

STG SERIES | *Bidirectional Filter Driers*



The series STG bidirectional filter-driers specifically designed for use in heat pump systems, and they are used to protect these systems from moisture and contamination.

FEATURES

- HIGHLY EFFICIENT IN MOISTURE AND CONTAMINATION REMOVAL
- BIDIRECTIONAL FLOW
- AVAILABLE IN 2 STYLES:
 - MOLDED POROUS CORE - 100% 3Å DESICCANT
 - MOLDED POROUS CORE - 80% 3Å DESICCANT, 20% ACTIVATED ALUMINA
- 20 MICRON FILTRATION RATING
- 500 HOUR GB/T 10125 SALT SPRAY CORROSION RESISTANCE
- CONNECTION TYPES: SAE FLARE OR ODF SOLDER

GENERAL SPECIFICATION

- Applicable for all common HCFC and HFC refrigerants such as: R-22, R-134a, R-404A, R-407C, R-410A, R-507
- Applicable ambient temperatures: -22°F to +130°F
- Fluid temperature range: -22°F to +250°F
- Maximum operating pressure: 700 psig
- Certifications: UL/CSA listed

PRODUCT DATA



STG SERIES | Bidirectional Filter Driers

MODEL DESIGNATION LEGEND

Position Number	Model Designation Legend	
1	Product Code	Filter Drier Series
	STG	Model number - Bidirectional filter drier
2	Filter Core	Type and Material
	B F	Molded porous core - 100% 3Å desiccant Molded porous core - 80% 3Å desiccant and 20% activated alumina
3	Internal Volume	Internal Volume (in³)
	05	5
	08	8
	16 30	16 30
4	Connection Size	Connection Size (in)
	02	1/4
	25	5/16
	03	3/8
	04	1/2
	05	5/8
	06	3/4
	07 09	7/8 1-1/8
5	Connection Type	Connection Type
	0	ODF solder connections
	4	SAE flare connections
6	Version Number	Description
	901	901 = Standard product, xxx = Special product

MODEL DESIGNATION EXAMPLE

Position Number						According to Model Designation Legend
1	2	3	4	5	6	
STG	B	08	03	0	901	➔ Bidirectional filter drier
STG	B	08	03	0	901	➔ Molded porous core – 100% 3Å desiccant
STG	B	08	03	0	901	➔ 8 in ³ internal volume
STG	B	08	03	0	901	➔ 3/8" connection size
STG	B	08	03	0	901	➔ ODF solder connections
STG	B	08	03	0	901	➔ Standard product

PRODUCT DATA

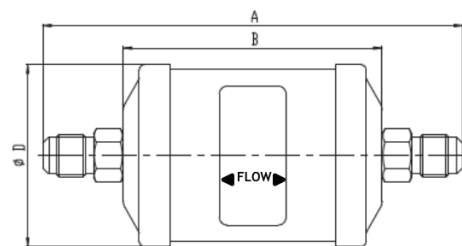


STG SERIES | Bidirectional Filter Driers

GENERAL CHARACTERISTICS OF STG-B FILTER - FLARE CONNECTION

Model ¹⁾	Part Number	Nominal Volume (in ³)	Connection	Dimensions & Weight			
			SAE Flare	ØD	B	A	Weight
			(in)	(in)	(in)	(in)	(lb)
STG-B05 024-901	STG-30001	3	1/4	2.72	2.99	4.48	.099
STG-B05 034-901	STG-30002		3/8			5.39	
STG-B05 044-901	STG-30003		1/2			5.71	
STG-B08 024-901	STG-30004	8	1/4	2.72	3.86	5.71	1.28
STG-B08 034-901	STG-30005		3/8			6.26	
STG-B08 044-901	STG-30006		1/2			6.57	
STG-B16 034-901	STG-30007	16	3/8	3.19	4.65	7.05	1.98
STG-B16 044-901	STG-30008		1/2			7.36	
STG-B16 054-901	STG-30009		5/8			7.72	
STG-B30 034-901	STG-30010	30	3/8	3.19	7.60	10.0	3.75
STG-B30 044-901	STG-30011		1/2			10.3	
STG-B30 054-901	STG-30012		5/8			10.7	
STG-B30 064-901	STG-30013		3/4			10.7	

Note: 1) Delivery time on request



Flare Connection

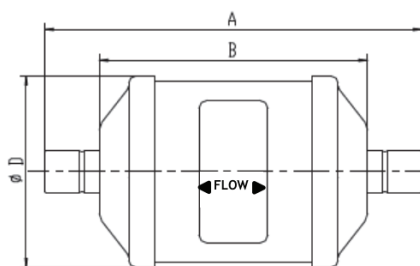
PRODUCT DATA



STG SERIES | Bidirectional Filter Driers

GENERAL CHARACTERISTICS OF STG-B FILTER - SOLDER CONNECTION

Model	Part Number	Nominal Volume (in ³)	Connection	Dimensions & Weight			
			ODF Solder	ØD	B	A	Weight
			(in)	(in)	(in)	(in)	(lb)
STG-B05 020-901	STG-30024	5	1/4	2.72	2.99	4.49	0.99
STG-B05 030-901	STG-30026		3/8			4.88	
STG-B05 040-901	STG-30027		1/2				
STG-B08 020-901	STG-30029	8	1/4	2.72	3.86	5.35	1.28
STG-B08 250-901	STG-30030		5/16				
STG-B08 030-901	STG-30031		3/8				
STG-B08 040-901	STG-30032		1/2			5.75	
STG-B16 030-901	STG-30036	16	3/8	3.19	4.65	6.14	1.98
STG-B16 040-901	STG-30033		1/2			6.54	
STG-B16 050-901	STG-30033		5/8			7.01	
STG-B16 070-901	STG-30033		7/8				
STG-B30 030-901	STG-30041	30	3/8	3.19	7.60	9.09	3.75
STG-B30 040-901	STG-30042		1/2			9.49	
STG-B30 050-901	STG-30043		5/8			9.96	
STG-B30 060-901	STG-30044		3/4				
STG-B30 070-901	STG-30045		7/8			10.4	
STG-B30 090-901	STG-30046		1-1/8				



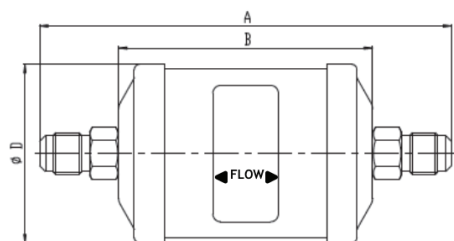
Solder Connection

STG SERIES | Bidirectional Filter Driers

GENERAL CHARACTERISTICS OF STG-F FILTER - FLARE CONNECTION

Model ¹⁾	Part Number	Nominal Volume (in ³)	Connection		Dimensions & Weight		
			SAE Flare	ØD	B	A	Weight
			(in)	(in)	(in)	(in)	(lb)
STG-F05 024-901	STG-31044	3	1/4	2.72	2.99	4.84	0.99
STG-F05 034-901	STG-31045		3/8			5.39	
STG-F05 044-901	STG-31046		1/2			5.71	
STG-F08 024-901	STG-31047	8	1/4	2.72	3.86	5.71	1.28
STG-F08 034-901	STG-31048		3/8			6.26	
STG-F08 044-901	STG-31049		1/2			6.57	
STG-F16 034-901	STG-31050	16	3/8	3.19	4.65	7.05	1.98
STG-F16 044-901	STG-31051		1/2			7.36	
STG-F16 054-901	STG-31052		5/8			7.72	
STG-F30 034-901	STG-31053	30	3/8	3.19	7.60	10.0	3.75
STG-F30 044-901	STG-31054		1/2			10.3	
STG-F30 054-901	STG-31055		5/8			10.7	
STG-F30 064-901	STG-31056		3/4				

Note: 1) Delivery time on request



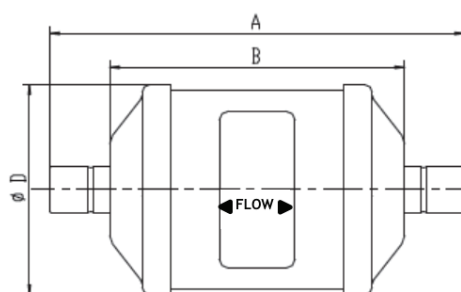
Flare Connection

STG SERIES | Bidirectional Filter Driers

GENERAL CHARACTERISTICS OF STG-F FILTER - SOLDER CONNECTION

Model	Part Number	Nominal Volume (in ³)	Connection	Dimensions & Weight			
			ODF Solder	ØD	B	A	Weight
			(in)	(in)	(in)	(in)	(lb)
STG-F05 020-901	STG-31057	5	1/4	2.72	2.99	4.49	0.99
STG-F05 030-901	STG-31058		3/8				
STG-F05 040-901	STG-31059		1/2			4.88	
STG-F08 020-901	STG-31060	8	1/4	2.72	3.86	5.35	1.28
STG-F08 250-901	STG-31061		5/16				
STG-F08 030-901	STG-31062		3/8				
STG-F08 040-901	STG-31063		1/2			5.75	
STG-F16 030-901	STG-31064	16	3/8	3.19	4.65	6.14	1.98
STG-F16 040-901	STG-31065		1/2			6.54	
STG-F16 050-901	STG-31066		5/8			7.01	
STG-F16 070-901	STG-31067		7/8				
STG-F30 030-901	STG-31068	30	3/8	3.19	7.60	9.09	3.75
STG-F30 040-901	STG-31069		1/2			9.49	
STG-F30 050-901	STG-31070		5/8			9.96	
STG-F30 060-901	STG-31071		3/4			10.4	
STG-F30 070-901	STG-31072		7/8				
STG-F30 090-901	STG-31073		1-1/8				

Note: 1) Delivery time on request



Solder Connection

PRODUCT DATA



STG SERIES | Bidirectional Filter Driers

SELECTION TABLE

Model	Capacity (tons)			Water Capacity (drops)							
	R-134a	R-404A R-407A	R-22 R-407C R-410A	R-134a		R-404A R-507A		R-407C R-410A		R-22	
				75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
STG-B05020-901	2.1	1.5	2.2	101	87	109	89	86	78	93	86
STG-B05024-901	1.7	1.2	1.8								
STG-B05030-901	3.9	2.7	4.0								
STG-B05034-901	3.8	2.6	3.8								
STG-B05040-901	6.0	4.2	6.2								
STG-B05044-901	4.8	3.4	5.0								
STG-B08020-901	2.1	1.5	2.2	193	166	208	171	163	149	178	163
STG-B08024-901	1.7	1.2	1.8								
STG-B08250-901	2.6	1.9	2.7								
STG-B08030-901	3.8	2.7	3.9								
STG-B08034-901	3.0	2.2	3.1								
STG-B08040-901	5.4	3.8	5.6								
STG-B08044-901	4.3	3.0	4.5	348	300	375	308	295	268	321	295
STG-B08050-901	6.2	4.3	6.5								
STG-B16030-901	6.4	4.5	6.6								
STG-B16034-901	5.1	3.6	5.3								
STG-B16040-901	6.6	4.7	6.8								
STG-B16044-901	5.3	3.8	5.4								
STG-B16050-901	8.2	5.8	8.5	820	706	883	725	694	631	757	694
STG-B16054-901	6.6	4.6	6.8								
STG-B16070-901	12.0	8.5	12.2								
STG-B30030-901	5.8	4.1	6.0								
STG-B30034-901	4.6	3.3	4.8								
STG-B30040-901	8.8	6.2	9.1								
STG-B30044-901	7.0	5.0	7.3								
STG-B30050-901	9.1	6.4	9.4	820	706	883	725	694	631	757	694
STG-B30054-901	7.3	5.1	7.5								
STG-B30060-901	11.3	8.0	11.4								
STG-B30064-901	9.0	6.4	9.1								
STG-B30070-901	12.7	8.9	13.1								
STG-B30090-901	13.9	9.8	14.4								

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SELECTION TABLE

Model	Capacity (tons)			Water Capacity (drops)							
	R-134a	R-404A R-507A	R-22 R-407C R-410A	R-134a		R-404A R-507A		R-407C R-410A		R-22	
				75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
STG-F05020-901	2.1	1.5	2.2	86	74	93	76	73	66	79	73
STG-F05024-901	1.7	1.2	1.8								
STG-F05030-901	3.9	2.7	4.0								
STG-F05034-901	3.8	2.6	3.8								
STG-F05040-901	6.0	4.2	6.2								
STG-F05044-901	4.8	3.4	5.0								
STG-F08020-901	2.1	1.5	2.2	164	141	177	145	139	127	151	139
STG-F08024-901	1.7	1.2	1.8								
STG-F08250-901	2.6	1.9	2.7								
STG-F08030-901	3.8	2.7	3.9								
STG-F08034-901	3.0	2.2	3.1								
STG-F08040-901	5.4	3.8	5.6								
STG-F08044-901	4.3	3.0	4.5								
STG-F08050-901	6.2	4.3	6.5								
STG-F16030-901	6.4	4.5	6.6	296	255	319	262	251	228	273	251
STG-F16034-901	5.1	3.6	5.3								
STG-F16040-901	6.6	4.7	6.8								
STG-F16044-901	5.3	3.8	5.4								
STG-F16050-901	8.2	5.8	8.5								
STG-F16054-901	6.6	4.6	6.8								
STG-F16070-901	12.0	8.5	12.2								
STG-F30030-901	5.8	4.1	6.0	697	600	751	616	590	536	643	590
STG-F30034-901	4.6	3.3	4.8								
STG-F30040-901	8.8	6.2	9.1								
STG-F30044-901	7.0	5.0	7.3								
STG-F30050-901	9.1	6.4	9.4								
STG-F30054-901	7.3	5.1	7.5								
STG-F30060-901	11.3	8.0	11.4								
STG-F30064-901	9.0	6.4	9.1								
STG-F30070-901	12.7	8.9	13.1								
STG-F30090-901	13.9	9.8	14.4								

SELECTION FORMULAS

Filter Driers for liquid line are rated in compliance with AHRI Standard 710. Maximum flow rate of liquid refrigerant at a differential pressure of 1 psi, liquid refrigerant temperature of 86°F, and an evaporating temperature 5°F. The follow may be used to convert capacity in tons to refrigerant mass flow:

- 3.1 lb/min-ton R-134a
- 4.1 lb/min-ton R-404A, R-507A
- 3.0 lb/min-ton R-22, R-407C
- 2.8 lb/min-ton R-410A

Note: Data on water capacity is based on the following equilibrium point dryness (EPD), ASHRAE Standard 63.1:

- 60ppm R-22
- 50ppm R-134a
- 50ppm R-404A
- 50ppm R-407C
- 50ppm R-410A
- 50ppm R-507