

**HANSEN TECHNOLOGIES
CORPORATION**



**AW301H 3" (80 mm)
Butt Weld Angle Valve**

INTRODUCTION

These low pressure drop refrigerant shut-off valves are designed to be butt-welded directly to steel piping, thereby eliminating potential leaky flanges or threaded joints and simplifying installation. Cast steel bodies are lightweight, yet have substantial wall thickness to overcome corrosion potential. The cast steel body is rigid, reducing the potential for seat leakage due to flexing of the valve body under abnormal conditions. The "heart" of Hansen shut-off valves is the noleak seal-plus-stem packing design. This seal design is used exclusively on Hansen shut-off valves and virtually eliminates stem seal leakage.

The 4" (100 mm) globe valve (GW402) is a compact design with low pressure drop. With a total weight of 50 lbs (23 Kg), it is 1/3 lighter than the older GW401. It is also shorter, narrower, and has a greater flow than the GW401. The GW401 is no longer available.

APPLICATIONS

Typical uses include:

Ammonia refrigeration system suction, liquid, discharge, recirculating liquid, hot gas, thermosyphon, and oil lines, using handwheel or seal cap models.

The low friction, noleak-stem-seal design permits the use of chain actuating for crossover applications without the need to retighten the packing.

Steel pipe portions of halocarbon, commercial, industrial, and air conditioning systems, using seal cap models.

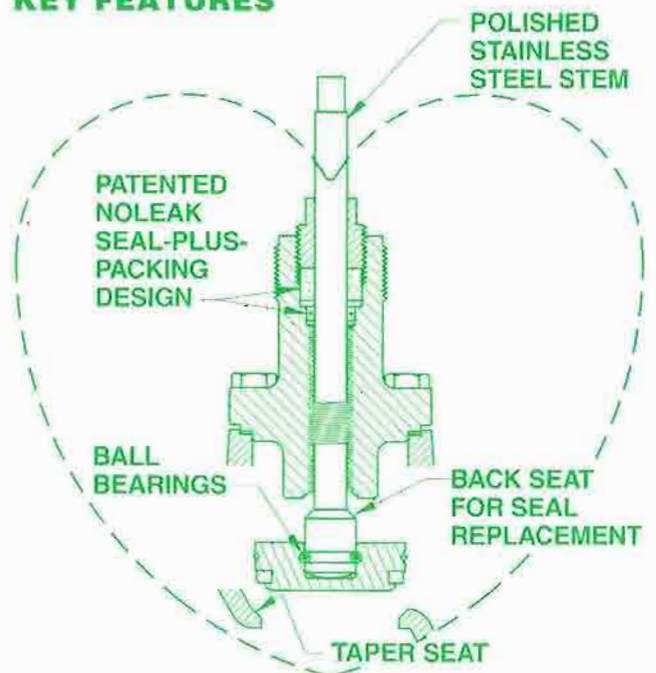
**Specifications, Applications,
Service Instructions & Parts**

**BUTT WELD
SHUT-OFF VALVES**

**2" through 4"
(50 mm through 100 mm)
Globe & Angle
for refrigerants**

ISO 9002

KEY FEATURES



ADDITIONAL FEATURES

Globe and angle valves available.

Interchangeable handwheel or seal cap.

Machined to match Schedule 40 pipe.

Teflon seat disc.

Chain actuators available.

Made in the USA.

Suitable for ammonia, R22, R134a, and other compatible refrigerants.

MATERIAL SPECIFICATIONS

Body: Cast steel, ASTM A-352, Grade LCB

Bonnet: Ductile iron, ASTM A-536

Stem: Polished stainless steel

Disc Holder: Plated steel

Seat Disc: Retained PTFE Teflon

Ball Bearings: Stainless steel

Packing Nut: Zinc plated steel

Stem Packing: Graphite composite plus neoprene O-ring in series

Handwheel: Zinc plated iron alloy

Seal Cap: Zinc plated steel

Temperature Range:

-60°F to 240°F (-50°C to 115°C), temperatures below -60°F (-50°C) at lower pressures

Safe Working Pressure: 400 psig (27 bar)

Connection Dimensions: Match standard

Schedule 40 pipe

ADVANTAGES

Compared to conventional stem seal designs, Hansen's exclusive noleak seal-plus-stem-packing virtually eliminates stem seal leakage. In addition, the stem is polished to avoid packing wear, the precision stem threads avoid stem wobble and the packing nut is close fitting to remove dirt particles and frost from the stem. This results in infrequent maintenance or tightening and almost no refrigerant loss.

Compared to threaded valves, Hansen welding valves eliminate the chance of future leaks at pipe threads. In addition, a butt weld pipe-to-valve body joint eliminates the inherent weakness and corrosion vulnerability of the threaded portion of pipe immediately adjacent to a screwed valve body or flange.

Compared to flanged valves, Hansen welding valves eliminate the gasket joint leakage potential at the flange joint. This gasket can leak due to pipe and bolt-nut movement as the result of temperature and pressure fluctuations. The pressure drop of Hansen valves is lower than conventional flanged cast valve bodies. In addition, nearly all other refrigeration flanged valves are made of cast iron or "semi-steel." The cast steel bodies of Hansen valves have much greater tensile strength, ductility, and impact resistance than cast iron or "semi-steel."

Compared to pressed-sheet-steel welding valves, Hansen valves have thicker walls for greater rigidity and corrosion resistance.

Compared to ball valves, Hansen welding valves have no threaded or flanged-gasket pipe joints. Hansen valves also will not open or close so rapidly as to cause severe pipe shock due to sudden change in liquid velocity. In addition, ball valve stem packing typically cannot be replaced while the valve is in a pressurized line. The stem packing on these Hansen valves can be replaced while the valve is in a pressurized line. Also, dirt or damage to ball valve Teflon seats cannot be overcome by greater stem closing forces, which is not true of these Hansen valves.

INSTALLATION

All Hansen weld valves can be installed in horizontal or vertical pipe lines. Stems are normally installed horizontally, but, depending on the application, stems may be installed vertically. Inlet pressure or direction of flow for all valve sizes should normally be under valve seat disc. However, to avoid installing an angle valve with the stem down, it is better to install the valve with the normal flow opposite the direction of the arrow.

A valve should have its bonnet, stem, and seat disc assembly removed before welding. This reduces weight during welding, protects the Teflon seat disc from welding sparks, and facilitates cleaning of welding debris from the body interior prior to valve operation. The valve stem should be several turns open when removing and replacing the bonnet assembly. The Teflon seat disc should be protected when outside of the valve. Do not allow the Teflon seat to bump the valve body when removing it or stand the bonnet on the seat disc. Where it is necessary or standard practice to weld a valve into the line without bonnet removal, the stem should be opened several turns to prevent heat damage to the seat disc. Extra care should be taken when welding angle valves without disassembly to avoid welding sparks striking the seat from the outlet weld connection.

Use of welding rings is recommended. They help alignment, control the gap for full penetration welding, and reduce the potential of welding debris entering the system. Welds should be annealed as necessary in accordance with good practice. Painting of valves and welds is recommended for corrosion protection. Pipe covering, where applied, should have a proper moisture barrier.

Before putting valves into service, all pipe weld connections, valve seats, bonnet seals, and stem seals should be tested for leaks at pressure levels called for in appropriate codes.

Shut-off valves leading to the atmosphere must not be left unsupervised and must be plugged or capped to prevent corrosion inside the valve as well as leakage due to seat expansion, vibration, pressure shock, or improper opening. The valve seat should be cracked open to prevent hydrostatic expansion between the valve and the cap. Valves should never directly feed a water tank because of potential internal corrosion or seat opening caused by vibration.

INSULATION

Conventional valve-shaped block insulation can occasionally be used for both angle and globe valves. However, fabricated insulation shapes are recommended. If not available locally, Hansen can recommend a source of high quality, economical valve insulation. See page 5 of this bulletin for exterior valve dimensions.

FLOW CAPACITIES

PIPING AND VALVE SIZING GUIDE FOR AMMONIA

SERVICE	CONDITIONS				CAPACITIES							
	TEMPERATURE		PRESSURE		2" (50 MM)		2½" (65 MM)		3" (80 MM)		4" (100 MM)	
	°F	°C	PSIG	BAR	TONS	kW	TONS	kW	TONS	kW	TONS	kW
Suction Lines Single Stage Compressor	+20	-7	33.5	2.3	35.7	126	51.1	180	81.5	287	146	513
	0	-18	15.7	1.1	22.7	80	34.0	120	53.9	190	94.6	333
Suction Lines Booster	-20	-29	3.6	0.3	16.8	59	24.8	87	39.7	140	68.9	242
	-40	-40	8.7	0.6	9.9	35	14.4	51	23.4	82	40.8	144
Liquid Overfeed Return Lines (4X)	+20	-7	33.5	2.3	20.6	72	29.4	103	47.0	165	84.3	296
	0	-18	15.7	1.1	13.6	48	20.5	72	32.4	114	56.8	200
	-20	-29	3.6	0.3	8.9	31	13.1	46	21.0	74	36.4	128
	-40	-40	8.7	0.6	5.4	19	7.9	28	12.8	45	22.4	79
Hot Gas Feed Hot Gas Main	+70	+21	114.1	7.9	36.5	128	53	186	82.5	290	145	510
	+70	+21	114.1	7.9	73.0	257	106	373	165	580	290	1020
Compressor Discharge	+86	+30	154.5	10.7	62.6	220	90.3	318	142	499	249	876
Condenser Drains	+86	+30	—	—	140	492	220	774	375	1319	740	2603
Liquid Mains	+86	+30	—	—	454	1597	657	2311	1031	3626	1808	6359
Liquid Feed Branch	+86	+30	—	—	881	3098	1273	4477	1999	7030	3506	12330
Liquid Overfeed Supply (4X)	+10	-13	—	—	144	506	208	732	327	1150	573	2015

SIZING GUIDE

These capacity recommendations are not affected by the length of the pipe line. These are approximate optimum sizes based on power costs versus the investment costs of piping and its total installed cost. Piping sized to this capacity will have a 1°F (0.6°C) pressure drop for the following equivalent lengths:

- suction lines 700 diameters
- discharge lines 1400 diameters
- liquid lines 2400 diameters

Example: 275 feet (84 m) of 3" (80 mm) pipe and equivalent fittings amount to 1100 diameters, pressure drop for a suction line handling 81.5 tons (287 kW) at 20°F (-7°C) is 1100/700 times 1°F (0.6°C) drop, equals 1.6°F (1°C) or 1.8 psi (0.12 bar).

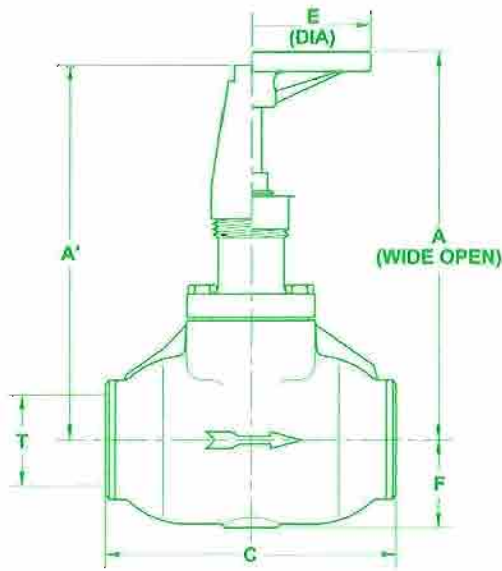
Example: Hansen valves have about 145 diameters of equivalent flow resistance, or 145/700 = 0.2°F (0.12°C) of equivalent pressure drop at the suction line capacities shown for a valve in a suction line.

The rationale for the vapor line sizing was developed by William V. Richards in two papers: "Refrigerant Vapor Line Sizing Not Dependent of Length," 16th International Congress of Refrigeration, IIR, Paris, 1983; and "Practical Pipe Sizing for Refrigerant Vapor Lines," Sixth Annual Meetings, IIR, San Francisco, 1984.

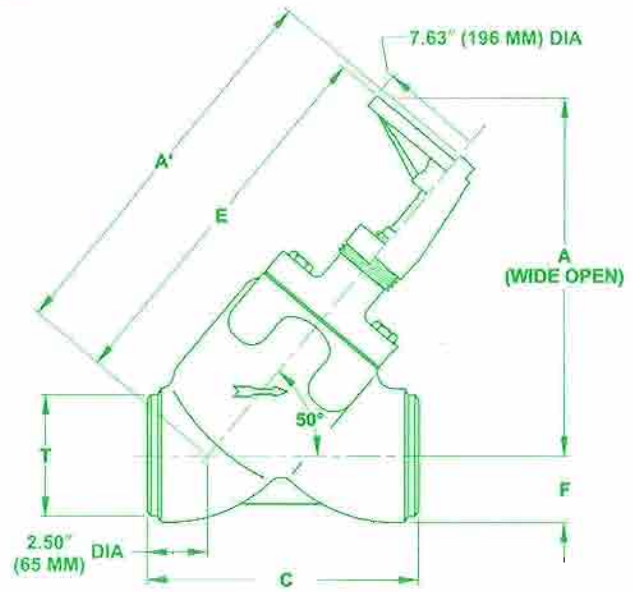
FLOW COEFFICIENTS

SIZE		ANGLE				GLOBE			
		Cv	Kv	EQUIVALENT LENGTH, FEET	EQUIVALENT LENGTH, METERS	Cv	Kv	EQUIVALENT LENGTH, FEET	EQUIVALENT LENGTH, METERS
2"	(50 MM)	80	69	28	8.5	67	58	40	12.2
2½"	(65 MM)	176	152	14	4.3	163	141	16	4.9
3"	(80 MM)	205	177	31	9.5	195	169	34	10.4
4"	(100 MM)	320	277	51	15.6	290	251	62	18.9

GLOBE INSTALLATION DIMENSIONS



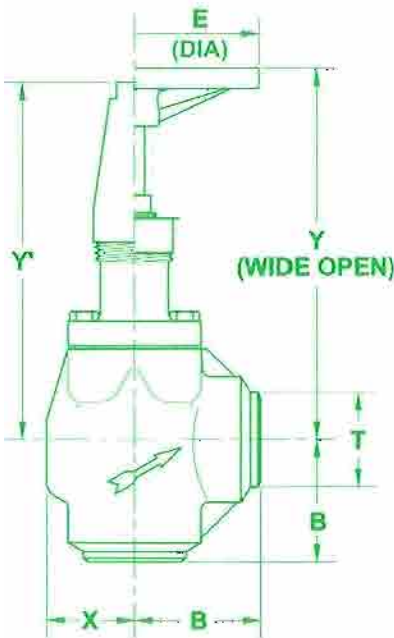
2", 2½", AND 3"
(50 MM, 65 MM, AND 80 MM)



4" (100 MM)
(GW402H AND GW402C)

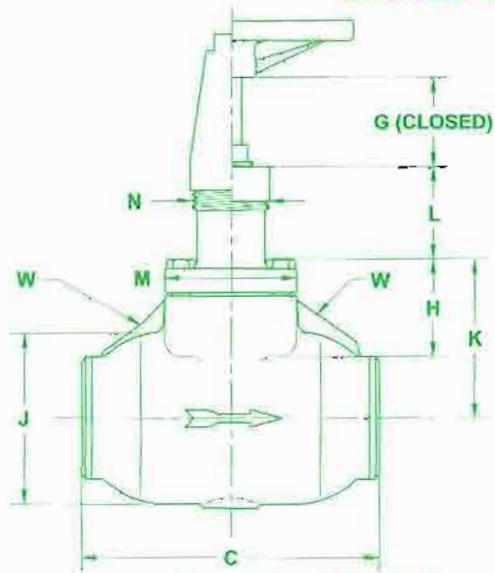
SIZE	A	A'	C	E	F	T
2" (50 mm)	8.88" (225 mm)	9.13" (232 mm)	7.25" (184 mm)	4.25" (108 mm)	2.13" (54 mm)	2.38" (60 mm)
2½" (65 mm)	12.13" (308 mm)	11.75" (298 mm)	9.25" (235 mm)	7.63" (194 mm)	2.75" (70 mm)	2.88" (73 mm)
3" (80 mm)	12.13" (308 mm)	11.75" (298 mm)	9.25" (235 mm)	7.63" (194 mm)	2.75" (70 mm)	3.50" (89 mm)
4" (100 mm)	13.75" (349 mm)	14.25" (362 mm)	10.00" (254 mm)	14.00" (356 mm)	2.50" (64 mm)	4.50" (114 mm)

ANGLE INSTALLATION DIMENSIONS

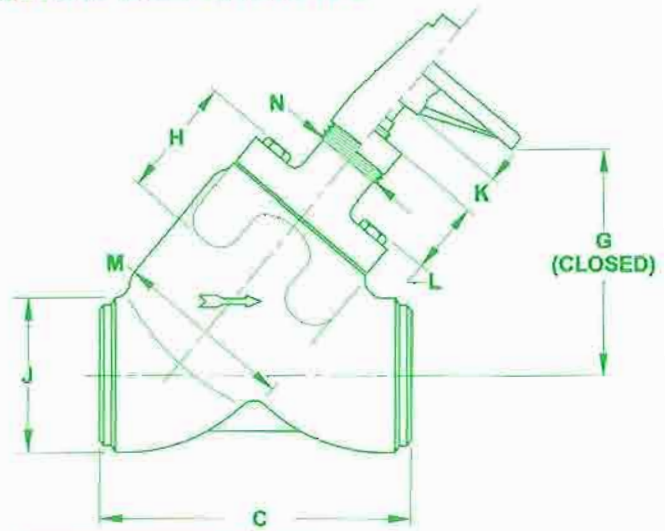


SIZE	B	E	T	X	Y	Y'
2" (50 mm)	3.38" (86 mm)	4.25" (108 mm)	2.38" (60 mm)	1.88" (48 mm)	7.75" (197 mm)	8.00" (203 mm)
2½" (65 mm)	3.38" (86 mm)	7.63" (194 mm)	2.88" (73 mm)	2.38" (60 mm)	11.00" (280 mm)	10.63" (270 mm)
3" (80 mm)	3.38" (86 mm)	7.63" (194 mm)	3.50" (89 mm)	2.38" (60 mm)	11.00" (280 mm)	10.63" (270 mm)
4" (100 mm)	3.88" (98 mm)	7.63" (194 mm)	4.50" (114 mm)	3.00" (76 mm)	11.00" (280 mm)	10.63" (270 mm)

GLOBE INSULATION DIMENSIONS



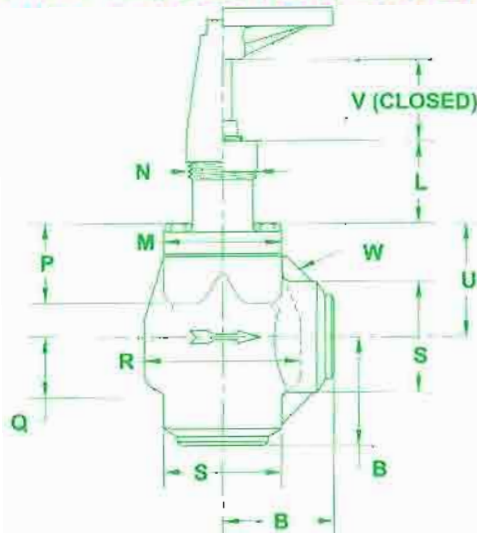
2", 2½", AND 3"
(50 MM, 65, MM, AND 80 MM)



MAXIMUM WIDTH OF VALVE= 6.00" (152 MM)
4" (100 MM)
(GW402H AND GW402C)

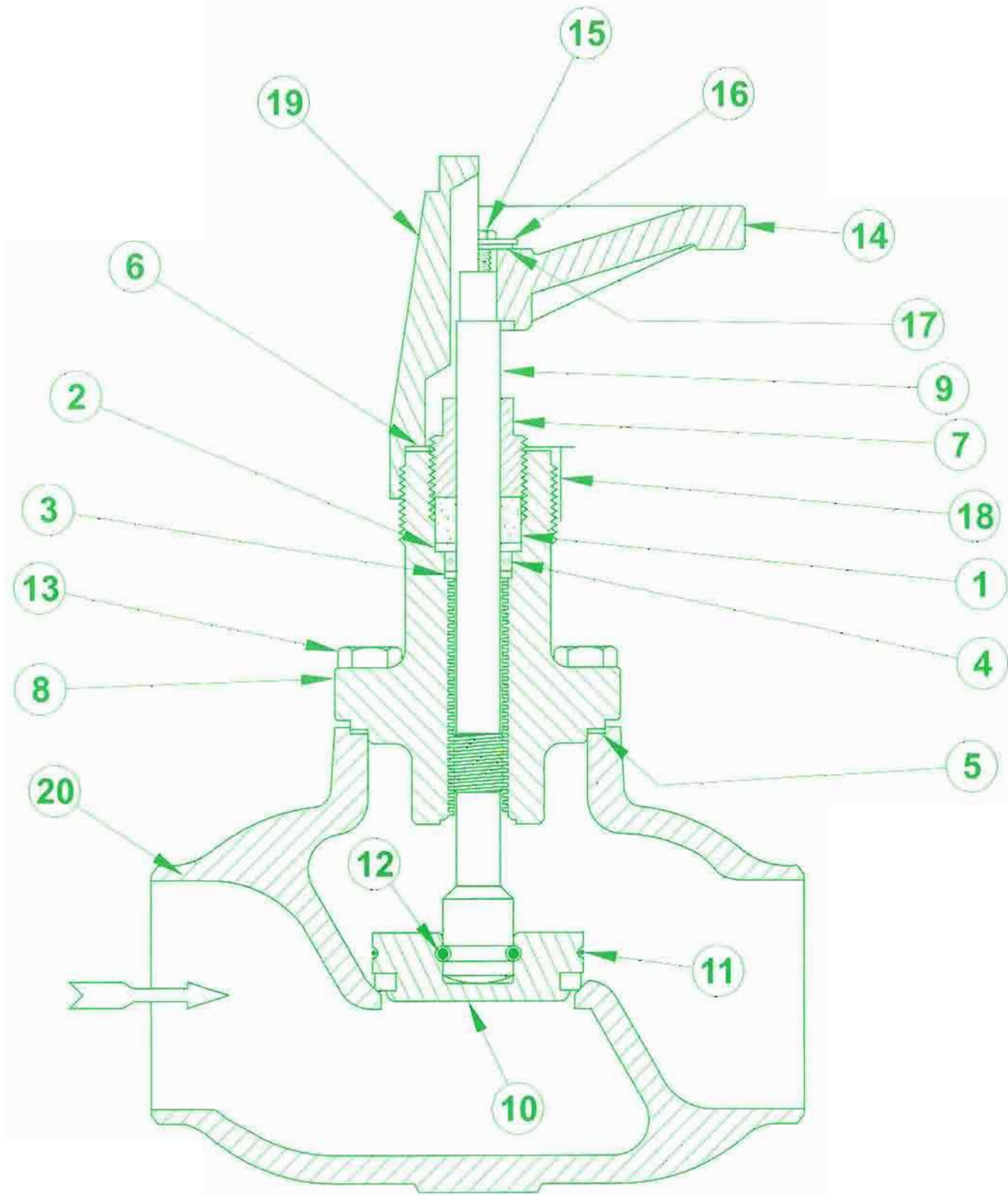
SIZE	C	G	H	J	K	L	M	N	W
2" (50 mm)	7.25" (184 mm)	1.38" (35 mm)	3.00" (76 mm)	4.00" (102 mm)	4.38" (111 mm)	1.63" (41 mm)	3.50" (89 mm)	1.25" (38 mm)	1.00" (25 mm)
2½" (65 mm)	9.25" (235 mm)	1.88" (48 mm)	3.00" (76 mm)	5.38" (137 mm)	5.00" (127 mm)	2.75" (70 mm)	4.00" (102 mm)	2.25" (57 mm)	1.75" (45 mm)
3" (80 mm)	9.25" (235 mm)	1.88" (48 mm)	3.00" (76 mm)	5.38" (137 mm)	5.00" (127 mm)	2.75" (70 mm)	4.00" (102 mm)	2.25" (57 mm)	1.75" (45 mm)
4" (100 mm)	10.00" (254 mm)	7.50" (191 mm)	4.00" (102 mm)	5.00" (127 mm)	1.25" (32 mm)	2.25" (57 mm)	5.75" SQ. (146 mm)	2.25" (57 mm)	—

ANGLE INSULATION DIMENSIONS



SIZE	B	L	M	N	P	Q	R	S	U	V	W
2" (50 mm)	3.38" (86 mm)	1.63" (41 mm)	3.50" (89 mm)	1.25" (38 mm)	—	1.50" (38 mm)	3.75" (95 mm)	3.00" (76 mm)	3.13" (79 mm)	1.25" (32 mm)	1.00" (25 mm)
2½" (65 mm)	3.38" (86 mm)	2.75" (70 mm)	4.00" (102 mm)	2.25" (57 mm)	2.88" (73 mm)	2.00" (51 mm)	4.75" (121 mm)	3.75" (95 mm)	4.00" (102 mm)	1.13" (29 mm)	1.75" (45 mm)
3" (80 mm)	3.38" (86 mm)	2.75" (70 mm)	4.00" (102 mm)	2.25" (57 mm)	2.88" (73 mm)	2.00" (51 mm)	4.75" (121 mm)	3.75" (95 mm)	4.00" (102 mm)	1.13" (29 mm)	1.75" (45 mm)
4" (100 mm)	3.88" (98 mm)	2.25" (57 mm)	5.50" (140 mm)	2.25" (57 mm)	3.00" (76 mm)	2.63" (67 mm)	6.00" (152 mm)	4.75" (121 mm)	4.25" (108 mm)	1.13" (29 mm)	—

**2" THROUGH 4" (50 MM THROUGH 100 MM)
BUTT WELD VALVE**



PARTS LIST FOR SERVICE REPLACEMENTS, GLOBE OR ANGLE

ITEM	DESCRIPTION	QTY.	PART NO.	ITEM	DESCRIPTION	QTY.	PART NO.
	Gasket Kit 2" (50 mm)		50-1023		Disc Assembly Kit 2" (50 mm)		50-1025
	Gasket Kit 2½", 3" (65 mm, 80 mm)		50-1043		Disc Assembly Kit 2½", 3" (65 mm, 80 mm)		50-1045
	Gasket Kit 4" (100 mm)		50-1065		Disc Assembly Kit 4" (100 mm)		50-1067
	Above kits consist of:				Above kits consist of:		
1a	Stem Packing 2"	1	50-0248	10a	Disc Assembly 2" (50 mm)	1	50-0363
1b	Stem Packing 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0290	10b	Disc Assembly 2½", 3" (65 mm, 80 mm)	1	50-0374
2a	Stem Washer 2" (50 mm)	1	50-0247	10c	Disc Assembly 4" (100 mm)	1	50-0524
2b	Stem Washer 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0299	11a	Ball Retainer 2" (50 mm)	1	50-0257
3a	Back-Up Washer 2" (50 mm)	1	50-0351	11b	Ball Retainer 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0297
3b	Back-Up Washer 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0324	12a	Balls 2" (50 mm)	16	50-0016
4a	Stem O-Ring 2" (50 mm)	1	50-0253	12b	Balls 2½", 3", 4" (65, 80, 100 mm)	15	50-0305
4b	Stem O-Ring 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0293	5a	Bonnet Gasket 2" (50 mm)	1	50-0259
5a	Bonnet Gasket 2" (50 mm)	1	50-0259	5b	Bonnet Gasket 2½", 3" (65 mm, 80 mm)	1	50-0310
5b	Bonnet Gasket 2½", 3" (65 mm, 80 mm)	1	50-0310	5c	Bonnet Gasket 4" (100 mm)	1	50-0537
5c	Bonnet Gasket 4" (100 mm)	1	50-0537		Handwheel Kit 2" (50 mm)		50-1026
6a	Seal Cap Gasket 2" (50 mm)	1	50-0270		Handwheel Kit 2½", 3", 4" (65 mm, 80 mm, 100 mm)		50-1037
6b	Seal Cap Gasket 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0315		Above kits consist of:		
7a	Packing Nut 2" (50 mm)	1	50-0251	14a	Handwheel 2" (50 mm)	1	50-0321
7b	Packing Nut 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0292	14b	Handwheel 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0319
	Bonnet Ass'y Kit 2" (50 mm)		50-1024	15a	Screw 2" (50 mm)	1	50-0254
	Bonnet Ass'y Kit 2½", 3" (65 mm, 80 mm)		50-1044	15b	Screw 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0295
	Bonnet Ass'y Kit 4" (100 mm)		50-1066	16a	Nameplate 2" (50 mm)	1	50-0094
	Above kits consist of:			16b	Nameplate 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0318
8a	Bonnet 2" (50 mm)	1	50-0239	17	Support Washer 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0480
8b	Bonnet 2½", 3" (65 mm, 80 mm)	1	50-0286	18	Bonnet Thread Cap 2" (50 mm)	1	50-0263
8c	Bonnet 4" (100 mm)	1	50-0515		Seal Cap Kit 2" (50 mm)		50-1027
9a	Stem 2" (50 mm)	1	50-0242		Seal Cap Kit 2½", 3", 4" (65 mm, 80 mm, 100 mm)		50-1038
9b	Stem 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0287		Above kits consist of:		
10a	Disc Assembly 2" (50 mm)	1	50-0363	19a	Seal Cap 2" (50 mm)	1	50-0260
10b	Disc Assembly 2½", 3" (65 mm, 80 mm)	1	50-0374	19b	Seal Cap 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0304
10c	Disc Assembly 4" (100 mm)	1	50-0524	6a	Seal Cap Gasket 2" (50 mm)	1	50-0270
11a	Ball Retainer 2" (50 mm)	1	50-0257	6b	Seal Cap Gasket 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0315
11b	Ball Retainer 2½", 3", 4" (65 mm, 80 mm, 100 mm)	1	50-0297				
12a	Balls 2" (50 mm)	16	50-0016	20a	Body, Globe, 2" (50 mm) BW	1	50-0391
12b	Balls 2½", 3", 4" (65 mm, 80 mm, 100 mm)	15	50-0305	20b	Body, Globe, 2½" (65 mm) BW	1	50-0454
13a	Bonnet Bolts 2" (50 mm)	4	50-0473	20c	Body, Globe, 3" (80 mm) BW	1	50-0455
13b	Bonnet Bolts 2½", 3" (65 mm, 80 mm)	4	50-0294	20d	Body, Globe, 4" (100 mm) BW (GW402)	1	50-0672
13c	Bonnet Bolts 4" (100 mm)	4	50-0521	20e	Body, Angle, 2" (50 mm) BW	1	50-0354
	Gasket Kit 2" (50 mm)	1	50-1023	20f	Body, Angle, 2½" (65 mm) BW	1	50-0285
	Gasket Kit 2½", 3" (65, 80 mm)	1	50-1043	20g	Body, Angle, 3" (80 mm) BW	1	50-0289
	Gasket Kit 4" (100 mm)	1	50-1065	20h	Body, Angle, 4" (100 mm) BW	1	50-0516

SERVICE AND MAINTENANCE

Hansen steel butt welding shut-off valves require practically no service or maintenance due to the combination of polished stainless steel stems and reliable O-ring stem seals plus graphite composite packing. This almost entirely eliminates stem leakage, the common ailment of shut-off valves.

To help ensure safety, verify the tightness of the packing nut whenever the position (open or closed) is changed on isolation shut-off valves before opening the system. Ensuring that the packing nut is tight helps reduce the possibility that any line or system vibration may cause a slight unseating of a closed valve.

STEM PACKING

When verifying the tightness of the packing nut, use an adjustable wrench. Extrusion of some black graphite packing material along the stem is normal. If the O-ring or the adjustable packing ever needs replacement as evidenced by refrigerant or oil leakage at the stem, open the valve stem firmly to the back-seat position. This separates the O-ring and packing from the system refrigerant. See the CAUTION section. Remove the packing nut carefully and then use a wire hook or a small blade screwdriver to remove the packing and O-ring. Take care not to scratch the stem or bonnet sealing surfaces. Carefully install a backup washer, new lubricated stem O-ring, stem washer, and stem packing. Tighten the packing nut only enough to give the handwheel slight turning friction.

VALVE SEAT

To inspect or replace the valve seat disc, isolate the valve from the system and safely pump out all refrigerant to zero pressure. With the stem open at least one turn, evenly loosen all bolts one to two turns. Using a screwdriver, break the seal between the bonnet and valve body, proceeding cautiously to avoid any refrigerant which may still remain inside the valve body. Remove the bonnet bolts and bonnet assembly, being careful not to damaged the Teflon seat disc surface.

If the conical seat surface in the body is marred, remove the marks with emery paper. If the Teflon seat disc is damaged, replace the entire disc assembly by first removing the ball retainer ring or screw and ball bearings. Install a new disc assembly. Alternately, use a lathe to take a $1/64$ " (0.4 mm) by 45° surface cut on the Teflon seat. Reinstall the ball bearings and retainer ring. Reassemble the bonnet with a new gasket into the valve body with the stem open at least several turns. The bonnet cap screws on the 2" through 3" (50 mm through 80 mm) valves require a torque of 60 ft-lbs (82 Nm); 180 ft-lbs (245 Nm) on the 4" (100 mm) valves. Test the valve for leaks before returning it to service.

CAUTION

Hansen valves are for refrigeration systems only. Read these instructions completely before selecting, using, or servicing these valves. Only knowledgeable, trained refrigeration technicians should install, operate, or service these valves. Stated temperature and pressure limits should not be exceeded. Bonnets should not be removed from valves unless the system has been evacuated to zero pressure. See also Safety Precautions in the current List Price Schedule and the Safety Precautions Sheet supplied with the product.

WARRANTY

Hansen valves are guaranteed against defective materials or workmanship for one year F.O.B. our factory. No consequential damages or field labor is included.

ORDERING INFORMATION, BUTT WELD VALVES

SIZE	DESCRIPTION	CAT. NO.
2" (50 mm)	Globe, Handwheel	GW200H
	Angle, Handwheel	AW200H
	Globe, Seal Cap	GW200C
	Angle, Seal Cap	AW200C
2 1/2" (65 mm)	Globe, Handwheel	GW251H
	Angle, Handwheel	AW251H
	Globe, Seal Cap	GW251C
	Angle, Seal Cap	AW251C
3" (80 mm)	Globe, Handwheel	GW301H
	Angle, Handwheel	AW301H
	Globe, Seal Cap	GW301C
	Angle, Seal Cap	AW301C
4" (100 mm)	Globe, Handwheel	GW402H
	Angle, Handwheel	AW402H
	Globe, Seal Cap	GW402C
	Angle, Seal Cap	AW402C

TO ORDER: Specify the catalog number.

TYPICAL SPECIFICATIONS

"Weldable refrigerant shut-off valves shall have stainless steel stems with dual seals, cast steel bodies, back-seating design for packing replacement, bonnet threads for installation of stem seal caps, butt weld ends machined dimensionally correct for Schedule 40 pipe size and gauge, and suitability for a safe working pressure of 400 psig (27 bar), as manufactured by Hansen Technologies Corporation, or approved equal."

HANSEN TECHNOLOGIES CORPORATION

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