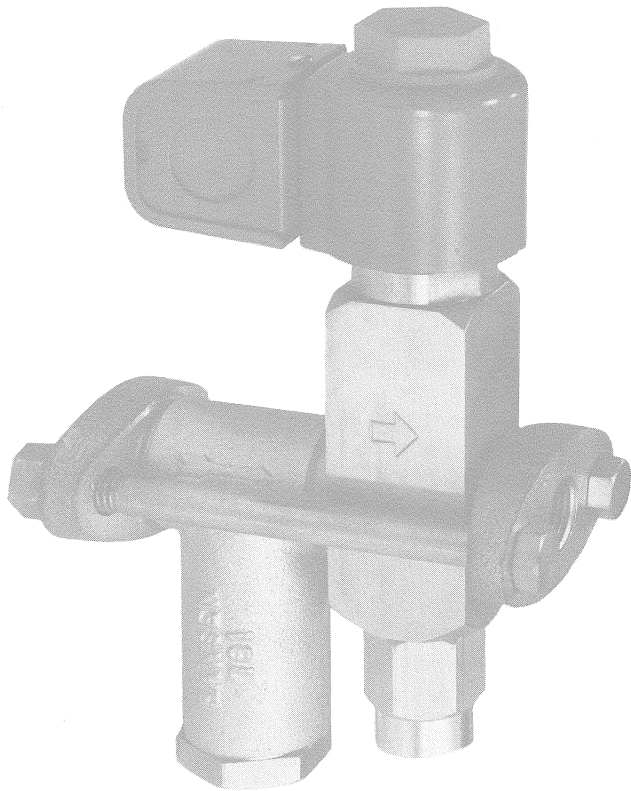


## HANSEN TECHNOLOGIES CORPORATION



HS8 with Strainer

### INTRODUCTION

This flanged, compact, heavy duty, pilot-operated, industrial refrigeration solenoid valve controls the flow of refrigerant. When electrically energized, a slight fluid pressure difference across the valve causes it to open wide; when de-energized, a spring promptly closes the main teflon seat to stop all flow in the arrow direction on the valve body.

### APPLICATIONS

This advanced design valve is ideal as a standard, stock, ammonia liquid line solenoid valve. While primarily for ammonia, this valve is also suitable for R12, R22, R502. Most common use is to automatically stop liquid line feed to recirculating liquid overfeed evaporators, to float switch controlled accumulators, and to expansion valves; it is also suitable for hot gas defrost, vessel exhaust, and small tonnage evaporator suction. The stainless steel piston makes it ideal as a purge point solenoid valve.

### MAX. RATINGS, AMMONIA

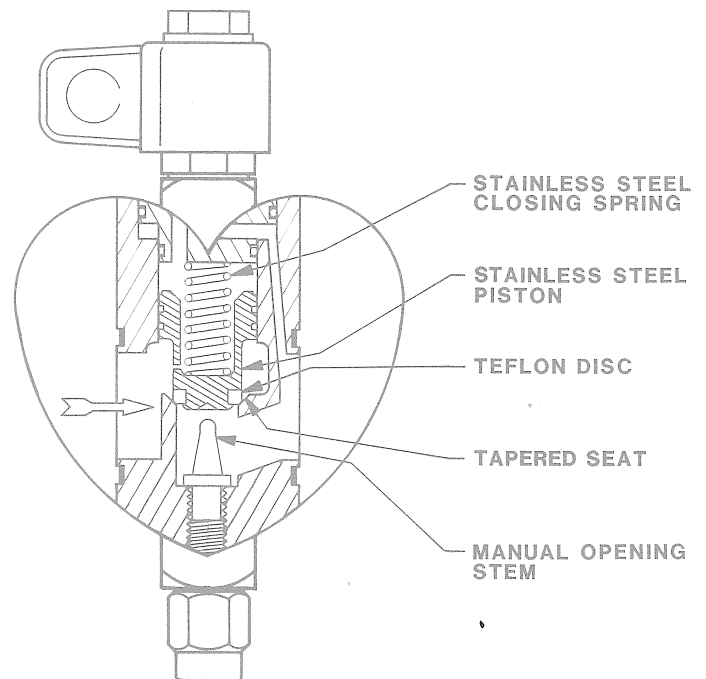
Liquid, Receiver Pressure: 95 Tons  
Recirculation, 3 to 1: 35 Tons  
Hot Gas: 6.0 Tons  
Suction: 2.5 Tons  
Flow Factor: Cv = 2.9

## Specifications, Applications, Service Instructions & Parts

### HS8 SOLENOID VALVE 1/2" PORT

Flanged  
3/8" thru 3/4"  
FPT, SW, WN, ODS  
for refrigerants

### KEY FEATURES



### ADDITIONAL FEATURES

Interchanges with R/S S8F  
Molded Hansen standard coil  
300 PSI MOPD  
Teflon main & pilot seats  
Manual opening stem  
Available close-coupled strainer  
Heavy duty, pilot-operation  
Vertical or horizontal installation

## MATERIAL SPECIFICATIONS

Body: steel, cadmium plated  
 Bonnet-cartridge: steel, cadmium plated  
 Piston: stainless steel  
 Plunger: stainless steel  
 Pilot orifice: stainless steel  
 Seats: teflon

## ADVANTAGES

Power saving, low-wattage molded coil; teflon seats; stainless steel trim including piston; spring-closing; double-seal manual lift stem; replaces R/S S8F.

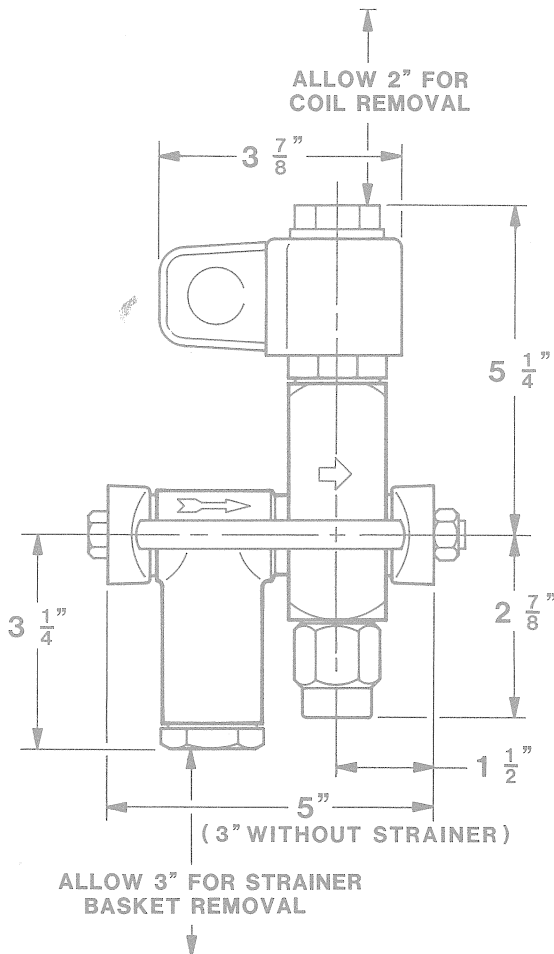
## INSTALLATION

Protect interior of valve from dirt during installation; normally use close-coupled inlet strainer. Allow 2" above valve for coil removal, and 3" 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 after the HS8.

## ELECTRICAL

The coil draws 17.5 watts and will operate properly between 85% and 110% of rated voltage. Pilot lights are available.

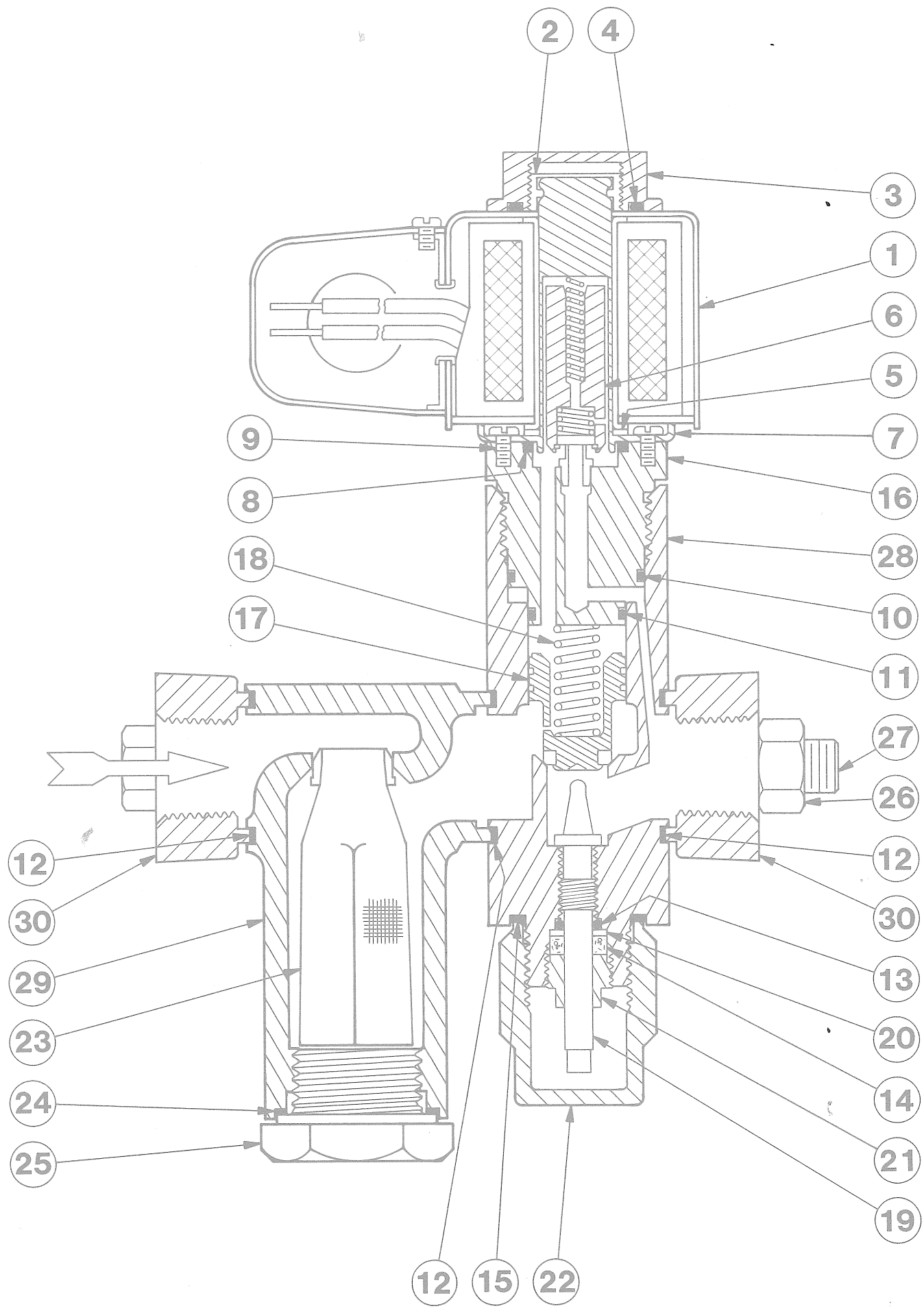
## INSTALLATION DIMENSIONS



**HS8 SOLENOID VALVE AND/OR STRAINER  
 EXACTLY REPLACES R/S S8F**

## PARTS LIST

ITEM	DESCRIPTION	QTY	PART NO.
	<b>COIL KIT (110-120V)</b>		<b>70-1008</b>
	<b>COIL KIT (208-240V)</b>		<b>70-1009</b>
	<b>COIL KIT (OTHER VOLTAGES)</b>		<b>FACTORY</b>
	Above kits consist of:		
1a	110-120V Coil 50/60 Hz	1	18Z7512
1b	208-240V Coil 50/60 Hz	1	18Z7511
1c	OTHER VOLTAGE COILS	1	FACTORY
2	Split Threaded Retainer	1	32U7397
3	Coil Cap	1	32U7403
4	Coil Cap O-Ring	1	35-0027
	<b>PLUNGER KIT consists of:</b>		<b>70-1010</b>
5	Split Washer Spacer	1	32U1339
6	Plunger	1	32F0031
7	Solenoid Tube	1	32F0034
8	Solenoid Tube Gasket	1	633L1283
9	Tube Screws	4	681X1565
	<b>GASKET KIT consists of:</b>		<b>70-1005</b>
4	Coil Cap O-Ring	1	35-0027
8	Solenoid Tube Gasket	1	633L1283
10	Upper Body O-Ring	1	70-0009
11	Lower Body O-Ring	1	70-0011
12	Flange Gasket	3	70-0065
13	Stem O-Ring	1	70-0010
14	Packing	1	70-0025
15	Seal Cap Gasket	1	70-0008
20	Packing Washer	1	70-0026
21	Packing Nut	1	70-0019
	<b>BONNET-CARTRIDGE KIT consists of:</b>		<b>70-1001</b>
16	Cartridge Assembly	1	70-0144
	Gasket Kit	1	70-1005
	Plunger Kit	1	70-1010
	<b>PISTON ASSEMBLY KIT consists of:</b>		<b>70-1002</b>
17	Piston Assembly	1	70-0145
18	Closing Spring	1	70-0018
	Gasket Kit	1	70-1005
	<b>STEM KIT consists of:</b>		<b>70-1003</b>
19	Stem	1	70-0004
	Gasket Kit	1	70-1005
	<b>SEAL CAP KIT consists of:</b>		<b>70-1004</b>
22	Seal Cap	1	70-0007
15	Seal Cap Gasket	1	70-0008
	<b>STRAINER SCREEN KIT consists of:</b>		<b>78-1001</b>
23	Screen Assembly	1	78-0005
24	Strainer Cap Gasket	1	78-0016
25	Strainer Cap	1	78-0002
	<b>BOLT AND NUT KIT</b>		
	For HS8 less Strainer (a)		<b>70-1006</b>
	For HS8 with Strainer (b)		<b>70-1007</b>
	consists of:		
26	Nut	2	70-0055
27a	Bolt, 3/4"	2	70-0073
27b	Bolt, 6"	2	70-0148
28	<b>ASSEMBLED BODY REPLACEMENT KIT</b>		<b>HS8 (10)</b>
	Complete Valve less Coil Kit and Flanges		
29	<b>ASSEMBLED STRAINER REPLACEMENT KIT</b>		<b>78-1002</b>
30	<b>FLANGE KIT</b>		<b>FACTORY</b>
	Includes (2) Flanges only.		
	Specify Style and Size		



## SERVICE AND MAINTENANCE

**Failure to open:** wrong coil; low line voltage; controlling switch or thermostat not contacting; coil is burned-out; piston is jammed closed with dirt.

**Failure to close:** controlling switch or thermostat not opening contacts; piston is jammed upward by dirt; damage or dirt at main valve seat or pilot valve seat; manual opening stem is turned in.

Before opening the valve for service, be sure it is isolated from the system and all refrigerant is removed. Disconnect the electrical coil. Remove the coil by unscrewing the top cap and prying off the split threaded retainer. Use a large wrench to unscrew the bonnet-cartridge proceeding cautiously to detect ammonia still remaining inside the valve. Remove piston spring and piston. Check for dirt on piston or seat. Polish with fine emery cloth and replace or else install new parts. Check and replace bonnet-cartridge O-rings if necessary, using refrigerant oil or grease.

To check pilot section of valve, remove four solenoid tube screws and pry off the solenoid tube from the bonnet-cartridge. Check face of teflon seat in plunger, plunger spring, and pilot seat orifice in bonnet-cartridge. Clean, polish or replace parts as necessary. Pilot seat is integral with bonnet-cartridge. Install new solenoid tube gasket and oil lightly. Reassemble tube to bonnet-cartridge with the four tube screws. Reassemble bonnet-cartridge to valve body, using 75 foot-pounds torque to tighten secondary, metal, knife edge seal. Carefully check the valve for leaks before restoring to service.

## SAFE OPERATION

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

## WARRANTY

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

## ORDERING INFORMATION, HS8 SOLENOID VALVE

Flange Styles & Sizes		
Connections Available		
FPT, SW, WN		ODS
STD	ALSO	STD
1/2"	3/4", 3/8"	5/8"

Standard molded solenoid is included for 50/60 Hz 208/230, 120 or 24 volts; other voltages offered. Pilot lights are available.

**TO ORDER:** Specify type number, connection style and size, volts, and strainer if required.

## TYPICAL SPECIFICATIONS

"Refrigerant solenoid valves shall have molded, water-tight coils, teflon seats, steel or ductile iron bodies, stainless steel pistons, spring closing pilot and main valve seats, and be suitable for a working pressure of 300 PSIG, as manufactured by Hansen Technologies Corporation or approved equal."

## OTHER PRODUCTS

Threaded Hand Shut-Off Valves: 1/2" to 1 1/4"

Welding Steel Valves: 1/2" to 14"

Expansion Valves (Regulators): 1/2" to 6"

Refrigerant Solenoid Valves

Back Pressure Regulators

Refrigerant Check Valves

Refrigerant Float Switches

Refrigerant Pumps

AUTO-PURGERS

VARI-LEVEL Controls

FROST MASTER Defrost Controllers

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