



Bi-Flow Filter Drier

The filter drier of series STG/L are used in refrigeration system with bi-directional 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
- FILTERING FINENESS: 20µm
- CORROSION RESISTANT PAINTING CAN SURVIVE SALT SPRAY TEST OF 500 HOURS.
- CONNECTION TYPE: THREAD OR SOLDER

GENERAL SPECIFICATIONS

- Applicable for all common HCFC, HFC and CFC refrigerants such as: R22, R134a, R404A, R407C, R410A, R507
- Min./max. ambient temperature: -30°C to +55°C
- TS min./max.: -30°C / +120°C
- PS: 4,83 MPa
- Certifications: PED & UL/CSA

TECHNICAL PARAMETERS *Desiccant Selection Table*

	Medium Type	80% 3A desiccant and 20% active alumina	100% 3A desiccant
Refrigerant	HFC	Applicable	Applicable
	HCFC	Applicable	Applicable
	CFC	Applicable	Not applicable
	HC	Applicable	Applicable
Oil	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/L SERIES Bi-Flow Filter Drier

Part Number Legend

1	Product Code		
	STG	Indicates bi-flow filter drier with solder connection	
	STGL	Indicates bi-flow filter drier with solder connection	
2	Internal volume	Expressed in inch ³	Expressed in cm ³
	05	5	82
	08	8	131
	16	16	262
	30	30	492
2	Internal volume	Expressed in inch ³	Expressed in cm ³
	2	1/4	-
	2,5	5/16	-
	3	3/8	-
	4	1/2	-
	5	5/8	16
	6	3/4	-
	7	7/8	22
	9	1 1/8	-
2	Internal volume	Expressed in inch ³	Expressed in cm ³
	T	Solid core	
2	Internal volume	Expressed in inch ³	Expressed in cm ³
	A	Composed of 80% 3A desiccant and 20% active alumina	
	(Omitted)	Composed of 100%3A desiccant	





SANHUA STG/L SERIES Bi-Flow Filter Drier

GENERAL CHARACTERISTIC OF FILTER (STG/L SERIES) - VERSION T

Model	Model Name (T) [inch]	Part Number (T) [inch]	Model Name (T) [mm]	Part Number (T) [mm]	Type of connection	Nominal Volumen [cm3]	Connection			Dimensions & Weight				PED category
							Thread (SAE Flare) [in]	Solder		D [mm]	B [mm]	A [mm]	Weight [g]	
								[in]	[mm]					
STGL-052-T	STG-L05021-001	STG-31001	-	-	Thread	82	1/4	-	-	68	76	109	450	3,3
STGL-053-T	STG-L05031-001	STG-31002	-	-	Thread	82	3/8	-	-	68	76	115	450	3,3
STGL-054-T	STG-L05041-001	STG-31003	-	-	Thread	82	1/2	-	-	68	76	120	450	3,3
STGL-082-T	STG-L08021-001	STG-31004	-	-	Thread	131	1/4	-	-	68	97	130	580	3,3
STGL-083-T	STG-L08031-001	STG-31005	-	-	Thread	131	3/8	-	-	68	98	136	580	3,3
STGL-084-T	STGL-08041-001	STG-31006	-	-	Thread	131	1/2	-	-	68	98	141	580	3,3
STGL-163-T	STG-L16031-001	STG-31007	-	-	Thread	262	3/8	-	-	80	118	157	900	3,3
STGL-164-T	STG-L16041-001	STG-31008	-	-	Thread	262	1/2	-	-	80	118	162	900	3,3
STGL-165-T	STG-L16051-001	STG-31009	-	-	Thread	262	5/8	-	-	80	118	172	900	3,3
STGL-303-T	STG-L30031-001	STG-31010	-	-	Thread	492	3/8	-	-	80	193	232	1700	3,3
STGL-304-T	STG-L30041-001	STG-31011	-	-	Thread	492	1/2	-	-	80	193	237	1700	3,3
STGL-305-T	STG-L30051-001	STG-31012	-	-	Thread	492	5/8	-	-	80	193	247	1700	3,3
STGL-306-T	STG-L30061-001	STG-31013	-	-	Thread	492	3/4	-	-	80	193	269	1700	3,3
STG-052-T	STG-A05020-001	STG-31014	STG-A05320-001	STG-31031	Solder	82	-	1/4	6	68	76	114	450	3,3
STG-053-T	STG-A05030-001	STG-31015	STG-A05330-001	STG-31032	Solder	82	-	3/8	10	68	76	114	450	3,3
STG-054-T	STG-A05040-001	STG-31016	STG-A05340-001	STG-31033	Solder	82	-	1/2	12	68	76	124	450	3,3
STG-082-T	STG-A08020-001	STG-31017	STG-A08320-001	STG-31034	Solder	131	-	1/4	6	68	97	135	580	3,3
STG-082.5-T	STG-A08250-001	STG-31018	-	-	Solder	131	-	5/16	-	68	97	135	580	3,3
STG-083-T	STG-A8030-001	STG-31019	STG-A08330-001	STG-31035	Solder	131	-	3/8	10	68	98	135	580	3,3
STG-084-T	STG-A08040-001	STG-31020	STG-A08340-001	STG-31036	Solder	131	-	1/2	12	68	98	146	580	3,3
STG-163-T	STG-A16030-001	STG-31021	STG-A16330-001	STG-31037	Solder	262	-	3/8	10	80	118	156	900	3,3
STG-164-T	STG-A16040-001	STG-31022	STG-A16340-001	STG-31038	Solder	262	-	1/2	12	80	118	166	900	3,3
STG-165-T	STG-A16050-001	STG-31023	STG-A16050-001	STG-31023	Solder	262	-	5/8	16	80	118	162	900	3,3
STG-167-T	STG-A16070-001	STG-31024	STG-A16070-001	STG-31024	Solder	262	-	7/8	22	80	118	178	900	3,3
STG-303-T	STG-A30030-001	STG-31025	STG-A30330-001	STG-31039	Solder	492	-	3/8	10	80	193	230	1700	3,3
STG-304-T	STG-A30040-001	STG-31026	STG-A30340-001	STG-31040	Solder	492	-	1/2	12	80	193	241	1700	3,3
STG-305-T	STG-A30050-001	STG-31027	STG-A30050-001	STG-31027	Solder	492	-	5/8	16	80	193	237	1700	3,3
STG-306-T	STG-A30060-001	STG-31028	-	-	Solder	492	-	3/4	-	80	193	237	1700	3,3
STG-307-T	STG-A30070-001	STG-31029	STG-A30070-001	STG-31029	Solder	492	-	7/8	22	80	193	253	1700	3,3
STG-309-T	STG-A30090-001	STG-31030	-	-	Solder	492	-	1" / 1/8	-	80	192	263	1700	3,3

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SANHUA STG/L SERIES Bi-Flow Filter Drier

GENERAL CHARACTERISTIC OF FILTER (STG/L SERIES) - VERSION TA

Model	Model Name (TA) [inch]	Part Number (TA) [inch] (not standard)	Model Name (TA) [mm]	Part Number (TA) [mm] (not standard)	Type of connection	Connection				Dimensions & Weight				PED category
						Nominal Volumen [cm3]	Thread (SAE Flare) [in]	Solder		D [mm]	B [mm]	A [mm]	Weight [g]	
								[in]	[mm]					
STGL-052-TA	STG-L05021-008	on request	-	-	Thread	82	1/4	-	-	68	76	109	450	3,3
STGL-053-TA	STG-L05031-008	on request	-	-	Thread	82	3/8	-	-	68	76	115	450	3,3
STGL-054-TA	STG-L05041-008	on request	-	-	Thread	82	1/2	-	-	68	76	120	450	3,3
STGL-082-TA	STG-L08021-008	on request	-	-	Thread	131	1/4	-	-	68	97	130	580	3,3
STGL-083-TA	STG-L08031-008	on request	-	-	Thread	131	3/8	-	-	68	98	136	580	3,3
STGL-084-TA	STGL-08041-008	on request	-	-	Thread	131	1/2	-	-	68	98	141	580	3,3
STGL-163-TA	STG-L16031-008	on request	-	-	Thread	262	3/8	-	-	80	118	157	900	3,3
STGL-164-TA	STG-L16041-008	on request	-	-	Thread	262	1/2	-	-	80	118	162	900	3,3
STGL-165-TA	STG-L16051-008	on request	-	-	Thread	262	5/8	-	-	80	118	172	900	3,3
STGL-303-TA	STG-L30031-008	on request	-	-	Thread	492	3/8	-	-	80	193	232	1700	3,3
STGL-304-TA	STG-L30041-008	on request	-	-	Thread	492	1/2	-	-	80	193	237	1700	3,3
STGL-305-TA	STG-L30051-008	on request	-	-	Thread	492	5/8	-	-	80	193	247	1700	3,3
STGL-306-TA	STG-L30061-008	on request	-	-	Thread	492	3/4	-	-	80	193	269	1700	3,3
STG-052-TA	STG-A05020-008	on request	STG-A05320-008	on request	Solder	82	-	1/4	6	68	76	114	450	3,3
STG-053-TA	STG-A05030-008	on request	STG-A05330-008	on request	Solder	82	-	3/8	10	68	76	114	450	3,3
STG-054-TA	STG-A05040-008	on request	STG-A05340-008	on request	Solder	82	-	1/2	12	68	76	124	450	3,3
STG-082-TA	STG-A08020-008	on request	STG-A08320-008	on request	Solder	131	-	1/4	6	68	97	135	580	3,3
STG-082.5-TA	STG-A08250-008	on request	-	-	Solder	131	-	5/16	-	68	97	135	580	3,3
STG-083-TA	STG-A08030-008	on request	STG-A08330-008	on request	Solder	131	-	3/8	10	68	98	135	580	3,3
STG-084-TA	STG-A08040-008	on request	STG-A08340-008	on request	Solder	131	-	1/2	12	68	98	146	580	3,3
STG-163-TA	STG-A16030-008	on request	STG-A16330-008	on request	Solder	262	-	3/8	10	80	118	156	900	3,3
STG-164-TA	STG-A16040-008	on request	STG-A16340-008	on request	Solder	262	-	1/2	12	80	118	166	900	3,3
STG-165-TA	STG-A16050-008	on request	STG-A16050-008	on request	Solder	262	-	5/8	16	80	118	162	900	3,3
STG-167-TA	STG-A16070-008	on request	STG-A16070-008	on request	Solder	262	-	7/8	22	80	118	178	900	3,3
STG-303-TA	STG-A30030-008	on request	STG-A30330-008	on request	Solder	492	-	3/8	10	80	193	230	1700	3,3
STG-304-TA	STG-A30040-008	on request	STG-A30340-008	on request	Solder	492	-	1/2	12	80	193	241	1700	3,3
STG-305-TA	STG-A30050-008	on request	STG-A30050-008	on request	Solder	492	-	5/8	16	80	193	237	1700	3,3
STG-306-TA	STG-A30060-008	on request	-	-	Solder	492	-	3/4	-	80	193	237	1700	3,3
STG-307-TA	STG-A30070-008	on request	STG-A30070-008	on request	Solder	492	-	7/8	22	80	193	253	1700	3,3
STG-309-TA	STG-A30090-008	on request	-	-	Solder	492	-	1" / 1/8	-	80	192	263	1700	3,3

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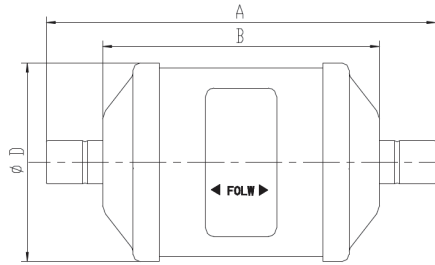


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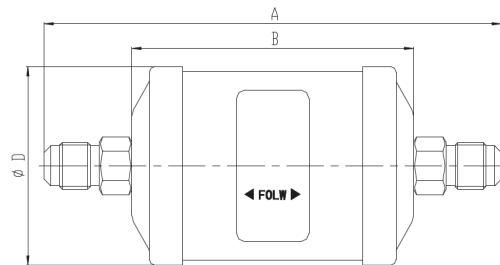
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SANHUA STG/L SERIES Bi-Flow Filter Drier



Solder Connection



Thread Connection

SELECTION FORMULAS

Filter Drier 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) 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, R507
- 0,39 kg/min/kW (3.0 lb/min/ton) R22, R407C
- PS: 4,83 MPa
- 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
- 15ppm R12
- 30ppm R502
- 50ppm R134a, R404A, R507, R410A, R407C

Note: The above data is based on clean system at ideal conditions; with impurities accumulated in the filter, the flow may decrease.

SELECTION TABLE (T SERIES)

Model	Flow Rate (kW)					Moisture Absorbition (gram H2O)							
	R134a	R404A	R22	R407C	R410A	R134a		R404A		R407C		R22	
		R507				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-052	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
STGL-052	3,5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9
STG-053	16,5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9
STGL-053	11,6	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9
STG-054	25,0	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9
STGL-054	15,8	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9
STG-082	8,8	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9
STGL-082	5,3	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9
STG-082.5	15,8	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9
STG-083	17,2	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9
STGL-083	15,8	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9
STG-084	25,7	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9
STGL-084	16,5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9





SANHUA *STG/L SERIES* Bi-Flow Filter Drier

SELECTION TABLE (T SERIES)

Model	Flow Rate (kW)					Moisture Absorbition (gram H2O)							
	R134a	R404A	R22	R407C	R410A	R134a		R404A		R407C		R22	
		R507				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-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9
STG-032.5	23,9	23,9	23,9	23,9	23,9	23,9	23,9	49	23,9	23,9	23,9	23,9	23,9

