

**STG SERIES**

# BI-FLOW FILTER DRIERS



(GreenTech range: for fluids GROUP 1 according to Directive 2014/68/EU or GROUP A3/A2L according to ANSI-ASHRAE 34-2016)



## FEATURES

- HIGHLY EFFICIENT IN MOISTURE ABSORPTION, FILTERING IMPURITY, PAINT REMAINS AND MUD REMOVAL
- 100% 3Å DESICCANT
- DURABLE AND SOLID FILTER CORES
- FILTERING FINENESS: 20µm
- CORROSION RESISTANT PAINTING CAN SURVIVE SALT SPRAY TEST OF 500 HOURS
- CONNECTION TYPE: SOLDER

## GENERAL SPECIFICATION

- Applicable for refrigerants such as R32
- Ambient temperature min./max.: -30°C / +55°
- Medium temperature TS min./max.: -30°C / +120°C
- Max. operating pressure PS: 4,9 MPa (49 bar) - 711 PSIG
- Installation position: preferably installed in liquid line
- Certifications: UL/CSA and PED declaration (all products have been covered by Art.4.3 PED Directive 2014/68/EU)

## TECHNICAL PARAMETERS *Desiccant Selection Table*

	Medium Type	100% 3Å desiccant
Refrigerant	R32	Applicable
Oil	Mineral oil or AB	Applicable
	Pure POE or PAG	Applicable
	POE or PAG with additive	Applicable

**Note:** 1) When the systems use oil with additive, it is not recommended to use a core with alumina

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## BI-FLOW FILTER DRIERS



### Model Designation Legend

1	Product Code	Filter Drier Series	
	STG	Indicates bidirectional filter drier	
2	Filter Core	Structure and Material	
	B	Solid core, 100%3Å desiccant	
3	Internal Volume	Expressed in [ inch <sup>3</sup> ]	Expressed in [ cm <sup>3</sup> ]
	05	5	82
	08	8	131
	16	16	262
	30	30	492
4	Connection Size	Pos. 5 shows "0": Solder [inch]	
	02	1/4	
	03	3/8	
	04	1/2	
	05	5/8	
	07	7/8	
	09	1 1/8	
	Connection Size	Pos. 5 shows "1": Solder [mm]	
	06	6	
	10	10	
	12	12	
	(16) *	(5/8" version can be used e.g. STG-B16 050)	
	(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	
6	Version Number	Description	
	901	Standard product	

**Note:** \* Solder connections which fit to metric and inch are marked with inch product codes e.g. 16 and 22 mm

### MODEL DESIGNATION EXAMPLE

Position Number						According to Model Designation Legend
1	2	3	4	5	6	
STG	B	05	06	1	932	Bidirectional filter drier
STG	<b>B</b>	05	06	1	932	Solid filter core with 100% 3Å desiccant
STG	B	<b>05</b>	06	1	932	5 inch <sup>3</sup> internal volume
STG	B	05	<b>06</b>	1	932	When Pos. 5 is "1": connection size 6 mm
STG	B	05	06	<b>1</b>	932	Solder connection metric
STG	B	05	06	1	<b>932</b>	Standard product for R32 (MOP 49 bar)

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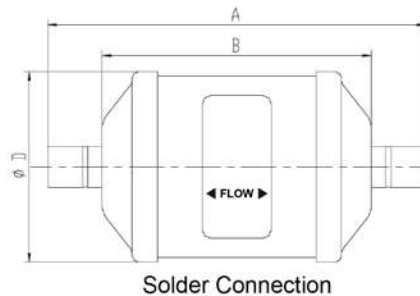
## BI-FLOW FILTER DRIERS



### GENERAL CHARACTERISTICS OF STG-B FILTER - SOLDER CONNECTION

Filter	Model [inch]	Part Number (multi package) <sup>1)</sup> [inch]	Model [mm]	Part Number (multi package) <sup>1)</sup> [mm]	Nominal Volumen		Connection		Dimensions & Weight <sup>2)</sup>				PED Category <sup>3)</sup> (Fluid Group 1)
							Solder		ØD	B	A	Weight	
					[inch <sup>3</sup> ]	[cm <sup>3</sup> ]	[inch]	[mm]	[mm]	[mm]	[mm]	[g]	
STGB052s	STG-B05020-932	10235019502	STG-B05061-932	10235020602	5	82	1/4	6	69	76	114	450	Art. 4.3
STGB053s	STG-B05030-932	10235019602	STG-B05101-932	10235020702	5	82	3/8	10	69	76	114	450	Art. 4.3
STGB054s	STG-B05040-932	10235019702	STG-B05121-932	10235020802	5	82	1/2	12	69	76	124	450	Art. 4.3
STGB083s	STG-B08030-932	10235019802	STG-B08101-932	10235020902	8	131	3/8	10	69	98	136	580	Art. 4.3
STGB084s	STG-B08040-932	10235019902	STG-B08121-932	10235021002	8	131	1/2	12	69	98	146	580	Art. 4.3
STGB163s	STG-B16030-932	10235020002	STG-B16101-932	10235021102	16	262	3/8	10	81	118	156	900	Art. 4.3
STGB164s	STG-B16040-932	10235020102	STG-B16121-932	10235021202	16	262	1/2	12	81	118	166	900	Art. 4.3
STGB165s	STG-B16050-932	10235019302	STG-B16050-932	10235019302	16	262	5/8	16	81	118	166	900	Art. 4.3
STGB167s	STG-B16070-932	10235020202	STG-B16070-932	10235020202	16	262	7/8	22	81	118	178	900	Art. 4.3
STGB305s	STG-B30050-932	10235020302	STG-B30050-932	10235020302	30	492	5/8	16	81	193	241	1700	Art. 4.3
STGB307s	STG-B30070-932	10235020402	STG-B30070-932	10235020402	30	492	7/8	22	81	193	253	1700	Art. 4.3
STGB309s	STG-B30090-932	10235020502			30	492	1 1/8	28	81	193	263	1700	Art. 4.3

- Note:**
- 1) Available also as industrial package. Contact Sanhua for more details.
  - 2) Dimensions are rounded up to integral mm
  - 3) PED Directive 2014/68/EU. Category evaluated considering product as a "vessel"



## STG SERIES BI-FLOW FILTER DRIERS



### SELECTION TABLE

Model	Capacity <sup>1) 2)</sup> [kW]
	R32
STGB052s	11.5
STGB053s	25.6
STGB054s	38.8
STGB083s	26.8
STGB084s	40
STGB163s	30.7
STGB164s	46.8
STGB165s	53
STGB167s	65.4
STGB305s	55
STGB307s	72
STGB309s	84

**Note:** 1) the above data is based on clean system at ideal conditions; with impurities, accumulated in the filter, the capacity may decrease

2) given capacity is for all available types of connection for the same model: solder [inch] and equivalent solder [mm]

### SELECTION FORMULAS

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