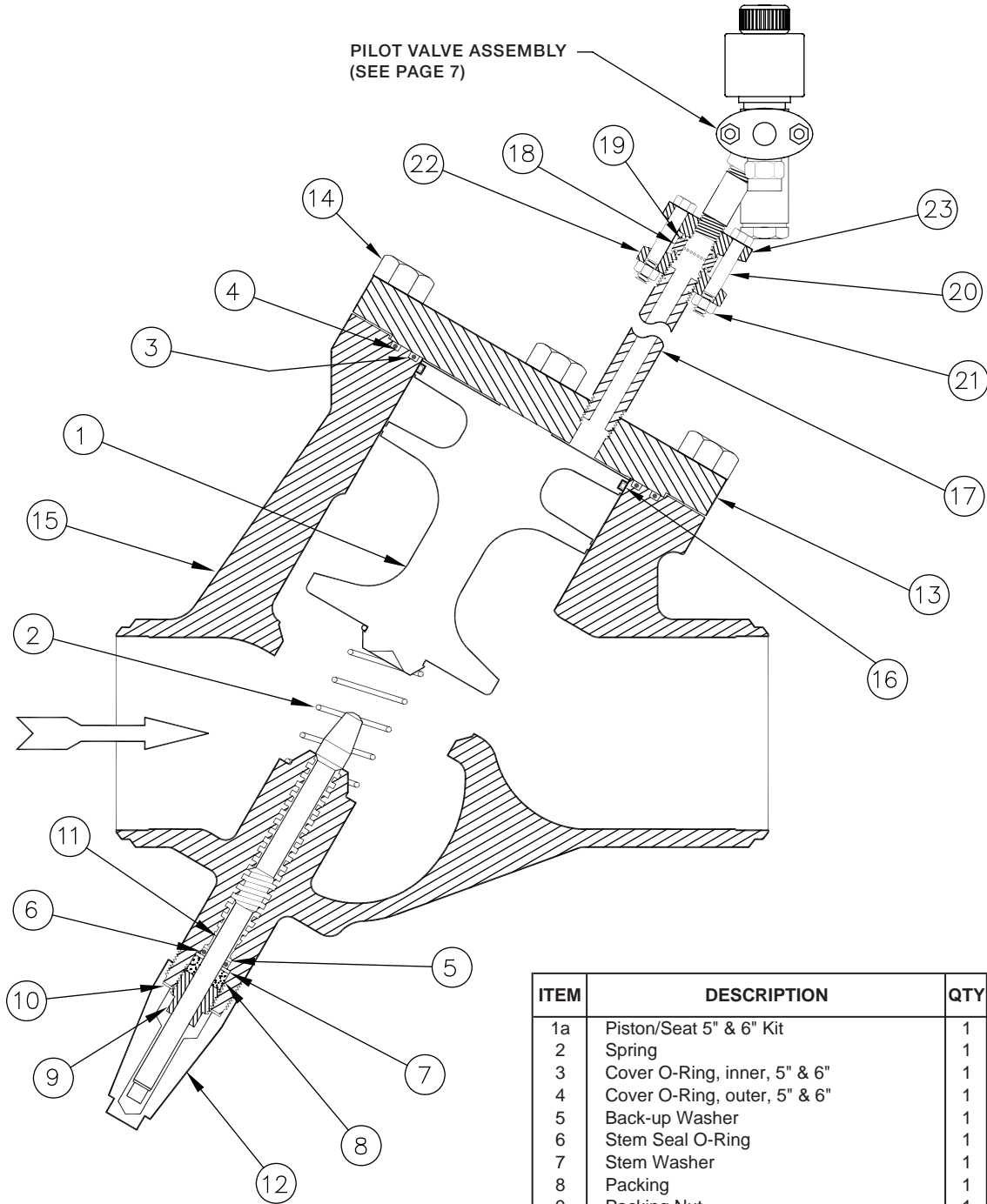


**Strainer/Orifice (5a, 5b)**

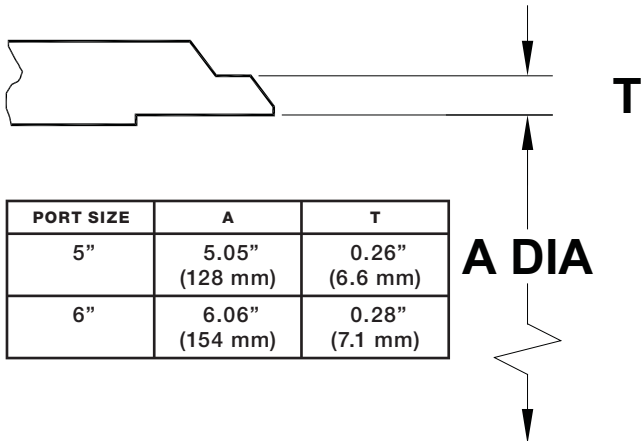
Item	Description	Part Number
1	Thermostatic Expansion Valve	20-2163
2	Inline Check Valve, 1psid	20-1183
3	Ball Check Valve: Ball	20-1187
4	Strainer Kit: Strainer screen and O-ring	78-1010
5a, 5b	Strainer/Orifice	N/A
6	Liquid Drainer	N/A
7	Sight Glass	N/A
8	Pressure Relief Valve, 300 psi	H5600/300
9	Combination Temperature/Check Valve	N/A
10	Check Valve, 225 psid	N/A
11	Float Ball Plunger	20-2201
12	Float Ball	77-0036
13	Float Ball Seat	20-2202
14	O-ring, Float Ball Seat	20-2166
15	Vessel Cover Assembly	N/A
16	Vessel Cover O-ring	20-2167
17	Float Ball Retaining Wires (2 per kit)	20-2173
18	Temperature Valve Assembly Kit	20-2200
19	80 psi Check Valve Assembly, Temperature Valve	20-2199
20	225 psi Check Valve Kit	20-2204
21	Screen Assembly	20-2203
22	10 feet (3 m) of Nylon Purge Gas Tubing	20-1242

# HS9BW PARTS LIST

5" & 6" (125 mm & 150 mm)



PILOT VALVE ASSEMBLY  
(SEE PAGE 7)



PORT SIZE	A	T
5"	5.05" (128 mm)	0.26" (6.6 mm)
6"	6.06" (154 mm)	0.28" (7.1 mm)

ITEM	DESCRIPTION	QTY	PART NO
1a	Piston/Seat 5" & 6" Kit	1	75-1134
2	Spring	1	75-0600
3	Cover O-Ring, inner, 5" & 6"	1	75-0605
4	Cover O-Ring, outer, 5" & 6"	1	75-0606
5	Back-up Washer	1	50-0324
6	Stem Seal O-Ring	1	50-0293
7	Stem Washer	1	50-0299
8	Packing	1	50-0290
9	Packing Nut	1	50-0292
10	Seal Cap Gasket	1	50-0315
11	Stem	1	75-0584
12	Seal Cap	1	50-0304
13	Cover	1	75-0583
14	Cover Bolts	4	75-0604
15a	Body 5"	1	75-0638
15b	Body 6"	1	75-0639
16	Piston Seal	1	75-0602
17	Nipple (3/4" x 6")	1	75-0680
18	Disc Strainer Screen Assembly	1	78-0049
19	Disc Strainer Flange Gasket	2	70-0065
20	Flange Bolt	2	70-0054
21	Flange Nut	2	70-0055
22	Flange 3/4" FPT	1	70-0024
23	Flange 1/2" FPT (Standard)	1	70-0023

## MATERIAL SPECIFICATIONS

Body: Cast ductile iron, corrosion-resistant coated  
 Bonnet Cartridge: Steel, plated  
 Piston: Stainless steel, Teflon seal  
 Plunger: Stainless steel  
 Pilot Orifice: Stainless Steel  
 Seats: Teflon, pilot and main  
 MOPD: 300 psi (20 bar) AC coils only, 500 psi (34 bar) available  
 Safe Working Pressure: 400 psig (27 bar), 600 psig (41 bar) for CO2  
 Operating Temperature: -60°F to +240°F (-50°C to +115°C)

## ELECTRICAL

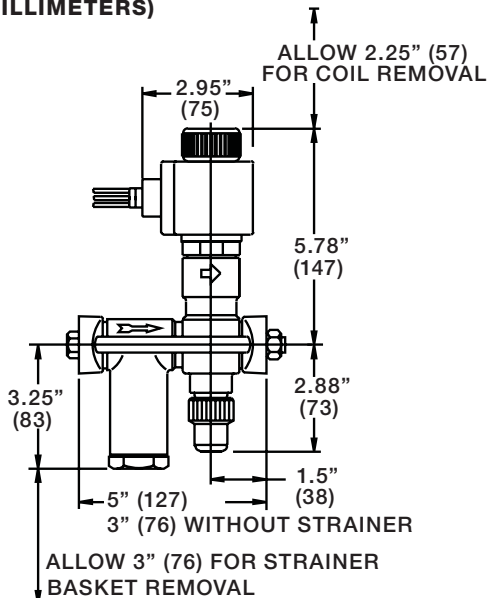
The coil draws 16 watts and will operate properly between 85% and 110% of rated voltage (24V coil draws 19 watts). Standard coil connection is a 1/2" fitting (NPSM) for conduit, with two 18" wire leads and ground wire. Coils with DIN plug or 1/2" NPSM quick disconnect plug are available. Contact the factory. All coils are totally encapsulated and meet NEMA 3R (rainproof) and NEMA 4 (splash proof, approx. IP65) requirements. The coil should only be energized while on the solenoid tube. Otherwise, immediate coil burnout may occur. To avoid bending the solenoid tube, remove the coil from valve before connecting any electrical conduit. Pilot lights are available.

## INSTALLATION

Protect the interior of the valve from dirt before and during installation. A close-coupled inlet strainer is normally installed and recommended. Allow 2.25" (57 mm) above the valve for coil removal and 3" (76 mm) below the strainer for screen removal. The arrow on the valve body must point in the direction of system flow. If a pressure reversal can occur use a check valve on the outlet side of the HS8A. The check valve can be close coupled directly to the HS8A outlet. For proper flange gasket sealing, care must be taken when threading or welding to assure flanges are parallel to each other and perpendicular to pipe. Also, gaskets should be lightly oiled and all bolts must be tightened evenly.

## INSTALLATION DIMENSIONS

### INCHES (MILLIMETERS)



## PARTS LIST

Item	Description	Qty	Part No.
	<b>Coil Kit (115V) 1/2" Fitting w/leads</b>	1	<b>70-1085</b>
	<b>Coil Kit (208/230V) 1/2" Fitting w/leads</b>	1	<b>70-1086</b>
	<b>Coil Kit (24V) 1/2" Fitting w/leads</b>	1	<b>70-1087</b>
	<b>Coil Kit (Other Voltages)</b>	1	<b>FACTORY</b>
	<i>Above kits consist of:</i>		
1a	Bare Coil, 115V 50/60 Hz w/leads	1	70-0580
1b	Bare Coil, 208/230V 50/60Hz w/leads	1	70-0581
1c	Bare Coil, 24V 50/60Hz w/leads	1	70-0582
1d	Other Voltage Coils	1	FACTORY
2	Coil Knob	1	70-0579
	<b>Solenoid Tube/Plunger Kit</b>	1	<b>70-1059</b>
	<i>Above kit consists of:</i>		
5	Plunger	1	70-0295
6	Solenoid Tube	1	70-0298
7	Solenoid Tube Gasket	1	70-0301
8	Tube Screws	4	70-0297
2	Coil Knob	1	70-0579
	<b>Gasket Kit</b>	1	<b>70-1005</b>
	<i>Above kit consists of:</i>		
7	Solenoid Tube Gasket	1	70-0301
9	Upper Body O-Ring	1	70-0009
10	Lower Body O-Ring	1	70-0011
11	Flange Gasket	3	70-0065
12	Stem O-Ring	1	70-0010
13	Packing	1	70-0025
14	Seal Cap O-Ring	1	70-0011
19	Packing Washer	1	70-0026
20	Packing Nut	1	70-0019
	<b>Bonnet Cartridge Kit</b>	1	<b>70-1001</b>
	<i>Above kit consists of:</i>		
15	Cartridge Assembly	1	70-0144
	Gasket Kit	1	70-1005
	Solenoid Tube/Plunger Kit	1	70-1059
	<b>Piston Assembly Kit</b>	1	<b>70-1002</b>
	<i>Above kit consists of:</i>		
16	Piston Assembly	1	70-0497
17	Closing Spring	1	70-0494
	Gasket Kit	1	70-1005
	<b>Stem Kit</b>	1	<b>70-1003</b>
	<i>Above kit consists of:</i>		
18	Stem	1	70-0004
	Gasket Kit	1	70-1005
	<b>Seal Cap Kit</b>	1	<b>70-1075</b>
	<i>Above kit consists of:</i>		
21	Seal Cap	1	75-0798
14	Seal Cap O-Ring	1	70-0011
	<b>Strainer Screen Kit</b>	1	<b>78-1001</b>
	<i>Above kit consists of:</i>		
22	Screen Assembly, 100 mesh	1	78-0005
23	Strainer Cap Gasket	1	78-0016
	<b>Bolt and Nut Kit</b>		
	For HS8A less Strainer (a)		70-1006
	For HS8A with Strainer (b)		70-1007
	<i>Above kits consist of:</i>		
25	Nut, 7/16-14	2	70-0055
26a	Bolt, 7/16-14x3 3/4	2	70-0073
26b	Bolt, 7/16-14x5 1/2	2	70-0076
24	<b>Strainer Cap</b>	1	<b>78-0002</b>
24a	<b>Strainer Cap with Drain Connect</b>	1	<b>78-1022</b>
27	<b>Assembled Body Replacement Kit</b>		<b>HS8A/1</b>
	Complete Valve less Coil Kit and Flanges		
28	<b>Assembled Strainer Replacement Kit</b>	1	<b>78-1002</b>
28a	<b>Assembled Strainer Replacement Kit with Drain</b>	1	<b>78-0169</b>
29	<b>Flange Kit (FPT,SW,WN,ODS)</b>		<b>FACTORY</b>
	<i>Includes (2) Flanges only; Specify Style and Size.</i>		

## MATERIAL SPECIFICATIONS

Body: Ductile iron (Nodular Iron GGG-40)  
 Bonnet-Cartridge: Steel, plated  
 Piston: Stainless steel  
 Plunger: Stainless steel  
 Solenoid Tube: Stainless steel  
 Pilot Orifice: Stainless steel  
 Seat: Teflon  
 Safe Working Pressure: 400 psig (27 bar) 600 psig (41 bar) for CO2  
 Operating Temperature: -60°F to +240°F  
 (-50°C to +115°C)

## ADVANTAGES

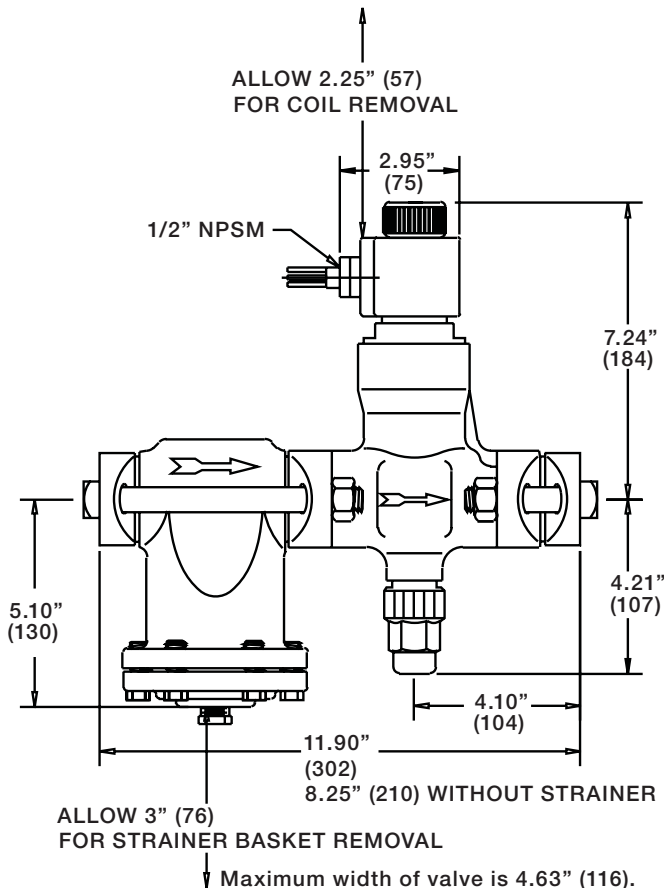
Power saving, low-wattage molded coil; Teflon seats; stainless steel trim including piston; spring-closing; double seal manual opening stem. One standard molded coil fits all Hansen valves.

## INSTALLATION

Protect interior of valve from dirt during installation; normally use close-coupled inlet strainer. Allow 2.25" (57mm) above valve for coil removal, 3" (76 mm) below strainer for screen removal. Match arrow on body with system flow direction. If a pressure reversal can occur, as during hot gas defrost with liquid recirculation, use a check valve on the outlet side of the HS7. For proper flange gasket sealing, care must be taken when threading or welding to assure flanges are parallel to each other and perpendicular to pipe. Also, gaskets should be lightly oiled and all bolts must be tightened evenly.

## INSTALLATION DIMENSIONS

### INCHES (MILLIMETERS)



## PARTS LIST

Item	Description	Qty	Part No.
	<b>Coil Kit (115V) 1/2" Fitting w/leads</b>	1	<b>70-1085</b>
	<b>Coil Kit (208/230V) 1/2" Fitting w/leads</b>	1	<b>70-1086</b>
	<b>Coil Kit (24V) 1/2" Fitting w/leads</b>	1	<b>70-1087</b>
	<b>Coil Kit (Other Voltages)</b>	1	<b>FACTORY</b>
	<i>Above kits consist of:</i>		
1a	Bare Coil, 115V 50/60 Hz w/leads	1	70-0580
1b	Bare Coil, 208/230V 50/60Hz w/leads	1	70-0581
1c	Bare Coil, 24V 50/60Hz w/leads	1	70-0582
1d	Other Voltage Coils	1	FACTORY
2	Coil Knob	1	70-0579
3	O-Ring	1	75-0340
	<b>Solenoid Tube/Plunger Kit</b>	1	<b>70-1059</b>
	<i>Above kit consists of:</i>		
5	Plunger	1	70-0295
6	Solenoid Tube	1	70-0298
7	Solenoid Tube Gasket	1	70-0301
8	Tube Screws	4	70-0297
2	Coil Knob	1	70-0579
3	O-Ring	1	75-0340
	<b>Gasket Kit</b>	1	<b>70-1017</b>
	<i>Above kit consists of:</i>		
7	Solenoid Tube Gasket	1	70-0301
9	Upper Body O-Ring	1	70-0131
10	Lower Body O-Ring	1	70-0130
11	Flange Gasket	3	70-0132
12	Stem O-Ring	1	70-0010
13	Stem Washer	1	70-0026
14	Packing Nut	1	70-0019
16	Stem Packing	1	70-0025
15	Seal Cap O-Ring	1	70-0011
	<b>Bonnet Cartridge Kit</b>	1	<b>70-1018</b>
	<i>Above kit consists of:</i>		
17	Cartridge Assembly	1	70-0162
	Gasket Kit	1	70-1017
	Solenoid Tube/Plunger Kit	1	70-1059
	<b>Piston Assembly Kit 3/4"</b>	1	<b>70-1019</b>
	<b>Piston Assembly Kit 1"</b>	1	<b>70-1020</b>
	<b>Piston Assembly Kit 1 1/4"</b>	1	<b>70-1021</b>
	<i>Above kits consist of:</i>		
18a	Piston Assembly 3/4"	1	70-0166
18b	Piston Assembly 1"	1	70-0163
18c	Piston Assembly 1 1/4"	1	70-0167
19	Closing Spring	1	70-0155
9	Upper Body O-Ring	1	70-0131
10	Lower Body O-Ring	1	70-0130
	<b>Stem Kit</b>	1	<b>70-1022</b>
	<i>Above kit consists of:</i>		
20	Stem	1	70-0128
	Gasket Kit	1	70-1017
	<b>Seal Cap Kit</b>	1	<b>70-1023</b>
	<i>Above kit consists of:</i>		
21	Seal Cap	1	50-0411
15	Seal Cap O-Ring	1	70-0011
	<b>Bolt and Nut Kit</b>		
	For HS7 less Strainer (a)		70-1024
	For HS7 with Strainer (b)		70-1025
	<i>Above kits consist of:</i>		
	Nut	4	70-0136
23a	Bolt (less Strainer) 2.75"	4	70-0339
23b	Bolt (with Strainer) 2.75"	2	70-0339
23b	Bolt (with Strainer) 6.5"	2	70-0134
24	<b>Assembled Body Replacement Kit</b>		<b>FACTORY</b>
	Complete Valve less Coil Kit and Flanges		
25	<b>Flange Kit (FPT,SW,WN,ODS)</b>		<b>FACTORY</b>
	<i>Includes (2) Flanges only; Specify Style and Size.</i>		

## ADVANTAGES

Power saving, low-wattage encapsulated coil; teflon seat; stainless steel trim; spring-closing; double-seal manual opening stem. One standard encapsulated coil fits all Hansen valves.

## INSTALLATION

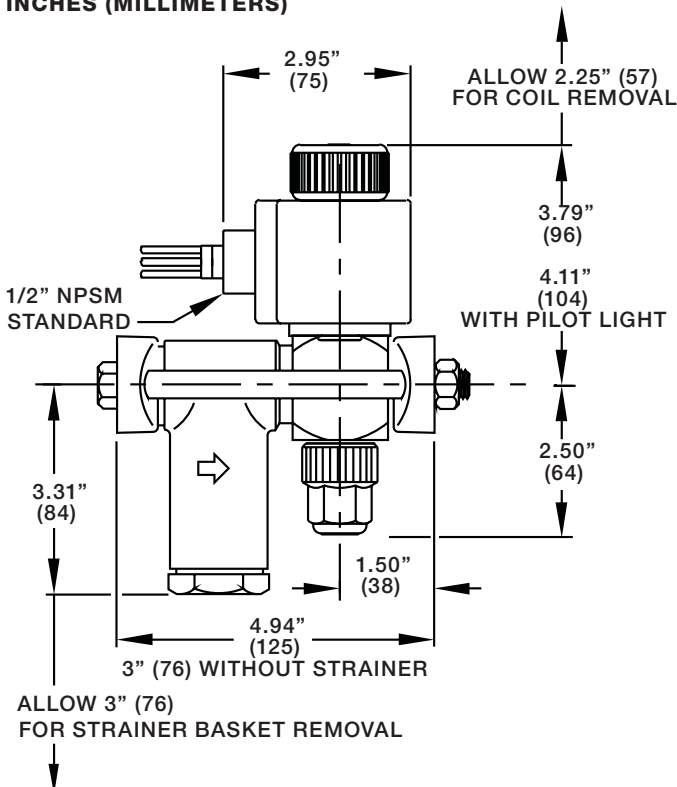
Match arrow on body with system flow direction. Protect interior of valve from dirt during installation; normally use close-coupled inlet strainer. Allow 2.25" (57 mm) above valve for coil removal, 1" (25 mm) below for seal cap removal, and 3" (76 mm) below strainer for screen removal. If a pressure reversal can occur, as during hot gas defrost with liquid recirculation, use a check valve on the outlet side of the HS6. For proper flange gasket sealing, care must be taken when threading or welding to assure flanges are parallel to each other and perpendicular to pipe. Also, gaskets should be lightly oiled and all bolts must be tightened evenly.

## ELECTRICAL

The coil draws 16 watts and will operate properly between 85% and 110% of rated voltage (24V coil draws 19 watts). Standard coil connection is a 1/2" fitting (NPSM) for conduit, with two 18" wire leads and ground wire. Coils with DIN plug or 1/2" NPSM quick disconnect plug are available. Contact the factory. All coils are totally encapsulated and meet NEMA 3R (rainproof) and NEMA 4 (splashproof, approx. IP65) requirements. The coil should only be energized while on the solenoid tube. Otherwise, immediate coil burnout may occur. To avoid bending the solenoid tube, remove the coil from valve before connecting any electrical conduit. Pilot lights are available.

## INSTALLATION DIMENSIONS

INCHES (MILLIMETERS)



## PARTS LIST

Item	Description	Qty	Part No.
	<b>Coil Kit (115V) 1/2" Fitting w/leads</b>	1	70-1085
	<b>Coil Kit (208/230V) 1/2" Fitting w/leads</b>	1	70-1086
	<b>Coil Kit (24V) 1/2" Fitting w/leads</b>	1	70-1087
	<b>Coil Kit (Other Voltages)</b>	1	FACTORY
	<i>Above kits consist of:</i>		
1a	Bare Coil, 115V 50/60 Hz w/leads	1	70-0580
1b	Bare Coil, 208/230V 50/60Hz w/leads	1	70-0581
1c	Bare Coil, 24V 50/60Hz w/leads	1	70-0582
1d	Other Voltage Coils	1	FACTORY
3	Coil Knob	1	70-0579
	<b>Solenoid Tube/Plunger Kit</b>	1	70-1059
	<i>Above kit consists of:</i>		
5	Solenoid Tube	1	70-0298
4	Plunger	1	70-0295
6	Solenoid Tube Gasket	1	70-0301
2	O-Ring	1	75-0340
3	Coil Knob	1	70-0579
7	Screws (4)	4	70-0297
	<b>Gasket Kit</b>	1	70-1011
	<i>Above kit consists of:</i>		
6	Solenoid Tube Gasket	1	70-0301
8	Flange Gasket	1	70-0065
9	Stem O-Ring	1	70-0010
10	Stem Washer	1	70-0026
11	Stem Packing	1	70-0025
12	Packing Nut	1	70-0019
13	Pin	1	70-0150
14	Seal Cap Gasket	1	70-0011
15	<b>Assembled Body Replacement Kit</b>	1	70-1012
	<i>Complete Valve less Coil Kit</i>		
	<b>Seal Cap Kit</b>	1	70-1075
	<i>Above kit consists of:</i>		
16	Seal Cap	1	75-0798
14	Seal Cap Gasket	1	70-0011
	<b>Strainer Screen Kit</b>	1	78-1001
	<i>Above kit consists of:</i>		
17	Screen Assembly	1	78-0005
18	Strainer Cap Gasket	1	78-0016
	<b>Bolt and Nut Kit for HS6 less Strainer</b>	1	70-1006
	<b>Bolt and Nut Kit for HS6 with Strainer</b>	1	70-1007
	<i>Above kits consist of:</i>		
20	Flange Nut (7/16" - 14")	2	70-0055
21a	Flange Bolt (less strainer) 3.75"	2	70-0073
21b	Flange Bolt (with strainer) 5.5"	2	70-0076
19	<b>Strainer Cap</b>	1	78-0002
22	<b>Assembled Strainer Replacement Kit</b>	1	78-1002
23	<b>Flange Kit (FPT, SW, WN, ODS)</b>		FACTORY
	<i>Includes (2) flanges only.</i>		
	<i>Specify style/size.</i>		

**PARTS LIST ¾" THRU 1¼"**  
(20 mm thru 32 mm)

ITEM	DESCRIPTION	QTY	PART NO.
	<b>Main Piston Kit</b>	<b>1</b>	<b>75-1019</b>
	<i>Above kits consist of:</i>		
1	Main Piston	1	75-0191
2	Piston Seal	1	75-0353
36	Adapter Gasket	2	75-0489
23	Flange Gasket	2	70-0132
	<b>Upper Piston Kit ¾" - 1-1/4"</b>	<b>1</b>	<b>70-1109</b>
	<i>Above kits consist of:</i>		
41	Upper Piston	1	75-2515
40	Piston Seal	1	75-0353
39	Upper Spring	1	75-2538
36	Adapter Gasket	2	75-0489
	<b>V-Port/Seat Kit ¾"</b>	<b>1</b>	<b>75-1020</b>
	<b>V-Port/Seat Kit 1"</b>	<b>1</b>	<b>75-1021</b>
	<b>V-Port/Seat Kit 1-1/4"</b>	<b>1</b>	<b>75-1022</b>
	<i>Above kits consist of:</i>		
4a	¾" V-Port/Seat	1	75-0194
4b	1" V-Port/Seat	1	75-0193
4c	1-1/4" V-Port/Seat	1	75-0192
8	Closing Spring	4	75-0287
42	Bottom Cap O-Ring (Flanged Valve)	1	75-0183
	Seat Ring O-Ring (Weld-in Valve not shown)	1	75-2433
	<b>Gasket Kit</b>	<b>1</b>	<b>75-1023</b>
	<i>Above kit consists of:</i>		
36	Cover Gasket	1	75-0489
42	Bottom Cap O-Ring (Flanged Valve)	1	75-0183
	Seat Ring O-Ring (Weld-in Valve not shown)	1	75-2433
10	Stem O-Ring	1	70-0010
11	Stem Washer	1	70-0026
12	Stem Packing	1	70-0025
13	Packing Nut	1	70-0019
14	Seal Cap O-Ring	2	70-0011
23	Flange Gasket	1	70-0132
32	Solenoid Tube Gasket	1	70-0301
35	Port Plug Gasket & O-Ring	1	75-1071
38	Upper Piston Housing ¾" - 1-1/4"	1	75-2516
16	<b>Manual Opening Stem</b>	<b>1</b>	<b>75-0164</b>
17	<b>Seal Cap</b>	<b>1</b>	<b>50-0411</b>
19	<b>Gauge Port Plug (1/4" NPT)</b>	<b>1</b>	<b>75-0189</b>
18	<b>Adapter</b>	<b>1</b>	<b>75-2516</b>
20	<b>Adapter Bolts, Socket Cap</b>	<b>4</b>	<b>75-2537</b>
27	<b>Bottom Cap (Flanged Valve)</b>	<b>1</b>	<b>75-0155</b>
	<b>Seat Ring (Weld-in Valve not shown)</b>	<b>1</b>	<b>75-2402</b>
21a	<b>Body ¾", 1"</b>	<b>1</b>	<b>Factory</b>
21b	<b>Body 1-1/4", 2 Bolt</b>	<b>1</b>	<b>Factory</b>
22	<b>Flange (Various)</b>	<b>2</b>	<b>Factory</b>
24	<b>Flange Bolt (5/8" - 11x2.75)</b>	<b>4</b>	<b>70-0339</b>
25	<b>Flange Nut (5/8" - 11)</b>	<b>4</b>	<b>70-0136</b>
	<b>Coil Kit (115V) 1/2" Fitting w/leads</b>	<b>1</b>	<b>70-1085</b>
	<b>Coil Kit (208/230V) 1/2" Fitting w/leads</b>	<b>1</b>	<b>70-1086</b>
	<b>Coil Kit (24V) 1/2" Fitting w/leads</b>	<b>1</b>	<b>70-1087</b>
	<b>Coil Kit (Other Voltages)</b>	<b>1</b>	<b>Factory</b>
	<i>Above kits consist of:</i>		
26a	Bare Coil, 115V 50/60 Hz w/leads	1	70-0580
26b	Bare Coil, 208/230V 50/60 Hz w/leads	1	70-0581
26c	Bare Coil, 24V 50/60 Hz w/leads	1	70-0582
26d	Other Voltage Coils	1	Factory
29	Coil Knob	1	70-0579
	<b>Solenoid Tube/Plunger Kit</b>	<b>1</b>	<b>70-1059</b>
	<i>Above kits consist of:</i>		
29	Coil Knob	1	70-0579
30	Plunger	1	70-0295
31	Solenoid Tube	1	70-0298
32	Solenoid Tube Gasket	1	70-0301
33	Tube Screws	4	70-0297
34	<b>Solenoid Control Module</b>	<b>1</b>	<b>70-1052</b>
	(Control Module Body, including Plunger Kit, Port Plug Gasket and O-Ring (less coil))		

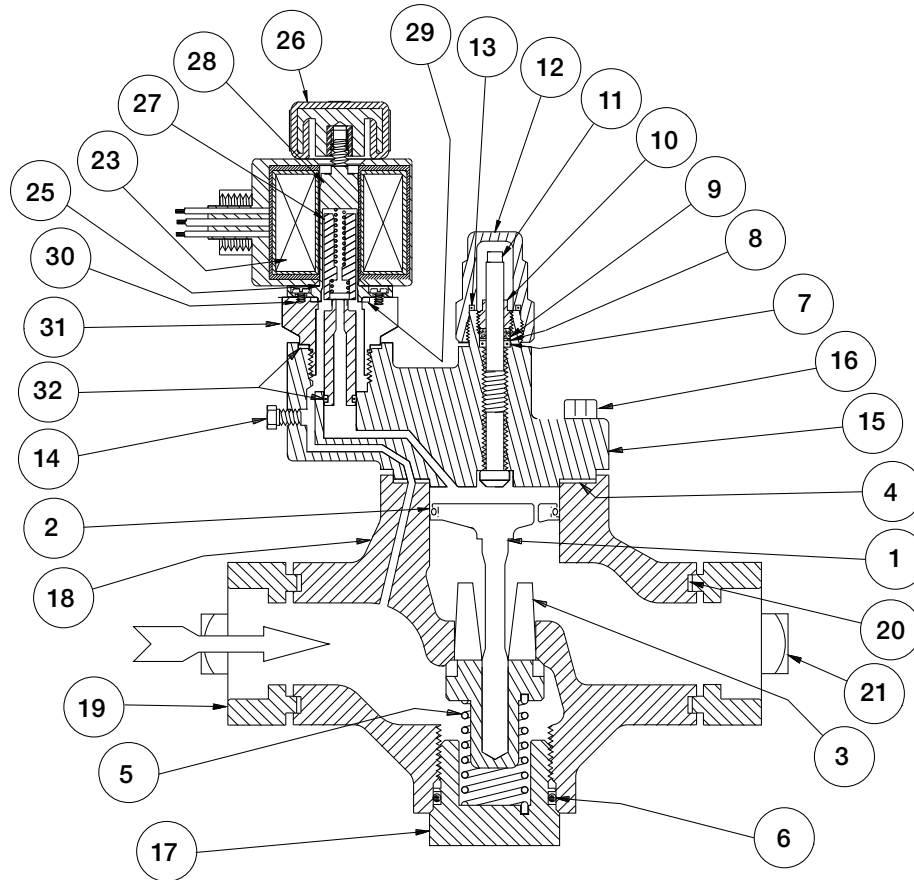
**PARTS LIST 1½" THRU 4"**  
(40 mm thru 100 mm)

ITEM	DESCRIPTION	QTY	PART NO.
	<b>Main Piston Kit 1-1/2", 2"</b>	<b>1</b>	<b>75-1025</b>
	<b>Main Piston Kit 2-1/2"</b>	<b>1</b>	<b>75-1026</b>
	<b>Main Piston Kit 3"</b>	<b>1</b>	<b>75-1027</b>
	<b>Main Piston Kit 4"</b>	<b>1</b>	<b>75-1028</b>
	<i>Above kits consist of:</i>		
1a	Main Piston 1-1/2", 2"	1	75-0957
1b	Main Piston 2-1/2"	1	75-0169
1c	Main Piston 3"	1	75-0159
1d	Main Piston 4"	1	75-0278
2a	Piston Seal 1-1/2", 2"	2	75-0292
2b	Piston Seal 2-1/2", 3"	2	75-0293
2c	Piston Seal 4"	2	75-0236
36a	Adapter Gasket 1-1/2", 2"	2	75-0113
36b	Adapter Gasket 2-1/2", 3"	2	75-0093
36c	Adapter Gasket 4"	2	75-0233
23a	Flange Gasket 1-1/2", 2"	2	75-0138
23b	Flange Gasket 2-1/2"	2	75-0125
23c	Flange Gasket 3"	2	75-0137
23d	Flange Gasket 4"	2	75-0253
	<b>Upper Piston Kit 1-1/2" - 2"</b>	<b>1</b>	<b>70-1110</b>
	<b>Upper Piston Kit 2-1/2" - 3"</b>	<b>1</b>	<b>70-1111</b>
	<b>Upper Piston Kit 4"</b>	<b>1</b>	<b>70-1112</b>
	<i>Above kits consist of:</i>		
41a	Upper Piston 1-1/2" - 2"	1	75-2511
41b	Upper Piston 2-1/2" - 3"	1	75-2528
41c	Upper Piston 4"	1	75-2543
40a	Piston Seal 1-1/2" - 2"	1	75-0292
40b	Piston Seal 2-1/2" - 3"	1	75-0293
40c	Piston Seal 4"	1	75-2541
39a	Upper Spring 1-1/2" - 2"	1	75-2532
39b	Upper Spring 2-1/2" - 3"	1	75-2541
39c	Upper Spring 4"	1	75-2548
36a	Adapter Gasket 1-1/2", 2"	2	75-0113
36b	Adapter Gasket 2-1/2", 3"	2	75-0093
36c	Adapter Gasket 4"	2	75-0233
	<b>V-Port/Seat Kit 1-1/2"</b>	<b>1</b>	<b>75-1029</b>
	<b>V-Port/Seat Kit 2</b>	<b>1</b>	<b>75-1030</b>
	<b>V-Port/Seat Kit 2-1/2"</b>	<b>1</b>	<b>75-1031</b>
	<b>V-Port/Seat Kit 3"</b>	<b>1</b>	<b>75-1032</b>
	<b>V-Port/Seat Kit 4"</b>	<b>1</b>	<b>75-1033</b>
	<i>Above kits consist of:</i>		
4a	V-Port/Seat 1-1/2"	1	75-0369
4b	V-Port/Seat 2"	1	75-0177
4c	V-Port/Seat 2-1/2"	1	75-0178
4d	V-Port/Seat 3"	1	75-0179
4e	V-Port/Seat 4"	1	75-0313
36a	Adapter Gasket 1-1/2", 2"	2	75-0113
36b	Adapter Gasket 2-1/2", 3"	2	75-0093
36c	Adapter Gasket 4"	2	75-0233
6a	Seat Seal O-Ring 1-1/2", 2"	1	75-0274
6b	Seat Seal O-Ring 2-1/2"	1	75-0275
6c	Seat Seal O-Ring 3", 4"	1	75-0276
7	Seat Screw	1	75-0220
8a	Closing Spring 1-1/2", 2"	1	75-0171
8b	Closing Spring 2-1/2"	1	75-0201
8c	Closing Spring 3"	1	75-0248
8d	Closing Spring 4"	1	75-0235
	<b>Coil Kit (115V) 1/2" Fitting w/leads</b>	<b>1</b>	<b>70-1085</b>
	<b>Coil Kit (208/230V) 1/2" Fitting w/leads</b>	<b>1</b>	<b>70-1085</b>
	<b>Coil Kit (24V) 1/2" Fitting w/leads</b>	<b>1</b>	<b>70-1087</b>
	<b>Coil Kit (Other Voltages)</b>	<b>1</b>	<b>Factory</b>
	<i>Above kits consist of:</i>		
26a	Bare Coil, 115V 50/60 Hz w/leads	1	70-0580
26b	Bare Coil, 208/230V 50/60 Hz w/leads	1	70-0581
26c	Bare Coil, 24V 50/60 Hz w/leads	1	70-0582
26d	Other Voltage Coils	1	Factory
29	Coil Knob	1	70-0579
<b>34</b>	<b>Solenoid Tube/Plunger Kit</b>	<b>1</b>	<b>70-1059</b>
	<i>Above kit consists of:</i>		
29	Coil Knob	1	70-0579
30	Plunger	1	70-0295
31	Solenoid Tube	1	70-0298
32	Solenoid Tube Gasket	1	70-0301
33	Tube Screws	4	70-0297

ITEM	DESCRIPTION	QTY	PART NO.
<b>34</b>	<b>Solenoid Control Module</b> (Control Module Body, including Plunger Kit, Port Plug Gasket and O-Ring (less coil))	<b>1</b>	<b>70-1052</b>
	<b>Gasket Kit 1 1/2", 2"</b>	<b>1</b>	<b>75-1039</b>
	<b>Gasket Kit 2 1/2"</b>	<b>1</b>	<b>75-1040</b>
	<b>Gasket Kit 3"</b>	<b>1</b>	<b>75-1041</b>
	<b>Gasket Kit 4"</b>	<b>1</b>	<b>75-1042</b>
	<i>Above kits consist of:</i>		
36a	Adapter Gasket 1-1/2", 2"	2	75-0113
36b	Adapter Gasket 2-1/2", 3"	2	75-0093
36c	Adapter Gasket 4"	2	75-0233
6a	Seat Seal O-Ring 1-1/2", 2"	1	75-0274
6b	Seat Seal O-Ring 2-1/2"	1	75-0275
6c	Seat Seal O-Ring 3", 4"	1	75-0276
9a	Back-up Washer 1-1/2" - 3"	1	75-0245
9b	Back-up Washer 4"	1	50-0351
10a	Stem O-Ring 1-1/2" - 3"	1	50-0179
10b	Stem O-Ring 4"	1	50-0253
11a	Stem Washer 1-1/2" - 3"	1	50-0046
11b	Stem Washer 4"	1	50-0247
12a	Stem Packing 1-1/2" - 3"	1	50-0045
12b	Stem Packing 4"	1	50-0248
13a	Packing Nut 1-1/2" - 3"	1	50-0013
13b	Packing Nut 4"	1	50-0251
14a	Seal Cap O-Ring	1	50-0432
14b	Seal Cap Gasket	1	50-0270
15a	Stem Pin 1-1/2" - 3"	1	75-0173
15b	Stem Pin 4"	1	75-0434
23a	Flange Gasket 1-1/2", 2"	2	75-0138
23b	Flange Gasket 2-1/2"	2	75-0125
23c	Flange Gasket 3"	2	75-0137
23d	Flange Gasket 4"	2	75-0253
32	Solenoid Tube Gasket	1	70-0301
35/37	Port Plug Gasket & O-Ring	1	75-1071
<b>18a</b>	<b>Adapter 1-1/2", 2"</b>	<b>1</b>	<b>75-2513</b>
<b>18b</b>	<b>Adapter 2-1/2", 3"</b>	<b>1</b>	<b>75-2527</b>
<b>18c</b>	<b>Adapter 4"</b>	<b>1</b>	<b>75-2546</b>
<b>5a</b>	<b>Seat Ring 1-1/2", 2"</b>	<b>1</b>	<b>75-0084</b>
<b>5b</b>	<b>Seat Ring 2-1/2"</b>	<b>1</b>	<b>75-0170</b>
<b>5c</b>	<b>Seat Ring 3"</b>	<b>1</b>	<b>75-0071</b>
<b>5d</b>	<b>Seat Ring 4"</b>	<b>1</b>	<b>75-0231</b>
<b>16a</b>	<b>Manual Opening Stem 1-1/2" - 3"</b>	<b>1</b>	<b>75-0079</b>
<b>16b</b>	<b>Manual Opening Stem 4"</b>	<b>1</b>	<b>75-0427</b>
<b>17a</b>	<b>Seal Cap 1-1/2" - 3"</b>	<b>1</b>	<b>75-0139</b>
<b>17b</b>	<b>Seal Cap 4"</b>	<b>1</b>	<b>50-0260</b>
<b>38a</b>	<b>Adapter 1-1/2", 2"</b>	<b>1</b>	<b>75-2512</b>
<b>38b</b>	<b>Adapter 2-1/2", 3"</b>	<b>1</b>	<b>75-2529</b>
<b>38c</b>	<b>Adapter 4"</b>	<b>1</b>	<b>75-2544</b>
<b>19</b>	<b>Gauge Port Plug (1/4" NPT)</b>	<b>1</b>	<b>75-0189</b>
<b>20a</b>	<b>Adapter Bolts 1-1/2", 2"</b>	<b>4</b>	<b>75-2533</b>
<b>20b</b>	<b>Adapter Bolts 2-1/2", 3"</b>	<b>4</b>	<b>75-2549</b>
<b>20c</b>	<b>Adapter Bolts 4"</b>	<b>4</b>	<b>75-2586</b>
<b>21a</b>	<b>Body 1-1/2", 2"</b>	<b>1</b>	<b>Factory</b>
<b>21b</b>	<b>Body 2-1/2"</b>	<b>1</b>	<b>Factory</b>
<b>21c</b>	<b>Body 3"</b>	<b>1</b>	<b>Factory</b>
<b>21d</b>	<b>Body 4"</b>	<b>1</b>	<b>Factory</b>
<b>22</b>	<b>Flange (Various)</b>	<b>2</b>	<b>Factory</b>
<b>24a</b>	<b>Flange Bolt 1-1/2", 2" (5/8" - 11x3.25")</b>	<b>8</b>	<b>70-0135</b>
<b>24b</b>	<b>Flange Bolt 2-1/2", 3" (3/4" - 10x3.75")</b>	<b>8</b>	<b>75-0202</b>
<b>24c</b>	<b>Flange Bolt 4" (7/8"-9x4")</b>	<b>8</b>	<b>75-0279</b>
<b>25a</b>	<b>Flange Nut 1-1/2", 2" (5/8"-11)</b>	<b>8</b>	<b>70-0136</b>
<b>25b</b>	<b>Flange Nut 2-1/2", 3" (3/4"-10)</b>	<b>8</b>	<b>75-0210</b>
<b>25c</b>	<b>Flange Nut 4" (7/8"-9)</b>	<b>8</b>	<b>75-0280</b>



**PARTS LIST 3/4" THRU 1 1/4" (20 THRU 32 MM)**



Item	Description	Qty	Part No.
	<b>Piston Kit</b>	1	<b>75-1019</b>
	<i>Above kits consist of:</i>		
1	Piston	1	75-0191
2	Piston Seal	1	75-0353
4	Adapter Gasket	1	75-0489
20	Flange Gasket	2	70-0132
	<b>V-Port/Seat Kit 3/4"</b>	1	<b>75-1020</b>
	<b>V-Port/Seat Kit 1"</b>	1	<b>75-1021</b>
	<b>V-Port/Seat Kit 1 1/4"</b>	1	<b>75-1022</b>
	<i>Above kits consist of:</i>		
3a	3/4" V-Port/Seat	1	75-0194
3b	1" V-Port/Seat	1	75-0193
3c	1 1/4" V-Port/Seat	1	75-0192
5	Closing Spring	1	75-0287
6	Bottom Cap O-Ring	1	75-0183
4	Adapter Gasket	1	75-0489
	<b>Gasket Kit</b>	1	<b>75-1023</b>
	<i>Above kit consists of:</i>		
4	Adapter Gasket	1	75-0489
6	Bottom Cap O-Ring	1	75-0183
7	Stem O-Ring	1	70-0010
8	Stem Washer	1	70-0026
9	Stem Packing	1	70-0025
10	Packing Nut	1	70-0499
13	Seal Cap O-Ring	1	70-0011
20	Flange Gasket	2	70-0132
29	Solenoid Tube O-Ring	1	72-0066
32	Port Plug Gasket & O-Ring	3 EA	75-1071
11	<b>Manual Opening Stem</b>	1	<b>75-0164</b>
12	<b>Seal Cap Kit</b>	1	<b>70-1042</b>
14	<b>Gauge Port Plug (1/4" NPT)</b>	1	<b>75-0189</b>

Item	Description	Qty	Part No.
15	<b>Adapter Kit* 3/4" - 1"</b>	1	<b>75-1047</b>
16	<b>Adapter Hex Screws (1/2"-13 x 1-1/2)</b>	4	<b>75-0190</b>
17	<b>Bottom Cap</b>	1	<b>75-0155</b>
18	<b>Body</b>	1	<b>FACTORY</b>
19	<b>Flange (Various)</b>	2	<b>FACTORY</b>
21	<b>Flange Bolt (5/8" - 11 x 2.75")</b>	4	<b>70-0339</b>
22	<b>Flange Nut (5/8" - 11)</b>	4	<b>70-0136</b>
	<b>Coil Kit (115V) 1/2" Fitting w/leads</b>	1	<b>70-1085</b>
	<b>Coil Kit (208/230V) 1/2" Fitting w/leads</b>	1	<b>70-1086</b>
	<b>Coil Kit (24V) 1/2" Fitting w/leads</b>	1	<b>70-1087</b>
	<b>Coil Kit (Other Voltages)</b>	1	<b>FACTORY</b>
	<i>Above kits consist of:</i>		
23a	Bare Coil, 115V 50/60 Hz w/leads	1	70-0580
23b	Bare Coil, 208/230V 50/60Hz w/leads	1	70-0581
23c	Bare Coil, 24V 50/60Hz w/leads	1	70-0582
23d	Other Voltage Coils	1	FACTORY
25	Coil O-Ring	1	75-0340
26	Coil Knob	1	70-0579
	<b>Solenoid Tube/Plunger Kit</b>	1	<b>70-1059</b>
	<i>Above kit consists of:</i>		
25	Coil O-Ring	1	75-0340
26	Coil Knob	1	70-0579
27	Plunge	1	70-0295
28	Solenoid Tube	1	70-0298
29	Solenoid Tube O-Ring	1	72-0066
30	Tube Screws	4	70-0297
31	<b>Solenoid Control Module</b>	1	<b>70-1052</b>
	<i>Control Module Body, including Plunger Kit, Port Plug Gasket and O-Ring (less coil)</i>		

\* Adapter kit includes adapter, seal cap, manual open stem, gauge port plug, adapter gasket, stem packing, packing nut, and stem o-ring.

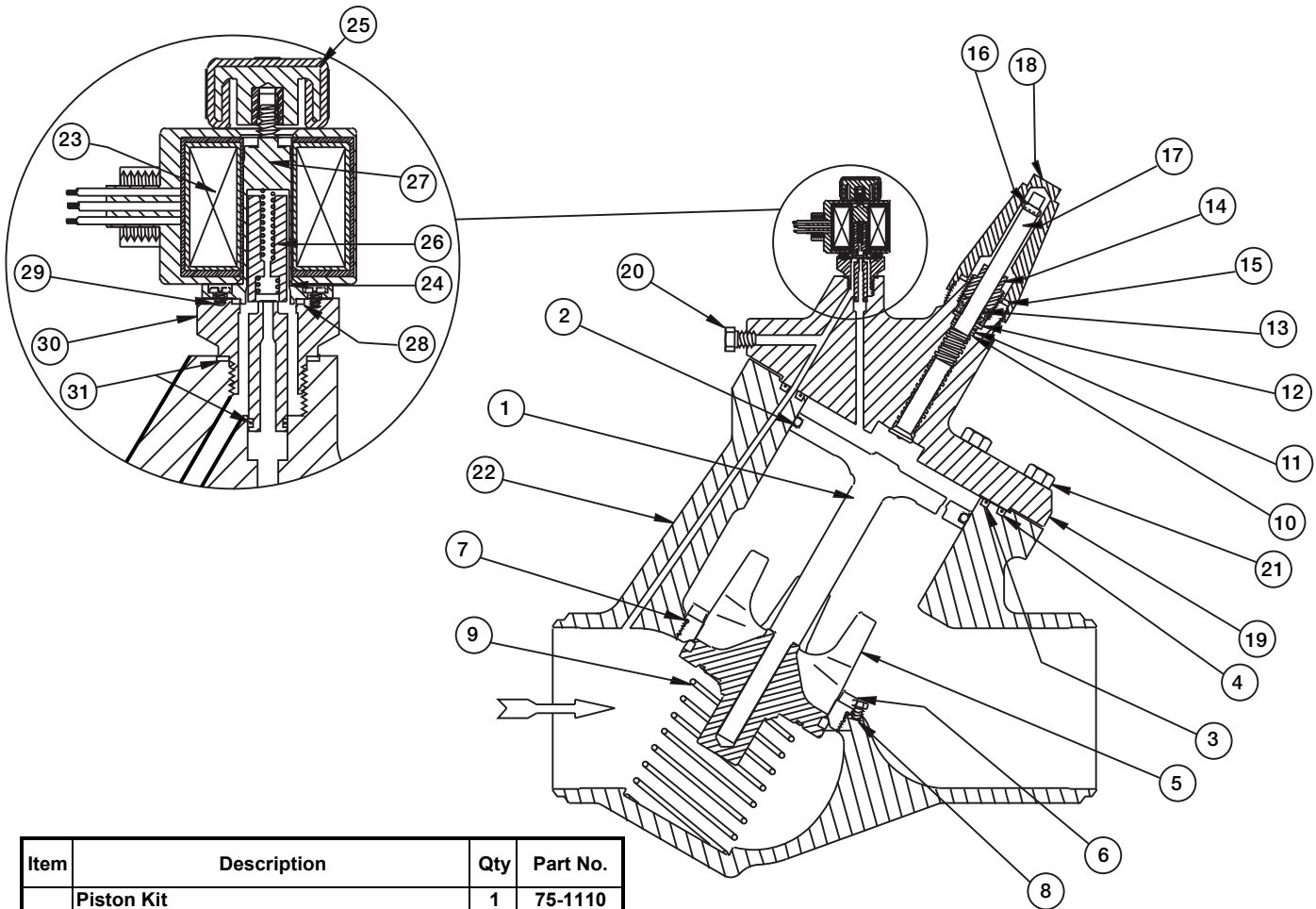
## PARTS LIST 1 1/2" THRU 4" (40 THRU 100 MM)

Item	Description	Qty	Part No.
	<b>Piston Kit 1 1/2", 2"</b>	1	<b>75-1025</b>
	<b>Piston Kit 2 1/2"</b>	1	<b>75-1026</b>
	<b>Piston Kit 3"</b>	1	<b>75-1027</b>
	<b>Piston Kit 4"</b>	1	<b>75-1028</b>
	<i>Above kits consist of:</i>		
1a	Piston 1 1/2", 2"	1	75-0957
1b	Piston 2 1/2"	1	75-2073
1c	Piston 3"	1	75-2072
1d	Piston 4"	1	75-0278
2a	Piston Seal 1 1/2", 2"	1	75-0292
2b	Piston Seal 2 1/2", 3"	1	75-0293
2c	Piston Seal 4"	1	75-0236
3a	Adapter Gasket 1 1/2",	1	75-0113
3b	Adapter Gasket 2 1/2",	1	75-0093
3c	Adapter Gasket 4"	1	75-0233
23a	Flange Gasket 1 1/2", 2"	2	75-0138
23b	Flange Gasket 2 1/2"	2	75-0125
23c	Flange Gasket 3"	2	75-0137
23d	Flange Gasket 4"	2	75-0253
	<b>V-Port/Seat Kit 1 1/2"</b>	1	<b>75-1029</b>
	<b>V-Port/Seat Kit 2"</b>	1	<b>75-1030</b>
	<b>V-Port/Seat Kit 2 1/2"</b>	1	<b>75-1031</b>
	<b>V-Port/Seat Kit 3"</b>	1	<b>75-1032</b>
	<b>V-Port/Seat Kit 4"</b>	1	<b>75-1033</b>
	<i>Above kits consist of:</i>		
4a	V-Port/Seat 1 1/2"	1	75-0369
4b	V-Port/Seat 2"	1	75-0177
4c	V-Port/Seat 2 1/2"	1	75-0178
4d	V-Port/Seat 3"	1	75-0179
4e	V-Port/Seat 4"	1	75-0313
3a	Adapter Gasket 1 1/2", 2"	1	75-0113
3b	Adapter Gasket 2 1/2", 3"	1	75-0093
3c	Adapter Gasket 4"	1	75-0233
6a	Seat Seal O-Ring 1 1/2", 2"	1	75-0274
6b	Seat Seal O-Ring 2 1/2"	1	75-0275
6c	Seat Seal O-Ring 3", 4"	1	75-0276
7	Seat Screw	1	75-0220
8a	Closing Spring 1 1/2", 2"	1	75-0171
8b	Closing Spring 2 1/2"	1	75-0201
8c	Closing Spring 3"	1	75-0248
8d	Closing Spring 4"	1	75-0235
	<b>Coil Kit (115V) 1/2" Fitting w/leads</b>	1	<b>70-1085</b>
	<b>Coil Kit (208/230V) 1/2" Fitting w/leads</b>	1	<b>70-1086</b>
	<b>Coil Kit (24V) 1/2" Fitting w/leads</b>	1	<b>70-1087</b>
	<b>Coil Kit (Other Voltages)</b>	1	<b>FACTORY</b>
	<i>Above kits consist of:</i>		
26a	Bare Coil, 115V 50/60 Hz w/leads	1	70-0580
26b	Bare Coil, 208/230V 50/60Hz w/leads	1	70-0581
26c	Bare Coil, 24V 50/60Hz w/leads	1	70-0582
26d	Other Voltage Coils	1	FACTORY
28	Coil O-Ring	1	75-0340
29	Coil Knob	1	70-0579
	<b>Solenoid Tube/Plunger Kit</b>	1	<b>70-1059</b>
	<i>Above kit consists of:</i>		
28	Coil O-Ring	1	75-0340
29	Coil Knob	1	70-0579
30	Plunger	1	70-0295
31	Solenoid Tube	1	70-0298
32	Solenoid Tube O-ring	1	72-0066
33	Tube Screw	4	70-0297
<b>34</b>	<b>Solenoid Control Module</b>	1	<b>70-1052</b>
	<i>Control Module Body, including Plunger Kit, Port Plug Gasket and O-Ring (less coil)</i>		

Item	Description	Qty	Part No.
	<b>Gasket Kit 1 1/2", 2"</b>	1	<b>75-1039</b>
	<b>Gasket Kit 2 1/2"</b>	1	<b>75-1040</b>
	<b>Gasket Kit 3"</b>	1	<b>75-1041</b>
	<b>Gasket Kit 4"</b>	1	<b>75-1042</b>
	<i>Above kits consist of:</i>		
3a	Adapter Gasket 1 1/2", 2"	1	75-0113
3b	Adapter Gasket 2 1/2", 3"	1	75-0093
3c	Adapter Gasket 4"	1	75-0233
6	Seat Seal O-Ring 1 1/2", 2"	1	75-0274
6b	Seat Seal O-Ring 2 1/2"	1	75-0275
6c	Seat Seal O-Ring 3", 4"	1	75-0276
9a	Back-up Washer 1 1/2" - 3"	1	75-0245
9b	Back-up Washer 4"	1	50-0351
10a	Stem O-Ring 1 1/2" - 3"	1	50-0179
10b	Stem O-Ring 4"	1	50-0253
11a	Stem Washer 1 1/2" - 3"	1	50-0046
11b	Stem Washer 4"	1	50-0247
12a	Stem Packing 1 1/2" - 3"	1	50-0045
12b	Stem Packing 4"	1	50-0248
13a	Packing Nut 1 1/2" - 3"	1	50-0933
13b	Packing Nut 4"	1	50-0251
14a	Seal Cap O-Ring 1 1/2" - 3"	1	50-0432
14b	Seal Cap Gasket 4"	1	50-0270
15a	Stem Pin 1 1/2" - 3"	1	75-0173
15b	Stem Pin 4"	1	75-0434
23a	Flange Gasket 1 1/2", 2"	2	75-0138
23b	Flange Gasket 2 1/2"	2	75-0125
23c	Flange Gasket 3"	2	75-0137
23d	Flange Gasket 4"	2	75-0253
32	Solenoid Tube O-ring	1	72-0066
35	Port Plug Gasket & O-Ring	3 EA	75-1071
<b>5a</b>	<b>Seat Ring 1 1/2", 2"</b>	1	<b>75-0084</b>
<b>5b</b>	<b>Seat Ring 2 1/2"</b>	1	<b>75-0170</b>
<b>5c</b>	<b>Seat Ring 3"</b>	1	<b>75-0071</b>
<b>5d</b>	<b>Seat Ring 4"</b>	1	<b>75-0231</b>
<b>16a</b>	<b>Manual Opening Stem 1 1/2" - 3"</b>	1	<b>75-0079</b>
<b>16b</b>	<b>Manual Opening Stem 4"</b>	1	<b>75-0427</b>
<b>17a</b>	<b>Seal Cap Kit 1 1/2" - 3"</b>	1	<b>75-1014</b>
<b>17b</b>	<b>Seal Cap Kit 4"</b>	1	<b>75-1015</b>
<b>18a</b>	<b>Adapter Kit* 1 1/2", 2"</b>	1	<b>75-1049</b>
<b>18b</b>	<b>Adapter Kit* 2 1/2", 3"</b>	1	<b>75-1051</b>
<b>18c</b>	<b>Adapter Kit* 4"</b>	1	<b>75-1053</b>
<b>19</b>	<b>Gauge Port Plug (1/4" NPT)</b>	1	<b>75-0189</b>
<b>20a</b>	<b>Adapter Hex Screws 1 1/2", 2"</b> (1/2"-13 x 1-3/4")	4	<b>75-0175</b>
<b>20b</b>	<b>Adapter Hex Screws 2 1/2", 3"</b> (5/8"-11 x 2")	4	<b>65-0057</b>
<b>20c</b>	<b>Adapter Hex Screws 4"</b> (3/4"-10 x 2-1/2")	4	<b>75-0291</b>
<b>21</b>	<b>Body</b>	1	<b>FACTORY</b>
<b>22</b>	<b>Flange (Various)</b>	2	<b>FACTORY</b>
<b>24a</b>	<b>Flange Bolt 1 1/2", 2" (5/8" - 11 x 3.25")</b>	8	<b>70-0135</b>
<b>24b</b>	<b>Flange Bolt 2 1/2", 3" (3/4" - 10 x 3.75)</b>	8	<b>75-0202</b>
<b>24c</b>	<b>Flange Bolt 4" (7/8"-9 x 4")</b>	8	<b>75-0279</b>
<b>25a</b>	<b>Flange Nut 1 1/2", 2" (5/8"-11)</b>	8	<b>70-0136</b>
<b>25b</b>	<b>Flange Nut 2 1/2", 3" (3/4"-10)</b>	8	<b>75-0210</b>
<b>25c</b>	<b>Flange Nut 4" (7/8"-9)</b>	8	<b>75-0280</b>

\* Adapter kit includes adapter, seal cap, manual open stem, gauge port plug, adapter gasket, stem packing, packing nut, and stem o-ring.

## PARTS LIST 5" AND 6" (125 AND 150 MM)



Item	Description	Qty	Part No.
	<b>Piston Kit</b>	<b>1</b>	<b>75-1110</b>
	<i>Above kits consist of:</i>		
1	Piston	1	75-0570
2	Piston Seal	1	75-0602
3	Adapter O-Ring, Inner	1	75-0605
4	Adapter O-Ring, Outer	1	75-0606
	<b>Gasket Kit</b>	<b>1</b>	<b>75-1111</b>
	<i>Above kits consist of:</i>		
3	Adapter O-Ring, Inner	1	75-0605
4	Adapter O-Ring, Outer	1	75-0606
7	Seat Seal O-Ring	1	75-0613
10	Back-up Washer	1	50-0324
11	Stem O-Ring	1	50-0293
12	Stem Washer	1	50-0299
13	Stem Packing	1	50-0290
14	Packing Nut	1	50-0292
15	Seal Cap Gasket	1	50-0315
16	Manual Opening Stem Pin	1	75-0607
28	Solenoid Tube O-ring	1	72-0066
31	Port O-Ring & Gasket	3 EA	75-1071
	<b>Coil Kit (115V) 1/2" Fitting w/leads</b>	<b>1</b>	<b>70-1085</b>
	<b>Coil Kit (208/230V) 1/2" Fitting w/leads</b>	<b>1</b>	<b>70-1086</b>
	<b>Coil Kit (24V) 1/2" Fitting w/leads</b>	<b>1</b>	<b>70-1087</b>
	<b>Coil Kit (Other Voltages)</b>	<b>1</b>	<b>FACTORY</b>
	<i>Above kits consist of:</i>		
23a	Bare Coil, 115V 50/60 Hz w/leads	1	70-0580
23b	Bare Coil, 208/230V 50/60Hz w/leads	1	70-0581
23c	Bare Coil, 24V 50/60Hz w/leads	1	70-0582
23d	Other Voltage Coils	1	FACTORY
24	Coil O-Ring	1	75-0340
25	Coil Knob	1	70-0579
<b>30</b>	<b>Solenoid Control Modul</b>	<b>1</b>	<b>70-1052</b>
	<i>Control Module Body, including Plunger Kit, Port Plug Gasket and O-Ring (less coil)</i>		

Item	Description	Qty	Part No.
	<b>V-Port/Seat Kit 5"</b>	<b>1</b>	<b>75-1112</b>
	<b>V-Port/Seat Kit 6"</b>	<b>1</b>	<b>75-1113</b>
	<i>Above kits consist of:</i>		
5a	V-Port/Seat 5"	1	75-0640
5b	V-Port/Seat 6"	1	75-0641
3	Adapter O-Ring, Inner	1	75-0605
4	Adapter O-Ring, Outer	1	75-0606
7	Seat Seal O-Ring	1	75-0613
8	Seat Screw	1	75-0220
9	Closing Spring	1	75-0601
	<b>Solenoid Tube/Plunger Kit</b>	<b>1</b>	<b>70-1059</b>
	<i>Above kit consists of:</i>		
24	Coil O-Ring	1	75-0340
25	Coil Knob	1	70-0579
26	Plunger	1	70-0295
27	Solenoid O-Ring	1	70-0298
28	Solenoid Tube O-Ring	1	72-0066
29	Tube Screws	4	70-0297
<b>6</b>	<b>Seat Ring</b>	<b>1</b>	<b>75-0558</b>
<b>17</b>	<b>Manual Opening Stem</b>	<b>1</b>	<b>75-0581</b>
<b>18</b>	<b>Seal Cap Kit</b>	<b>1</b>	<b>50-1038</b>
<b>19</b>	<b>Adapter Kit* 5", 6"</b>	<b>1</b>	<b>75-1288</b>
<b>20</b>	<b>Gauge Port Plug</b>	<b>1</b>	<b>75-0189</b>
<b>21</b>	<b>Adapter Hex Screws 7/8-9 x 3"</b>	<b>8</b>	<b>75-0604</b>
<b>22</b>	<b>Body</b>	<b>1</b>	<b>FACTORY</b>

\* Adapter kit includes adapter, seal cap, manual open stem, gauge port plug, adapter gasket, stem packing, packing nut, and stem o-ring.

## MATERIAL SPECIFICATIONS

Body: Steel, plated

Solenoid Tube: Stainless steel

Plunger: Stainless steel

Seat Orifice: Stainless steel

Seat: Teflon

Safe Working Pressure: 400 psig (27 bar),  
600 psig (40 bar) available for CO<sub>2</sub>

Operating Temperature: -60°F to +240°F (-50° to  
+115°C)

## ADVANTAGES

Power-saving, low-wattage encapsulated coil; Teflon disc seat; stainless steel trim; spring-closing. One standard coil fits all Hansen valves. The valve can be installed in vertical lines.

## INSTALLATION, THREADED CONNECTION

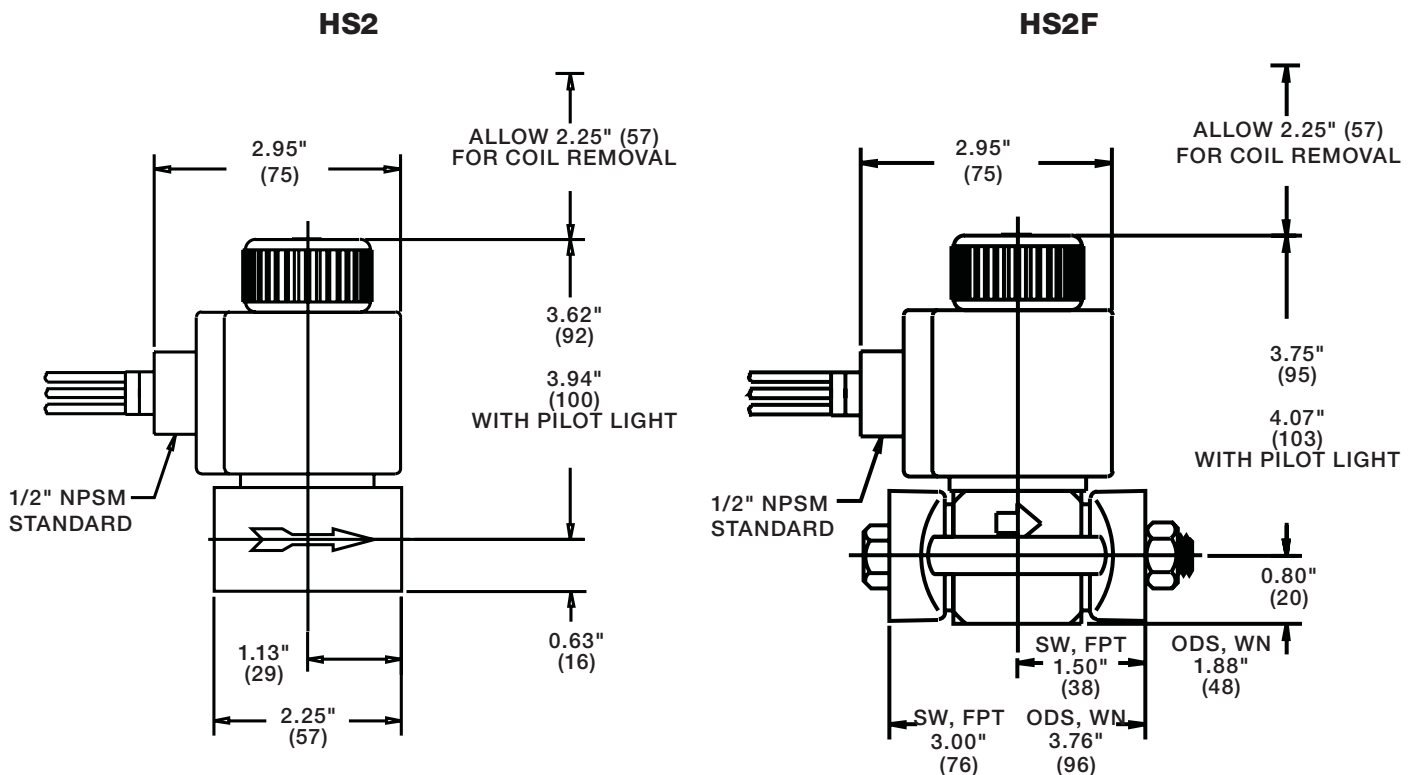
Match the arrow on the body with the system flow direction. Protect the interior of the valve from dirt during installation. Check mating pipe threads for cleanliness and accuracy before installing. Use a small quantity of pipe dope on pipe threads. Use a flat jaw wrench on the body close to the pipe, being careful not to damage the pipe threads with pipe wrench jaws. Allow 2.25" (57 mm) above the valve for coil removal.

## ELECTRICAL

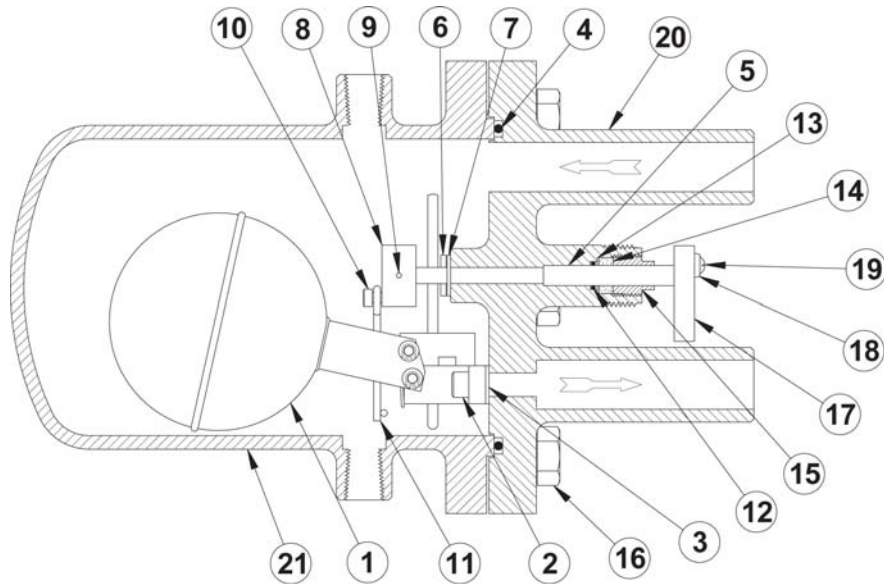
The coil draws 16 watts and will operate properly between 85% and 110% of the rated voltage (24V coil draws 19 watts). Standard coil connection is a 1/2" fitting (NPSM) for conduit, with two 18" wire leads plus ground wire. Coils with DIN plug or 1/2" NPSM quick disconnect plug are available. Contact the factory. All coils are totally encapsulated and meet NEMA 3R (rainproof) and NEMA 4 (splashproof, approx. IP65) requirements. The coil should only be energized while on the solenoid tube. Otherwise, immediate coil burnout may occur. To avoid bending the solenoid tube, remove the coil from the valve before connecting any electrical conduit. Pilot lights are available.

## INSTALLATION DIMENSIONS

INCHES (MM)



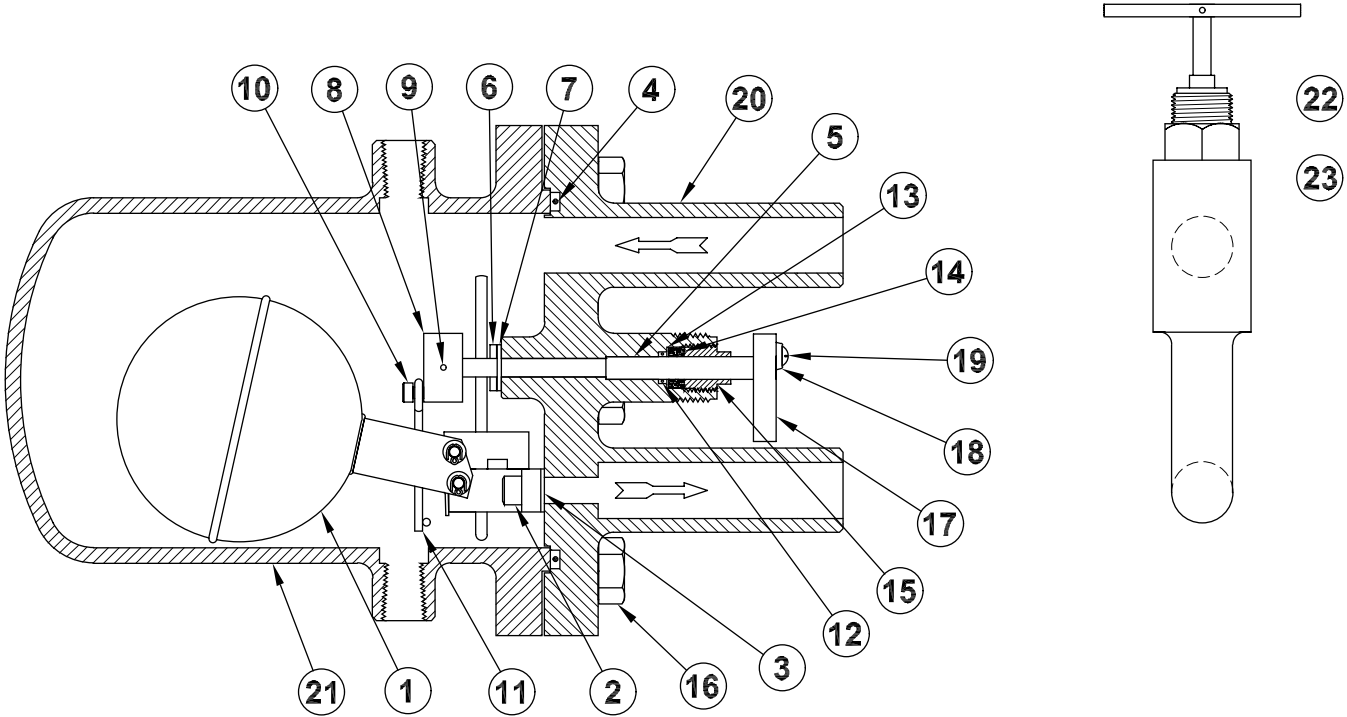
## PARTS LIST HIGH SIDE FLOATS



ITEM	DESCRIPTION	QTY.	HT100	HT200	HT300	FLOAT BALL REPLACEMENT KITS		
1	Float Ball Assembly *	¾	¾	¾	¾	HT100	HT200	HT300
	R717, 120 PSID (LN)	1	65-0112	65-0197	65-0148	65-1027	65-1021	65-1032
	R717, 200 PSID (MN)-Standard	1	65-0113	65-0198	65-0149	65-1003	65-1018	65-1023
	R717, 360 PSID (HN)	1	¾	65-0199	65-0150	¾	65-1022	65-1024
	R22, 120 PSID (LF)	1	65-0166	¾	¾	65-1028	¾	¾
	R22, 160 PSID (MF)-Standard	1	65-0165	65-0107	65-0124	65-1014	65-1004	65-1001
	R22, 300 PSID (HF)	1	65-0164	65-0108	65-0125	65-1029	65-1030	65-1031
2	Seat Screw	2	65-0024	65-0066	65-0066	<b>The above Float Ball Replacement Kits include the Float Ball Assembly, Seat Screw, Seat Gasket, Housing O-ring, Cam Screw, and Manual-Opening Lifting Tee.</b>		
3	Seat Gasket	1	65-0094	65-0094	65-0121			
4	Housing O-Ring	1	65-0022	65-0055	65-0056			
5	Stem	1	65-0073	65-0073	65-0073			
6	Stem Pin	1	65-0032	65-0032	65-0032			
7	Stem Washer	1	65-0034	65-0034	65-0034			
8	Cam	1	65-0074	65-0074	65-0074			
9	Cam Pin	1	65-0031	65-0031	65-0031			
10	Cam Screw	1	65-0067	65-0067	65-0067			
11	Manual-Opening Lifting Tee	1	65-0037	65-0088	65-0076			
12	Stem O-Ring	1	50-0179	50-0179	50-0179			
13	Packing Washer	1	50-0046	50-0046	50-0046			
14	Stem Packing	1	50-0045	50-0045	50-0045			
15	Packing Nut	1	50-0013	50-0013	50-0013			
16	Housing Screw for HT100	6	65-0023	¾	¾			
	Housing Screw for HT200	8	¾	65-0057	¾			
	Housing Screw for HT300	12	¾	¾	65-0058			
17	Manual-opening Handle	1	65-0035	65-0035	65-0092			
18	Washer	1	50-0129	50-0129	50-0129			
19	Screw	1	50-0028	50-0028	50-0028			
20	Flanged Housing	1	65-0039	65-0086	65-0084			
21	Body	1	65-0038	65-0083	65-0082			

\* Float Ball Assembly includes the float ball plus replacement slide valve.

## PARTS LIST DEFROST DRAINERS HD101



ITEM	DESCRIPTION	QTY.	HD101	HD101 FLOAT BALL REPLACEMENT KITS
1	R717, Float Ball Assembly *	1	65-0222	65-1025
	Halocarbon, Float Ball Assembly *	1	65-0212	65-1026
2	Seat Screw	2	65-0024	The above Float Ball Replacement Kits include the Float Ball Assembly, Seat Screw, Seat Gasket, Housing O-ring, Cam Screw, and Manual-Opening Lifting Tee.
3	Seat Gasket	1	65-0094	
4	Housing O-Ring	1	65-0022	
5	Stem	1	65-0073	
6	Stem Pin	1	65-0032	
7	Stem Washer	1	65-0034	
8	Cam	1	65-0074	
9	Cam Pin	1	65-0031	
10	Cam Screw	1	65-0067	
11	Manual-Opening Lifting Tee	1	65-0037	
12	Stem O-Ring	1	50-0179	
13	Packing Washer	1	50-0046	
14	Stem Packing	1	50-0045	
15	Packing Nut	1	50-0013	
16	Housing Screw for HD101	6	65-0023	
17	Manual-Opening Handle	1	65-0035	
18	Washer	1	50-0129	
19	Screw	1	50-0028	
20	Flanged Housing	1	65-0227	
21	Body	1	65-0038	
22	Shut-off valve gasket kit	1	50-1040	
23	Shut-off valve plug kit	1	50-1053	

\* Float Ball Assembly includes the float ball plus replacement slide valve.

## HCK5 PARTS LIST

1-1/4" thru 4" (32 mm thru 100 mm)

ITEM	DESCRIPTION	QTY	PART NO
	<b>Piston/Seat Kit 1-1/4"</b>		<b>75-1057</b>
	<b>Piston/Seat Kit 1-1/2"</b>		<b>75-1188</b>
	<b>Piston/Seat Kit 2"</b>		<b>75-1188</b>
	<b>Piston/Seat Kit 2-1/2"</b>		<b>75-1189</b>
	<b>Piston/Seat Kit 3"</b>		<b>75-1192</b>
	<b>Piston/Seat Kit 4"</b>		<b>75-1190</b>
	<i>Above kits consist of:</i>		
1a	Piston/Seat Kit 1-1/4"	1	75-0486
1b	Piston/Seat Kit 1-1/2"	1	75-0597
1c	Piston/Seat Kit 2"	1	75-0282
1d	Piston/Seat Kit 2-1/2", 3"	1	75-0281
1e	Piston/Seat Kit 4"	1	75-0244
2a	Spring 1-1/4"	1	75-0446
2b	Spring 1-1/2", 2"	1	75-0130
2c	Spring 2-1/2"	1	75-0131
2d	Spring 3"	1	75-0195
2e	Spring 4"	1	75-0240
25	Upper Body O-Ring (1-1/4" only)	1	75-0131
26	Lower Body O-Ring (1-1/4" only)	1	75-0130
3a	Cover Gasket 1-1/2", 2"	1	75-0196
3b	Cover Gasket 2-1/2", 3"	1	75-0128
3c	Cover Gasket 4"	1	75-0234
20	Disc Strainer Flange Gasket	2	70-0065
	<b>Gasket Kit 1-1/4"</b>		<b>75-1056</b>
	<b>Gasket Kit 1-1/2", 2"</b>		<b>75-1007</b>
	<b>Gasket Kit 2-1/2"</b>		<b>75-1008</b>
	<b>Gasket Kit 3"</b>		<b>75-1009</b>
	<b>Gasket Kit 4"</b>		<b>75-1017</b>
	<i>Above kits consist of:</i>		
25	Upper Body O-Ring (1-1/4" only)	1	70-0131
26	Lower Body O-Ring (1-1/4" only)	1	70-0130
3a	Cover Gasket 1-1/2", 2"	1	75-0196
3b	Cover Gasket 2-1/2", 3"	1	75-0128
3c	Cover Gasket 4"	1	75-0234
4a	Back-up Washer 1-1/2", 2", 2-1/2", 3"	1	75-0245
4b	Back-up Washer 4"	1	50-0351
5a	Stem O-Ring 1-1/4"	1	70-0010
5b	Stem O-Ring 1-1/2", 2", 2-1/2", 3"	1	50-0179
5c	Stem O-Ring 4"	1	50-0253
6a	Stem Washer 1-1/4"	1	70-0026
6b	Stem Washer 1-1/2", 2", 2-1/2", 3"	1	50-0046
6c	Stem Washer 4"	1	50-0247
7a	Packing 1-1/4"	1	70-0025
7b	Packing 1-1/2", 2", 2-1/2", 3"	1	50-0045
7c	Packing 4"	1	50-0248
8a	Packing Nut 1-1/4"	1	70-0019
8b	Packing Nut 1-1/2", 2", 2-1/2", 3"	1	50-0013
8c	Packing Nut 4"	1	50-0251
9a	Seal Cap O-Ring 1-1/4"	1	70-0011
9b	Seal Cap O-Ring 1-1/2", 2", 2-1/2", 3"	1	50-0432
9c	Seal Cap Gasket 4"	1	50-0270
20	Disc Strainer Flange Gasket	2	70-0065
15a	Flange Gasket 1-1/4"	2	70-0132
15b	Flange Gasket 1-1/2", 2"	2	75-0138
15c	Flange Gasket 2-1/2"	2	75-0125
15d	Flange Gasket 3"	2	75-0137
15e	Flange Gasket 4"	2	75-0253

ITEM	DESCRIPTION	QTY	PART NO
10a	Stem 1-1/4"	1	75-0506
10b	Stem 1-1/2", 2", 2-1/2"	1	75-0118
10c	Stem 3"	1	75-0135
10d	Stem 4"	1	75-0242
11a	Seal Cap 1-1/4"	1	50-0411
11b	Seal Cap 1-1/2", 2", 2-1/2", 3"	1	75-0139
11d	Seal Cap 4"	1	50-0260
27	Cover 1-1/4"	1	70-0279
12a	Cover 1-1/2", 2"	1	75-0107
12b	Cover 2-1/2", 3"	1	75-0121
12c	Cover 4"	1	75-0243
13a	Cover Bolts 1-1/2", 2"	4	75-0175
13b	Cover Bolts 2-1/2", 3"	4	65-0057
13c	Cover Bolts 4"	4	75-0291
14a	Body 1-1/4"	1	75-0492
14b	Body 1-1/2", 2"	1	75-0197
14c	Body 2-1/2"	1	75-0221
14d	Body 3"	1	75-0198
14e	Body 4"	1	75-0238
16	Flange (FPT, SW, WN, ODS)	2	FACTORY
17a	Flange Bolt 1-1/4" (5/8"-11x2.75")	4	70-0339
17b	Flange Bolt 1-1/2", 2" (5/8"-11x3.25")	8	70-0135
17c	Flange Bolt 2-1/2", 3" (3/4"-10x3.75")	8	75-0202
17d	Flange Bolt 4" (7/8"-9x4")	8	75-0279
18a	Flange Nut 1-1/4" (5/8"-11)	4	70-0136
18b	Flange Nut 1-1/2", 2" (5/8"-11)	8	70-0136
18c	Flange Nut 2-1/2", 3" (3/4"-10)	8	75-0210
18d	Flange Nut 4" (7/8"-9)	8	75-0280
19	Disc Strainer/Orifice Assembly	1	78-0065
20	Disc Strainer Flange Gasket	2	70-0065
21	Nipple (1/2" x 3.5)	1	75-0677
22	Flange 1/2" FPT	2	70-0023
23	Flange Bolt (7/16"-14x2.5")	2	70-0054
24	Flange Nut (7/16"-14)	2	70-0055

### For Pilot Valve Replacement Parts:

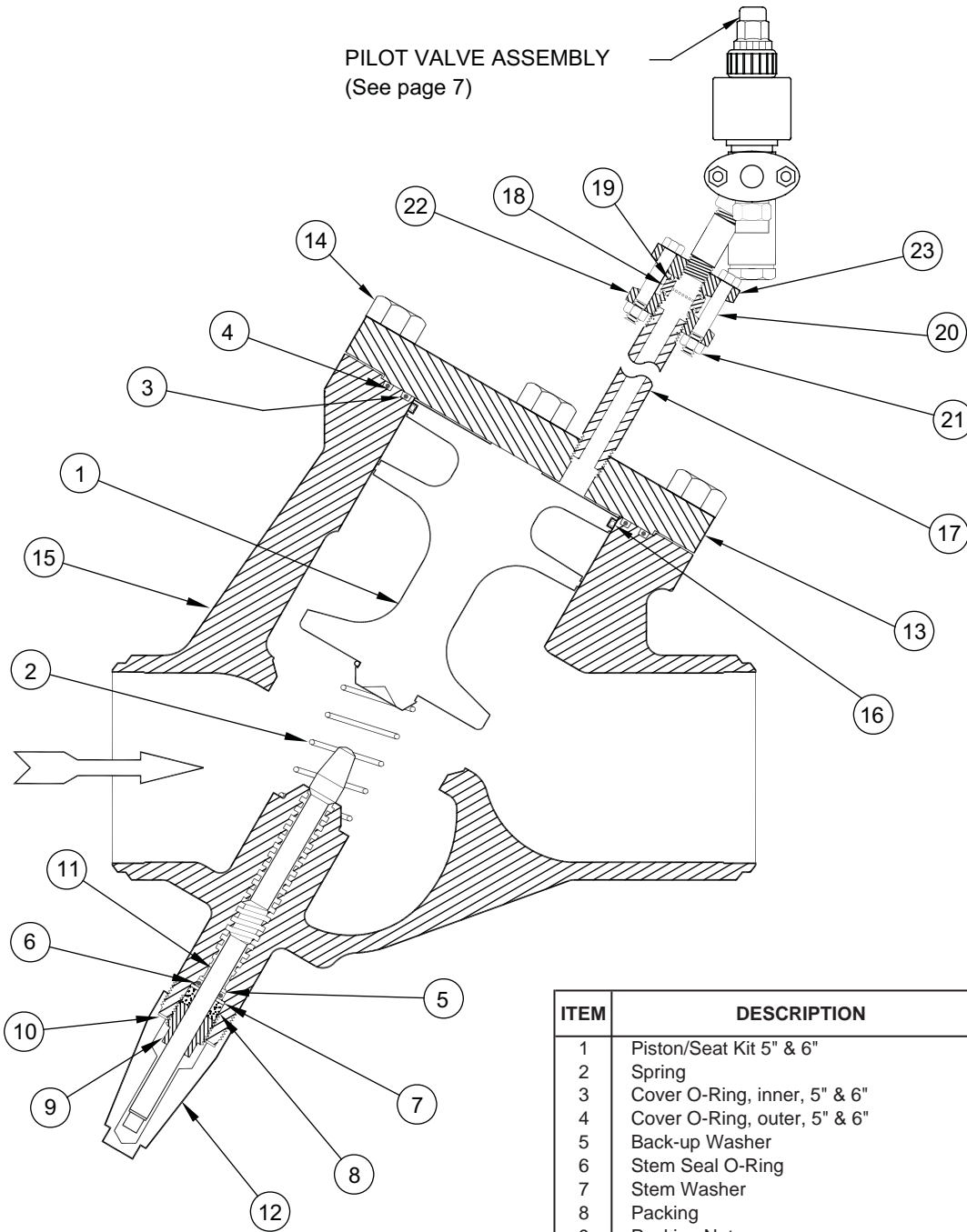
1-1/4" to 2", see Bulletin S117 HS6 Solenoid Valve and R429 HA4A Modular Pressure Regulators (M3 Pilot).

2-1/2" to 6", see Bulletin S119 HS8 Solenoid Valve and R429 HA4A Modular Pressure Regulators (M3 Pilot).

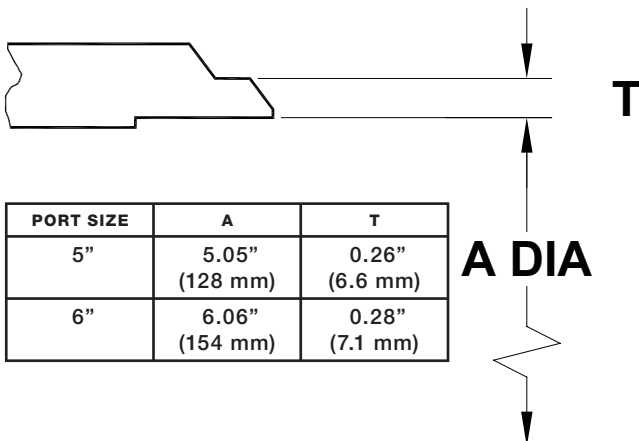
### HCK5W PARTS LIST

5" & 6" (125 mm & 150 mm)

PILOT VALVE ASSEMBLY  
(See page 7)



#### WELD END DIMENSIONS 5" & 6"



ITEM	DESCRIPTION	QTY	PART NO
1	Piston/Seat Kit 5" & 6"	1	75-1191
2	Spring	1	75-0600
3	Cover O-Ring, inner, 5" & 6"	1	75-0605
4	Cover O-Ring, outer, 5" & 6"	1	75-0606
5	Back-up Washer	1	50-0324
6	Stem Seal O-Ring	1	50-0293
7	Stem Washer	1	50-0299
8	Packing	1	50-0290
9	Packing Nut	1	50-0292
10	Seal Cap Gasket	1	50-0315
11	Stem	1	75-0584
12	Seal Cap	1	50-0304
13	Cover	1	75-0583
14	Cover Bolts	4	75-0604
15a	Body 5"	1	75-0638
15b	Body 6"	1	75-0639
16	Piston Seal	1	75-0602
17	Nipple (3/4" x 6")	1	75-0680
18	Disc Strainer Screen Assembly	1	78-0049
19	Disc Strainer Flange Gasket	2	70-0065
20	Flange Bolt	2	70-0054
21	Flange Nut	2	70-0055
22	Flange 3/4" FPT	1	70-0024
23	Flange 1/2" FPT (Standard) SW, WN, ODS Available	1	70-0023

See page 4 for pilot valve parts.



## HCK5D PARTS LIST

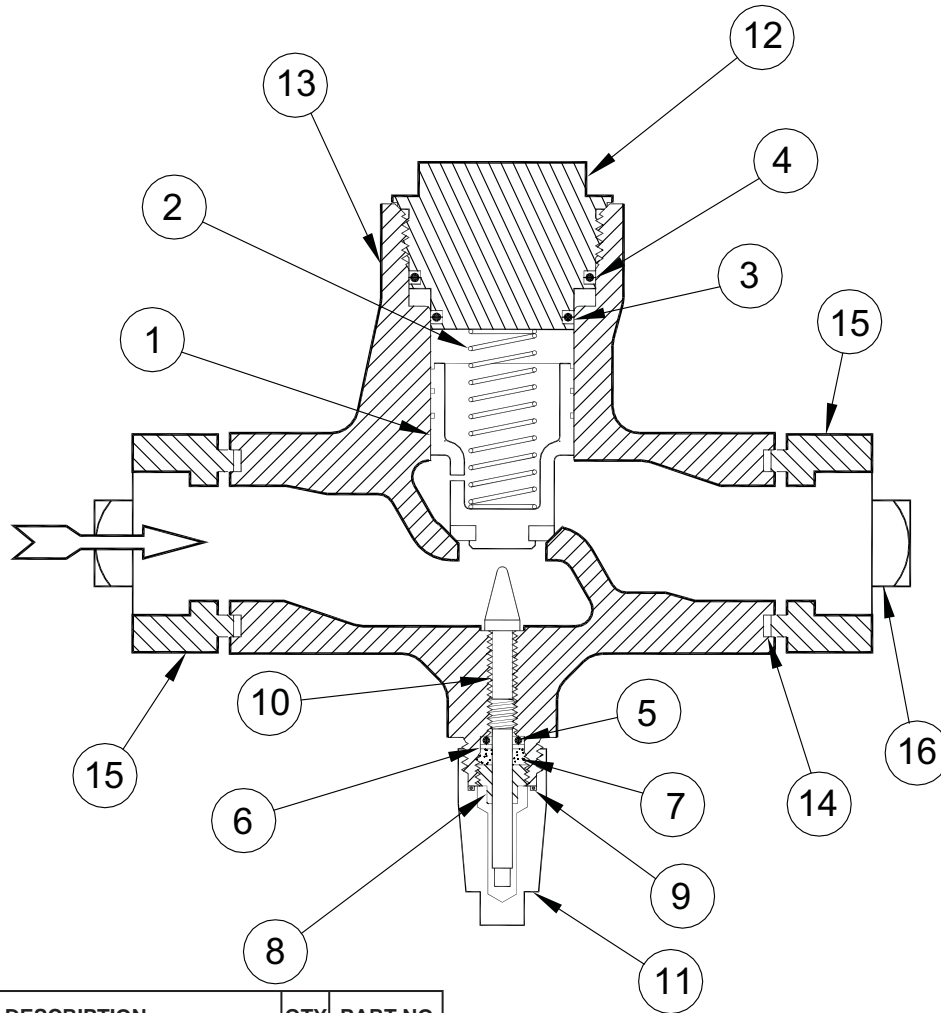
1-1/2" THRU 4" (40 MM THRU 100 MM)

ITEM	DESCRIPTION	QTY	PART NO.
	<b>Piston/Seat Kit 1-1/2", 2"</b>		<b>75-1216</b>
	<b>Piston/Seat Kit 2-1/2"</b>		<b>75-1217</b>
	<b>Piston/Seat Kit 3"</b>		<b>75-1218</b>
	<b>Piston/Seat Kit 4"</b>		<b>75-1219</b>
	Above kits consist of:		
1a	Piston Assembly 1-1/2", 2"	1	75-2488
1b	Piston Assembly 2-1/2"	1	75-2486
1c	Piston Assembly 3"	1	75-2470
1d	Piston Assembly 4"	1	75-2499
2b	Opening Spring 1-1/2", 2"	1	75-2462
2c	Opening Spring 2-1/2"	1	75-0195
2d	Opening Spring 3"	1	75-2463
2e	Opening Spring 4"	1	75-2495
3a	Cover Gasket 1-1/2", 2"	1	75-2475
3b	Cover Gasket 2-1/2"	1	75-0093
3c	Cover Gasket 3"	1	75-2461
3d	Cover Gasket 4"	1	75-2496
20	Disc Strainer Flange Gasket	2	70-0065
	<b>Gasket Kit 1-1/2", 2"</b>		<b>75-1220</b>
	<b>Gasket Kit 2-1/2"</b>		<b>75-1008</b>
	<b>Gasket Kit 3"</b>		<b>75-1221</b>
	<b>Gasket Kit 4"</b>		<b>75-1222</b>
	Above kits consist of:		
3a	Cover Gasket 1-1/2", 2"	1	75-2475
3b	Cover Gasket 2-1/2"	1	75-0093
3c	Cover Gasket 3"	1	75-2461
3d	Cover Gasket 4"	1	75-2496
4a	Back-up Washer 1-1/2", 2", 2-1/2", 3"	1	75-0245
4b	Back-up Washer 4"	1	50-0351
5a	Stem O-Ring 1-1/2", 2", 2-1/2", 3"	1	50-0179
5b	Stem O-Ring 4"	1	50-0253
6a	Stem Washer 1-1/2", 2", 2-1/2", 3"	1	50-0046
6b	Stem Washer 4"	1	50-0247
7a	Packing 1-1/2", 2", 2-1/2", 3"	1	50-0045
7b	Packing 4"	1	50-0248
8a	Packing Nut 1-1/2", 2", 2-1/2", 3"	1	50-0013
8b	Packing Nut 4"	1	50-0251
9a	Seal Cap O-Ring 1-1/2", 2", 2-1/2", 3"	1	50-0432
9b	Seal Cap Gasket 4"	1	50-0270
20	Disc Strainer Flange Gasket	2	70-0065
15a	Flange Gasket 1-1/2", 2"	2	75-0138
15b	Flange Gasket 2-1/2"	2	75-0125
15c	Flange Gasket 3"	2	75-0137
15d	Flange Gasket 4"	2	75-0253

ITEM	DESCRIPTION	QTY	PART NO.
10a	Stem 1-1/2", 2", 2-1/2"	1	75-0118
10b	Stem 3"	1	75-0135
10c	Stem 4"	1	75-0242
11a	Seal Cap 1-1/2", 2", 2-1/2", 3"	1	75-0139
11b	Seal Cap 4"	1	50-0260
12a	Cover 1-1/2", 2"	1	75-0107P
12b	Cover 2-1/2", 3"	1	75-0121P
12c	Cover 4"	1	75-0243P
13a	Cover Bolts 1-1/2", 2"	4	75-0175
13b	Cover Bolts 2-1/2", 3"	4	65-0057
13c	Cover Bolts 4"	4	75-0291
14a	Body 1-1/2", 2"	1	75-2446
14b	Body 2-1/2"	1	75-2445
14c	Body 3"	1	75-2447
14d	Body 4"	1	75-2459
16	Flange (SW, WN, ODS)	2	FACTORY
17a	Flange Bolt 1-1/2", 2" (5/8"-11x3.25")	8	70-0135
17b	Flange Bolt 2-1/2", 3" (3/4"-10x3.75")	8	75-0202
17c	Flange Bolt 4" (7/8"-9x4")	8	75-0279
18a	Flange Nut 1-1/2", 2" (5/8"-11)	8	70-0136
18b	Flange Nut 2-1/2", 3" (3/4"-10)	8	75-0210
18c	Flange Nut 4" (7/8"-9)	8	75-0280
19	Orifice Disc Strainer Assembly	1	78-0065
20	Disc Strainer Flange Gasket	2	70-0065
21	Nipple (1/2" x 3.5)	1	75-0677
22	Flange 1/2" SW	2	70-0238
23	Flange Bolt (7/16"-14x2.5")	2	70-0054
24	Flange Nut (7/16"-14)	2	70-0055
25	Flange 1/2" FPT	1	70-0023

# HCK1 PARTS LIST

3/4" thru 1-1/4" (20 mm thru 32 mm)



ITEM	DESCRIPTION	QTY	PART NO
	<b>Piston/Seat Kit 3/4"</b>		<b>70-1019</b>
	<b>Piston/Seat Kit 1"</b>		<b>70-1026</b>
	<b>Piston/Seat Kit 1-1/4"</b>		<b>70-0166</b>
	<i>Above kits consist of:</i>		
1a	Piston/Seat 3/4"	1	70-0166
1b	Piston/Seat 1"	1	70-0163
1c	Piston/Seat 1-1/4"	1	70-0167
2	Closing Spring	1	70-0155
3	Cover O-Ring, Lower	1	70-0130
4	Cover O-Ring, Upper	1	70-0131
	<b>Gasket Kit 3/4", 1", 1-1/4"</b>		<b>70-1017</b>
	<i>Above kit consists of:</i>		
3	Cover O-Ring, Lower	1	70-0130
4	Cover O-Ring, Upper	1	70-0131
5	Stem O-Ring	1	70-0010
6	Stem Washer	1	70-0026
7	Packing	1	70-0025
8	Packing Nut	1	70-0019
9	Seal Cap O-Ring	1	70-0011
14	Flange Gasket	2	70-0132
11	Seal Cap	1	50-0411
9	Seal Cap O-Ring	1	70-0011
10	Stem	1	70-0128
12	Cover	1	70-0307
13a	Body 3/4", 1"	1	70-0369
13b	Body 1-1/4"	1	70-0369
15	Flange (various)	2	FACTORY
16	Bolt (5/8"-11x2-3/4")	4	70-0339
17	Nut (5/8"-11)	4	70-0136

## HCK2 PARTS LIST

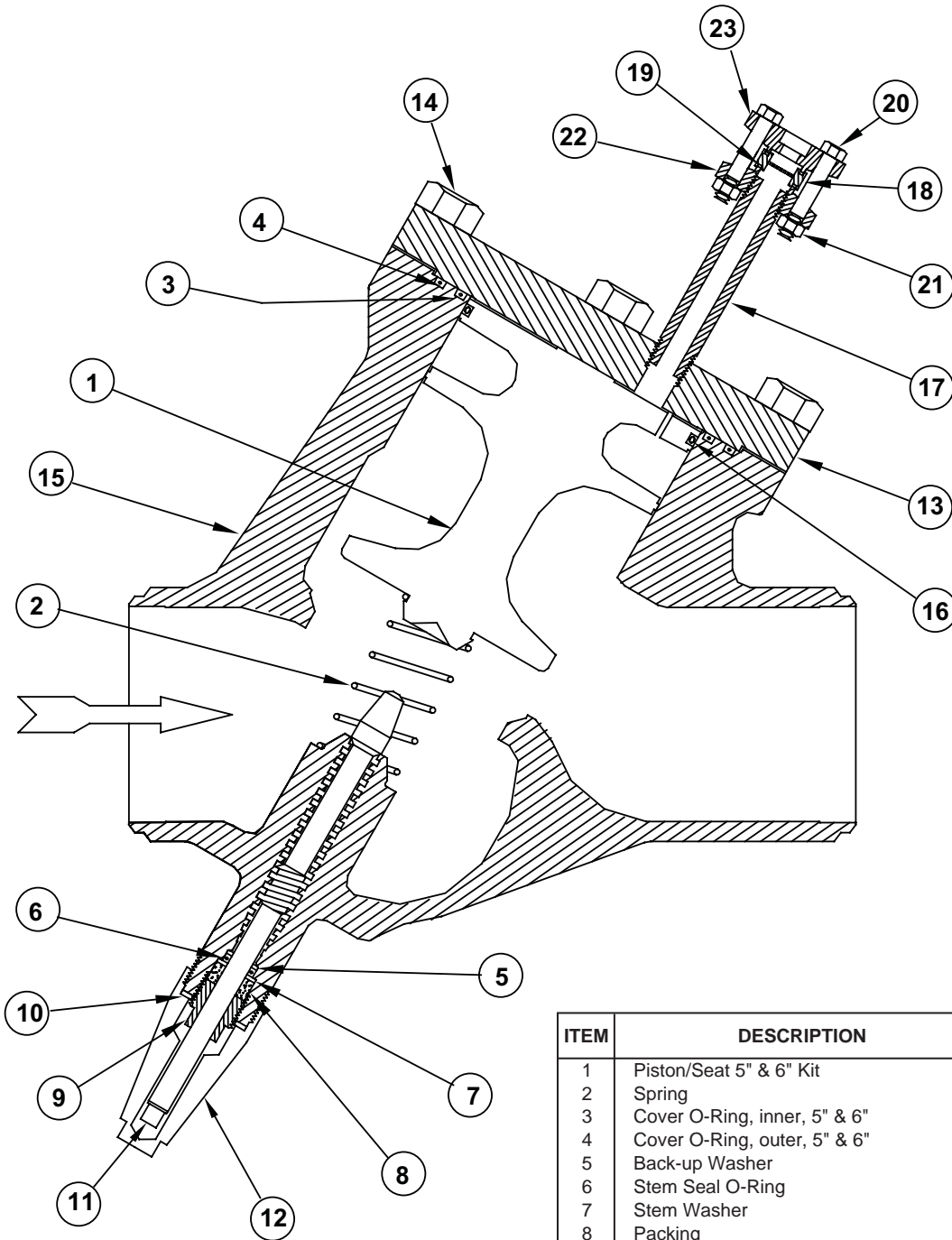
### 1-1/4" thru 4" (32 mm thru 100 mm)

ITEM	DESCRIPTION	QTY	PART NO
	<b>Piston/Seat Kit 1-1/4"</b>		<b>75-1057</b>
	<b>Piston/Seat Kit 1-1/2"</b>		<b>75-1073</b>
	<b>Piston/Seat Kit 2"</b>		<b>75-1004</b>
	<b>Piston/Seat Kit 2-1/2"</b>		<b>75-1005</b>
	<b>Piston/Seat Kit 3"</b>		<b>75-1006</b>
	<b>Piston/Seat Kit 4"</b>		<b>75-1018</b>
	<i>Above kits consist of:</i>		
1a	Piston/Seat 1-1/4"	1	75-0486
1b	Piston/Seat 1-1/2"	1	75-0597
1c	Piston/Seat 2"	1	75-0282
1d	Piston/Seat 2-1/2", 3"	1	75-0281
1e	Piston/Seat 4"	1	75-0244
2a	Spring 1-1/4"	1	75-0446
2b	Spring 1-1/2", 2"	1	75-0130
2c	Spring 2-1/2"	1	75-0131
2d	Spring 3"	1	75-0195
2e	Spring 4"	1	75-0240
25	Upper Body O-Ring (1-1/4" only)	1	75-0131
26	Lower Body O-Ring (1-1/4" only)	1	75-0130
3a	Cover Gasket 1-1/2", 2"	1	75-0196
3b	Cover Gasket 2-1/2", 3"	1	75-0128
3c	Cover Gasket 4"	1	75-0234
20	Disc Strainer Flange Gasket	2	70-0065
	<b>Gasket Kit 1-1/4"</b>		<b>75-1056</b>
	<b>Gasket Kit 1-1/2", 2"</b>		<b>75-1007</b>
	<b>Gasket Kit 2-1/2"</b>		<b>75-1008</b>
	<b>Gasket Kit 3"</b>		<b>75-1009</b>
	<b>Gasket Kit 4"</b>		<b>75-1017</b>
	<i>Above kits consist of:</i>		
25	Upper Body O-Ring (1-1/4" only)	1	70-0131
26	Lower Body O-Ring (1-1/4" only)	1	70-0130
3a	Cover Gasket 1-1/2", 2"	1	75-0196
3b	Cover Gasket 2-1/2", 3"	1	75-0128
3c	Cover Gasket 4"	1	75-0234
4a	Back-up Washer 1-1/2", 2", 2-1/2", 3"	1	75-0245
4b	Back-up Washer 4"	1	50-0351
5a	Stem O-Ring 1-1/4"	1	70-0010
5b	Stem O-Ring 1-1/2", 2", 2-1/2", 3"	1	50-0179
5c	Stem O-Ring 4"	1	50-0253
6a	Stem Washer 1-1/4"	1	70-0026
6b	Stem Washer 1-1/2", 2", 2-1/2", 3"	1	50-0046
6c	Stem Washer 4"	1	50-0247
7a	Packing 1-1/4"	1	70-0025
7b	Packing 1-1/2", 2", 2-1/2", 3"	1	50-0045
7c	Packing 4"	1	50-0248
8a	Packing Nut 1-1/4"	1	70-0019
8b	Packing Nut 1-1/2", 2", 2-1/2", 3"	1	50-0013
8c	Packing Nut 4"	1	50-0251
9a	Seal Cap O-Ring 1-1/4"	1	70-0011
9b	Seal Cap O-Ring 1-1/2", 2", 2-1/2", 3"	1	50-0432
9c	Seal Cap Gasket 4"	1	50-0270
20	Disc Strainer Flange Gasket	2	70-0065
15a	Flange Gasket 1-1/4"	2	70-0132
15b	Flange Gasket 1-1/2", 2"	2	75-0138
15c	Flange Gasket 2-1/2"	2	75-0125
15d	Flange Gasket 3"	2	75-0137
15e	Flange Gasket 4"	2	75-0253

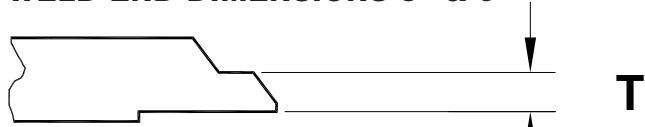
ITEM	DESCRIPTION	QTY	PART NO
10a	Stem 1-1/4"	1	75-0506
10b	Stem 1-1/2", 2", 2-1/2"	1	75-0118
10c	Stem 3"	1	75-0135
10d	Stem 4"	1	75-0242
11a	Seal Cap 1-1/4"	1	50-0411
11b	Seal Cap 1-1/2", 2", 2-1/2", 3"	1	75-0139
11d	Seal Cap 4"	1	50-0260
27	Cover 1-1/4"	1	70-0279
12a	Cover 1-1/2", 2"	1	75-0107
12b	Cover 2-1/2", 3"	1	75-0121
12c	Cover 4"	1	75-0243
13a	Cover Bolts 1-1/2", 2"	4	75-0175
13b	Cover Bolts 2-1/2", 3"	4	65-0057
13c	Cover Bolts 4"	4	75-0291
14a	Body 1-1/4"	1	75-0492
14b	Body 1-1/2", 2"	1	75-0197
14c	Body 2-1/2"	1	75-0221
14d	Body 3"	1	75-0198
14e	Body 4"	1	75-0238
16	Flange (FPT, SW, WN, ODS)	2	FACTORY
17a	Flange Bolt 1-1/4" (5/8"-11x2.75")	4	70-0339
17b	Flange Bolt 1-1/2", 2" (5/8"-11x3.25")	8	70-0135
17c	Flange Bolt 2-1/2", 3" (3/4"-10x3.75")	8	75-0202
17d	Flange Bolt 4" (7/8"-9x4")	8	75-0279
18a	Flange Nut 1-1/4" (5/8"-11)	4	70-0136
18b	Flange Nut 1-1/2", 2" (5/8"-11)	8	70-0136
18c	Flange Nut 2-1/2", 3" (3/4"-10)	8	75-0210
18d	Flange Nut 4" (7/8"-9)	8	75-0280
19	Disc Strainer/Orifice Assembly	1	78-0065
20	Disc Strainer Flange Gasket	2	70-0065
21	Nipple (1/2" x 3.5)	1	75-0677
22	Flange 1/2" SW	2	75-0238
23	Flange Bolt (7/16"-14x2.5")	2	70-0054
24	Flange Nut (7/16"-14)	2	70-0055

## HCK2W PARTS LIST

5" & 6" (125 mm thru 150 mm)



### WELD END DIMENSIONS 5" & 6"



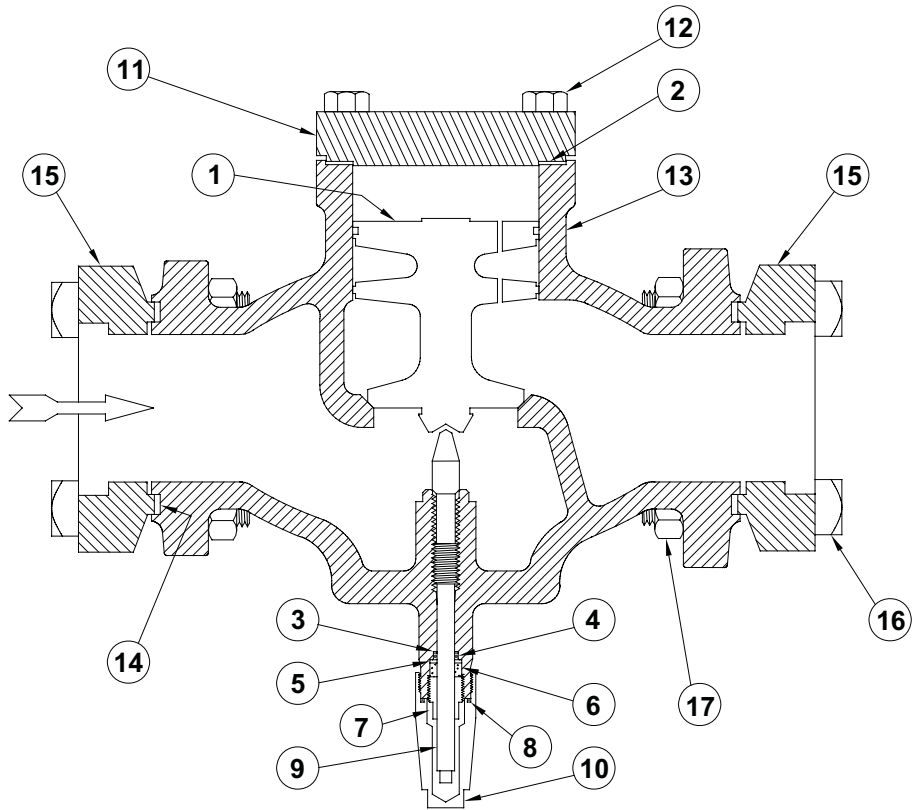
PORT SIZE	A	T
5"	5.05" (128 mm)	0.26" (6.6 mm)
6"	6.06" (154 mm)	0.28" (7.1 mm)

**A DIA**

ITEM	DESCRIPTION	QTY	PART NO
1	Piston/Seat 5" & 6" Kit	1	75-1109
2	Spring	1	75-0600
3	Cover O-Ring, inner, 5" & 6"	1	75-0605
4	Cover O-Ring, outer, 5" & 6"	1	75-0606
5	Back-up Washer	1	50-0324
6	Stem Seal O-Ring	1	50-0293
7	Stem Washer	1	50-0299
8	Packing	1	50-0290
9	Packing Nut	1	50-0292
10	Seal Cap Gasket	1	50-0315
11	Stem	1	75-0584
12	Seal Cap	1	50-0304
13	Cover	1	75-0583
14	Cover Bolts	4	75-0604
15a	Body 5"	1	75-0638
15b	Body 6"	1	75-0639
16	Piston Seal	1	75-0602
17	Nipple (3/4" x 6")	1	75-0680
18	Disc Strainer Screen Assembly	1	78-0049
19	Disc Strainer Flange Gasket	2	70-0065
20	Flange Bolt	2	70-0054
21	Flange Nut	2	70-0055
22	Flange 3/4" FPT	1	70-0024
23	Flange 1/2" SW (Standard)	1	75-0238
	FPT, WN, ODS Available		

# HCK1 PARTS LIST

1-1/2" thru 4" (40 mm thru 100 mm)

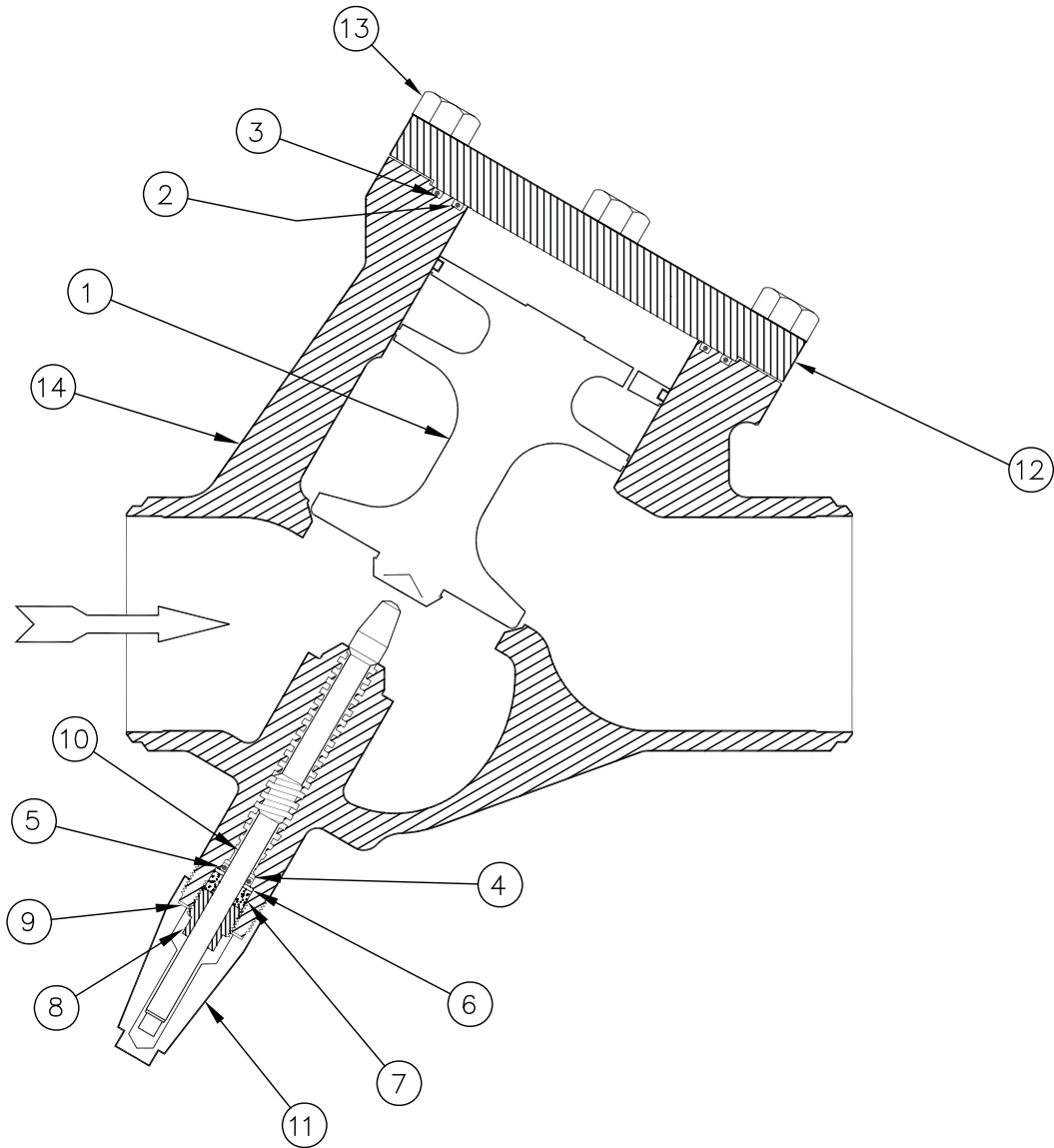


ITEM	DESCRIPTION	QTY	PART NO
	<b>Piston/Seat Kit 1-1/2", 2"</b>		<b>75-1065</b>
	<b>Piston/Seat Kit 2-1/2"</b>		<b>75-1066</b>
	<b>Piston/Seat Kit 3"</b>		<b>?</b>
	<b>Piston/Seat Kit 4"</b>		<b>75-1067</b>
	<i>Above kits consist of:</i>		
1a	Piston/Seat 1-1/2", 2"	1	75-0282
1b	Piston/Seat 2-1/2", 3"	1	75-0281
1c	Piston/Seat 4"	1	75-0244
2a	Cover Gasket 1-1/2", 2"	1	75-0196
2b	Cover Gasket 2-1/2", 3"	1	75-0128
2c	Cover Gasket 4"	1	75-0234
	<b>Gasket Kit 1-1/2", 2"</b>		<b>75-1007</b>
	<b>Gasket Kit 2-1/2", 3"</b>		<b>75-1008</b>
	<b>Gasket Kit 3"</b>		<b>75-1009</b>
	<b>Gasket Kit 4"</b>		<b>75-1017</b>
	<i>Above kit consists of:</i>		
2a	Cover Gasket 1-1/2", 2"	1	75-0196
2b	Cover Gasket 2-1/2", 3"	1	75-0128
2c	Cover Gasket 4"	1	75-0234
3a	Back-up Washer 1-1/2",2",2-1/2",3"	1	75-0245
3b	Back-up Washer 4"	1	50-0351
4a	Stem O-Ring 1-1/2",2",2-1/2",3"	1	50-0179
4b	Stem O-Ring 4"	1	50-0253
5a	Stem Washer 1-1/2",2",2-1/2",3"	1	50-0046
5b	Stem Washer 4"	1	50-0247
6a	Packing 1-1/2",2",2-1/2",3"	1	50-0045
6b	Packing 4"	1	50-0248
7a	Packing Nut 1-1/2",2",2-1/2",3"	1	50-0013
7b	Packing Nut 4"	1	50-0251
8a	Seal Cap O-Ring 1-1/2",2",2-1/2",3"	1	50-0432
8b	Seal Cap Gasket 4"	1	50-0270
14a	Flange Gasket 1-1/2", 2"	2	75-0138
14b	Flange Gasket 2-1/2"	2	75-0125
14c	Flange Gasket 3"	2	75-0137
14d	Flange Gasket 4"	2	75-0253

ITEM	DESCRIPTION	QTY	PART NO
9a	Stem 1-1/2", 2", 2-1/2"	1	75-0118
9b	Stem 3"	1	75-0135
9c	Stem 4"	1	75-0242
10a	Seal Cap 1-1/2",2",2-1/2",3"	1	75-0139
10b	Seal Cap 4"	1	50-0260
11a	Cover 1-1/2", 2"	1	75-0107
11b	Cover 2-1/2", 3"	1	75-0121
11c	Cover 4"	1	75-0243
12a	Cover Bolts 1-1/2", 2"	4	75-0175
12b	Cover Bolts 2-1/2", 3"	4	65-0057
12c	Cover Bolts 4"	4	75-0291
13a	Body 1-1/2"	1	75-0197
13b	Body 2"	1	75-0197
13c	Body 2-1/2"	1	75-0221
13d	Body 3"	1	75-0198
13e	Body 4"	1	75-0238
15	Flange (various)	2	FACTORY
16a	Flange Bolt 1-1/2",2"(5/8"-11x3-1/4")	8	70-0135
16b	Flange Bolt 2-1/2",3"(3/4"-10x3-3/4")	8	75-0202
16c	Flange Bolt 4"(7/8"-9x4")	8	75-0279
17a	Flange Nut 1-1/2",2"(5/8"-11)	8	70-0136
17b	Flange Nut 2-1/2",3"(3/4"-10)	8	75-0210
17c	Flange Nut 4"(7/8"-9)	8	75-0280

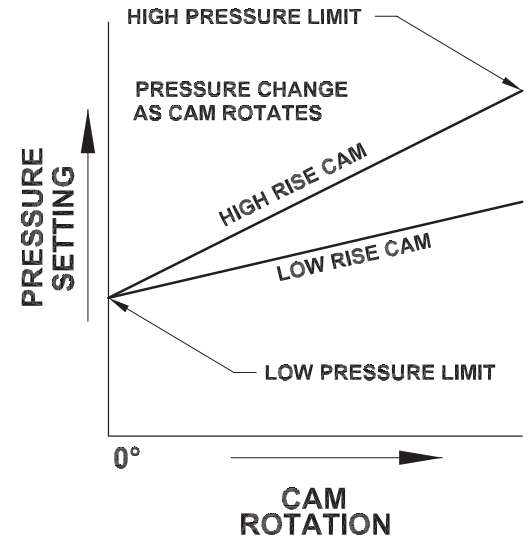
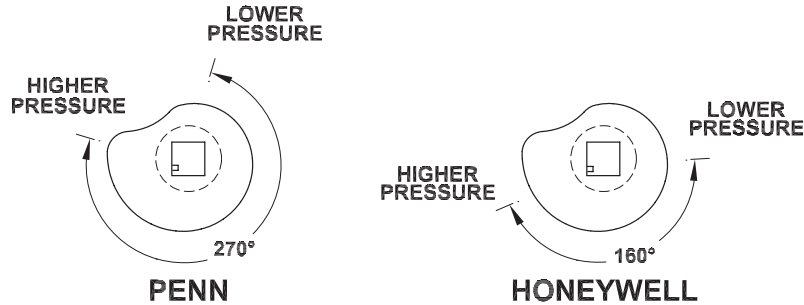
# HCK1W PARTS LIST

5" & 6" (125 mm thru 150 mm)



ITEM	DESCRIPTION	QTY	PART NO
1	Piston/Seat Kit 5" & 6"	1	75-1135
2	Cover O-Ring, Inner, 5" & 6"	1	75-0605
3	Cover O-Ring, Outer 5" & 6"	1	75-0606
4	Back-up Washer	1	50-0324
5	Stem Seal O-Ring	1	50-0293
6	Stem Washer	1	50-0299
7	Packing	1	50-0290
8	Packing Nut	1	50-0292
9	Seal Cap Gasket	1	50-0315
10	Stem	1	75-0584
11	Seal Cap	1	50-0304
12	Cover	1	75-0583
13	Cover Bolts	4	75-0604
14a	Body 5"	1	75-0638
14b	Body 6"	1	75-0639

## CAM ROTATION



## PARTS LIST

These parts are specific to the HA4AM pressure regulator. For other parts common to all of the HA4A series regulators, refer to the HA4A Modular Pressure Regulators Bulletin R429.

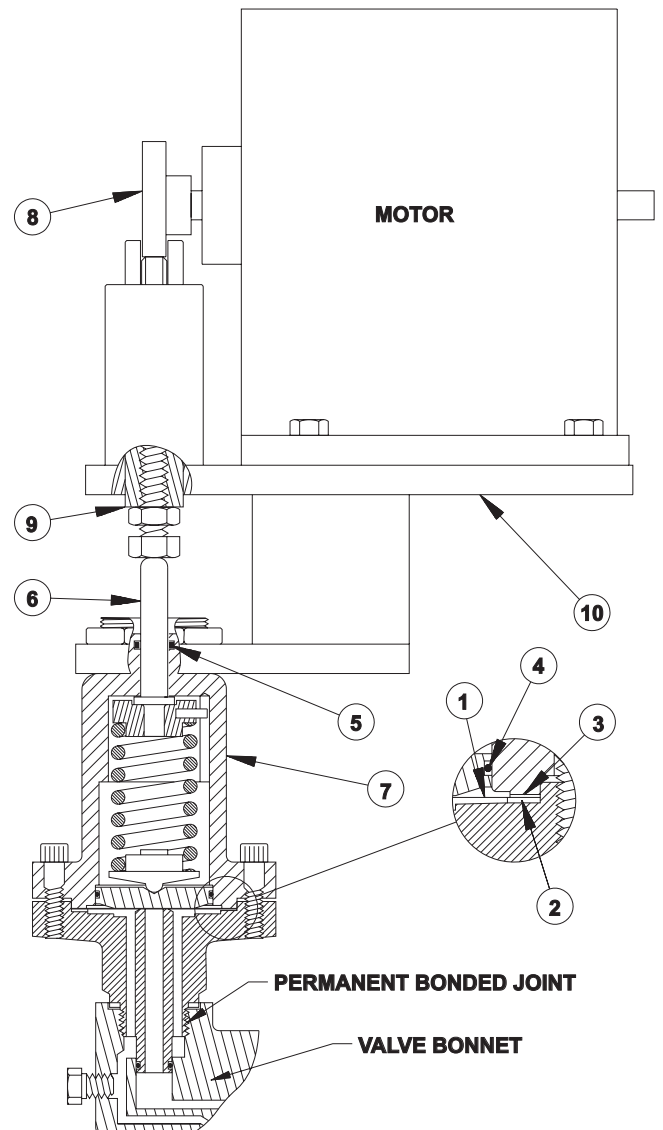
Item	Description	Qty.	Part No.
	<b>Diaphragm/Gasket Kit</b>		75-1140
	The above kit consists of:		
1	Diaphragm	1	75-0716
2	Lower Gasket (thick)	1	75-0426
3	Upper Gasket (thin)	1	75-0636
4	Follower O-Ring	1	75-0337
5	Stem Quad Ring	1	75-0675
6	Stem	1	75-0657
7	Pilot Bonnet	1	75-0670
8	Cam	1	75-0710 75-0709
9	Pressure Adjustment Ass'y.	1	75-0708
10	Motor Mount Assembly	1	75-0656

Transformer for HA4AM		
Motor	Voltage	Cat. No.
For PENN or HONEYWELL Motors	115VAC/230VAC:24VDC	TR40

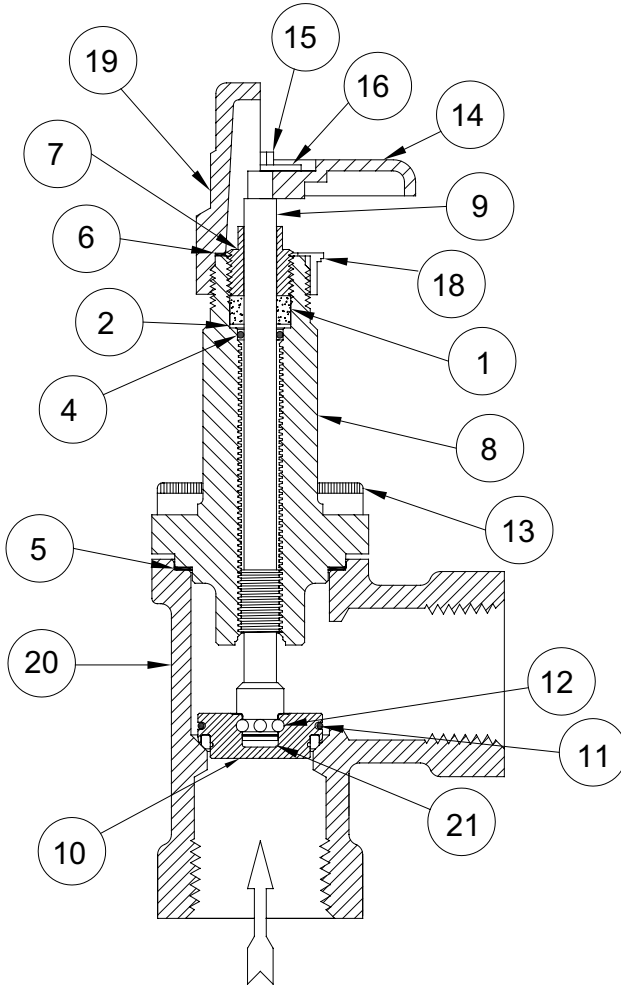
Motors for HA4AM				
Motor	Supply Voltage	Type		
		135 Ohm	4-20 mA	Floating
HONEYWELL*	24 VAC	75-0699	—	75-0701
	120 VAC	—	75-0700	—
PENN**	24 VAC	75-0696	75-0697	75-0698

\*NEMA 3/IP 64 rating, NEMA 4/IP 65 with optional weatherproofing kit. Contact Hansen for details.

\*\*NEMA 2/IP 52 rating, NEMA 3/IP 64 with optional weather-resistant cover. Contact Hansen for details.



**REPLACEMENT PARTS – BOLTED BONNET**  
**1/2" THROUGH 1-1/4" (13MM THROUGH 32MM)**



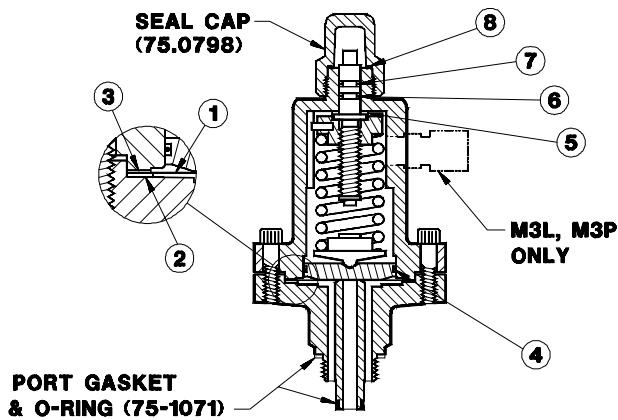
NOTE: Angle valve shown; kits are the same for globe valves.

ITEM	DESCRIPTION	QTY	PART NO
	<b>Gasket Kit 1/2", 3/4", 1", 1-1/4"</b> <b>(13mm, 20mm, 25mm, 32mm)</b>		<b>50-1040</b>
	<b>Gasket Kit, Extended Neck 1/2", 3/4", 1", 1-1/4"</b> <b>(13mm, 20mm, 25mm, 32mm)</b>		<b>50-1171</b>
	<i>Above kits consist of:</i>		
1	Stem Packing	1	50-0045
2	Stem Washer	1	50-0046
4	Stem O-Ring	1	50-0179
5a	Bonnet Gasket 1/2", 3/4" (13mm, 20mm)	1	50-0805
5b	Bonnet Gasket 1", 1-1/4" (25mm, 32mm)	1	50-0806
6	Seal Cap O-Ring	1	50-0432
7a	Packing Nut	1	50-0933
7b	Packing Nut, Extended Neck	1	50-2483
21	O-Ring, Anti-Spin	1	50-2697
* 1	<b>Bonnet Assembly Kit 1/2", 3/4"</b> <b>(13mm, 20mm)</b>		<b>50-1094</b>
	<b>Bonnet Assembly Ext Neck Kit 1/2", 3/4"</b> <b>(13mm, 20mm)</b>		<b>50-1172</b>
* 1	<b>Bonnet Assembly Kit 1", 1-1/4"</b> <b>(25mm, 32mm)</b>		<b>50-1095</b>
	<b>Bonnet Assembly Ext Neck Kit 1", 1-1/4"</b> <b>(25mm, 32mm)</b>		<b>50-1174</b>
	<i>Above kits consist of:</i>		
8a	Bonnet 1/2", 3/4" (13mm, 20mm)	1	50-0743
8b	Bonnet 1", 1-1/4" (25mm, 32mm)	1	50-0774
8c	Bonnet, Ext Neck 1/2", 3/4" (13mm, 20mm)	1	50-2636
8d	Bonnet, Ext Neck 1", 1-1/4" (25mm, 32mm)	1	50-2637
9a	Stem	1	50-0765
9b	Stem, Extended Neck	1	50-2478
10a	Disc Assembly 1/2", 3/4" (13mm, 20mm)	1	50-0803
10b	Disc Assembly 1", 1-1/4" (25mm, 32mm)	1	50-0804
11a	Ball Retainer 1/2", 3/4" (13mm, 20mm)	1	50-0439
11b	Ball Retainer 1", 1-1/4" (25mm, 32mm)	1	50-0026
12	Balls	10	50-0016
13	Bonnet Cap Screws	4	50-0813
	Gasket Kit 1/2" to 1-1/4" (13mm to 32mm)	1	50-1040
	Gasket Kit, Ext Neck 1/2" to 1-1/4"	1	50-1171
	(13mm to 32mm)		
	<b>Disc Assembly Kit 1/2", 3/4"</b> <b>(13mm, 20mm)</b>		<b>50-1042</b>
	<b>Disc Assembly Kit 1", 1-1/4"</b> <b>(25mm, 32mm)</b>		<b>50-1004</b>
	<i>Above kits consist of:</i>		
5a	Bonnet Gasket 1/2", 3/4" (13mm, 20mm)	1	50-0805
5b	Bonnet Gasket 1", 1-1/4" (25mm, 32mm)	1	50-0806
10a	Disc Assembly 1/2", 3/4" (13mm, 20mm)	1	50-0803
10b	Disc Assembly 1", 1-1/4" (25mm, 32mm)	1	50-0804
11a	Ball Retainer 1/2", 3/4" (13mm, 20mm)	1	50-0439
11b	Ball Retainer 1", 1-1/4" (25mm, 32mm)	1	50-0026
12	Balls	10	50-0016
21	O-Ring, Anti-Spin	1	50-2697
	<b>Handwheel Kit</b>		<b>50-1005</b>
	<i>Above kits consist of:</i>		
14	Handwheel	1	50-2691
15	Screw	1	50-0479
16	Nameplate	1	50-0094
18	Bonnet Thread Cap	1	50-0434
	<b>Seal Cap Kit</b>		<b>50-1036</b>
	<i>Above kits consist of:</i>		
6	Seal Cap O-Ring	1	50-0432
19	Seal Cap	1	50-0423
20a	Body, Globe 1/2" FPT (13mm)	1	50-2300
20b	Body, Globe 3/4" FPT (20mm)	1	50-2312
20c	Body, Globe 1" FPT (25mm)	1	50-2301
20d	Body, Globe 1-1/4" FPT (32mm)	1	50-2313
20e	Body, Angle 1/2" FPT (13mm)	1	50-0769
20f	Body, Angle 3/4" FPT (20mm)	1	50-0772
20g	Body, Angle 1" FPT (25mm)	1	50-0780
20h	Body, Angle 1-1/4" FPT (32mm)	1	50-0783



## PARTS LIST CONTROL MODULES

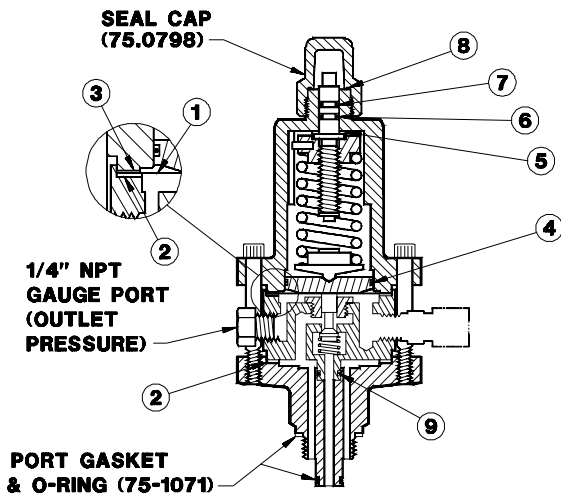
### M3, M3K, M3L, M3P



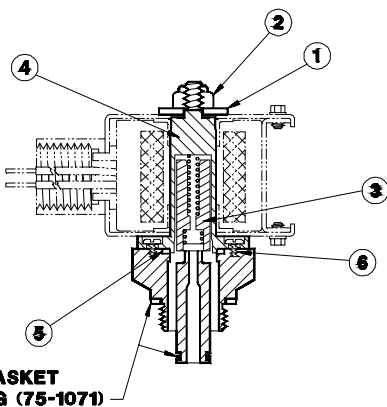
ITEM	DESCRIPTION	QTY	PART NO
	<b>Diaphragm/Gasket Kit (M3, M3K, M3L, M3P)</b> Above Kit Consists of:		<b>75-1107</b>
1	Diaphragm	1	75-0716
2	Lower Gasket (thick)	1	75-0426
3	Upper Gasket (thin)	1	75-0636
4	Follower O-ring	1	75-0337
5	Fiber Washer	1	75-0617
6	Lower Stem O-ring (green dot)	1	75-0520
7	Upper Stem O-ring	1	75-0521
8	Seal Cap O-ring	1	70-0011

\* M3W and M3KW control modules are hermetically sealed, welded assemblies having no replaceable internal parts. See page 6 for replacement part numbers. Standard on 3/4"-1 1/4" (20-32 mm) valves.

### M30

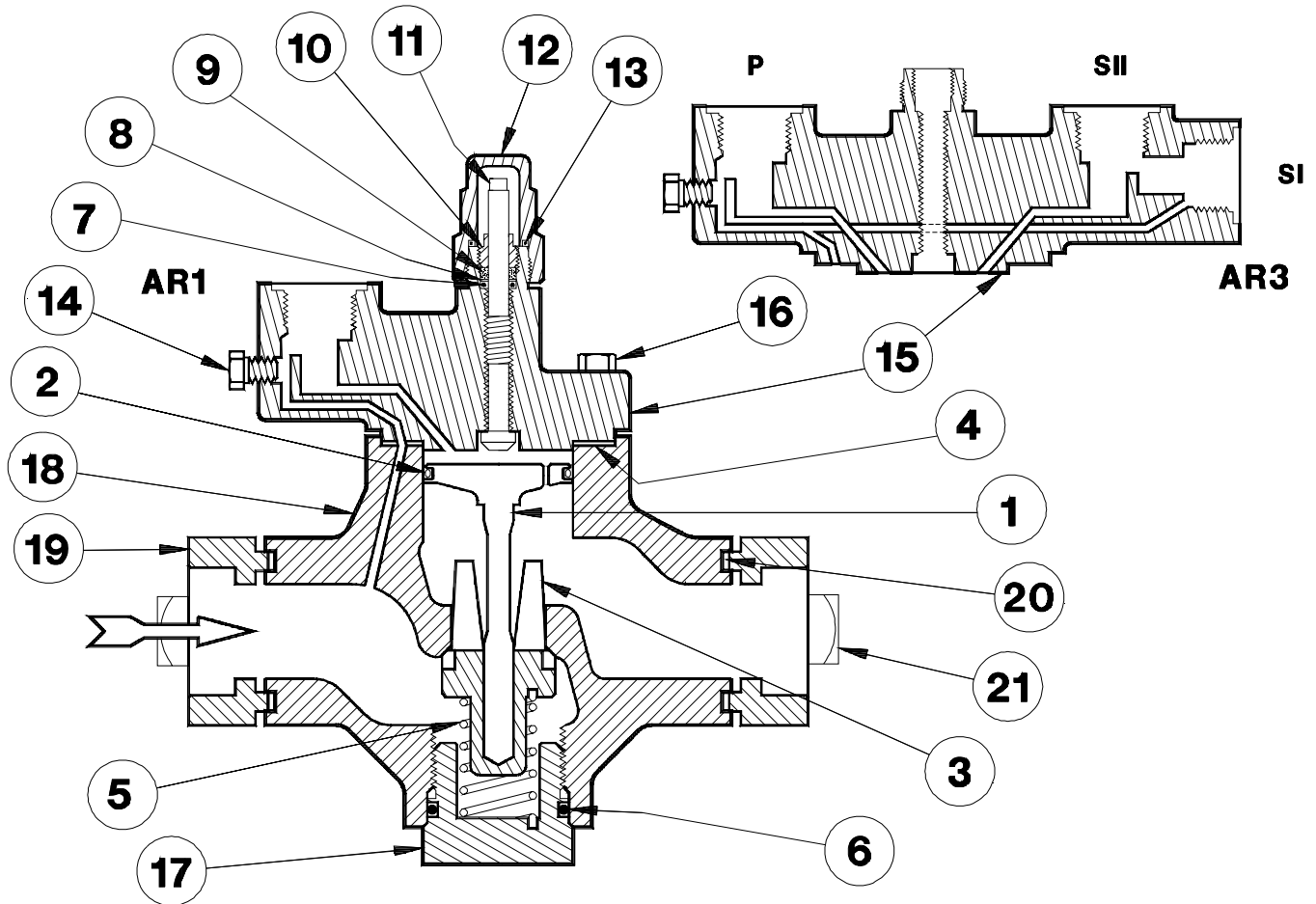


ITEM	DESCRIPTION	QTY	PART NO
	<b>Diaphragm/Gasket Kit (M30)</b> Above Kit Consists of:		<b>75-1108</b>
1	Diaphragm	1	75-0716
2	Lower Gasket (thick)	2	75-0426
3	Upper Gasket (thin)	1	75-0636
4	Follower O-ring	1	75-0337
5	Fiber Washer	1	75-0617
6	Lower Stem O-ring (green dot)	1	75-0520
7	Upper Stem O-ring	1	75-0521
8	Seal Cap O-ring	1	70-0011
9	Cartridge O-ring	1	75-0496



ITEM	DESCRIPTION	QTY	PART NO
	<b>Solenoid Tube/Plunger Kit (MS)</b> Above Kit Consists of:		<b>70-1059</b>
1	Coil Washer	1	70-0289
2	Coil Nut	1	70-0281
3	Plunger	1	70-0295
4	Solenoid Tube	1	70-0298
5	Solenoid Tube Gasket	1	70-0301
6	Tube Screws	4	70-0297

**PARTS LIST 3/4" THROUGH 1 1/4" (20 MM THROUGH 32 MM)**



ITEM	DESCRIPTION	QTY	PART NO
	<b>Piston Kit consists of:</b>		<b>75-1019</b>
1	Piston	1	75-0191
2	Piston Seal	1	75-0353
4	Adapter Gasket	1	75-0489
20	Flange Gasket	2	70-0132
	<b>V-Port/Seat Kit 3/4"*</b>		<b>75-1020</b>
	<b>V-Port/Seat Kit 1"*</b>		<b>75-1021</b>
	<b>V-Port/Seat Kit 1 1/4"*</b>		<b>75-1022</b>
	Above kits consist of:		
3a	3/4" V-Port/Seat	1	75-0194
3b	1" V-Port/Seat	1	75-0193
3c	1 1/4" V-Port/Seat	1	75-0192
5	Closing Spring	1	75-0287
6	Bottom Cap O-ring	1	75-0183

ITEM	DESCRIPTION	QTY	PART NO
	<b>Gasket Kit consists of:</b>		<b>75-1023</b>
4	Adapter Gasket	1	75-0489
6	Bottom Cap O-ring	1	75-0183
7	Stem O-ring	1	70-0010
8	Stem Washer	1	70-0026
9	Stem Packing	1	70-0025
10	Packing Nut	1	70-0019
13	Seal Cap O-ring	1	70-0011
20	Flange Gasket	2	70-0132
	Solenoid Tube Gasket	1	70-0301
	Port Gasket & O-ring	3	75-1071
11	Manual-Opening Stem	1	75-0164
12	Seal Cap	1	50-0411
14	Gauge Port Plug (1/4" NPT)	1	75-0189
15a	Adapter, 1 Port	1	75-0163
15b	Adapter, 3 Port	1	75-0162
16	Adapter Bolts, socket cap	4	75-0190
17	Bottom Cap	1	75-0155
18a	Body 3/4", 1"	1	75-0156
18b	Body 1 1/4", 2-Bolt	1	75-0154
19	Flange (Various)	2	FACTORY
21	Flange Bolt (5/8"-11x2.75")	4	70-0339
	Flange Nut (5/8"-11)	4	70-0136

<b>*HA4AK AND HA4AO V-PORT/SEAT KITS</b>	
DESCRIPTION	PART NO
<b>V-Port/Seat Kit 3/4"</b>	75-1129
<b>V-Port/Seat Kit 1"</b>	75-1130
<b>V-Port/Seat Kit 1 1/4"</b>	75-1131

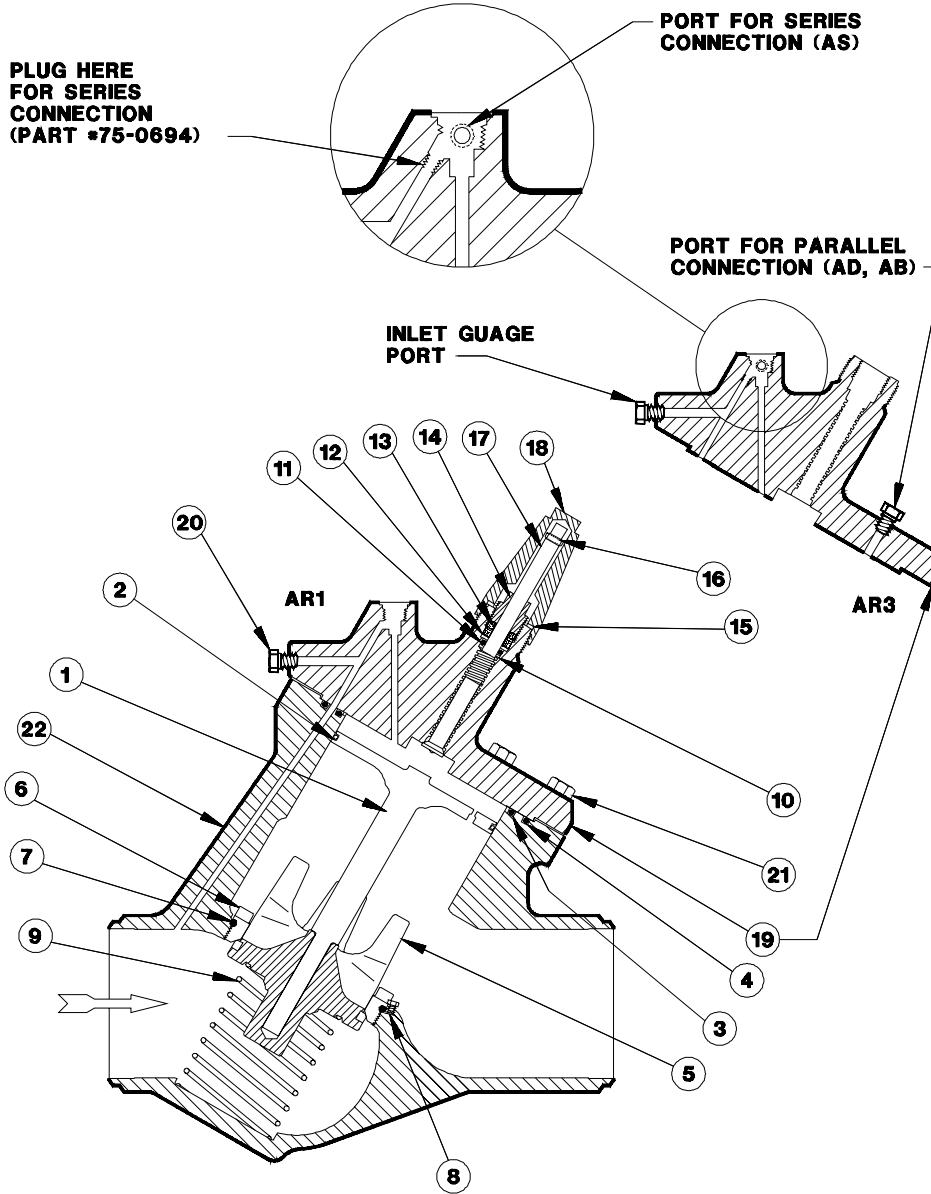
Above kits contain V-Port/Seat, bottom cap O-ring, and a 5 psid (.35 bar) closing spring (Part 75-0622). A lighter spring is available (Part 75-0287).

**PARTS LIST 1½" THROUGH 4" (40 MM THROUGH 100 MM)**

ITEM	DESCRIPTION	QTY.	PART NO
	<b>Piston Kit 1½", 2"</b>		<b>75-1025</b>
	<b>Piston Kit 2½"</b>		<b>75-1026</b>
	<b>Piston Kit 3"</b>		<b>75-1027</b>
	<b>Piston Kit 4"</b>		<b>75-1028</b>
	Above kits consist of:		
1a	Piston 1½", 2"	1	75-0168
1b	Piston 2½"	1	75-0169
1c	Piston 3"	1	75-0159
1d	Piston 4"	1	75-0278
2a	Piston Seal 1½", 2"	1	75-0292
2b	Piston Seal 2½", 3"	1	75-0293
2c	Piston Seal 4"	1	75-0236
3a	Adapter Gasket 1½", 2"	1	75-0113
3b	Adapter Gasket 2½", 3"	1	75-0093
3c	Adapter Gasket 4"	1	75-0233
23a	Flange Gasket 1½", 2"	2	75-0138
23b	Flange Gasket 2½"	2	75-0125
23c	Flange Gasket 3"	2	75-0137
23d	Flange Gasket 4"	2	75-0253
	<b>V-Port/Seat Kit 1½"</b>		<b>75-1029</b>
	<b>V-Port/Seat Kit 2"</b>		<b>75-1030</b>
	<b>V-Port/Seat Kit 2½"</b>		<b>75-1031</b>
	<b>V-Port/Seat Kit 3"</b>		<b>75-1032</b>
	<b>V-Port/Seat Kit 4"</b>		<b>75-1033</b>
	Above kits consist of:		
4a	V-Port/Seat 1½"	1	75-0369
4b	V-Port/Seat 2"	1	75-0177
4c	V-Port/Seat 2½"	1	75-0178
4d	V-Port/Seat 3"	1	75-0179
4e	V-Port/Seat 4"	1	75-0313
3a	Adapter Gasket 1½", 2"	1	75-0113
3b	Adapter Gasket 2½", 3"	1	75-0093
3c	Adapter Gasket 4"	1	75-0233
6a	Seat Seal O-ring 1½", 2"	1	75-0274
6b	Seat Seal O-ring 2½"	1	75-0275
6c	Seat Seal O-ring 3", 4"	1	75-0276
7	Seat Screw	1	75-0220
8a	Closing Spring 1½", 2"	1	75-0171
8b	Closing Spring 2½"	1	75-0201
8c	Closing Spring 3"	1	75-0248
8d	Closing Spring 4"	1	75-0235
5a	Seat Ring 1½", 2"	1	75-0084
5b	Seat Ring 2½"	1	75-0170
5c	Seat Ring 3"	1	75-0071
5d	Seat Ring 4"	1	75-0231
16a	Manual-Opening Stem 1½" through 3"	1	75-0079
16b	Manual-Opening Stem 4"	1	75-0427
17a	Seal Cap 1½" through 3"	1	75-0139
17b	Seal Cap 4"	1	50-0260

ITEM	DESCRIPTION	QTY	PART NO
	<b>Gasket Kit 1½", 2"</b>		<b>75-1039</b>
	<b>Gasket Kit 2½"</b>		<b>75-1040</b>
	<b>Gasket Kit 3"</b>		<b>75-1041</b>
	<b>Gasket Kit 4"</b>		<b>75-1042</b>
	Above kits consist of:		
3a	Adapter Gasket 1½", 2"	1	75-0113
3b	Adapter Gasket 2½", 3"	1	75-0093
3c	Adapter Gasket 4"	1	75-0233
6a	Seat Seal O-ring 1½", 2"	1	75-0274
6b	Seat Seal O-ring 2½"	1	75-0275
6c	Seat Seal O-ring 3", 4"	1	75-0276
9a	Back-Up Washer 1½" through 3"	1	75-0245
9b	Back-Up Washer 4"	1	50-0351
10a	Stem O-ring 1½" through 3"	1	50-0179
10b	Stem O-ring 4"	1	50-0253
11a	Stem Washer 1½" through 3"	1	50-0046
11b	Stem Washer 4"	1	50-0247
12a	Stem Packing 1½" through 3"	1	50-0045
12b	Stem Packing 4"	1	50-0248
13a	Packing Nut 1½" through 3"	1	50-0013
13b	Packing Nut 4"	1	50-0251
14a	Seal Cap O-ring	1	50-0432
14b	Seal Cap Gasket	1	50-0270
15a	Stem Pin 1½" through 3"	1	75-0173
15b	Stem Pin 4"	1	75-0434
23a	Flange Gasket 1½", 2"	2	75-0138
23b	Flange Gasket 2½"	2	75-0125
23c	Flange Gasket 3"	2	75-0137
23d	Flange Gasket 4"	2	75-0253
	Solenoid Tube Gasket	1	70-0301
	Port O-ring and Gasket	3	75-1071
18a	Adapter, 1 Port 1½", 2"	1	75-0060
18b	Adapter, 3 Port 1½", 2"	1	75-0384
18c	Adapter, 1 Port 2½", 3"	1	75-0056
18d	Adapter, 3 Port 2½", 3"	1	75-0493
18e	Adapter, 1 Port 4"	1	75-0334
18f	Adapter, 3 Port 4"	1	75-0801
19	Gauge Port Plug (¼" NPT)	1	75-0189
20a	Adapter Bolts 1½", 2"	4	75-0175
20b	Adapter Bolts 2½", 3"	4	65-0057
20c	Adapter Bolts 4"	4	75-0291
21a	Body 1½", 2"	1	75-0016
21b	Body 2½"	1	75-0018
21c	Body 3"	1	75-0019
21d	Body 4"	1	75-0215
22	Flange (Various)	2	FACTORY
24a	Flange Bolt 1½", 2"	8	70-0135
24b	Flange Bolt 2½", 3"	8	75-0202
24c	Flange Bolt 4"	8	75-0279
25a	Flange Nut 1½", 2" (5/8"-11)	8	70-0136
25b	Flange Nut 2½", 3" (3/4"-10)	8	75-0210
25c	Flange Nut 4" (7/8"-9)	8	75-0280

## PARTS LIST 5" AND 6" (125 MM AND 150 MM)



ITEM	DESCRIPTION	QTY	PART NO
	<b>Piston Kit</b>		<b>75-1110</b>
	Above Kit consists of:		
1	Piston	1	75-0570
2	Piston Seal	1	75-0602
3	Adapter O-ring, Inner	1	75-0605
4	Adapter O-ring, Outer	1	75-0606
	<b>Gasket Kit</b>		<b>75-1111</b>
	Above Kit consists of:		
3	Adapter O-ring, Inner	1	75-0605
4	Adapter O-ring, Outer	1	75-0606
7	Seat Seal O-ring	1	75-0613
10	Back-up Washer	1	50-0324
11	Stem O-ring	1	50-0293
12	Stem Washer	1	50-0299
13	Stem Packing	1	50-0290
14	Packing Nut	1	50-0292
15	Seal Cap Gasket	1	50-0315
16	Manual-Opening Stem Pin	1	75-0607
	Solenoid Tube Gasket	1	70-0301
	Port O-ring and Gasket	3	75-1071

ITEM	DESCRIPTION	QTY	PART NO
	<b>V-Port/Seat Kit 5"</b>		<b>75-1112</b>
	<b>V-Port/Seat Kit 6"</b>		<b>75-1113</b>
	Above Kits consist of:		
5a	V-Port/Seat 5"	1	75-0640
5b	V-Port/Seat 6"	1	75-0641
3	Adapter O-ring, Inner	1	75-0605
4	Adapter O-ring, Outer	1	75-0606
7	Seat Seal O-ring	1	75-0613
8	Seat Screw (1/4"-20 x 1/2")	1	75-0220
9	Closing Spring	1	75-0601
6	Seat Ring	1	75-0558
17	Manual-Opening Stem	1	75-0581
18	Seal Cap	1	50-0304
19a	Adapter, 1 Port	1	75-0554
19b	Adapter (1 Port) with Plugged Access Holes for Multiple Pilots	1	75-0720
20	Gauge Port Plug	1	75-0189
21	Adapter Bolts	8	75-0604
22a	Body, 5"	1	75-0542
22b	Body, 6"	1	75-0541

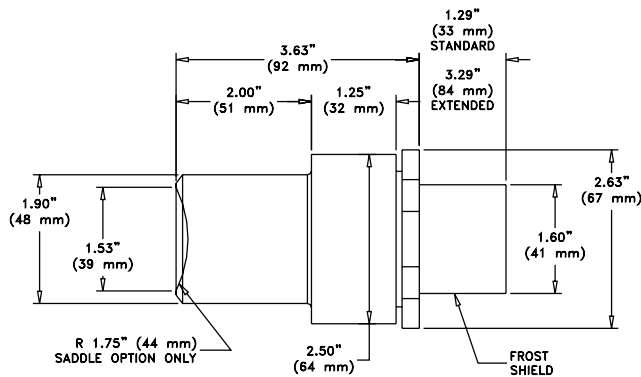
## INSTALLATION

Do not install lens or gaskets before welding. Locate the SEE-LEVEL™ in an accessible area away from the movement of material and equipment. To prevent distortion of housing and protect threads from welding sparks and damage, leave retainer ring (less glass and gaskets) in housing during welding. Welds should be annealed as necessary in accordance with good practice. Painting of welds is recommended for corrosion protection.

After welding, remove retainer ring and then insert (in order) neoprene gasket (o-ring for clear lens), reflex lens, install the reflex lens with the raised glass rings in contact with the fluid, and fiber gasket into housing. Lubricate threads and screw retainer ring into housing and tighten to 30 ft/lbs (41 Nm) torque. Before putting into service, all pipe weld connections and the lens should be tested for leaks at pressure levels called for in appropriate codes. Test for leaks before inserting the optional frost shield.

To install frost shield, lightly coat the frost shield o-ring with refrigerant oil. Press frost shield into housing while holding a pliable thin-walled plastic straw across the o-ring; this allows air to escape. Withdraw straw once frost shield is fully inserted into housing.

## INSTALLATION DIMENSIONS

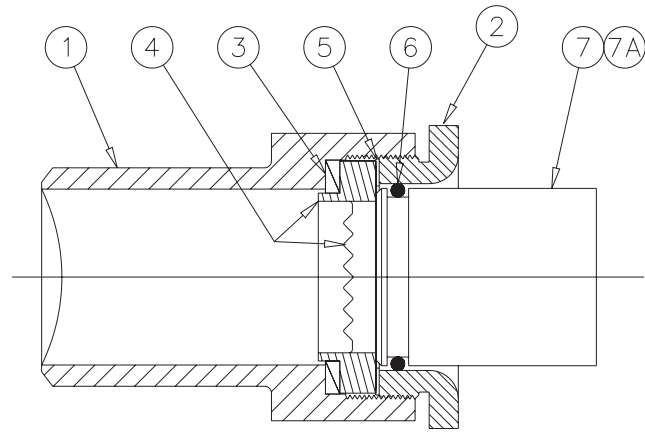


## CAUTION

Hansen SEE-LEVEL™ liquid indicators are only for refrigeration systems. These instructions and related safety precautions must be read completely and understood before selecting, using or servicing these liquid indicators. Only knowledgeable, trained refrigeration mechanics should install or service these liquid indicators. Stated temperature and pressure limits should not be exceeded. Sight glass lenses should be inspected routinely and replaced if damaged.

See also safety precautions in current List Price Bulletin and Safety Precautions sheet supplied with product. Escaping refrigerant might cause personal injury, particularly to the eyes and lungs.

## PARTS LIST



ITEM	DESCRIPTION	QTY	PART NO
1a	Standard Housing	1	77-0465
1b	Saddle Milled Housing	1	77-0475
2	Retainer Ring	1	77-0487
	<b>Reflex Lens Kit</b> Consists of:		<b>77-1002</b>
3a	Neoprene Gasket	1	77-0504
4a	Reflex Lens, Fused to Metal Ring	1	77-0792
5	Fiber Gasket	1	77-0505
	<b>Clear Lens Kit</b> Consists of:		<b>77-1043</b>
3b	O-Ring	1	75-0908
4b	Clear Lens, Fused to Metal Ring	1	77-2002
5	Fiber Gasket	1	77-0505
	<b>Frost Shield Kit</b> Consists of:		<b>77-1003</b>
6	O-Ring	1	77-0526
7	Frost Shield	1	77-0519
7a	<b>Frost Shield Extended</b>	1	<b>77-1044</b>

## WARRANTY

All Hansen products, except electronics, are guaranteed against defective materials or workmanship for one year F.O.B. factory. Electronics are guaranteed against defective materials or workmanship for 90 days F.O.B. factory. No consequential damages or field labor is included.

## TYPICAL SPECIFICATIONS

“Liquid indicators shall have steel housings made from code approved materials suitable for direct welding into ASME vessels, with glass reflex (or clear) lenses fused in steel retainer ring, and frost shields suitable for temperatures down to -60°F, and a maximum safe working pressure of 600 psig (40 bar). Liquid indicators shall be SEE-LEVEL™ as manufactured by Hansen Technologies Corporation or approved equal.”

# HANSEN

Hansen Technologies Corporation  
 400 Quadrangle Drive, Suite F  
 Bolingbrook, Illinois 60440 USA  
 Tel: 630.325.1565 Fax: 630.325.1572 Toll: 866.4HANSEN  
 Email: sales@hantech.com Web: www.hantech.com  
**USA • Asia • Europe • India • Latin America • Middle East**  
 © 2010 Hansen Technologies Corporation

**REPLACEMENT PARTS – BUTT WELD SHUT-OFF VALVES**  
1/2" THROUGH 1 1/4" (13MM THROUGH 32MM)

ITEM	DESCRIPTION	QTY	PART NO
	<b>Gasket Kit 1/2", 3/4", 1", 1-1/4"</b> (13mm, 20mm, 25mm, 32mm)		<b>50-1040</b>
	<b>Gasket Kit, Extended Neck 1/2", 3/4", 1", 1-1/4"</b> (13mm, 20mm, 25mm, 32mm)		<b>50-1171</b>
	<i>Above kits consist of:</i>		
1	Stem Packing	1	50-0045
2	Stem Washer	1	50-0046
4	Stem O-Ring	1	50-0179
5a	Bonnet Gasket 1/2", 3/4" (13mm, 20mm)	1	50-0805
5b	Bonnet Gasket 1", 1-1/4" (25mm, 32mm)	1	50-0806
6	Seal Cap O-Ring	1	50-0432
7a	Packing Nut	1	50-0933
7b	Packing Nut, Extended Neck	1	50-2483
21	O-Ring, Anti-Spin	1	50-2697
	<b>Bonnet Assembly Kit 1/2", 3/4"</b> (13mm, 20mm)		<b>50-1094</b>
	<b>Bonnet Assembly Ext Neck Kit 1/2", 3/4"</b> (13mm, 20mm)		<b>50-1172</b>
	<b>Bonnet Assembly Kit 1", 1-1/4"</b> (25mm, 32mm)		<b>50-1095</b>
	<b>Bonnet Assembly Ext Neck Kit 1", 1-1/4"</b> (25mm, 32mm)		<b>50-1174</b>
	<i>Above kits consist of:</i>		
8a	Bonnet 1/2", 3/4" (13mm, 20mm)	1	50-0743
8b	Bonnet 1", 1-1/4" (25mm, 32mm)	1	50-0774
8c	Bonnet, Ext Neck 1/2", 3/4" (13mm, 20mm)	1	50-2636
8d	Bonnet, Ext Neck 1", 1-1/4" (25mm, 32mm)	1	50-2637
9a	Stem	1	50-0765
9b	Stem, Extended Neck	1	50-2478
10a	Disc Assembly 1/2", 3/4" (13mm, 20mm)	1	50-0803
10b	Disc Assembly 1", 1-1/4" (25mm, 32mm)	1	50-0804
11a	Ball Retainer 1/2", 3/4" (13mm, 20mm)	1	50-0439
11b	Ball Retainer 1", 1-1/4" (25mm, 32mm)	1	50-0026
12	Balls	10	50-0016
13	Bonnet Cap Screw	4	50-0813
	Gasket Kit 1/2" to 1-1/4" (13mm - 32mm)	1	50-1040
	<b>Disc Assembly Kit 1/2", 3/4"</b> (13mm, 20mm)		<b>50-1042</b>
	<b>Disc Assembly Kit 1", 1-1/4"</b> (25mm, 32mm)		<b>50-1004</b>
	<i>Above kits consist of:</i>		
5a	Bonnet Gasket 1/2", 3/4" (13mm, 20mm)	1	50-0805
5b	Bonnet Gasket 1", 1-1/4" (25mm, 32mm)	1	50-0806
10a	Disc Assembly 1/2", 3/4" (13mm, 20mm)	1	50-0803
10b	Disc Assembly 1", 1-1/4" (25mm, 32mm)	1	50-0804
11a	Ball Retainer 1/2", 3/4" (13mm, 20mm)	1	50-0439
11b	Ball Retainer 1", 1-1/4" (25mm, 32mm)	1	50-0026
12	Balls	10	50-0016
21	O-Ring, Anti-Spin	1	50-2697
	<b>Handwheel Kit</b>		<b>50-1005</b>
	<i>Above kits consist of:</i>		
14	Handwheel	1	50-2691
15	Screw	1	50-0479
16	Nameplate	1	50-0094
18	Bonnet Thread Cap	1	50-0434
	<b>Seal Cap Kit</b>		<b>50-1036</b>
	<i>Above kits consist of:</i>		
6	Seal Cap O-Ring	1	50-0432
19	Seal Cap	1	50-0423
20a	Body, Globe 1/2" BW (13mm)	1	50-2339
20b	Body, Globe 3/4" BW (20mm)	1	50-2342
20c	Body, Globe 1" BW (25mm)	1	50-2344
20d	Body, Globe 1-1/4" BW (32mm)	1	50-2346
20e	Body, Angle 1/2" BW (13mm)	1	50-0768
20f	Body, Angle 3/4" BW (20mm)	1	50-0771
20g	Body, Angle 1" BW (25mm)	1	50-0779
20h	Body, Angle 1-1/4" BW (32mm)	1	50-0782

NOTE: A plate steel cap is available to order, specify part number 50-1064.

## REPLACEMENT PARTS - BUTT WELD SHUT-OFF VALVES

### 1½" THROUGH 4" (40MM THROUGH 100MM)

ITEM	DESCRIPTION	QTY	PART NO
	<b>Gasket Kit 1-1/2", 2" (40mm, 50mm)</b>		<b>50-1023</b>
	<b>Gasket Kit Ext Neck 1-1/2", 2" (40mm, 50mm)</b>		<b>50-1164</b>
	<b>Gasket Kit 2-1/2", 3" (65mm, 80mm)</b>		<b>50-1043</b>
	<b>Gasket Kit Ext Neck 2-1/2", 3" (65mm, 80mm)</b>		<b>50-1166</b>
	<b>Gasket Kit 4" (100mm)</b>		<b>50-1065</b>
	<b>Gasket Kit Ext Neck 4" (100mm)</b>		<b>50-1203</b>
	<i>Above kits consist of:</i>		
1a	Stem Packing 1-1/2", 2" (40mm, 50mm)	1	50-0248
1b	Stem Packing 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-0290
2a	Stem Washer 1-1/2", 2" (40mm, 50mm)	1	50-0247
2b	Stem Washer 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-0299
3a	Back-up Washer 1-1/2", 2" (40mm, 50mm)	1	50-0351
3b	Back-up Washer 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-0324
4a	Stem O-Ring 1-1/2", 2" (40mm, 50mm)	1	50-0253
4b	Stem O-Ring 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-0293
5a	Bonnet Gasket 1-1/2", 2" (40mm, 50mm)	1	50-0259
5b	Bonnet Gasket 2-1/2", 3" (65mm, 80mm)	1	50-0310
5c	Bonnet Gasket 4" (100mm)	1	50-0537
6a	Seal Cap Gasket 1-1/2", 2" (40mm, 50mm)	1	50-0270
6b	Seal Cap Gasket 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-0315
7a	Packing Nut 1-1/2", 2" (40mm, 50mm)	1	50-0251
7b	Packing Nut Ext Neck 1-1/2", 2" (40mm, 50mm)	1	50-2484
7c	Packing Nut 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-0292
7d	Packing Nut Ext Neck 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-2485
21a	O-Ring, Anti-Spin 1-1/2", 2" (40mm, 50mm)	1	50-0637
21b	O-Ring, Anti-Spin 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-2700
	<b>Bonnet Assembly Kit 1-1/2", 2" (40mm, 50mm)</b>		<b>50-1024</b>
	<b>Bonnet Assembly Ext Neck Kit 1-1/2", 2" (40mm, 50mm)</b>		<b>50-1165</b>
	<b>Bonnet Assembly Kit 2-1/2", 3" (65mm, 80mm)</b>		<b>50-1044</b>
	<b>Bonnet Assembly Ext Neck Kit 2-1/2", 3" (65mm, 80mm)</b>		<b>50-1167</b>
	<b>Bonnet Assembly Kit 4" (100mm)</b>		<b>50-1066</b>
	<b>Bonnet Assembly Ext Neck Kit 4" (100mm)</b>		<b>50-1184</b>
	<i>Above kits consist of:</i>		
8a	Bonnet 1-1/2", 2" (40mm, 50mm)	1	50-0239
8b	Bonnet Ext Neck 1-1/2", 2" (40mm, 50mm)	1	50-2505
8c	Bonnet 2-1/2", 3" (65mm, 80mm)	1	50-0286
8d	Bonnet Ext Neck 2-1/2", 3" (65mm, 80mm)	1	50-2506
8e	Bonnet 4" (100mm)	1	50-0515
8f	Bonnet Ext Neck 4" (100mm)	1	50-2507
9a	Stem 1-1/2", 2" (40mm, 50mm)	1	50-0242
9b	Stem Ext Neck 1-1/2", 2" (40mm, 50mm)	1	50-2476
9c	Stem 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-0287
9d	Stem Ext Neck 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-2474
13a	Bonnet Cap Screw 1-1/2", 2" (40mm, 50mm)	4	50-0473
13b	Bonnet Cap Screw 2-1/2", 3" (65mm, 80mm)	4	50-0294
13c	Bonnet Cap Screw 4" (100mm)	4	50-0521
	Gasket Kit 1-1/2", 2" (40mm, 50mm)	1	50-1023
	Gasket Kit 2-1/2", 3" (65mm, 80mm)	1	50-1043
	Gasket Kit 4" (100mm)	1	50-1065
	Disc Assembly Kit 1-1/2", 2" (40mm, 50mm)		50-1025
	Disc Assembly Kit 2-1/2", 3" (65mm, 80mm)		50-1045
	Disc Assembly Kit 4" (100mm)		50-1067

	<b>Disc Assembly Kit 1-1/2", 2" (40mm, 50mm)</b>		<b>50-1025</b>
	<b>Disc Assembly Kit 2-1/2", 3" (65mm, 80mm)</b>		<b>50-1045</b>
	<b>Disc Assembly Kit 4" (100mm)</b>		<b>50-1067</b>
	<i>Above kits consist of:</i>		
5a	Bonnet Gasket 1-1/2", 2" (40mm, 50mm)	1	50-0259
5b	Bonnet Gasket 2-1/2", 3" (65mm, 80mm)	1	50-0310
5c	Bonnet Gasket 4" (100mm)	1	50-0537
10a	Disc Assembly 1-1/2", 2" (40mm, 50mm)	1	50-0363
10b	Disc Assembly 2-1/2", 3" (65mm, 80mm)	1	50-0374
10c	Disc Assembly 4" (100mm)	1	50-0524
11a	Ball Retainer 1-1/2", 2" (40mm, 50mm)	1	50-0257
11b	Ball Retainer 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-0297
12a	Balls 1-1/2", 2" (40mm, 50mm)	16	50-0016
12b	Balls 2-1/2", 3", 4" (65mm, 80mm, 100mm)	15	50-0305
21a	O-Ring, Anti-Spin 1-1/2", 2" (40mm, 50mm)	1	50-0637
21b	O-Ring, Anti-Spin 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-2700
	<b>Handwheel Kit 1-1/2", 2" (40mm, 50mm)</b>		<b>50-1026</b>
	<b>Handwheel Kit 2-1/2", 3", 4" (65mm, 80mm, 100mm)</b>		<b>50-1037</b>
	<i>Above kits consist of:</i>		
14a	Handwheel 1-1/2", 2" (40mm, 50mm)	1	50-0321
14b	Handwheel 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-0319
15a	Screw 1-1/2", 2" (40mm, 50mm)	1	50-0254
15b	Screw 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-0295
16a	Nameplate 1-1/2", 2" (40mm, 50mm)	1	50-0094
16b	Nameplate 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-0318
17	Support Washer 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-0480
18	Bonnet Thread Cap 1-1/2", 2" (40mm, 50mm)	1	50-0263
	<b>Seal Cap Kit 1-1/2", 2" (40mm, 50mm)</b>		<b>50-1027</b>
	<b>Seal Cap Kit 2-1/2", 3", 4" (65mm, 80mm, 100mm)</b>		<b>50-1038</b>
	<i>Above kits consist of:</i>		
6a	Seal Cap Gasket 1-1/2", 2" (40mm, 50mm)	1	50-0270
6b	Seal Cap Gasket 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-0315
19a	Seal Cap 1-1/2", 2" (40mm, 50mm)	1	50-0260
19b	Seal Cap 2-1/2", 3", 4" (65mm, 80mm, 100mm)	1	50-0304
20a	Body, Globe 1-1/2" BW (40mm)	1	50-2686P
20b	Body, Globe 2" BW (50mm)	1	50-0391
20c	Body, Globe 2-1/2" BW (65mm)	1	50-0454
20d	Body, Globe 3" BW (80mm)	1	50-0455
20e	Body, Globe 4" BW (100mm), (Standard Y-Style)	1	50-0671
20f	Body, Globe 4", (Ext. Neck T-Style)	1	50-0550
20g	Body, Angle 1-1/2" BW (40mm)	1	50-2687P
20h	Body, Angle 2" BW (50mm)	1	50-0354
20i	Body, Angle 2-1/2" BW (65mm)	1	50-0285
20j	Body, Angle 3" BW (80mm)	1	50-0289
20k	Body, Angle 4" BW (100mm)	1	50-0516

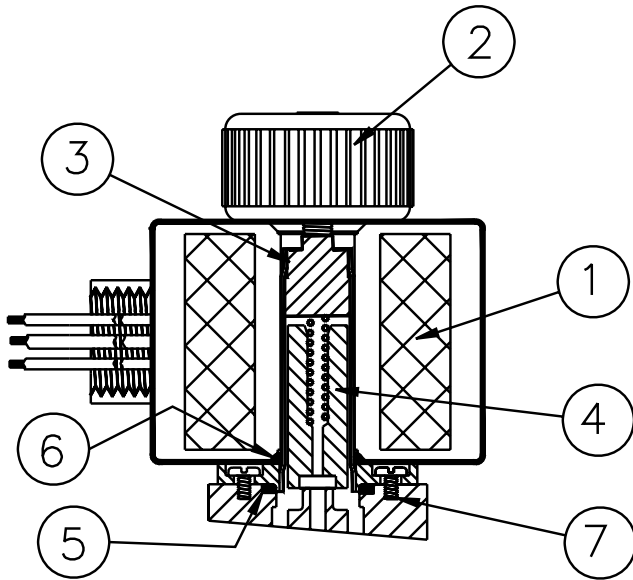
**REPLACEMENT PARTS - BUTT WELD SHUT-OFF VALVES**  
**5" THROUGH 8" (125MM THROUGH 200MM)**

ITEM	DESCRIPTION	QTY	PART NO
	<b>Gasket Kit 5" (125mm)</b>		<b>50-1082</b>
	<b>Gasket Kit 6" (150mm)</b>		<b>50-1083</b>
	<b>Gasket Kit 8" (200mm)</b>		<b>50-1084</b>
	<i>Above kits consist of:</i>		
1a	Stem Packing 5", 6" (125mm, 150mm)	1	50-0703
1b	Stem Packing 8" (200mm)	1	50-0745
2a	Stem Washer 5", 6" (125mm, 150mm)	1	50-0705
2b	Stem Washer 8" (200mm)	1	50-0747
3a	Back-up Washer 5", 6" (125mm, 150mm)	1	50-0706
3b	Back-up Washer 8" (200mm)	1	50-0748
4a	Stem O-Ring 5", 6" (125mm, 150mm)	1	50-0707
4b	Stem O-Ring 8" (200mm)	1	50-0749
5a	Bonnet O-Ring 5" (125mm)	1	50-0708
5b	Bonnet O-Ring 6" (150mm)	1	50-0709
5c	Bonnet O-Ring 8" (200mm)	1	50-0750
6a	Seal Cap O-Ring 5", 6" (125mm, 150mm)	1	50-0730
6b	Seal Cap O-Ring 8" (200mm)	1	50-0761
7a	Packing Nut 5", 6" (125mm, 150mm)	1	50-0704
7b	Packing Nut 8" (200mm)	1	50-0746
	<b>Bonnet Assembly Kit 5" (125mm)</b>		<b>50-1080</b>
	<b>Bonnet Assembly Kit 6" (150mm)</b>		<b>50-1081</b>
	<b>Bonnet Assembly Kit 8" (200mm)</b>		<b>50-1085</b>
	<i>Above kits consist of:</i>		
8a	Bonnet 5" (125mm)	1	50-0675
8b	Bonnet 6" (150mm)	1	50-0682
8c	Bonnet 8" (200mm)	1	50-0699
9a	Stem Assembly 5", 6" (125mm, 150mm)	1	50-0734
9b	Stem Assembly 8" (200mm)	1	50-1093
13a	Bonnet Cap Screw 5" (125mm)	4	50-0521
13b	Bonnet Cap Screw 6" (150mm)	6	50-0521
13c	Bonnet Cap Screw 8" (200mm)	8	50-0959
21a	Lower Disc Holder 5" (125mm)	1	50-0713
21b	Lower Disc Holder 6" (150mm)	1	50-0711
21c	Lower Disc Holder 8" (200mm)	1	50-0752
22a	Upper Disc Holder 5" (125mm)	1	50-0712
22b	Upper Disc Holder 6" (150mm)	1	50-0710
22c	Upper Disc Holder 8" (200mm)	1	50-0751
23a	Disc Holder Screw 5", 6" (125mm, 150mm)	4	50-0729
23b	Disc Holder Screw 8" (200mm)	6	50-0760
24	Bushing, Stem Guide, 8"	1	50-0958
	Gasket Kit 5" (125mm)	1	50-1082
	Gasket Kit 6" (150mm)	1	50-1083
	Gasket Kit 8" (200mm)	1	50-1084
	Disc Kit 5" (125mm)	1	50-1086
	Disc Kit 6" (150mm)	1	50-1087
	Disc Kit 8" (200mm)	1	50-1088
	<b>Disc Kit 5" (125mm)</b>		<b>50-1086</b>
	<b>Disc Kit 6" (150mm)</b>		<b>50-1087</b>
	<b>Disc Kit 8" (200mm)</b>		<b>50-1088</b>
	<i>Above kits consist of:</i>		
5a	Bonnet O-Ring 5" (125mm)	1	50-0708
5b	Bonnet O-Ring 6" (150mm)	1	50-0709
5c	Bonnet O-Ring 8" (200mm)	1	50-0750
10a	Seat Disc 5", Teflon (125mm)	1	50-0717
10b	Seat Disc 6", Teflon (150mm)	1	50-0716
10c	Seat Disc 8", Teflon (200mm)	1	50-0755

	<b>Handwheel Kit 5", 6" (125mm, 150mm)</b>		<b>50-1089</b>
	<b>Handwheel Kit 8" (200mm)</b>		<b>50-1090</b>
	<i>Above kits consist of:</i>		
14a	Handwheel 5", 6" (125mm, 150mm)	1	50-0727
14b	Handwheel 8" (200mm)	1	50-2229
15a	Screw 5", 6" (125mm, 150mm)	1	50-0732
15b	Screw 8" (200mm)	1	50-0763
16	Back-Up Washer (8" Only)	1	50-0764
17a	Nameplate 5", 6" (125mm, 150mm)	1	50-0728
17b	Nameplate 8" (200mm)	1	50-0759
	<b>Seal Cap Kit 5", 6" (125mm, 150mm)</b>		<b>50-1091</b>
	<b>Seal Cap Kit 8" (200mm)</b>		<b>50-1092</b>
	<i>Above kits consist of:</i>		
6a	Seal Cap O-Ring 5", 6" (125mm, 150mm)	1	50-0730
6b	Seal Cap O-Ring 8" (200mm)	1	50-0761
19a	Seal Cap 5", 6" (125mm, 150mm)	1	50-0715
19b	Seal Cap 8" (200mm)	1	50-0754
20a	Body, Globe 5" BW (125mm)	1	50-0677
20b	Body, Globe 6" BW (150mm)	1	50-0693
20c	Body, Globe 8" BW (200mm)	1	50-0812
20d	Body, Angle 5" BW (125mm)	1	50-0673
20e	Body, Angle 6" BW (150mm)	1	50-0680
20f	Body, Angle 8" BW (200mm)	1	50-0695



## PARTS LIST



Item	Description	Qty	Part No.
1	Fully Encapsulated Coil	1	Various
2	Coil Knob	1	70-0579
Solenoid Tube/Plunger Kit <i>Above kit consists of:</i>		1	70-1059
3	Solenoid Tube	1	70-0298
4	Plunger	1	70-0295
5	Solenoid Tube Gasket	1	70-0301
6	O-Ring	1	75-0340
2	Coil Knob	1	70-1059
7	Screws (4)	1	70-0297
Also Available:			
	DIN Connector Socket Only	1	70-0316
	QD Connector Socket Only	1	70-0428

## CAUTION

Coils have been designed specifically for use with Hansen valves on refrigeration systems. They can also replace the same size European/Danish coils. Instructions and related safety precautions must be completely read and understood before selecting, using or servicing coils. Only knowledgeable, trained refrigeration mechanics should install, operate or service coils. Stated temperature and pressure limits should not be exceeded. Do not remove solenoid tube from valve unless system has been evacuated to zero pressure. See also Safety Precaution Sheet supplied with product.

## WARRANTY

Hansen electrical and electronic parts are guaranteed against defective materials or workmanship for 90 days F.O.B. factory. All other components are guaranteed for one year F.O.B. factory. No consequential damages or field labor is included.

## ORDERING INFORMATION

### Standard Coil Kit, 18" Leads (includes coil, knob and o-ring)

115V	70-1085
230V	70-1086
24AC	70-1087

### Replacement Coil Only, 18" Leads

115V	70-0580
230V	70-0581
24AC	70-0582

### Plug-in Coil Kit, Less Socket (includes coil, knob and o-ring)

115V	70-1088
230V	70-1089
24AC	70-1090
24DC	70-1091

### Replacement Coil Only, Plug-in Coil

115V	70-0584
230V	70-0585
24AC	70-0586
24DC	70-0583

### Plug-in Coil Kit, with DIN Connector Socket (includes coil, knob and o-ring)

115V	70-1092
230V	70-1093
24AC	70-1094
24DC	70-1095

### Plug-in Coil Kit, with Quick Disconnect Connector Socket (includes coil, knob and o-ring)

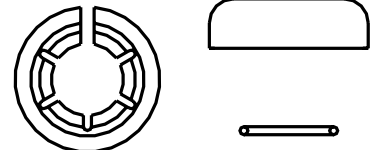
115V	70-1096
230V	70-1097
24AC	70-1098
24DC	70-1099

### Pilot Light Kit

(includes coil beacon, knob and o-ring)  
(A/C Coils Only)

Red	70-1100
Green	70-1102
Amber	70-1101

### Coil Adapter Kit for Use on European Danish Valves 70-1104



# HANSEN

Hansen Technologies Corporation  
6827 High Grove Boulevard  
Burr Ridge, Illinois 60527 USA  
Tel: 630.325.1565 Fax: 630.325.1572 Toll: 800.426.7368  
Email: info@hantech.com Web: www.hantech.com  
USA • Asia • Europe • India • Latin America • Middle East  
© 2006 Hansen Technologies Corporation

## MVP13 KIT LIST

1/2" (13mm)

POSITION 1		
ITEM	DESCRIPTION	KIT NO
1	<b>Bonnet Kit:</b> MVP13 (1/2")	50-1094
2	<b>Seal Cap Kit (Standard):</b> MVP13 (1/2") (Black) Handwheel Kit (Optional) MVP13 (1/2")	50-1036 50-1005

POSITION 2		
ITEM	DESCRIPTION	KIT NO
3	<b>Screen Assembly Kit:</b> Standard (100 Mesh) MVP13 (1/2")	78-1001
4	<b>Strainer Plug (1/4" NPT) (Optional)</b>	75-0189

POSITION 3		
ITEM	DESCRIPTION	KIT NO
5	<b>Bonnet Cartridge Kit:</b> MVP13 (1/2") Solenoid	70-1001
6	<b>Solenoid Tube/Plunger Kit:</b> MVP13 (1/2" ) Solenoid	70-1059
7	<b>Piston/Seat Ring Kit:</b> MVP13 (1/2") Solenoid	70-1132
8	<b>Stem Kit:</b> MVP13 (1/2") Solenoid	70-1003
9	<b>Seal Cap Kit:</b> MVP13 (1/2") Solenoid (Black)	70-1075

POSITION 4		
ITEM	DESCRIPTION	KIT NO
10	<b>Bonnet Kit:</b> MVP13-1 (Shut-Off) (1/2") MVP13-2 (Hand Expansion) (1/2") MVP13-3 (Stop Check/HEV) & -4 (Stop Check) (1/2") MVP13-5 (Check) (1/2") MVP13-6 (Blank) (1/2")	50-1094 50-1104 75-1305 75-1306 75-1307
11	<b>Seal Cap Kit (Standard):</b> MVP13-1 (Shut-Off) (1/2") (Black) MVP13-2 (HEV) & -3 (Stop Check/HEV) (1/2") (Yellow) MVP13-4 (Stop Check) (1/2") (Green) <b>Handwheel Kit (Optional):</b> MVP13-1 (Shut-Off) & -4 (Stop Check) (1/2") <b>Bar Handle Kit (Optional):</b> MVP13-2 (Hand Expansion) & -3 (Stop Check/HEV)	50-1036 50-1049 50-1212 50-1005 50-1012
12	<b>Seat Kit:</b> MVP13 (1/2")	75-1302
13	<b>Stop Check/Hand Expansion (-3) Piston Kit:</b> MVP13-3 (Stop Check/HEV) (1/2")	75-1304
14	<b>Stop Check (-4) &amp; Check (-5) Piston Kit:</b> MVP13-4 (Stop Check) & -5 (Check) (1/2")	75-1303
	HEV Turns Open Tag Kit	75-2735

### SERVICE AND MAINTENANCE

The solenoid, pulse width expansion, and hand expansion valves are designed to have the same capacity as the standard Hansen control valves. Service and maintenance instructions for the MVP13 valves can be found in the following Hansen documents:

- G209 Shut-Off Valves
- G510 Expansion Valve
- S119 HS8A Solenoid Valve
- T479 Strainers

The above documents also have detailed parts descriptions and service and troubleshooting tips.

## MVP20 THRU MVP50 KIT LIST

### 3/4" THRU 2" (20mm THRU 50mm)

POSITION 1		
ITEM	DESCRIPTION	KIT NO
1	<b>Bonnet Kit:</b> MVP20 thru MVP32 (3/4"-1-1/4") MVP40 thru MVP50 (1-1/2"-2")	50-1095
		50-1024
2	<b>Seal Cap Kit (Standard):</b> MVP20 thru MVP32 (3/4"-1-1/4") (Black) MVP40 thru MVP50 (1-1/2"-2") (Steel) <b>Handwheel Kit (Optional)</b> MVP20 thru MVP32 (3/4"-1-1/4") MVP40 thru MVP50 (1-1/2"-2")	50-1036
		50-1027
		50-1005
		50-1026

POSITION 2		
ITEM	DESCRIPTION	KIT NO
3	<b>Strainer Kit:</b> <b>Standard (60 MESH)</b> MVP20 thru MVP32 (3/4"-1-1/4") MVP40 thru MVP50 (1-1/2"-2") <b>Optional (100 MESH)</b> MVP20 thru MVP32 (3/4"-1-1/4") MVP40 thru MVP50 (1-1/2"-2")	78-1020
		78-1005
		78-1027
		78-1025
4	<b>Strainer Plug (1/2" NPT)</b>	20-1408

POSITION 3		
ITEM	DESCRIPTION	KIT NO
5	<b>Piston Kit:</b> MVP20 thru MVP32 (3/4"-1-1/4") MVP40 thru MVP50 (1-1/2"-2")	75-1019
		75-1025
6	<b>V-Port/Seat Kit:</b> MVP20 (3/4") MVP20 (3/4"-25%) MVP20 (3/4"-50%) MVP25 (1") MVP32 (1-1/4") MVP40 (1-1/2") MVP50 (2") <b>V-Port/Seat Kit (AK &amp; AO):</b> MVP20 (3/4") MVP25 (1") MVP32 (1-1/4")	75-1020
		75-1279
		75-1280
		75-1021
		75-1022
		75-1029
		75-1030
		75-1129
		75-1130
		75-1131
7	<b>Seat Ring Kit:</b> MVP20-25 (3/4"-1") MVP32 (1-1/4") MVP40-50 (1-1/2"-2")	75-1276
		75-1278
		75-1287
8	<b>Adapter Kit (1 Port):</b> MVP20 thru MVP32 (3/4"-1-1/4") MVP40 thru MVP50 (1-1/2"-2")	75-1047
		75-1049
	<b>Adapter Kit (3 Port):</b> MVP20 thru MVP32 (3/4"-1-1/4") MVP40 thru MVP50 (1-1/2"-2")	75-1048
		75-1050
	<b>Two-Step 'SD' Adapter Kit:</b> MVP20 thru MVP32 (3/4"-1-1/4") MVP40 thru MVP50 (1-1/2"-2")	75-3237
		75-3236
9	<b>Two-Step 'SD' Upper Piston Kit:</b> MVP20 thru MVP32 (3/4"-1-1/4") MVP40 thru MVP50 (1-1/2"-2")	70-1109
		70-1110
10	<b>Two-Step 'SD' Upper Housing Kit:</b> MVP20 -32 (3/4"-1-1/4") MVP40 -50 (1-1/2"-2")	70-1140
		70-1141

POSITION 4				
ITEM	DESCRIPTION	KIT NO		
12	<b>Bonnet Kit:</b> MVP20-1 thru MVP32-1 (Shut-Off) (3/4"-1-1/4") MVP40-1 thru MVP50-1 (Shut-Off) (1-1/2"-2") MVP20-2 (Hand Expansion) (3/4") MVP25-2 (1") (Hand Expansion) MVP32-2 (Hand Expansion) (1-1/4") MVP40-2 (Hand Expansion) (1-1/2") MVP50-2 (Hand Expansion) (2") MVP20-3 thru MVP32-3 (Stop Check/HEV) (3/4"-1-1/4") MVP40-3 thru MVP50-3 (Stop Check/HEV) (1-1/2"-2") MVP20-4 thru MVP32-4 (Stop Check) (3/4"-1-1/4") MVP40-4 thru MVP50-4 (Stop Check) (1-1/2"-2") MVP20-5 & MVP32-5 (Check) (3/4"-1-1/4") MVP40-5 thru MVP50-5 (Check) (1-1/2"-2") MVP20-6 thru MVP32-6 (Blank) (3/4"-1-1/4") MVP40-6 thru MVP50-6 (Blank) (1-1/2"-2")	50-1095		
		50-1024		
		75-1248		
		50-1106		
		50-1107		
		50-1031		
		50-1032		
		75-1247		
		75-1252		
		75-1247		
		75-1252		
		50-1215		
		50-1216		
		50-1217		
		50-1218		
		13	<b>Seal Cap Kit (Standard):</b> MVP20-1 thru MVP32-1 (Shut-Off) (3/4"-1-1/4") (Black) MVP40-1 thru MVP50-1 (Shut-Off) (1-1/2"-2") (Steel) MVP20-2 thru MVP32-2 (HEV) (3/4"-1-1/4") (Yellow) MVP40-2 thru MVP50-2 (HEV) (1-1/2"-2") (Yellow) MVP20-3 thru MVP32-3 (Stop Ck/HEV)(3/4"-1-1/4")(Yellow) MVP40-3 thru MVP50-3 (Stop Ck/HEV)(1-1/2"-2") (Yellow) MVP20-4 thru MVP32-4 (Stop Check) (3/4"-1-1/4") (Green) MVP40-4 thru MVP50-4 (Stop Check)(1-1/2"-2") (Light Grm) <b>Handwheel Kit (Optional):</b> MVP20-1 thru MVP32-1 (Shut-Off) (3/4"-1-1/4") MVP40-1 thru MVP50-1 (Shut-Off) (1-1/2"-2") <b>Bar Handle Kit (Optional):</b> MVP20-2 thru MVP32-2 (Hand Expansion) (3/4"-1-1/4") MVP40-2 thru MVP50-2 (Hand Expansion) (1-1/2"-2") MVP20-3 thru MVP32-3 (Stop Check/HEV) (3/4"-1-1/4") MVP40-3 thru MVP50-3 (Stop Check/HEV) (1-1/2"-2")	50-1036
50-1027				
50-1049				
50-1048				
50-1049				
50-1048				
50-1212				
50-1213				
50-1005				
50-1026				
50-1012				
50-1039				
50-1012				
50-1039				
14	<b>Stop Check/Hand Expansion (-3) Piston Kit:</b> MVP20-3 (3/4") MVP25-3 (1") MVP32-3 (1-1/4") MVP40-3 (1-1/2") MVP50-3 (2")			75-1257
				75-1258
		75-1259		
		75-1260		
		75-1261		
		75-1261		
15	<b>Stop Check (-4) &amp; Check (-5) Piston Kit:</b> MVP20-4 & -5 (3/4") MVP25-4 & -5 (1") MVP32-4 & -5 (1-1/4") MVP40-4 & -5 (1-1/2") MVP50-4 & -5 (2")	75-1262		
		75-1263		
		75-1264		
		75-1265		
		75-1266		
		75-1266		
16	<b>Spool Kit:</b> <b>Shut-Off (-1)</b> MVP20-1 thru MVP32-1 (3/4"-1-1/4") MVP40-1 thru MVP50-1 (1-1/2"-2") <b>Hand Expansion (-2), Stop Check/HEV (-3), Stop Check (-4) &amp; Check (-5)</b> MVP20-2, -3, -4, & -5 (3/4") MVP25-2, -3, -4 & -5 thru MVP32-2, -3, -4 & -5 (1"-1-1/4") MVP40-2, -3, -4 & -5 thru MVP50-2, -3, -4 & -5 (1-1/2"-2") <b>HEV Turns Open Tag Kit</b>	75-3246		
		75-3247		
		75-3245		
		75-3246		
		75-3247		
		75-2735		

## SERVICE AND MAINTENANCE

The solenoid, pressure regulator, and hand expansion valves are designed to have the same capacity as the standard Hansen control valves. Service and maintenance instructions for the MVP 20-50 valves can be found in the following Hansen documents:

- G209 Shut-Off Valves
- R429 HA4A Modular Pressure Regulators
- R629 Sealed Motor Valve & Controllers
- S429 HS4A Solenoid Valve
- S439 HS4D Two-Step Solenoid Valves
- G510 Expansion Valve

The above documents also have detailed parts descriptions and service and troubleshooting tips.

**REPLACEMENT PARTS - BUTT WELD SHUT-OFF VALVES**  
**10" THROUGH 18" (250MM THROUGH 450MM)**

ITEM	DESCRIPTION	QTY	PART NO				
	<b>Gasket Kit 10" (250mm)</b>		<b>50-1122</b>				
	<b>Gasket Kit 12" (300mm)</b>		<b>50-1123</b>				
	<b>Gasket Kit 14" (350mm)</b>		<b>50-1124</b>				
	<b>Gasket Kit 16" (400mm)</b>		<b>50-1196</b>				
	<b>Gasket Kit 18" (450mm)</b>		<b>50-1197</b>				
	<i>Above kits consist of:</i>						
1a	Stem Packing 10" (250mm)	1	50-2289	15d	Upper Disc Holder 16" (400mm)	1	50-2535
1b	Stem Packing 12" (300mm)	1	50-2292	15e	Upper Disc Holder 18" (450mm)	1	50-2532
1c	Stem Packing 14" (350mm)	1	50-2295	16a	Disc Screw 10" (250mm)	8	50-2236
1d	Stem Packing 16", 18" (400mm, 450mm)	1	50-2517	16b	Disc Screw 12" (300mm)	8	50-2404
2a	Packing Washer 10" (250mm)	1	50-2278	16c	Disc Screw 14" (350mm)	8	50-2468
2b	Packing Washer 12" (300mm)	1	50-2215	16d	Disc Screw 16" (400mm)	10	50-2588
2c	Packing Washer 14" (350mm)	1	50-2254	16e	Disc Screw 18" (450mm)	10	50-2587
2d	Packing Washer 16", 18" (400mm, 450mm)	1	50-2515	17a	Guide Tube 10" (250mm)	1	50-2155
3a	Back-up Washer 10" (250mm)	1	50-2217	17b	Guide Tube 12" (300mm)	1	50-2209
3b	Back-up Washer 12" (300mm)	1	50-2216	17c	Guide Tube 14" (350mm)	1	50-2143
3c	Back-up Washer 14" (350mm)	1	50-2253	17d	Guide Tube 16", 18" (400mm, 450mm)	1	50-2524
3d	Back-up Washer 16", 18" (400mm, 450mm)	1	50-2514	18	Screw Guide 10" to 18" (250mm to 450mm)	1	50-2237
4a	Stem O-Ring 10" (250mm)	1	50-2224	19	Washer, Screw Guide 10" to 18" (250mm to 450mm)	1	50-2238
4b	Stem O-Ring 12" (300mm)	1	50-2264		Disc Kit 10" (250mm)	1	50-1128
4c	Stem O-Ring 14" (350mm)	1	50-2245		Disc Kit 12" (300mm)	1	50-1129
4d	Stem O-Ring 16", 18" (400mm, 450mm)	1	50-2583		Disc Kit 14" (350mm)	1	50-1130
5a	Bonnet O-Ring 10" (250mm)	1	50-2223		Disc Kit 16" (400mm)	1	50-1200
5b	Bonnet O-Ring 12" (300mm)	1	50-2260		Disc Kit 18" (450mm)	1	50-1201
5c	Bonnet O-Ring 14" (350mm)	1	50-2243		Gasket Kit 10" (250mm)	1	50-1122
5d	Bonnet O-Ring 16" (400mm)	1	50-2582		Gasket Kit 12" (300mm)	1	50-1123
5e	Bonnet O-Ring 18" (450mm)	1	50-2584		Gasket Kit 14" (350mm)	1	50-1124
6a	Seal Cap O-Ring 10" (250mm)	1	50-0761		Gasket Kit 16" (400mm)	1	50-1196
6b	Seal Cap O-Ring 12", 14" (300mm, 350mm)	1	50-2259		Gasket Kit 18" (450mm)	1	50-1197
6c	Seal Cap O-Ring 16", 18" (400mm, 450mm)	1	50-2623		<b>Disc Kit 10" (250mm)</b>		<b>50-1128</b>
7a	Packing Nut 10" (250mm)	1	50-2149		<b>Disc Kit 12" (300mm)</b>		<b>50-1129</b>
7b	Packing Nut 12" (300mm)	1	50-2218		<b>Disc Kit 14" (350mm)</b>		<b>50-1130</b>
7c	Packing Nut 14" (350mm)	1	50-2144		<b>Disc Kit 16" (400mm)</b>		<b>50-1200</b>
7d	Packing Nut 16", 18" (400mm, 450mm)	1	50-2518		<b>Disc Kit 18" (450mm)</b>		<b>50-1201</b>
8a	Bushing, Stem Guide 10" (250mm)	1	50-2179		<i>Above kits consist of:</i>		
8b	Bushing, Stem Guide 12" (300mm)	1	50-2274	5a	Bonnet O-Ring 10" (250mm)	1	50-2223
8c	Bushing, Stem Guide 14" (350mm)	1	50-2161	5b	Bonnet O-Ring 12" (300mm)	1	50-2260
8d	Bushing, Stem Guide 16", 18" (400mm, 450mm)	1	50-2534	5c	Bonnet O-Ring 14" (350mm)	1	50-2243
				5d	Bonnet O-Ring 16" (400mm)	1	50-2582
				5e	Bonnet O-Ring 18" (450mm)	1	50-2584
				13a	Ring, Teflon Main Seat 10" (250mm)	1	50-2234
				13b	Ring, Teflon Main Seat 12" (300mm)	1	50-2212
				13c	Ring, Teflon Main Seat 14" (350mm)	1	50-2249
				13d	Ring, Teflon Main Seat 16" (400mm)	1	50-2519
				13e	Ring, Teflon Main Seat 18" (450mm)	1	50-2537
				26	O-Ring, Upper Disc 10", 12", 14", 16", 18"	1	50-2259
	<b>Bonnet Assembly Kit 10" (250mm)</b>		<b>50-1125</b>		<b>Handwheel Kit 10" (250mm)</b>		<b>50-1131</b>
	<b>Bonnet Assembly Kit 12" (300mm)</b>		<b>50-1126</b>		<b>Handwheel Kit 12", 14" (300mm, 350mm)</b>		<b>50-1132</b>
	<b>Bonnet Assembly Kit 14" (350mm)</b>		<b>50-1127</b>		<b>Handwheel Kit 16", 18" (400mm, 450mm)</b>		<b>50-1193</b>
	<b>Bonnet Assembly Kit 16" (400mm)</b>		<b>50-1198</b>		<i>Above kits consist of:</i>		
	<b>Bonnet Assembly Kit 18" (450mm)</b>		<b>50-1199</b>	20a	Handwheel 10" (250mm)	1	50-2229
	<i>Above kits consist of:</i>						
9a	Bonnet 10" (250mm)	1	50-2180P	20b	Handwheel 12", 14" (300mm, 350mm)	1	50-2242
9b	Bonnet 12" (300mm)	1	50-2184P	20c	Handwheel 16", 18" (400mm, 450mm)	1	50-2651
9c	Bonnet 14" (350mm)	1	50-2142P	21a	Screw 10", 12", 14" (250mm to 350mm)	1	50-0763
9d	Bonnet 16" (400mm)	1	50-2539P	21b	Screw 16", 18" (400mm, 450mm)	1	50-2681
9e	Bonnet 18" (450mm)	1	50-2540P	22a	Nameplate 10", 12", 14" (250mm to 350mm)	1	50-0759
10a	Stem Assembly 10" (250mm)	1	50-2350	22b	Nameplate 16", 18" (400mm, 450mm)	1	50-2682
10b	Stem Assembly 12" (300mm)	1	50-2352	23a	Support Washer 10", 12", 14" (250mm to 350mm)	1	50-0764
10c	Stem Assembly 14" (350mm)	1	50-2354	23b	Support Washer 16", 18" (400mm, 450mm)	1	50-2680
10d	Stem Assembly 16" (400mm)	1	50-2624		<b>Seal Cap Kit 10" (250mm)</b>		<b>50-1133</b>
10e	Stem Assembly 18" (450mm)	1	50-2626		<b>Seal Cap Kit 12", 14" (300mm, 350mm)</b>		<b>50-1134</b>
11a	Bonnet Cap Screw 10" (250mm)	8	75-0604		<b>Seal Cap Kit 16", 18" (400mm, 450mm)</b>		<b>50-1194</b>
11b	Bonnet Cap Screw 12" (300mm)	12	75-0604		<i>Above kits consist of:</i>		
11c	Bonnet Cap Screw 14" (350mm)	16	50-2250	6a	Seal Cap O-Ring 10" (250mm)	1	50-0761
11d	Bonnet Cap Screw 16" (400mm)	20	50-2589	6b	Seal Cap O-Ring 12", 14" (300mm, 350mm)	1	50-2259
11e	Bonnet Cap Screw 18" (450mm)	24	50-2590	6c	Seal Cap O-Ring 16", 18" (400mm, 450mm)	1	50-2623
12a	Ring, Teflon Back Seat 10" (250mm)	1	50-2233	24a	Seal Cap 10" (250mm)	1	50-0754
12b	Ring, Teflon Back Seat 12" (300mm)	1	50-2213	24b	Seal Cap 12", 14" (300mm, 350mm)	1	50-2258
12c	Ring, Teflon Back Seat 14" (350mm)	1	50-2248	24c	Seal Cap 16", 18" (400mm, 450mm)	1	50-2527
12d	Ring, Teflon Back Seat 16", 18" (400mm, 450mm)	1	50-2516	25a	Body, Globe 10" BW (250mm)	1	50-2197
14a	Lower Disc Holder 10" (250mm)	1	50-2153	25b	Body, Globe 12" BW (300mm)	1	50-2199
14b	Lower Disc Holder 12" (300mm)	1	50-2211	25c	Body, Globe 14" BW (350mm)	1	50-2195
14c	Lower Disc Holder 14" (350mm)	1	50-2145	25d	Body, Angle 10" BW (250mm)	1	50-2177
14d	Lower Disc Holder 16" (400mm)	1	50-2536	25e	Body, Angle 12" BW (300mm)	1	50-2186
14e	Lower Disc Holder 18" (450mm)	1	50-2533	25f	Body, Angle 14" BW (350mm)	1	50-2148
15a	Upper Disc Holder 10" (250mm)	1	50-2154	25g	Body, Angle 16" BW (400mm)	1	50-2542
15b	Upper Disc Holder 12" (300mm)	1	50-2210	25h	Body, Angle 18" BW (450mm)	1	50-2541
15c	Upper Disc Holder 14" (350mm)	1	50-2146				

## SECTION 5 SERVICE, TROUBLESHOOTING, & PARTS

MECHANICAL	
20-1018	Kit, Float Switch HLLSW, Long Leads for Purger
20-1772	Water Bubbler Assembly, antisiphon (w/end connections)
20-1186	Metering Valve
20-1198	Kit, Metering Valve Seal
20-1648	Metering Valve Strainer
20-1737	Kit, Screen Assembly Replacement for above strainer, includes: 20-1535 – Screen Assembly 78-0016 – Strainer Cap Gasket
ST050	Water Purge Line Strainer
78-1001	Kit, Screen Assembly Replacement for above strainer, includes: 78-0005 – Screen Assembly 78-0016 – Strainer Cap Gasket
70-1059	Plunger Kit for all APP Solenoid Valves
20-1183	Check Valve, 1 psid (.07 bar) with orifice
20-2489	Check Valve, 1 psid (.07 bar) no orifice
20-1185	Check Valve, 225 psid (15.5 bar)
20-1214	Kit, Check Valve Seal for 1 psid and 225 psid Check Valves
20-1311	Liquid Drainer
20-2432	Vapor Trap
H5600R/300	Relief Valve, 300 psi
HS2/3	HS2 Solenoid Valve (less coil), ½" FPT (solenoid B, F)
HS2/1	HS2 Solenoid Valve (less coil), ¼" FPT (solenoid C)
HS2B/1	HS2 (Brass) Water Solenoid Valve (less coil), ¼" FPT (solenoid D)
HS2F/1	HS2 Solenoid Valve (less coil), Flanged (solenoid G)
HS8A/1	HS8 Solenoid Valve (less coil), Flanged (solenoid E)
70-1101	Kit, Amber Beacon Light, (solenoid C, D)
70-1102	Kit, Green Beacon Light, (solenoid B, E, F, G)

ELECTRICAL	
70-1088	Solenoid Coil, DIN plug – 115V, 50/60 Hz, 16 Watt
20-2428	Electric Heater, 115V, 50/60 Hz, 750 Watt
20-2477	Electric Heater, 230V, 50/60 Hz, 750 Watt
20-2620	Kit, Fuse, 2 amp, 115V purger
20-2621	Kit, Fuse, 15 amp, 115V purger
20-2622	Kit, Fuse, 3 amp, 230 V purger
20-2623	Kit, Fuse, 8 amp, 230 V purger
20-2626*	Kit, PLC Module, Thermocouple Input, Enhanced, EZ10-4THIE(20-2405)
20-2627	Kit, PLC Module, Current Input, EZ10-8ANICO (20-2406)
20-2628	Kit, PLC Module, AC Output, EZ10-8ACO (20-2407)
20-2629	Kit, PLC Module, AC Input/Output, EZ10-4 ACI 4ACO (20-2408)
20-2631	Kit, PLC Module, AC Input, APP24-2, APPT24-2, EZ10-8ACI (20-2404)
20-2410	Heater Contactor
20-2411	Cable, PLC to Control Console
PSU	100-240VAC:24VDC Power Supply
HPT717	Water Concentration Sensor
SPSN-1	Liquid Make-up Level Sensor, Low Liquid Level Sensor
20-2429	Thermocouple, Plate Temperature
20-2430	Thermocouple, Liquid Temperature
20-2431	Thermocouple, Evaporator Shell Temperature
PT1	Pressure Transducer
20-2464	Transformer 220V/115V

CONTROLLERS			
	V	PLC	APPT Color Touchscreen
APPT08	115	20-2624	20-2580
	230	20-2640	20-2581
APPT16	115	20-2632	20-2582
	230	20-2641	20-2583
APPT24	115	20-2638	20-2584
	230	20-2642	20-2585
APPTC	115	20-2625	20-2578
	230	20-2639	20-2579

\*Serial Number CC185 (2008) or earlier, APPT PLC program must be updated to work with current module

## Parts List

Electrical				
Part Number	Description	Standard (US)	European	
20-1202	LED Light—Red	✓	✓	✓
20-1203	LED Light—Yellow	✓	✓	✓
20-1204	LED Light—Green	✓	✓	✓
70-1064	Solenoid Coil, Junction Box—115V, 50/60 Hz, 16 Watt	✓		
70-1063	Solenoid Coil, Junction Box—230V, 50/60 Hz, 16 Watt	✓		
70-1055	Solenoid Coil, Din Plug—115V, 50/60 Hz, 16 Watt			✓
70-1054	Solenoid Coil, Din Plug—230V, 50/60 Hz, 16 Watt			✓
20-2226	7-Day Time Clock (115 Volt, 50/60Hz)	✓	✓	✓
20-2227	7-Day Time Clock (230 Volt, 50/60Hz)	✓	✓	✓
20-1773	Purger Control Board Less Plug-in Connector, 115 Volt or 230 Volt Replaces 20-1130 & 20-1536	✓	✓	✓
20-1499	Purger Control Board with Plug-In Connectors (Replaces Older Boards with Screw Terminals)	✓	✓	✓
20-1131	8-Point Timer Board, Less Plug-In Connectors	✓	✓	✓
20-1500	8-Point Timer Board with Plug-In Connectors (Replaces Older Boards with Screw Terminal)	✓	✓	✓
20-1205	Transformer, 115V/24VAC	✓	✓	✓
20-1602	Transformer, 230V/24VAC	✓	✓	✓
20-1307	Thermostat	✓	✓	✓
20-1498	Time-Delay Relay, 1 Hour Fixed, Off Switch (115 Volt)	✓	✓	✓
20-1528	Time-Delay Relay, 1 Hour Fixed, Off Switch (230 Volt)	✓	✓	✓
20-1280	4-Digit Counter with Reset, 115 Volt	✓	✓	✓
20-1473	6-Digit Counter with Reset, 230 Volt	✓	✓	✓
HS2B(10)	HS2 (Brass) Water Solenoid Valve Only (Less Coil), 1/4" FPT (#6)	✓	✓	✓
HS2(10)	HS2 Solenoid Valve Only (Less Coil), 1/4" FPT (#2 and #3)	✓		
70-0208	HS2 Flanged Solenoid Valve Only (Less Coil), (#2 and #3)			✓
HS2(30)	HS2 Liquid Line Solenoid Valve Only (Less Coil), 1/2" FPT (#1)	✓		
70-0208	HS2 Flanged Liquid Line Solenoid Valve Only (Less Coil), (#1)			✓
HS2N(10)	HS2 Purge Gas Solenoid Only (Less Coil) with Neoprene Seat 1/4" FPT (#5)	✓		
70-0208	HS2 Flanged Purge Gas Solenoid Only (Less Coil), (#5)			✓
HS8(10)	HS8 Foul Gas Solenoid Valve Only (Less Coil) (#4)	✓	✓	✓
20-1182	Asco Solenoid #8262C80N, 1/4" Connection 115 Volt (Older model, indicated by a green coil housing)	✓	✓	✓
20-1538	Repair Kit for Asco Solenoid, Asco Part #302-020 (Older model, indicated by a green coil housing)	✓	✓	✓
20-1349	Cable, Timer to Timer Board	✓	✓	✓
20-1197	Cable, Purger Board to Timer Board	✓	✓	✓
20-1195	Cable, Purger Board	✓	✓	✓
20-1279	Fuse, 2 amp, 115V Purger	✓		
20-1281	Fuse, 5 amp, 115V Purger	✓		
20-1694	Fuse, 1 amp, 230V Purger	✓		
20-1695	Fuse, 3 amp, 230V Purger	✓		
20-1697	Fuse, 2 amp, 115V Purger			✓
20-1699	Fuse, 5 amp, 115V Purger			✓
20-1696	Fuse, 1 amp, 230V Purger			✓
20-1698	Fuse, 3 amp, 230V Purger			✓

Replacement control cabinets are available for both standard (US) and European purgers. Contact the factory for selection.

## PARTS LIST FOR APM (AMMONIA)

ELECTRICAL	
Control Board	20-1836
Shield for above	20-2271
Ground Wire for above	20-2270
Power Board	20-1845
3A (amp) fuse (5mm x 20mm) Type F for Power Board	20-1698
Cable, Control Board	20-1837
Pressure Transducer	20-1857
Temperature Sensor	20-2303
High Side Level Sensor	77-0796
Drainer & Low Side Level Sensor	77-0535
Solenoid Coil Kit, 230V for DIN plug	70-1093
Solenoid Coil Kit, 115V for DIN plug	70-1092
MECHANICAL	
Solenoid Tube/Plunger Kit	70-1059
Water Solenoid Valve (D), Less Coil	HS2B/1
APM Bubbler	20-1959
Strainer/Orifice Screen Assembly Kit includes Strainer/Orifice Screen Assembly and necessary O-Rings	20-2177
Water Flow Controller	20-1985
Removable Seat/Orifice Kits	
For Solenoid Valve (B) or (C)	70-1068
For Solenoid Valve (A)	70-1069
80 psid Check Valve	20-2379
Foul Gas/Liquid Line Strainer Kits include Strainer Basket and O-Ring	78-1010

## ORDERING INFORMATION, PURGER

Cat. No.	Description
APM	Auto-Purger M, 4 points, for ammonia systems
APMF	Auto-Purger M, 4 points, for halocarbon systems

To Order: Specify catalog number, refrigerant and voltage. Standard voltage is 115V 50/60Hz; 230V 50/60Hz, is available. CSA and CE mark available.

## PARTS LIST FOR APMF (HALOCARBON)

ELECTRICAL	
Control board	20-1836
Shield for above	20-2271
Ground Wire for above	20-2270
Power board	20-1845
3 amp fuse (5mm x 20mm) Fast-Acting for Power board	20-1698
Cable, control board	20-1837
Pressure transducer	20-1857
Temperature sensor	20-2303
High side level sensor	77-0796
Drainer and low side level sensor	77-0794
Solenoid coil kit, 230V with DIN plug	70-1093
Solenoid coil kit, 115V with DIN plug	70-1092
MECHANICAL	
Solenoid tube/plunger kit	70-1059
APMF bubbler	20-2282
Strainer/orifice screen assembly kit includes strainer/orifice screen assembly and necessary o-rings	20-2285
Removable seat/orifice kits	
For solenoid valve (C)	70-1068
For solenoid valve (A) or (B)	70-1069
80 psid check valve	20-1949
Foul gas/liquid line strainer kit Includes strainer basket and o-ring	78-1010

## ORDERING INFORMATION, OPTIONAL VALVE PACKAGE

Cat. No.	Description
VPM	Valve Package for ammonia systems
VPMF	Valve Package for halocarbon systems

To Order: Specify catalog number and refrigerant. The VPM optional isolation valve package consists of three flanged welded assemblies which include the necessary shut-off valves and gauge valves for the foul gas line, suction line, and liquid line. The VPMF for halocarbons also includes filter dryers and moisture indication sight glasses.