



Bi-Flow Filter Driers

The filter driers of series STG are used in refrigeration system with bidirectional flow to absorb moisture and acid in the system and to filter out the impurities.



FEATURES

- HIGH EFFICIENT IN MOISTURE ABSORPTION, FILTERING IMPURITY, ACID, PAINT REMAINS AND MUD REMOVAL
- HYBRID DESICCANT
- DURABLE AND SOLID FILTER CORES
- FILTERING FINENESS: 20µm
- CORROSION RESISTANT PAINTING CAN SURVIVE SALT SPRAY TEST OF 500 HOURS
- CONNECTION TYPE: FLARE OR SOLDER

GENERAL SPECIFICATIONS

- Applicable for all common HCFC and HFC refrigerants such as: R22, R134a, R404A, R407C, R410A, R507A ...
- Ambient temperature min./max.: -30°C / +55°C
- Medium temperature TS min./max.: -30°C / +120°C
- Max. operating pressure PS: 4,83 MPa (48,3 bar)
- Installation position: preferably installed in liquid line
- Certifications: UL/CSA and PED declaration

TECNHICAL PARAMETERS *Desiccant Selection Table*

	Medium Type	80% 3Å Desiccant and 20% Active Alumina	100% 3Å Desiccant
Refrigerant ¹	HFC	applicable	applicable
	HCFC	applicable	applicable
	CFC	applicable	not applicable
Oil ²	Mineral oil or AB	applicable	applicable
	Pure POE or PAG	applicable	applicable
	POE or PAG with additive	not applicable	applicable

Note: 1) For CFC system, usage of core with alumina is recommended as a strong capability to absorb acid may be needed
 2) When the systems use oil with additive, it is not recommended to use a core with alumina.





SANHUA STG SERIES Bi-Flow Filter Driers

Model Designation Legend

1	Product Code	Filter Drier Series	
	STG	Indicates bidirectional filter drier	
2	Filter Core	Structure and Material	
	A	Loos core, 100%3Å desiccant	
	B	Solid core, 100%3Å desiccant	
	E	Loos core, 80% 3Å desiccant and 20% active alumina	
F	Solid core, 80% 3Å desiccant and 20% active alumina		
3	Internal Volume	Expressed in [inch ³]	Expressed in [cm ³]
	03	3	49
	05	5	82
	08	8	131
	16	16	262
	30	30	492
4	Connection Size	Pos. 5 shows "0": Solder [inch]	Pos. 5 shows "4": SAE Flare [inch]
	02	1/4	1/4
	25	5/16	-
	03	3/8	3/8
	04	1/2	1/2
	05	5/8	5/8
	06	3/4	3/4
	07	7/8	7/8
	09	1 1/8	-
	Connection Size	Pos. 5 shows "1": Solder [mm]	
	06	6	
	(08) *	(5/16" version can be used e.g. STG-B08 250)	
	10	10	
	12	12	
16	16		
(22) *	(7/8" version can be used e.g. STG-B16 070)		
28	28		
5	Pipe Connection	Type	
	0	Solder with inch connections	
	1 *	Solder with metric connections	
4	SAE flare connections		
6	Version Number	Description	
	901	Standard product	

Note: * Solder connections which fit to metric and inch are marked with inch product codes e.g. 8 and 22mm





SANHUA STG SERIES Bi-Flow Filter Driers

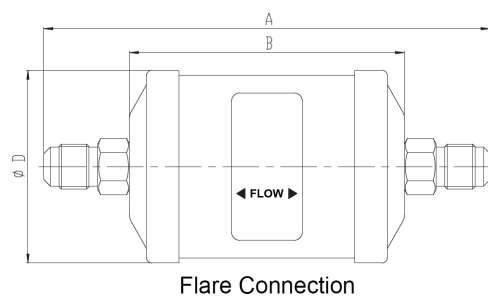
MODEL DESIGNATION EXAMPLE

Position Number						According to Model Designation Legend
1	2	3	4	5	6	
STG	B	05	06	1	901	Bidirectional filter drier
STG	B	05	06	1	901	Solid filter core with 100% 3Å desiccant
STG	B	05	06	1	901	5 inch ³ internal volume
STG	B	05	06	1	901	When Pos. 5 is "1": connection size 6mm
STG	B	05	06	1	901	Solder connection metric
STG	B	05	06	1	901	Standard product

GENERAL CHARACTERISTICS OF STG-B FILTER - FLARE CONNECTION

Model	Part Number	Type of Connection	Nominal Volume	Connection	Dimensions & Weight ¹⁾				PED Category
				SAE Flare	∅D	B	A	Weight	
				[cm ³]	[inch]	[mm]	[mm]	[mm]	
STG-B05 024-901	STG-31001	flare	82	1/4	69	76	123	450	3,3
STG-B05 034-901	STG-31002	flare	82	3/8	69	76	137	450	3,3
STG-B05 044-901	STG-31003	flare	82	1/2	69	76	145	450	3,3
STG-B08 024-901	STG-31004	flare	131	1/4	69	98	145	580	3,3
STG-B08 034-901	STG-31005	flare	131	3/8	69	98	159	580	3,3
STG-B08 044-901	STG-31006	flare	131	1/2	69	98	167	580	3,3
STG-B16 034-901	STG-31007	flare	262	3/8	81	118	179	900	3,3
STG-B16 044-901	STG-31008	flare	262	1/2	81	118	187	900	3,3
STG-B16 054-901	STG-31009	flare	262	5/8	81	118	196	900	3,3
STG-B30 034-901	STG-31010	flare	492	3/8	81	193	254	1700	3,3
STG-B30 044-901	STG-31011	flare	492	1/2	81	193	262	1700	3,3
STG-B30 054-901	STG-31012	flare	492	5/8	81	193	271	1700	3,3
STG-B30 064-901	STG-31013	flare	492	3/4	81	193	271	1700	3,3

Note: 1) Dimensions are rounded up to integral mm



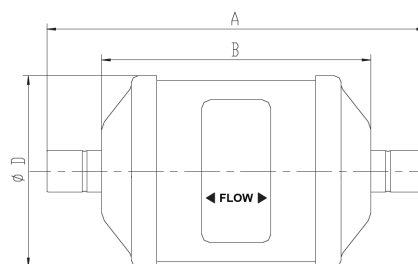


SANHUA STG SERIES Bi-Flow Filter Driers

GENERAL CHARACTERISTICS OF STG-B FILTER - SOLDER CONNECTION

Model [inch]	Part Number [inch]	Model [mm]	Part Number [mm]	Type of connection	Nominal Volumen [cm ³]	Connection		Dimensions & Weight ¹⁾				PED category
						Solder		DØ [mm]	B [mm]	A [mm]	Weight [g]	
						[inch]	[mm]					
STG-B05 020-901	STG-31014	STG-B05 061-901	STG-31031	solder	82	1/4	6	69	76	114	450	3,3
STG-B05 030-901	STG-31015	STG-B05 101-901	STG-31032	solder	82	3/8	10	69	76	114	450	3,3
STG-B05 040-901	STG-31016	STG-B05 121-901	STG-31033	solder	82	1/2	12	69	76	124	450	3,3
STG-B08 020-901	STG-31017	STG-B08 061-901	STG-31034	solder	131	1/4	6	69	98	136	580	3,3
STG-B08 250-901	STG-31018	STG-B08 250-901	STG-31018	solder	131	5/16	8	69	98	136	580	3,3
STG-B08 030-901	STG-31019	STG-B08 101-901	STG-31035	solder	131	3/8	10	69	98	136	580	3,3
STG-B08 040-901	STG-31020	STG-B08 121-901	STG-31036	solder	131	1/2	12	69	98	146	580	3,3
STG-B16 030-901	STG-31021	STG-B16 101-901	STG-31037	solder	262	3/8	10	81	118	156	900	3,3
STG-B16 040-901	STG-31022	STG-B16 121-901	STG-31038	solder	262	1/2	12	81	118	166	900	3,3
STG-B16 050-901	STG-31023	STG-B16 161-901	STG-31087	solder	262	5/8	16	81	118	166	900	3,3
STG-B16 070-901	STG-31024	STG-B16 070-901	STG-31024	solder	262	7/8	22	81	118	178	900	3,3
STG-B30 030-901	STG-31025	STG-B30 101-901	STG-31039	solder	492	3/8	10	81	193	231	1700	3,3
STG-B30 040-901	STG-31026	STG-B30 121-901	STG-31040	solder	492	1/2	12	81	193	241	1700	3,3
STG-B30 050-901	STG-31027	STG-B30 161-901	STG-31088	solder	492	5/8	16	81	193	241	1700	3,3
STG-B30 060-901	STG-31028	-	-	solder	492	3/4	-	81	193	253	1700	3,3
STG-B30 070-901	STG-31029	STG-B30 070-901	STG-31029	solder	492	7/8	22	81	193	253	1700	3,3
STG-B30 090-901	STG-31030	STG-B30 281-901	STG-31043	solder	492	1 1/8	28	81	193	263	1700	3,3

Note: 1) Dimensions are rounded up to integral mm



Solder Connection



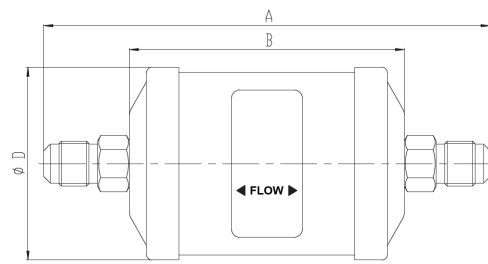


SANHUA STG SERIES Bi-Flow Filter Driers

GENERAL CHARACTERISTICS OF STG-F FILTER - FLARE CONNECTION

Model ¹⁾	Part Number	Type of Connection	Nominal Volume	Connection	Dimensions & Weight ²⁾				PED Category
				SAE Flare	ØD	B	A	Weight	
			[cm ³]	[inch]	[mm]	[mm]	[mm]	[g]	
STG-F05 024-901	STG-31044	flare	82	1/4	69	76	123	450	3,3
STG-F05 034-901	STG-31045	flare	82	3/8	69	76	137	450	3,3
STG-F05 044-901	STG-31046	flare	82	1/2	69	76	145	450	3,3
STG-F08 024-901	STG-31047	flare	131	1/4	69	98	145	580	3,3
STG-F08 034-901	STG-31048	flare	131	3/8	69	98	159	580	3,3
STG-F08 044-901	STG-31049	flare	131	1/2	69	98	167	580	3,3
STG-F16 034-901	STG-31050	flare	262	3/8	81	118	179	900	3,3
STG-F16 044-901	STG-31051	flare	262	1/2	81	118	187	900	3,3
STG-F16 054-901	STG-31052	flare	262	5/8	81	118	196	900	3,3
STG-F30 034-901	STG-31053	flare	492	3/8	81	193	254	1700	3,3
STG-F30 044-901	STG-31054	flare	492	1/2	81	193	262	1700	3,3
STG-F30 054-901	STG-31055	flare	492	5/8	81	193	271	1700	3,3
STG-F30 064-901	STG-31056	flare	492	3/4	81	193	271	1700	3,3

- Note:** 1) Delivery time on request
2) Dimensions are rounded up to integral mm



Flare Connection



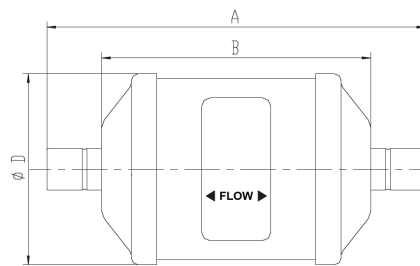


SANHUA STG SERIES Bi-Flow Filter Driers

GENERAL CHARACTERISTICS OF STG-F FILTER - SOLDER CONNECTION

Model ¹⁾ [inch]	Part Number [inch]	Model ¹⁾ [mm]	Part Number [mm]	Type pf connection	Nominal Volumen [cm ³]	Connection		Dimensions & Weight ²⁾				PED category
						Solder		DØ [mm]	B [mm]	A [mm]	Weight [g]	
						[inch]	[mm]					
STG-F05 020-901	STG-31057	STG-F05 061-901	STG-31074	solder	82	1/4	6	69	76	114	450	3,3
STG-F05 030-901	STG-31058	STG-F05 101-901	STG-31075	solder	82	3/8	10	69	76	114	450	3,3
STG-F05 040-901	STG-31059	STG-F05 121-901	STG-31076	solder	82	1/2	12	69	76	124	450	3,3
STG-F08 020-901	STG-31060	STG-F08 061-901	STG-31077	solder	131	1/4	6	69	98	136	580	3,3
STG-F08 250-901	STG-31061	STG-F08 250-901	STG-31061	solder	131	5/16	8	69	98	136	580	3,3
STG-F08 030-901	STG-31062	STG-F08 101-901	STG-31078	solder	131	3/8	10	69	98	136	580	3,3
STG-F08 040-901	STG-31063	STG-F08 121-901	STG-31079	solder	131	1/2	12	69	98	146	580	3,3
STG-F16 030-901	STG-31064	STG-F16 101-901	STG-31080	solder	262	3/8	10	81	118	156	900	3,3
STG-F16 040-901	STG-31065	STG-F16 121-901	STG-31081	solder	262	1/2	12	81	118	166	900	3,3
STG-F16 050-901	STG-31066	STG-F16 161-901	STG-31082	solder	262	5/8	16	81	118	166	900	3,3
STG-F16 070-901	STG-31067	STG-F16 070-901	STG-31067	solder	262	7/8	22	81	118	178	900	3,3
STG-F30 030-901	STG-31068	STG-F30 101-901	STG-31083	solder	492	3/8	10	81	193	231	1700	3,3
STG-F30 040-901	STG-31069	STG-F30 121-901	STG-31084	solder	492	1/2	12	81	193	241	1700	3,3
STG-F30 050-901	STG-31070	STG-F30 161-901	STG-31085	solder	492	5/8	16	81	193	241	1700	3,3
STG-F30 060-901	STG-31071	-	-	solder	492	3/4	-	81	193	253	1700	3,3
STG-F30 070-901	STG-31072	STG-F30 070-901	STG-31072	solder	492	7/8	22	81	193	253	1700	3,3
STG-F30 090-901	STG-31073	STG-F30 281-901	STG-31086	solder	492	1 1/8	28	81	193	263	1700	3,3

- Note:** 1) Delivery time on request
2) Dimensions are rounded up to integral mm





SANHUA STG SERIES Bi-Flow Filter Driers

SELECTION TABLE

Model	Capacity [kW] ¹					Moisture Absorption (gram H ₂ O)							
	R134a	R404A	R22	R407C ²	R410A	R134a		R404A		R407C ²		R22	
		R507A				75°F	125°F	75°F	125°F	75°F	125°F	75°F	125°F
						23,9°C	51,7°C	23,9°C	51,7°C	23,9°C	51,7°C	23,9°C	51,7°C
	STG-B05 020-901	7,4	5,3	7,7	7,7	7,7	4,3	4,0	4,1	3,8	3,7	3,4	4,1
STG-B05 024-901	7,4	5,3	7,7	7,7	7,7	4,3	4,0	4,1	3,8	3,7	3,4	4,1	3,7
STG-B05 030-901	16,5	11,6	16,9	16,5	16,9	4,3	4,0	4,1	3,8	3,7	3,4	4,1	3,7
STG-B05 034-901	16,5	11,6	16,9	16,5	16,9	4,3	4,0	4,1	3,8	3,7	3,4	4,1	3,7
STG-B05 040-901	25,0	17,6	25,3	25,0	25,3	4,3	4,0	4,1	3,8	3,7	3,4	4,1	3,7
STG-B05 044-901	25,0	17,6	25,3	25,0	25,3	4,3	4,0	4,1	3,8	3,7	3,4	4,1	3,7
STG-B08 020-901	8,8	6,0	8,8	8,8	8,8	9,8	9,0	9,2	8,6	8,5	7,8	9,2	8,5
STG-B08 024-901	8,8	6,0	8,8	8,8	8,8	9,8	9,0	9,2	8,6	8,5	7,8	9,2	8,5
STG-B08 250-901	15,8	10,9	16,2	15,8	16,2	9,8	9,0	9,2	8,6	8,5	7,8	9,2	8,5
STG-B08 030-901	17,2	12,0	17,6	17,2	17,6	9,8	9,0	9,2	8,6	8,5	7,8	9,2	8,5
STG-B08 034-901	17,2	12,0	17,6	17,2	17,6	9,8	9,0	9,2	8,6	8,5	7,8	9,2	8,5
STG-B08 040-901	25,7	17,9	26,4	26,0	26,4	9,8	9,0	9,2	8,6	8,5	7,8	9,2	8,5
STG-B08 044-901	25,7	17,9	26,4	26,0	26,4	9,8	9,0	9,2	8,6	8,5	7,8	9,2	8,5
STG-B16 030-901	19,7	13,7	20,0	19,7	20,0	17,6	16,3	16,6	15,5	15,2	14,0	16,6	14,2
STG-B16 034-901	19,7	13,7	20,0	19,7	20,0	17,6	16,3	16,6	15,5	15,2	14,0	16,6	14,2
STG-B16 040-901	30,2	21,5	30,9	30,6	30,9	17,6	16,3	16,6	15,5	15,2	14,0	16,6	14,2
STG-B16 044-901	30,2	21,5	30,9	30,6	30,9	17,6	16,3	16,6	15,5	15,2	14,0	16,6	14,2
STG-B16 050-901	34,1	23,9	34,8	34,5	35,2	17,6	16,3	16,6	15,5	15,2	14,0	16,6	14,2
STG-B16 054-901	34,1	23,9	34,8	34,5	35,2	17,6	16,3	16,6	15,5	15,2	14,0	16,6	14,2
STG-B16 070-901	42,2	29,9	42,9	42,6	43,3	17,6	16,3	16,6	15,5	15,2	14,0	16,6	14,2
STG-B30 030-901	25,0	17,6	25,3	25,0	25,7	41,3	38,4	38,9	36,5	35,9	32,9	39,1	33,1
STG-B30 034-901	25,0	17,6	25,3	25,0	25,7	41,3	38,4	38,9	36,5	35,9	32,9	39,1	33,1
STG-B30 040-901	30,9	21,8	31,7	31,7	32,0	41,3	38,4	38,9	36,5	35,9	32,9	39,1	33,1
STG-B30 044-901	30,9	21,8	31,7	31,7	32,0	41,3	38,4	38,9	36,5	35,9	32,9	39,1	33,1
STG-B30 050-901	35,5	25,0	36,2	35,9	36,6	41,3	38,4	38,9	36,5	35,9	32,9	39,1	33,1
STG-B30 054-901	35,5	25,0	36,2	35,9	36,6	41,3	38,4	38,9	36,5	35,9	32,9	39,1	33,1
STG-B30 060-901	39,6	28,1	40,1	39,7	40,4	41,3	38,4	38,9	36,5	35,9	32,9	39,1	33,1
STG-B30 064-901	39,6	28,1	40,1	39,7	40,4	41,3	38,4	38,9	36,5	35,9	32,9	39,1	33,1
STG-B30 070-901	46,4	32,4	47,1	46,8	47,5	41,3	38,4	38,9	36,5	35,9	32,9	39,1	33,1
STG-B30 090-901	54,2	38,0	55,2	54,5	55,6	41,3	38,4	38,9	36,5	35,9	32,9	39,1	33,1

Note: 1) The above data is based on filter driers with inch connections and clean system at ideal conditions; with impurities accumulated in the filter, the capacity may decrease.
2) R407C data based on dew point conditions





SANHUA *STG SERIES* Bi-Flow Filter Driers

SELECTION FORMULAS

Filter driers for liquid line are manufactured in compliance with ARI Standard 710. Maximum flow rate of liquid refrigerant at a differential pressure of 0,07bar (1psi) is indicated by kW (ton) which is based on the temperature of liquid refrigerant 30°C (86°F), the evaporating temperature of -15°C (5°F) and the following mass flow:

- 0,40 kg/min/kW (3.1 lb/min/ton) R134a
- 0,53 kg/min/kW (4.1 lb/min/ton) R404A, R507A
- 0,39 kg/min/kW (3.0 lb/min/ton) R22, R407C
- 0,36 kg/min/kW (2.8 lb/min/ton) R410A

Note: Data on water absorption is based on the following EPD (method: ASHRAE Standard 63.1):

- 60ppm R22
- 50ppm R134a
- 50ppm R404A
- 50ppm R407C
- 50ppm R410A
- 50ppm R507A

