

## INTRODUCTION

Hansen Technologies offers a complete line of direct weld-in-line control valves for refrigeration systems, thereby eliminating flange gasket leakage. Products include pressure regulators, solenoid valves, sealed motor valves, check valves, suction stop valves and strainers; sizes up to 6" (150 mm) based on valve model.

These weld-in-line valves utilize the same proven, serviceable components as the standard Hansen valves. They are ideally suited for both ammonia and halocarbon refrigeration systems. Valves for CO<sub>2</sub> service are also available and are painted yellow for easy identification.

## SPECIFICATIONS

- Body: Cast steel, ASTM A352, LCB
- Bonnet: Ductile iron, ASTM A536
- Safe Working Pressure: 400 psig (28 bar)  
600 psig (40 bar) optional for CO<sub>2</sub>
- Temperature Range: -60°F to +240°F  
(-50°C to +115°C)
- Control Valve Sizes: 3/4" to 6" (20mm to 150mm)
- Connection Types:  
3/4" to 2-1/2" (20mm to 65mm) Socket Weld  
3" to 6" (80mm to 150mm) Butt Weld

## FEATURES

- Eliminates potential flange leaks
- Weldable without disassembly
- Same parts as Hansen flanged valves; no extra parts to stock
- Lighter installed weight
- Stronger connection
- Easier to insulate than flanged valves
- Suitable for Ammonia, Halocarbons, CO<sub>2</sub> and other Hansen approved refrigerants
- CE approved

## Installation Dimensions

**WELD-IN-LINE**

**For use with:  
Pressure Regulators, Solenoid Valves,  
Sealed Motor Valves, Check Valves,  
Suction Stop Valves and Strainers**

## ORDERING INFORMATION

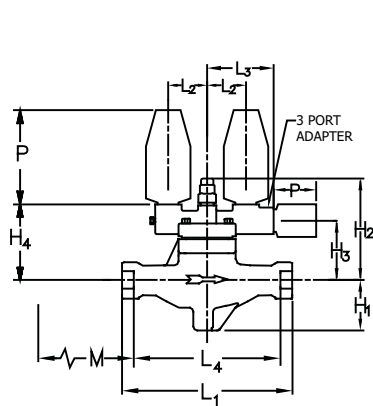
Valve Types	Model Numbers
Pressure Regulators	HA4W
Solenoid Valves	HS4W HS4D HS8W*
Sealed Motor Valves*	HMMRW/HMMRWC HMMRAW/HMMRAWC HMMRBW/HMMRBWC HMMVW/HMMVWC HMMVBW/HMMVBWC HMSVW/HMSVWC
Check Valves	HCK1W
Suction Stop Valves	HCK2W HCK5W HCK5DW* HS9BW
Strainers	STW
Expansion Valves	PXVW

**\*NOTE:**

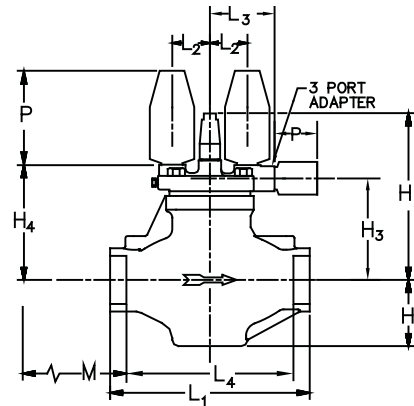
Sealed Motor Valves available up to 4" (100mm),  
HCK5DW available 1-1/2" to 4" (40-100mm),  
HS8W available as 1/2" and 3/4" (13mm and 20mm) with  
integral strainer.

# HANSEN PRESSURE REGULATORS

## INSTALLATION DIMENSIONS FOR 3/4" THRU 2-1/2" SOCKET WELD REGULATORS



3/4" THROUGH 1-1/4"  
SOCKET WELD VALVE



1-1/2" THROUGH 2-1/2"  
SOCKET WELD VALVE

M= ADDITIONAL LENGTH FOR CLOSE-COUPLE STRAINER

INSTALLATION DIMENSIONS, INCH (mm)

PORT SIZE (mm)	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	H <sub>4</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	M	W*
3/4", 1", 1-1/4" (20, 25, 32)	3.07" (78)	6.90" (175)	3.88" (99)	4.76" (121)	10.44" (265)	2.38" (60)	4.07" (103)	9.00" (229)	9.78" (248)	3.56" (90)
1-1/2", 2" (40, 50)	2.87" (73)	8.84" (225)	4.90" (124)	5.72" (145)	10.38" (264)	2.35" (60)	4.04" (103)	8.94" (227)	10.44" (265)	4.64" (118)
2-1/2" (65)	3.62" (92)	9.69" (246)	5.57" (141)	6.53" (166)	11.38" (289)	2.35" (60)	4.04" (103)	9.38" (238)	10.44" (265)	5.62" (143)

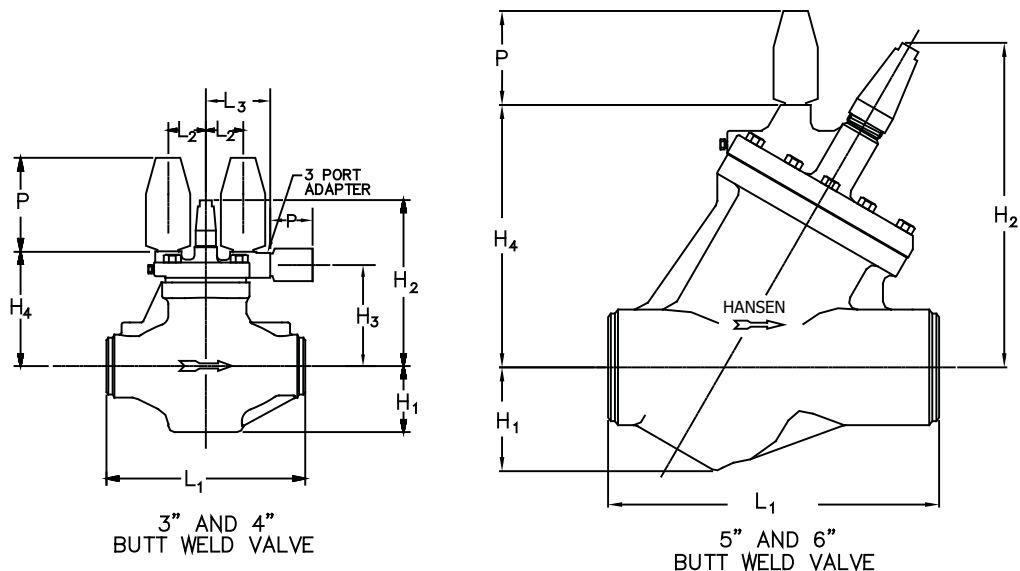
For 3/4" 1", 1-1/4" valves add 3" (80 mm) to one side of the valve for external piping as found on HA4S0 and HA4SL.  
\*Maximum width of valve.

"P" DIMENSION FOR CONTROL MODULES (MM)

CATALOG	M3	M3W	MS	M30	M3K	M3KW	M3L	M3P	M3J	M3T	M3E25	M3M
SIZE (MM)	6.5" (165)	5.12" (130)	3.25" (83)	7.75" (197)	6.5" (165)	5.12" (130)	6.5 (165)	6.5 (165)	4.63" (118)	4.5" (114)	1" (25)	14.9 (378)

# HANSEN PRESSURE REGULATORS

## INSTALLATION DIMENSIONS FOR 3" THRU 6" BUTT WELD REGULATORS



INSTALLATIONS DIMENSIONS, INCH (MM)

PORT SIZE (mm)	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	H <sub>4</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	W*
3" (80)	4.06" (103)	10.00" (254)	6.03" (153)	6.88" (175)	12.25 (311)	2.35" (60)	4.04" (103)	6.50" (165)
4" (100)	4.69" (119)	10.56" (268)	6.58" (167)	7.46" (189)	14.12" (359)	2.69" (68)	4.38" (111)	8.06" (205)
5" (125)	6.40" (163)	20.00" (508)	-	16.58" (421)	20.40" (518)	-	-	12.75" (324)
6" (150)	6.40" (163)	20.00" (508)	-	16.58" (421)	20.40" (518)	-	-	12.75" (324)

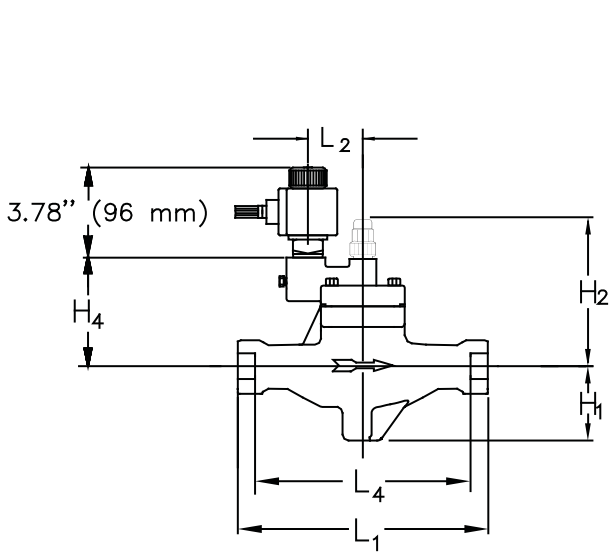
\*Maximum width of valve.

"P" DIMENSION FOR CONTROL MODULES (MM)

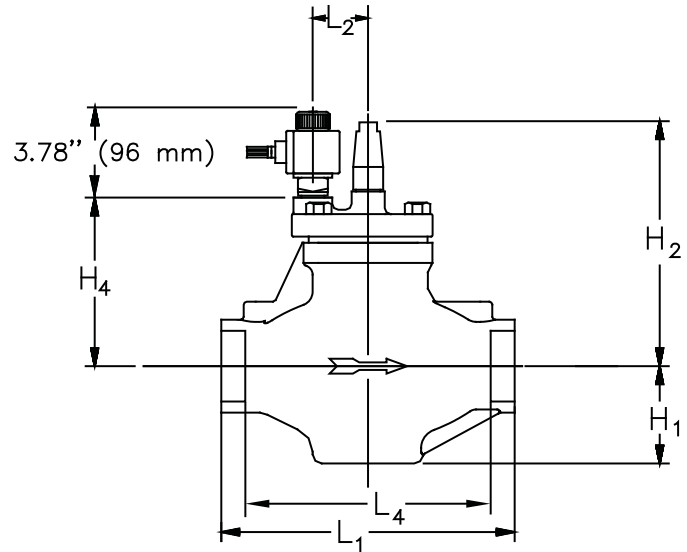
CATALOG	M3	M3W	MS	M30	M3K	M3KW	M3L	M3P	M3J	M3T	M3E25	M3M
SIZE (MM)	6.5" (165)	5.12" (130)	3.25" (83)	7.75" (197)	6.5" (165)	5.12" (130)	6.5 (165)	6.5 (165)	4.63" (118)	4.5" (114)	1" (25)	14.9 (378)

# H HANSEN SOLENOID VALVES

## INSTALLATION DIMENSIONS FOR 3/4" THRU 2-1/2" SOCKET WELD HS4W



3/4" THROUGH 1-1/4"  
(20 mm THRU 32 mm)



1-1/2" THROUGH 2-1/2"  
(40 mm THRU 65 mm)

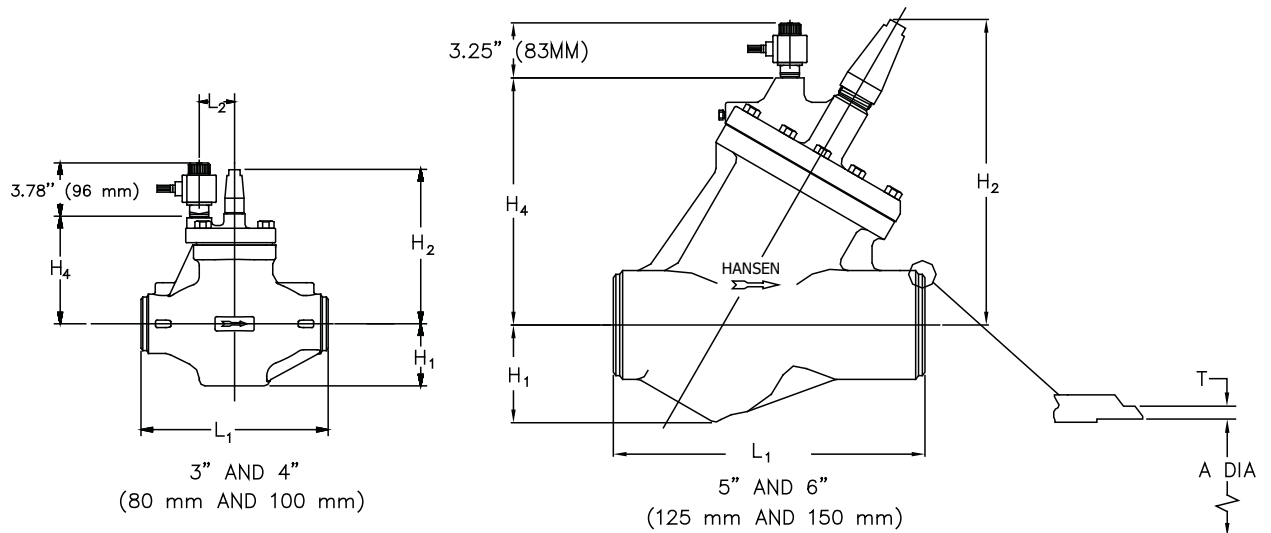
### INSTALLATION DIMENSIONS, INCH (mm)

PORT SIZE (mm)	H <sub>1</sub>	H <sub>2</sub>	H <sub>4</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>4</sub>	W*
3/4", 1", 1-1/4" (20, 25, 32)	3.07" (78)	6.63" (168)	4.50" (114)	10.44" (265)	2.38" (60)	9.00" (229)	3.56" (90)
1-1/2", 2" (40, 50)	2.87" (73)	8.84" (225)	5.72" (145)	10.38" (264)	2.35" (60)	8.94" (227)	4.64" (118)
2-1/2" (65)	3.62" (92)	9.69" (246)	6.53" (166)	11.38" (289)	2.35" (60)	9.38" (238)	5.62" (143)

\* W DIMENSION IS MAXIMUM WIDTH OF THE VALVE.

# HANSEN SOLENOID VALVES

## INSTALLATION DIMENSIONS FOR 3" THRU 6" BUTT WELD HS4W



### INSTALLATIONS DIMENSIONS, INCH (MM)

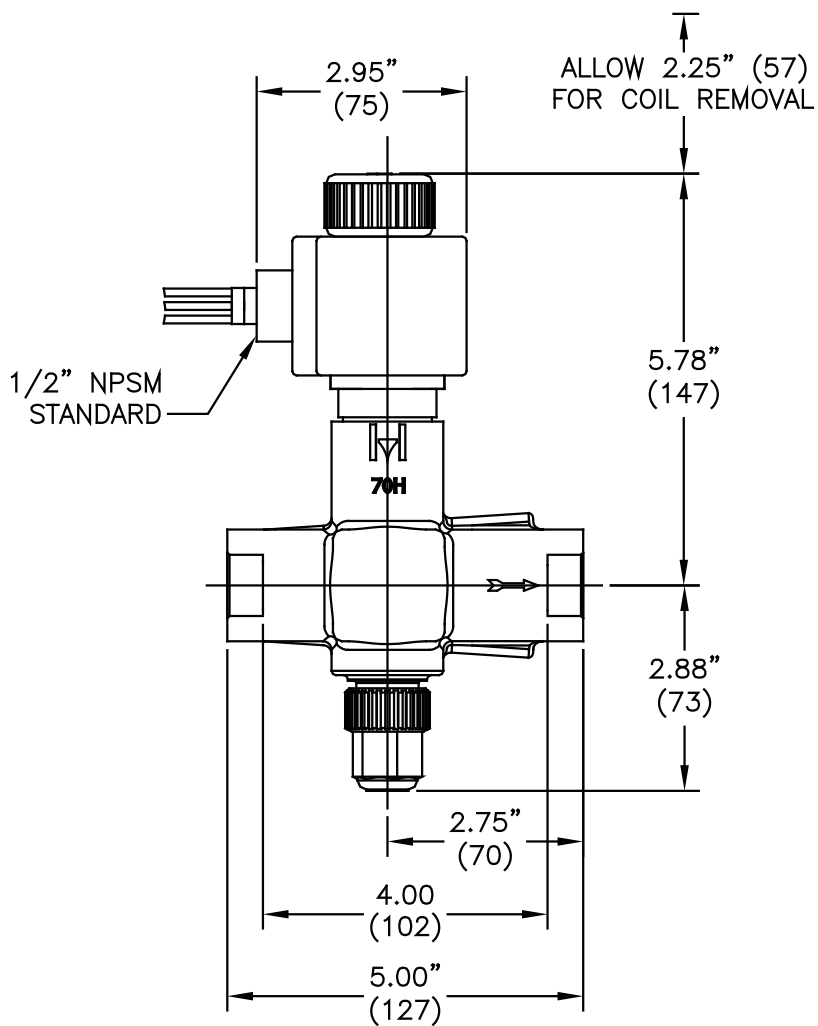
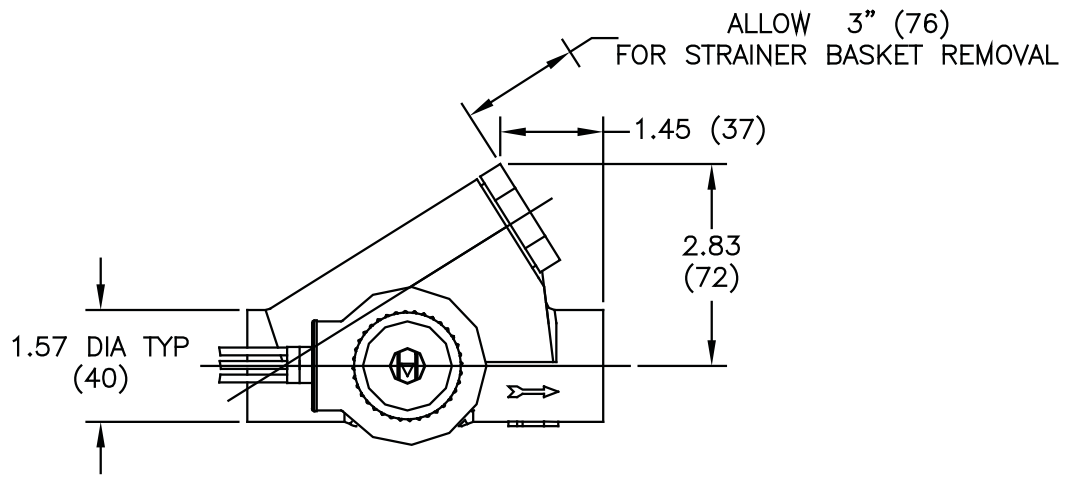
PORT SIZE (mm)	H <sub>1</sub>	H <sub>2</sub>	H <sub>4</sub>	L <sub>1</sub>	L <sub>2</sub>	W*	A	T
3" (80)	4.06" (103)	10.00" (254)	6.88" (175)	12.25" (311)	2.35" (60)	6.50" (165)	3.06" (78)	0.22" (5.6)
4" (100)	4.69" (119)	10.56" (268)	7.46" (189)	14.12" (359)	2.69" (68)	8.06" (205)	4.02" (102)	0.24" (6.1)
5" (125)	6.40" (163)	20.00" (508)	16.58" (421)	20.40" (518)	—	12.75" (324)	5.05" (128)	0.26" (6.6)
6" (150)	6.40" (163)	20.00" (508)	16.58" (421)	20.40" (518)	—	12.75" (324)	6.06" (154)	0.28" (7.1)

\* W DIMENSION IS MAXIMUM WIDTH OF THE VALVE.

# HANSEN

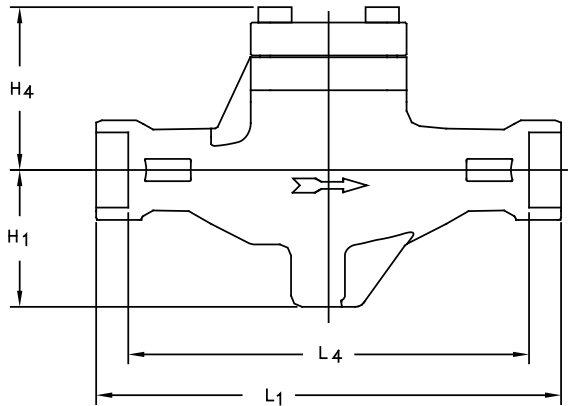
## SOLENOID VALVES

INSTALLATION DIMENSIONS FOR 1/2" THRU 3/4" HS8W

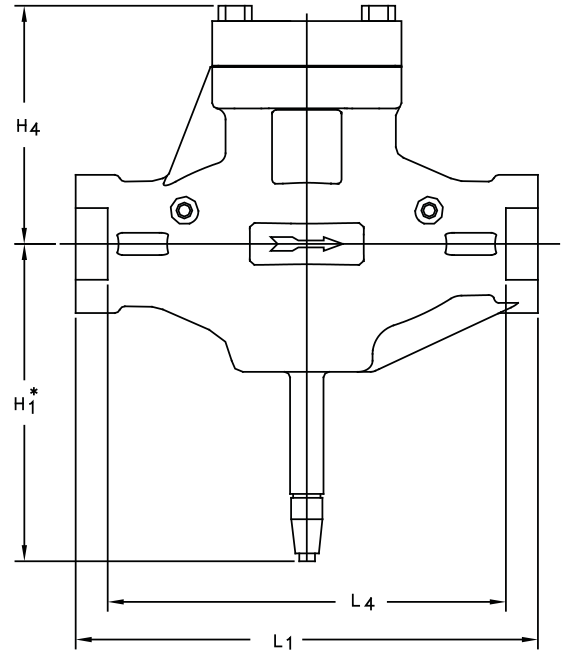


# H HANSEN CHECK VALVES

## INSTALLATION DIMENSIONS FOR 3/4" THRU 2-1/2" HCK1W



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



1-1/2" THRU 2-1/2" (40 mm THRU 65 mm)

### INSTALLATION DIMENSIONS, INCH (mm)

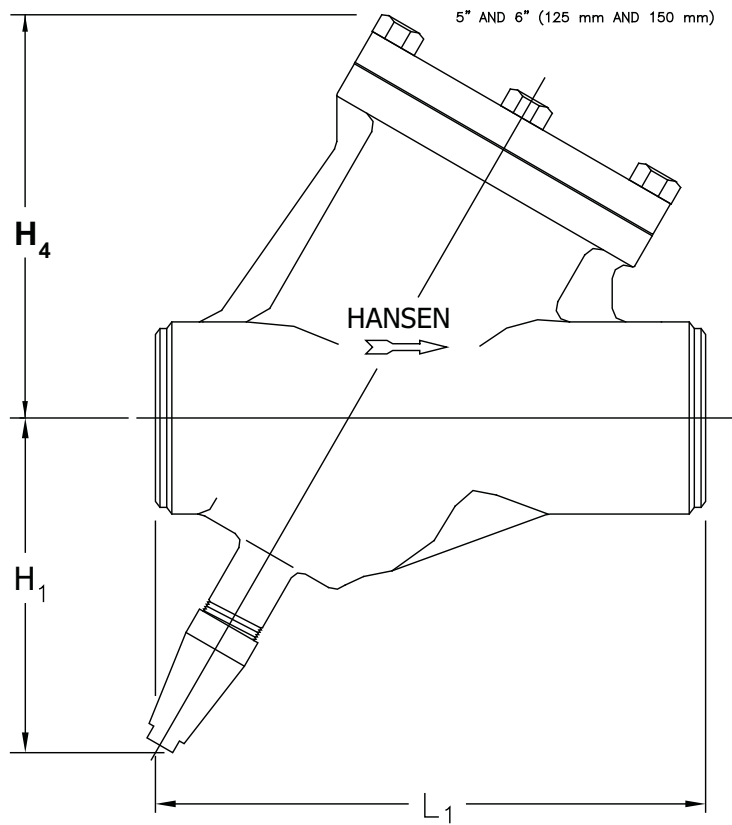
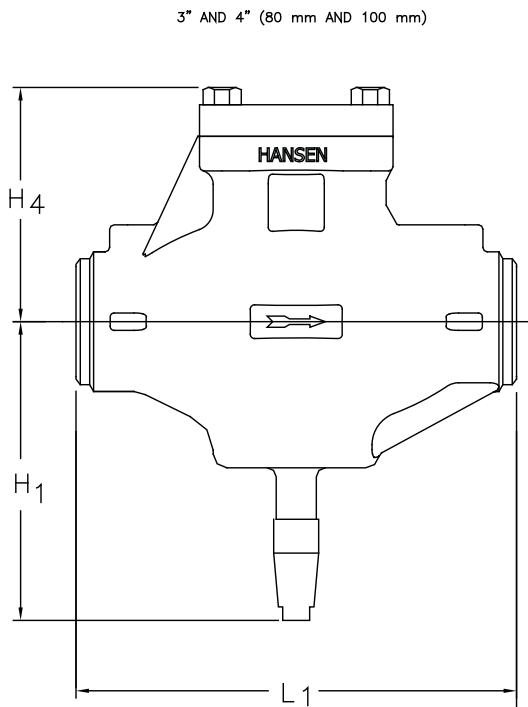
PORT SIZE (mm)	H <sub>1</sub>	H <sub>4</sub>	L <sub>1</sub>	L <sub>4</sub>	W**
3/4", 1", 1-1/4" (20), (25), (32)	3.07" (78)	3.68" (93)	10.44" (265)	9.00" (229)	3.56" (90)
1-1/2", 2" (40, 50)	7.12" (181)	5.34" (136)	10.38" (264)	8.94" (227)	4.64" (118)
2-1/2" (65)	8.06" (205)	6.10" (155)	11.38" (289)	9.38" (238)	5.62" (143)

\* ALLOW ADDITIONAL 2.75" (70 mm) FOR SEAL CAP REMOVAL

\*\* W DIMENSION IS THE MAXIMUM WIDTH OF THE VALVE.

# HANSEN CHECK VALVES

## INSTALLATION DIMENSIONS FOR 3" THRU 6" HCK1W



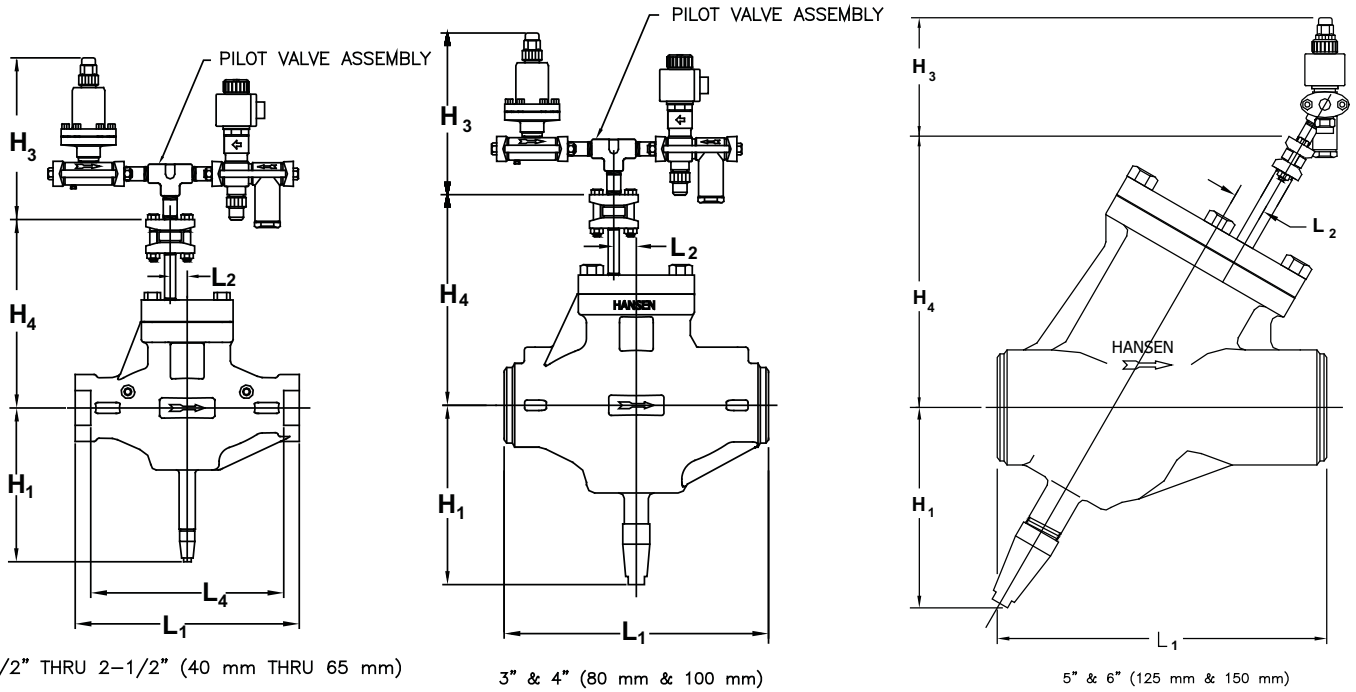
### INSTALLATION DIMENSIONS, INCH (mm)

PORT SIZE (mm)	H <sub>1</sub> <sup>*</sup>	H <sub>4</sub>	L <sub>1</sub>	W <sup>**</sup>
3" (80)	8.38" (213)	6.56" (167)	12.25" (311)	6.50" (165)
4" (100)	9.88" (251)	7.38" (187)	14.12" (359)	8.06" (205)
5" (125)	12.13" (308)	14.34" (364)	20.40" (518)	12.75" (324)
6" (150)	12.13" (308)	14.34" (364)	20.40" (518)	12.75" (324)

\* ALLOW ADDITIONAL 2.75" (70 mm) FOR SEAL CAP REMOVAL

\*\* W DIMENSION IS THE MAXIMUM WIDTH OF THE VALVE.

**HANSEN**  
**SUCTION STOP VALVES**  
 INSTALLATION DIMENSIONS FOR  
 1-1/2" THRU 6" HCK2W AND 1-1/2" THRU 4" HCK5DW



INSTALLATION DIMENSIONS, INCH (mm)

PORT SIZE (mm)	H <sub>1</sub> <sup>*</sup>	H <sub>3</sub>	H <sub>4</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>4</sub>	W <sup>**</sup>
1-1/2", 2" (40, 50)	7.13" (181)	8.25" (210)	9.55" (243)	10.38" (264)	.86" (22)	8.94" (227)	4.64" (118)
2-1/2" (65)	8.06" (205)	8.25" (210)	10.23" (260)	11.38" (289)	1.15" (29)	9.38" (238)	5.62" (143)
3" (80)	8.38" (213)	8.25" (210)	10.57" (268)	12.25" (311)	1.15" (29)	—	6.50" (165)
4" (100)	9.88" (251)	8.25" (210)	11.45" (291)	14.12" (359)	1.50" (38)	—	8.06" (205)
5" (125)	12.13" (308)	8.01" (203)	17.00" (432)	20.40" (518)	2.00" (51)	—	12.75" (324)
6" (150)	12.13" (308)	8.01" (203)	17.00" (432)	20.40" (518)	2.00" (51)	—	12.75" (324)

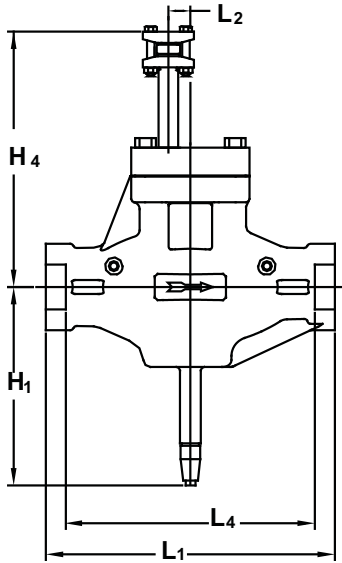
\* ALLOW ADDITIONAL 2.75" (70 mm) FOR SEAL CAP REMOVAL

\*\* W DIMENSION IS THE MAXIMUM WIDTH OF THE VALVE.

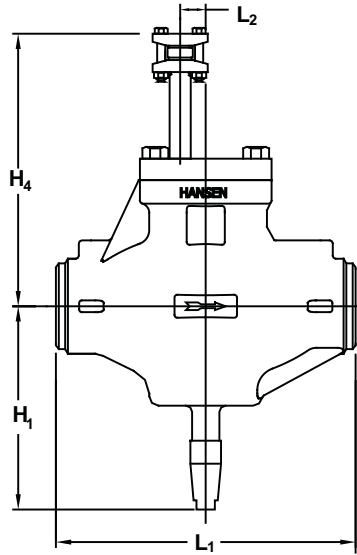
# HANSEN

## SUCTION STOP VALVES

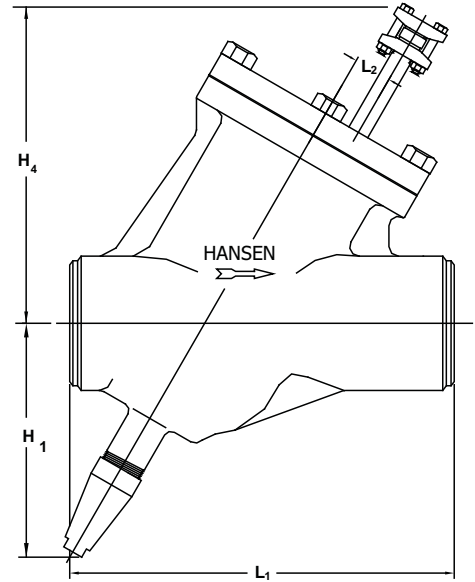
INSTALLATION DIMENSIONS FOR 1-1/2" THRU 6" HCK5W



1-1/2" THRU 2-1/2" (40 mm THRU 65 mm)



3" & 4" (80 mm & 100 mm)



5" & 6" (125 mm & 150 mm)  
(HCK5WD NOT AVAILABLE IN 5" AND 6")

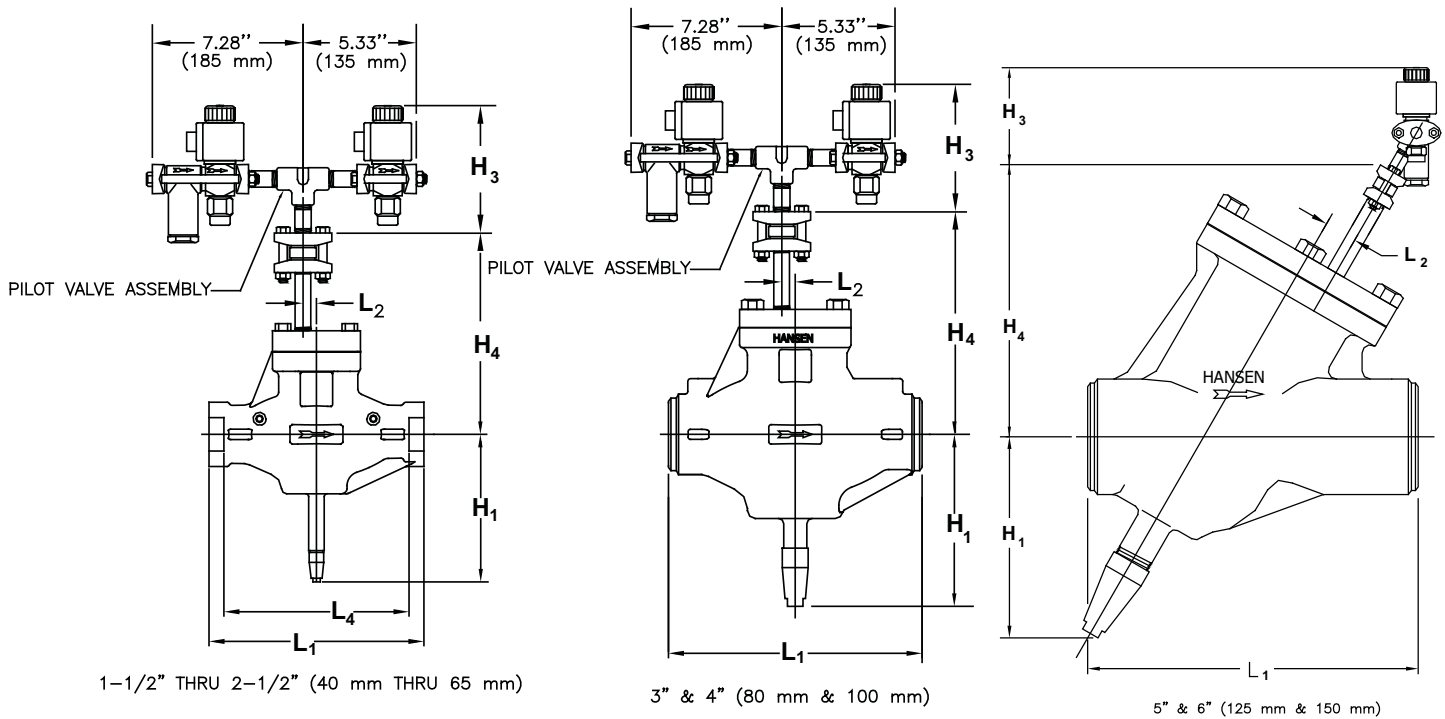
PORT SIZE (mm)	H <sub>1</sub> *	H <sub>4</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>4</sub>	W**
1-1/2", 2" (40, 50)	7.13" (181)	9.55" (243)	10.38" (264)	.86" (22)	8.94" (227)	4.64" (118)
2-1/2" (65)	8.06" (205)	10.23" (260)	11.38" (289)	1.15" (29)	9.38" (238)	5.62" (143)
3" (80)	8.38" (213)	10.57" (268)	12.25" (311)	1.15" (29)	—	6.50" (165)
4" (100)	9.88" (251)	11.45" (291)	14.12" (359)	1.50" (38)	—	8.06" (205)
5" (125)	12.13" (308)	17.00" (432)	20.40" (518)	2.00" (51)	—	12.75" (324)
6" (150)	12.13" (308)	17.00" (432)	20.40" (518)	2.00" (51)	—	12.75" (324)

\* ALLOW ADDITIONAL 2.75" (70 mm) FOR SEAL CAP REMOVAL

\*\* W DIMENSION IS THE MAXIMUM WIDTH OF THE VALVE.

# HANSEN SUCTION STOP VALVES

INSTALLATION DIMENSIONS FOR 1-1/2" THRU 6" HS9W



## INSTALLATION DIMENSIONS, INCH (mm)

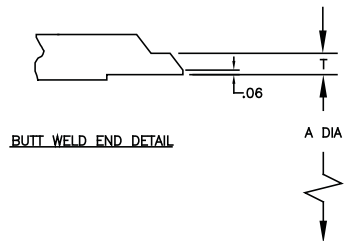
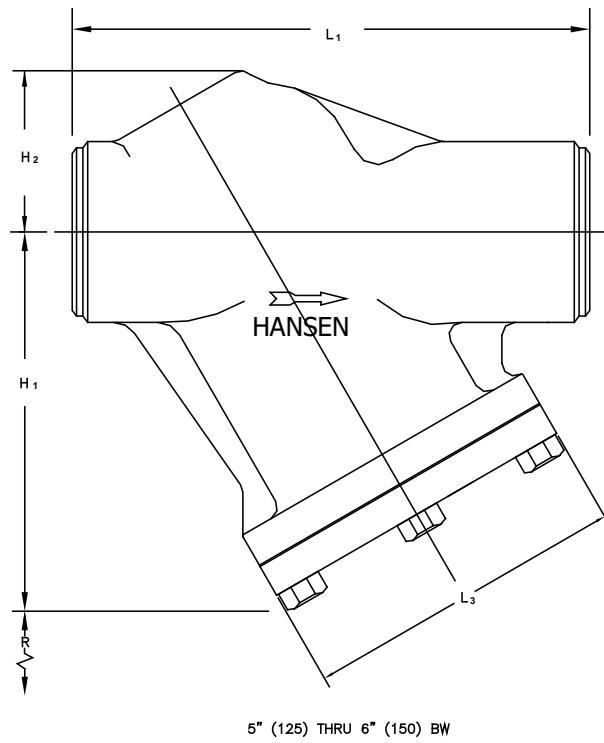
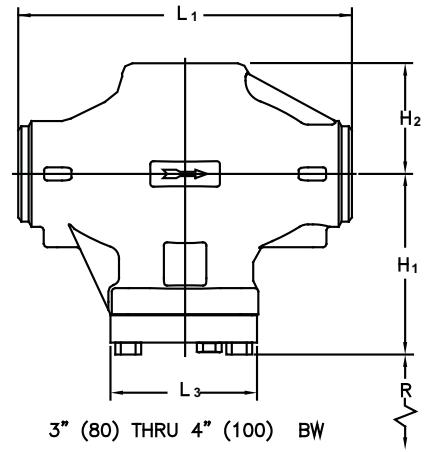
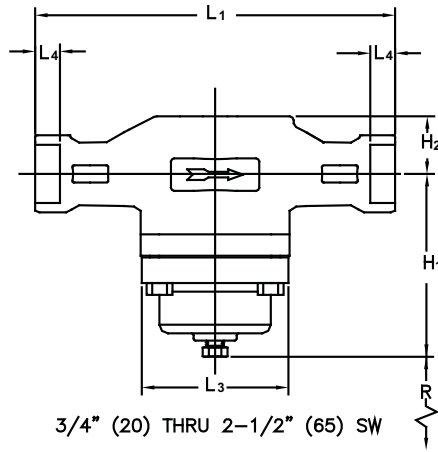
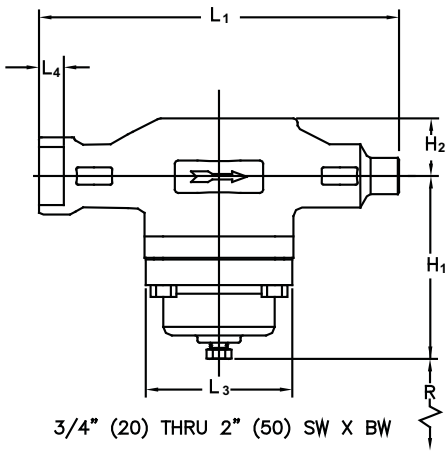
PORT SIZE (mm)	H <sub>1</sub> <sup>*</sup>	H <sub>3</sub>	H <sub>4</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>4</sub>	W <sup>**</sup>
1-1/2", 2" (40, 50)	7.13" (181)	5.93" (150)	9.55" (243)	10.38" (264)	.86" (22)	8.94" (227)	4.64" (118)
2-1/2" (65)	8.06" (205)	5.93" (150)	10.23" (260)	11.38" (289)	1.15" (29)	9.38" (238)	5.62" (143)
3" (80)	8.38" (213)	5.93" (150)	10.57" (268)	12.25" (311)	1.15" (29)	—	6.50" (165)
4" (100)	9.88" (251)	5.93" (150)	11.45" (291)	14.12" (359)	1.50" (38)	—	8.06" (205)
5" (125)	12.13" (308)	5.69" (144)	17.00" (432)	20.40" (518)	2.00" (51)	—	12.75" (324)
6" (150)	12.13" (308)	5.69" (144)	17.00" (432)	20.40" (518)	2.00" (51)	—	12.75" (324)

\* ALLOW ADDITIONAL 2.75" (70 mm) FOR SEAL CAP REMOVAL

\*\* W DIMENSION IS THE MAXIMUM WIDTH OF THE VALVE.

# HANSEN STRAINERS

## INSTALLATION DIMENSIONS FOR 3/4" THRU 6" STW STRAINERS



# HANSEN

## STRAINERS

### INSTALLATION DIMENSIONS FOR 3/4" THRU 6" STW STRAINERS

INSTALLATION DIMENSIONS, INCH (mm)

PORT SIZE (mm)	H <sub>1</sub>	H <sub>2</sub>	L <sub>1</sub>	L <sub>3</sub>	L <sub>4</sub>	R**	W*	A	T	SCREEN AREA in <sup>2</sup> (cm) <sup>2</sup>
3/4" (20)	5.37" (136)	1.67" (42)	10.44" (265)	4.25" (108)	.72" (18)	3.00" (76)	4.25" (108)	.742" (19)	.15" (3.8)	63.0 (407)
1" (25)	5.37" (136)	1.67" (42)	10.44" (265)	4.25" (108)	.72" (18)	3.00" (76)	4.25" (108)	.957" (24)	.18" (4.6)	63.0 (407)
1-1/4" (32)	5.37" (136)	1.67" (42)	10.44" (265)	4.25" (108)	.72" (18)	3.00" (76)	4.25" (108)	1.278" (32)	.20" (5.1)	63.0 (407)
1-1/2" (40)	5.34" (136)	2.87" (73)	10.38" (264)	4.25" (108)	.72" (18)	4.00" (102)	4.64" (118)	1.50" (38)	.20" (5.1)	84.5 (545)
2" (50)	5.34" (136)	2.87" (73)	10.38" (264)	4.25" (108)	.72" (18)	4.00" (102)	4.64" (118)	2.07" (53)	.15" (3.8)	84.5 (545)
2-1/2" (65)	6.10" (155)	3.63" (92)	11.38" (289)	5.38" (137)	1.00" (25)	4.50" (114)	5.62" (143)	-	-	134.5 (868)
3" (80)	6.56" (167)	4.06" (103)	12.25" (311)	5.38" (137)	-	4.75" (121)	6.50" (165)	3.06" (78)	0.22" (5.6)	148.7 (959)
4" (100)	7.38" (187)	4.69" (119)	14.12" (359)	6.75" (171)	-	5.75" (146)	8.06" (205)	4.02" (102)	0.24" (6.1)	219.0 (1413)
5" (125)	14.34" (364)	6.40" (163)	20.40" (518)	12.75" (324)	-	8.00" (203)	12.75" (324)	5.05" (128)	0.26" (6.6)	536.5 (3462)
6" (150)	14.34" (364)	6.40" (163)	20.40" (518)	12.75" (324)	-	8.00" (203)	12.75" (324)	6.06" (154)	0.28" (7.1)	536.5 (3462)

\* W IS THE MAXIMUM WIDTH OF THE STRAINER BODY

\*\*R IS THE CLEARANCE FOR SCREEN ASSEMBLY REMOVAL

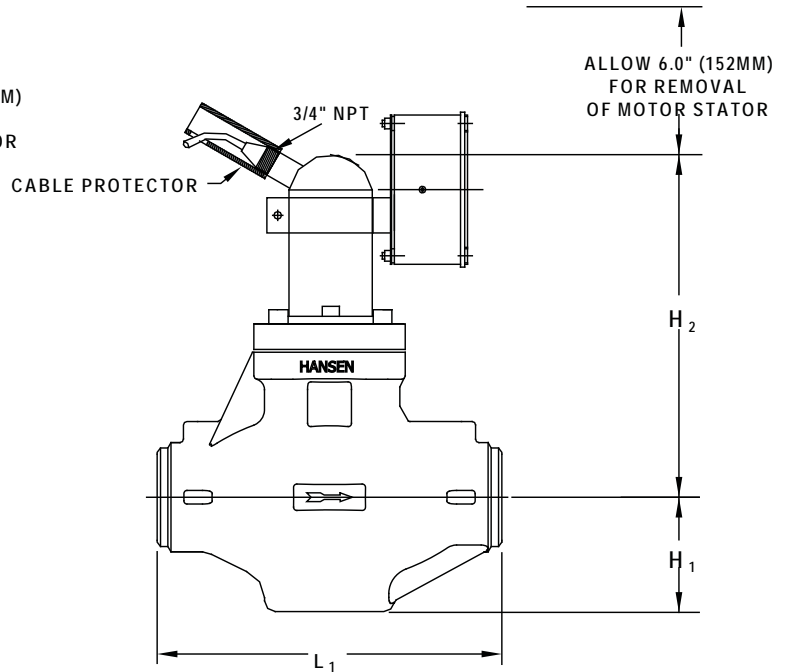
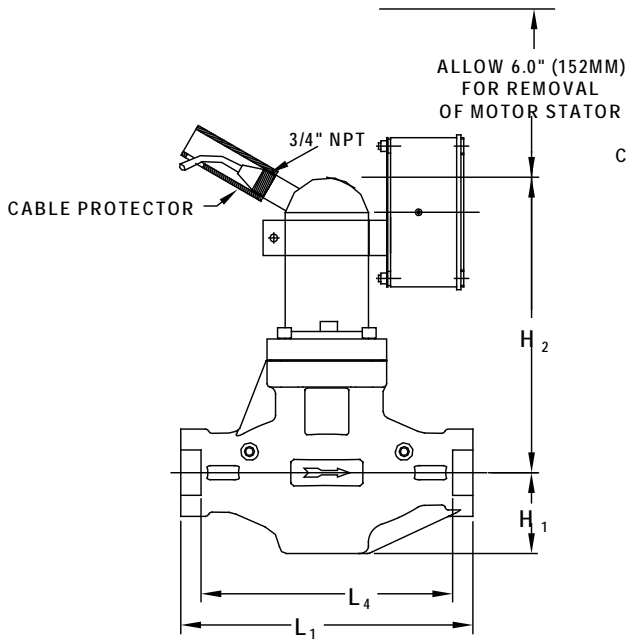
# HANSEN

## SEALED MOTOR VALVES

### INSTALLATION DIMENSIONS FOR 1-1/2" THRU 4" SEALED MOTOR VALVES

1-1/2" (40mm) THRU 2" (50mm) SMV SW

3" (80mm) AND 4" (100mm) SMV BW

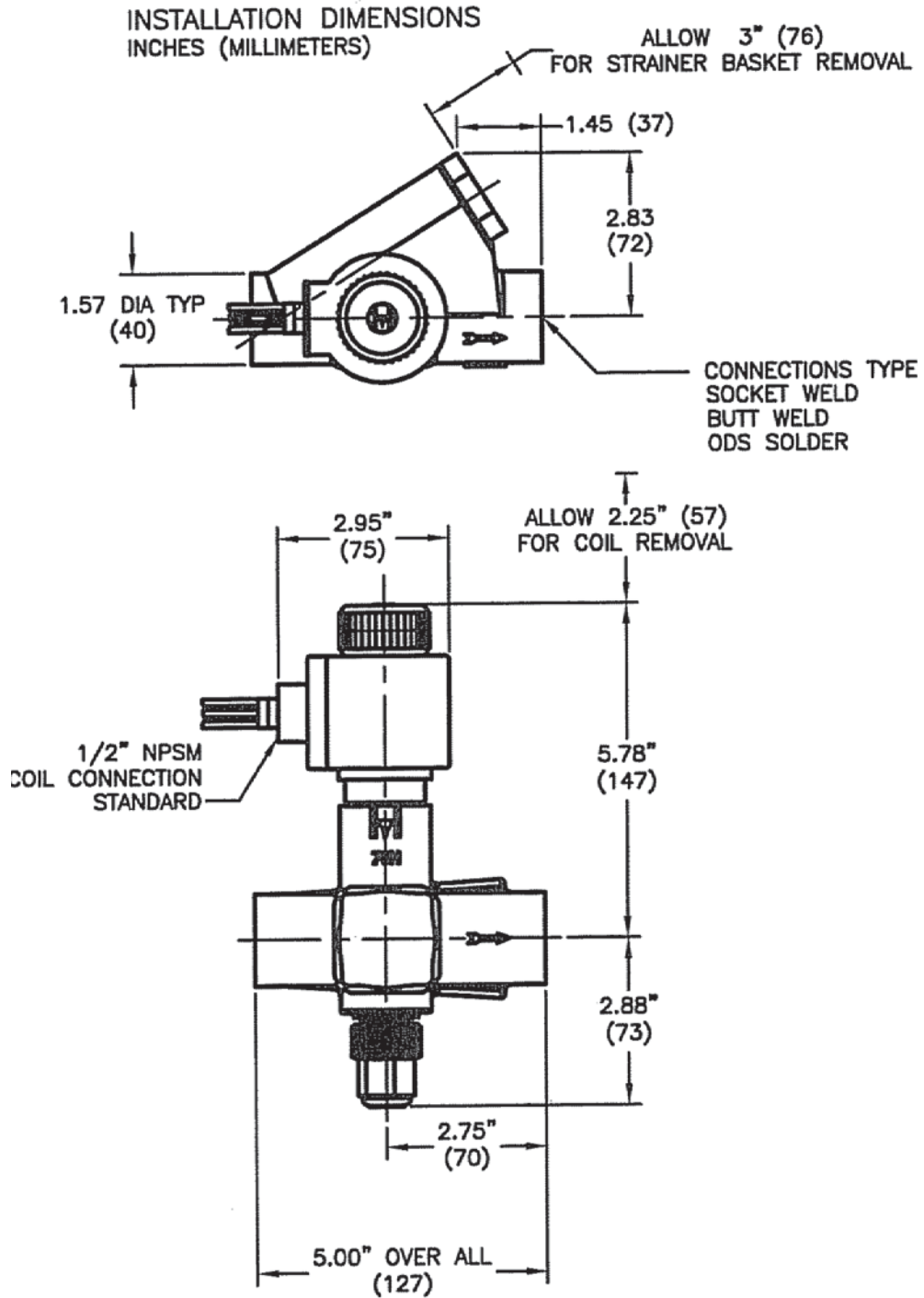


INSTALLATION DIMENSIONS, INCH (mm)

SIZE (mm)		1-1/2" (40)	2" (50)	3" (80)	4" (100)
H <sub>2</sub>	STANDARD MOTOR	11.88" (301)	11.88" (301)	13.44" (341)	13.94" (354)
	POWER CLOSE MOTOR	14.38" (365)	14.38" (365)	15.94" (405)	16.44" (418)
H <sub>1</sub>		2.87" (73)	2.87" (73)	4.06" (103)	4.69" (119)
L <sub>1</sub>		10.38" (264)	10.38" (264)	12.25" (311)	14.12" (359)
L <sub>4</sub> SW		8.94" (227)	8.94" (227)	-	-
A BW		-	-	3.06" (78)	4.02" (102)
T BW		-	-	0.22" (5.6)	0.24" (6.1)
MAX. WIDTH		4.64" (118)	4.64" (118)	6.50" (165)	8.06" (205)

# HANSEN EXPANSION VALVES

INSTALLATION DIMENSIONS FOR 1/2" OR 3/4" PXVW60



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