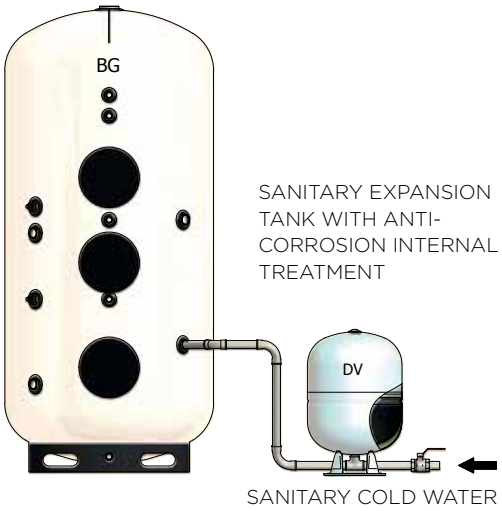
BG

MULTI-PURPOSE GLASSLINED BUFFER TANKS

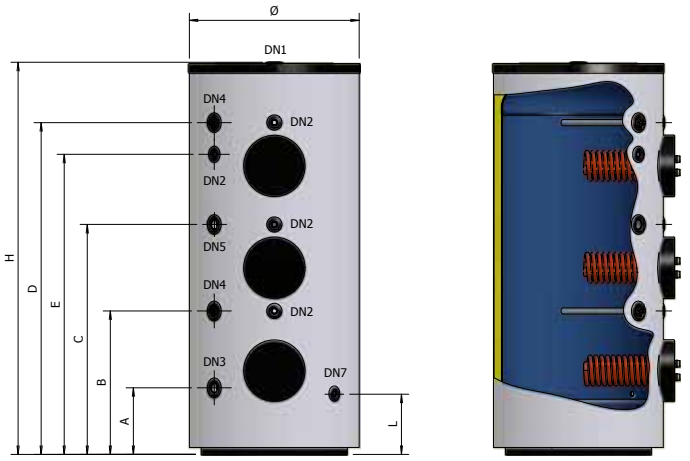
WITH TRIPLE FLANGED OPENINGS (800 – 5.000 LITRES)



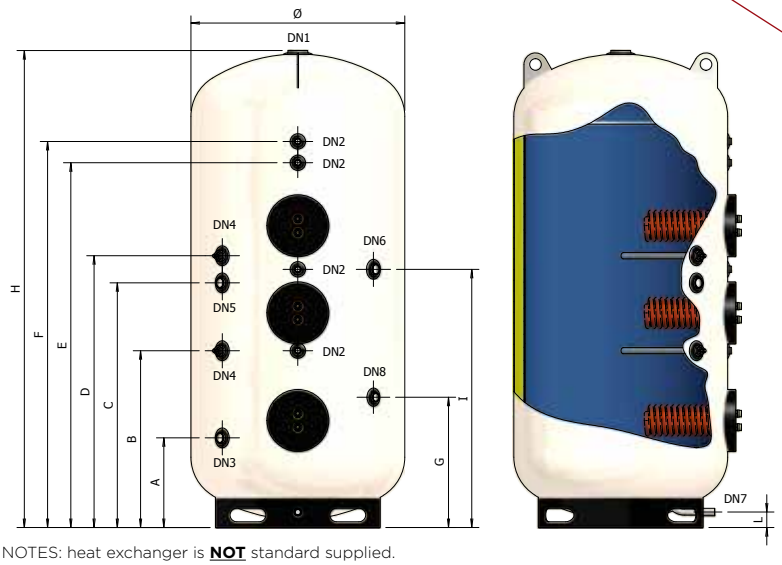
SANITARY EXPANSION TANK WITH ANTI-CORROSION INTERNAL TREATMENT

SANITARY COLD WATER

BG 800 - 1000



BG 1500 - 2000 - 3000 - 5000



NOTES: heat exchanger is **NOT** standard supplied.

KEYWORD

DN1: Sanitary hot water outlet; **DN2:** Probes (Thermometer, Thermostat); **DN3:** Sanitary cold water inlet; **DN4:** Magnesium anode; **DN5:** Heating element; **DN6:** Recirculation; **DN7:** Tank drain; **DN8:** Sanitary expansion tank connection.

- CYLINDER
- FOR SANITARY HOT WATER
- SUITABLE FOR SOLAR SYSTEMS
- MAGNESIUM ANODE WITH SIMPLETEST
- INTERNAL, GLASSLINING ANTI-CORROSION TREATMENT
- POLYURETHANE INSULATION

- + 95°C WORKING TEMPERATURE
- + 110°C HEAT EXCHANGER MAX TEMPERATURE
- P_{MAX} 10 bar MAX WORKING PRESSURE
- P_{SCA} 12 bar HEAT EXCHANGER MAX PRESSURE

WARRANTY: 5 YEARS

INSULATION:

Expanded polyurethane without CFC and HCFC

HEAT EXHANGER:

Removable coil in finned copper (optional).

See accessories on page 241

REFERENCE STANDARDS

CYLINDER:

Directive PED 97/23/EC – ART. 3.3, without CE marking
Standard EN 12897:2006

INTERNAL GLASSLINING:

DIN 4753

The glasslining treatment makes the cylinder suitable to contain hot water for sanitary and hygienic use and resistant to corrosive phenomena.

INSTALLATION:

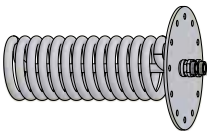
· traditional boilers (wall-hung and/or floor-standing)
· condensing boilers
· solar thermal systems

MODEL	CODE	LITRES	mm	mm	NOTES
BG-800	A3F0L60 P9016	800	900	1795	
BG-1000	A3F0L62 P9016	1000	900	2045	
BG-1500	A3F0H67 VW050	1500	1100	2460	
BG-2000	A3F0H70 VW050	2000	1200	2445	
BG-3000	A3F0H74 VW050	3000	1350	2840	
BG-5000	A3F0H80 VW050	5000	1700	3040	

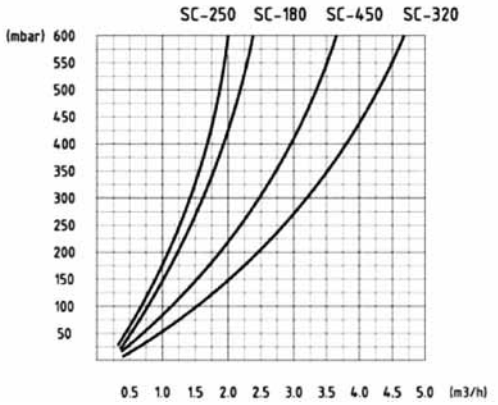
	ANODE								
MODEL	ø x ø conn. x L	DN1	DN2	DN3	DN4	DN5	DN6	DN7	DN8
BG-800	n°2 32 x 1.1/2" x 550	1.1/2"	3/4"	1.1/2"	1.1/2"	1.1/2"	/	3/4"	/
BG-1000	n°2 32 x 1.1/2" x 550	1.1/2"	3/4"	1.1/2"	1.1/2"	1.1/2"	/	3/4"	/
BG-1500	n°2 32 x 1.1/2" x 550	3"	3/4"	1.1/2"	1.1/2"	1.1/2"	1.1/2"	1"	1.1/4"
BG-2000	n°2 32 x 1.1/2" x 550	3"	3/4"	1.1/2"	1.1/2"	1.1/2"	1.1/2"	1"	1.1/4"
BG-3000	n°2 32 x 1.1/2" x 550	3"	3/4"	1.1/2"	1.1/2"	1.1/2"	1.1/2"	1"	1.1/4"
BG-5000	n°2 32 x 1.1/2" x 550	3"	3/4"	1.1/2"	1.1/2"	1.1/2"	1.1/2"	1"	1.1/4"

MODEL	A mm	B mm	C mm	D mm	E mm	F mm	G mm	I mm	L mm
BG-800	345	645	995	1465	1185	/	/	/	320
BG-1000	350	750	1200	1730	1565	/	/	/	320
BG-1500	465	915	1265	1405	1885	1995	675	1335	80
BG-2000	455	905	1255	1395	1875	1985	665	1325	80
BG-3000	500	950	1300	1440	1940	2230	710	1730	80
BG-5000	605	1065	1405	1545	2045	2335	815	1835	80

MODEL	CODE	SURF. m²	CONNECTIONS	DIMENSIONS øEXT x L
SC-180	2140180	1,8	3/4"	170X460
SC-250	2140250	2,5	3/4"	170X560
SC-320	2140320	3,2	1.1/4"	190X550
SC-450	2140450	4,5	1.1/4"	190X750



TECHNICAL CHARACTERISTICS

MODEL	MAX WORKING PRESSURE CYLINDER (Secondary circuit)	MAX. WORKING PRESSURE HEAT EXCHANGER (Primary circuit)	PRESSURE DROP BASED ON CAPACITY INSIDE EXCHANGER
BG 800	10 bar	95 °C	
BG 1000			
BG 1500			
BG 2000			
BG 3000			
BG 5000			

MODEL	INSULATION TYPE	INSULATION THICKNESS	INSULATION DENSITY	INITIAL THERMAL CONDUCTIVITY	(*) INSULATION THERMAL LOSS	EXTERNAL FINISH
BG 300	95% closed cells rigid expanded polyurethane, CFC - HCFC free	50 mm	40 kg/m³	23,5 mW/m K	2,37 kWh / 24h	Grey polystyrene RAL 9006
BG 1000					2,71 kWh / 24h	
BG 1500	Open cells flexible expanded polyurethane	50 mm	15 kg/m³	39,0 mW/m K	6,53 kWh / 24h	Skay white RAL 9001
BG 2000					7,15 kWh / 24h	
BG 3000					9,18 kWh / 24h	
BG 5000					12,27kWh / 24h	

(*) Thermal loss calculated with an accumulation temperature equal to 60 °C and with an external temperature equal to 15 °C.

STANDARD EQUIPMENT

- Anode with simpletest

SAFETY DEVICES

The cylinders must be protected against the effects of over pressure by installing:
· A **SAFETY VALVE** calibrated to pressure below the max pressure of the cylinder
· A **SANITARY EXPANSION TANK** mod. ELBI **D – DV series**

MODEL	RECOMMENDED SANITARY EXPANSION TANK (mod. ELBI D-DV series)
BG 800	DV – 50
BG 1000	DV – 80
BG 1500	DV – 150
BG 2000	DV – 150
BG 3000	DV – 300
BG 5000	n°2 pcs DV – 200

Sized using the following parameters: T. accumulation= 85 °C / T. inlet = 15 °C / Pre-charge pressure = 3 bar / Max pressure = 6 bar
The recommended capacity must be verified on the basis of the actual dimensions of the system implemented.

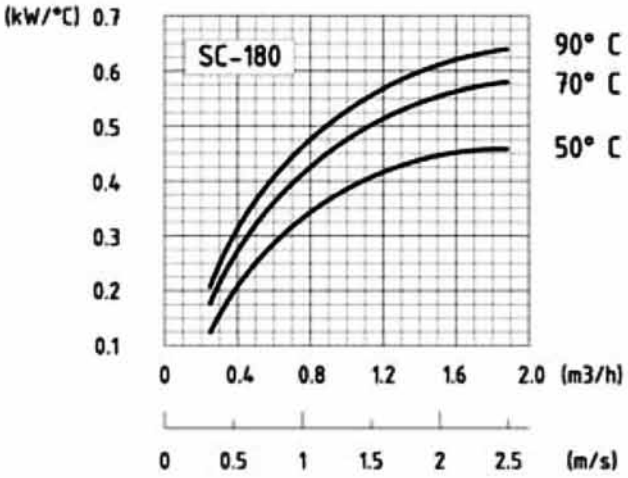
MODEL	MAGNESIUM ANODE SUPPLIED	CATHODIC PROTECTION APPLICABLE
BG 800	n.2 x 1.1/2" x 550 / Cod. 8560065	Cathodic protection for cylinders 500/1000 l. Code 8560175
BG 1000		
BG 1500		Cathodic protection for cylinders 1500/2000 l. Code 8560180
BG 2000		
BG 3000		Cathodic protection for cylinders 3000/5000 l. Code 8560185
BG 5000		

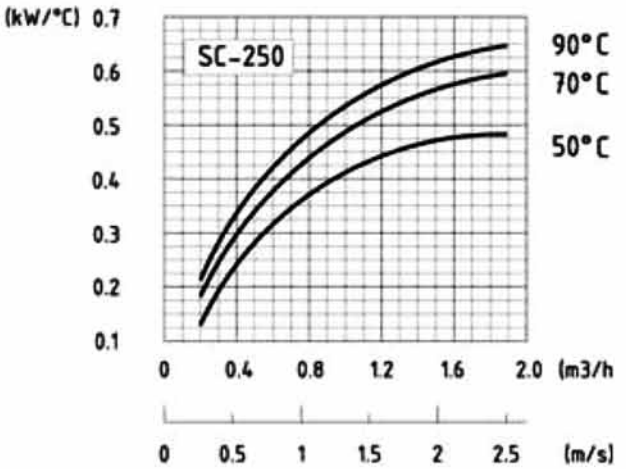
CHARACTERISTIC CURVES ON SPIROIDAL HEAT EXHANGERS

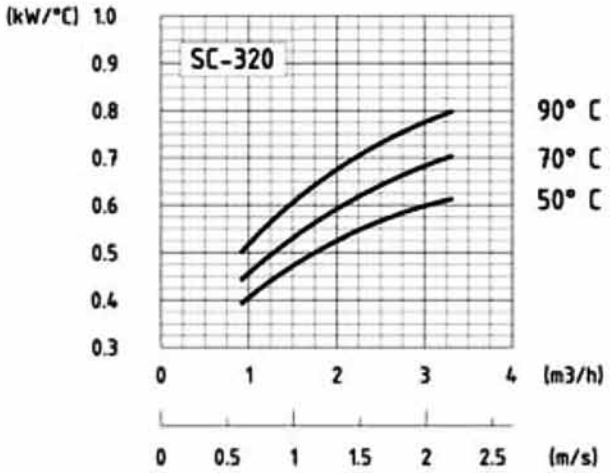
Choice of heat exchanger:
The graphics show the heat flow transmitted from the heat exchanger referring to a thermal gradient of 1°C between the temperature of the inlet water in the exchanger and the temperature of the cylinder inlet water.
The parameter to use is supplied based on:
· the temperature of the water into the heat exchanger;
· the capacity of the circulator.

Example:
Heat exchanger model: SC-180
Cylinder inlet water temperature: 15 °C
Heat exchanger inlet water temperature: 70 °C
Circulator capacity: 1.20 m^3/h

The capacity of 1.20 m^3/h crosses the curve (heat exchanger water inlet) relating to 70°C corresponding to the value 0.52 kW/°C.
For a temperature difference of 55°C (70°C - 15°C) we obtain heat exchanger power of:
q = 55 x 0,52 = 28,60 kW







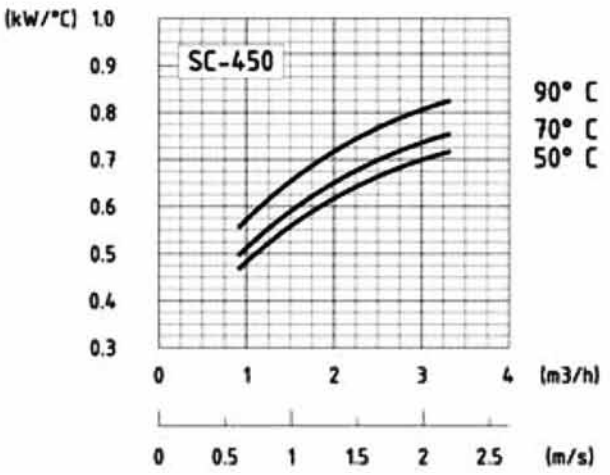


TABLE OF HEATING ELEMENT APPLICABILITY TO CYLINDERS

Heating element model*					Water heating time from 15° C to 60 °C (expressed in minutes) *The heating times outlined are approximate*					
CODE	Power (kW)	Voltage (Volt)	Connection	Length (mm)	BG 800	BG 1000	BG 1500	BG 2000	BG 3000	BG 5000
8601000	1	220 V / MF	G 1.1/4"	295	2520 min.	3150 min.	4720 min.	6300 min.	9420 min.	15750 min.
8601650	1.65	220 V / MF	G 1.1/4"	450	1550 min.	1920 min.	2870 min.	3820 min.	5740 min.	9550 min.
8602000	2	220 V / MF	G 1.1/4"	515	1270 min.	1580 min.	2370 min.	3150 min.	4740 min.	7875 min.
8602600	2.6	220 V / MF	G 1.1/4"	675	980 min.	1230 min.	1830 min.	2450 min.	3660 min.	6125 min.
8602601	2.6	220 V / MF	G 1.1/4"	360	980 min.	1230 min.	1830 min.	2450 min.	3660 min.	6125 min.
8603300	3.3	220 V / MF	G 1.1/4"	825	n.a.	n.a.	1450 min.	1940 min.	2900 min.	4850 min.
8603301	3.3	220 V / MF	G 1.1/4"	435	780 min.	980 min.	1450 min.	1940 min.	2900 min.	4850 min.
8604001	4	220 V / MF	G 1.1/4"	510	640 min.	800 min.	1200 min.	1600 min.	2400 min.	4000 min.
8705000	5	380 V / TF	G 1.1/2"	445	520 min.	640 min	950 min.	1300 min.	1900 min.	3250 min.
8706000	6	380 V / TF	G 1.1/2"	510	430 min.	540 min	800 min.	1060 min.	1600 min.	2650 min.
8708000	8	380 V / TF	G 1.1/2"	670	330 min.	420 min.	610 min.	800 min.	1220 min.	2000 min.
8710000	10	380 V / TF	G 1.1/2"	820	n.a.	n.a.	490 min.	640 min.	980 min.	1600 min.
8712000	12	380 V / TF	G 1.1/2"	970	n.a.	n.a.	410 min.	540 min.	820 min.	1350 min.

n.a. =Heating element not applicable

SEE TABLE OF SYMBOLS IN THE SHUTTER OF THE COVER