



2" Strainer: ST200

Specifications, Applications, Service Instructions & Parts

ST STRAINERS (FILTERS)

1/2" thru 6"
(13 mm thru 150 mm)
for refrigerants



INTRODUCTION

These rugged, refrigerant strainers (filters) are designed to remove foreign materials, like dirt and weld slag, from refrigeration systems. Strainers help prevent damage to valves and other components, reducing costly service and downtime. Strainers are usually close-coupled to solenoid valves, pressure regulators and other flanged valves.

ORDERING INFORMATION

CAT NO	FOR VALVE SIZE INCH (MM)	FLANGE STYLE AND SIZES		
		CONNECTIONS AVAILABLE		
		FPT, SW, WN		ODS
		STD	ALSO	STD
ST050 ST050D†	1/2" (13)	1/2"	1/4"	5/8"
	5/32" (4)			
ST100 ST100HD* ST100/100**	3/4" (20)	3/4"	1", 1-1/4"	7/8"
	1" (25)	1"	3/4", 1-1/4"	1-1/8"
	1-1/4" (32)	1-1/4"	3/4", 1"	1-3/8"
ST200 ST200/100**	1-1/2" (40)	1-1/2"	2"	1-5/8"
	2" (50)	2"	1-1/2"	2-1/8"
ST250 ST250/100**	2-1/2" (65)	2-1/2"	3"	2-5/8"
ST300	3" (80)	3"	—	3-1/8"
ST400	4" (100)	4"	—	4-1/8"
STW500	5" (125)	5 WN‡	—	—
STW600	6" (150)	6 WN ‡	—	—

‡ Integral butt weld only

†ST050D includes Drain Plug.

* includes stainless steel screen with perforated metal backup.

** 100 mesh stainless steel screen.

OPTIONS

Perforated Metal Strainer Basket: necessary for protection of compressors in suction side port applications (1 1/2" through 3"); contact factory.

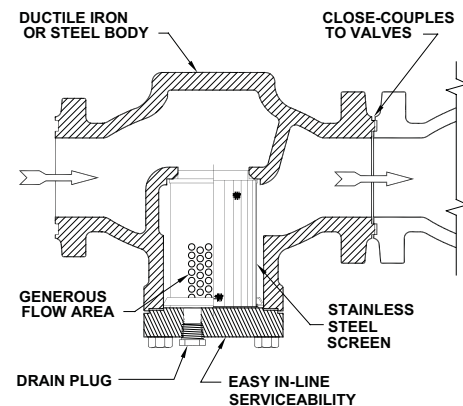
Cloth Bags: available up to 4" for system start-up.

Filter System: An extra-fine filter system with double the cleansing capacity of standard strainers is available. See bulletin T782 for more information.

TO ORDER

Specify catalog number and if strainer will be close-coupled to valve or installed as a separate unit. If it will be a separate unit, also specify flange connection style and size.

KEY FEATURES



MATERIAL SPECIFICATIONS

Body: 1/2" through 4": Ductile iron, ASTM A536,
5" and 6": Cast steel, ASTM A352

Bottom Cover: 1/2": Steel, ASTM 108

3/4" through 1 1/4": Ductile iron, ASTM A536

1 1/2" through 6": Steel, ASTM A36

Drain Plug: Standard on 3/4" through 1 1/4" (1/4" NPT), 1 1/2" through 4" (1/2" NPT), 5" & 6" (3/4" NPT), 1/2" optional (1/4" NPT)

Screen: Stainless steel, 60 mesh (233 micron rating) or 100 mesh (150 micron rating)

ST050 has 100 mesh (150 micron rating)

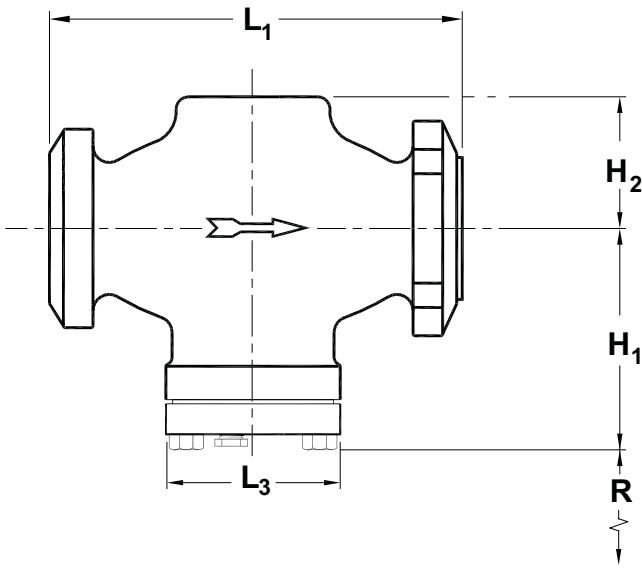
Gaskets: Nonasbestos, graphite composite

Safe Working Pressure: 400 psig (27 bar)

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

INSTALLATION DIMENSIONS

inches (mm)



CAT NO	H ₁	H ₂	L ₁	L ₃	R	W	SCREEN AREA in ² (cm ²)
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.

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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
Screen Kit for ST050/ST050D		—	78-1001
Screen Assembly	1		78-0005
Bottom Cap Gasket	1		78-0016
Screen Kit for ST100 (Standard)		78-1003	—
Screen Assembly	1	78-0028	
Bottom Cover Gasket	1	78-0026	
Screen Kit for ST100HD, ST100/100		78-1013	78-1014
Screen Assembly	1	78-0135	78-0137
Bottom Cover Gasket	1	78-0026	78-0026
Screen Kit for ST200, ST200/100		78-1005	78-1025
Screen Assembly	1	78-0052	78-0198
Bottom Cover Gasket	1	75-0196	75-0196
Screen Kit for ST250, ST250/100		78-1006	78-1026
Screen Assembly	1	78-0040	78-0199
Bottom Cover Gasket	1	75-0128	75-0128
Screen Kit for ST300		78-1007	—
Screen Assembly	1	78-0054	
Bottom Cover Gasket	1	75-0128	
Screen Kit for ST400		78-1008	—
Screen Assembly	1	78-0057	
Bottom Cover Gasket	1	75-0234	
Screen Kit for STW500/STW600		78-1009	—
Screen Assembly	1	78-0071	
Bottom Cover O-Ring, Inner	1	75-0605	
Bottom Cover O-Ring, Outer	1	75-0606	

HANSEN

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