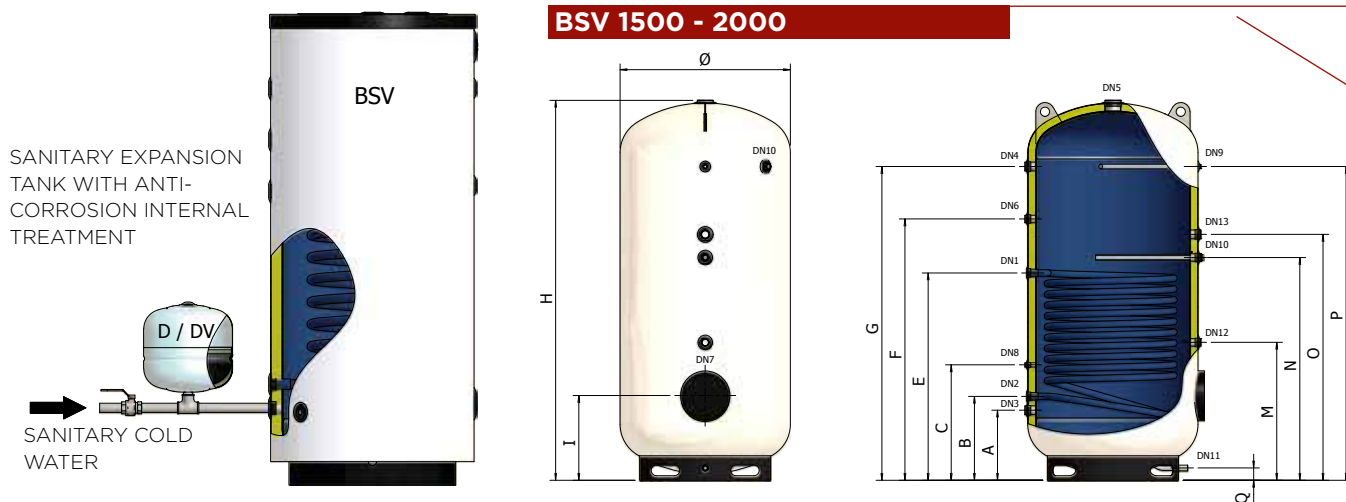




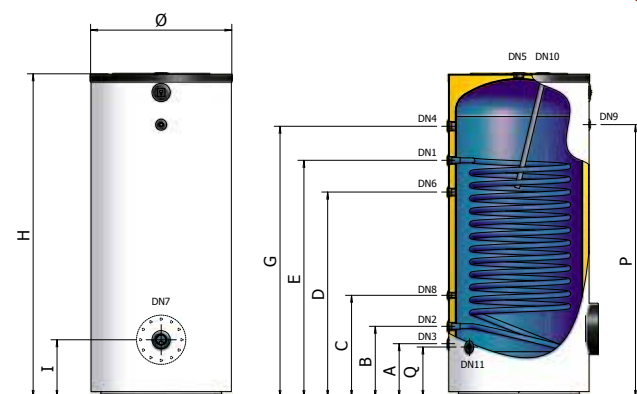
BSV

GLASSLINED CYLINDER

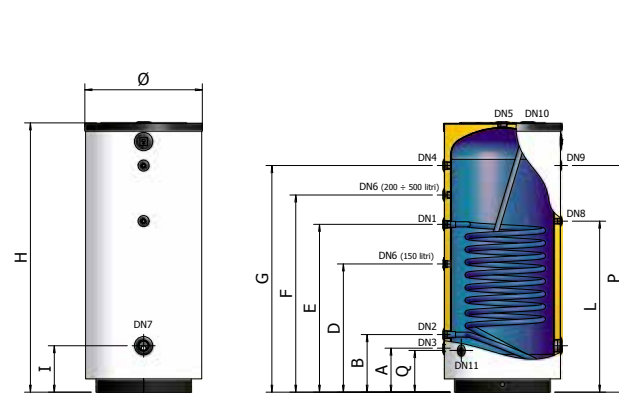
WITH FIXED HEAT EXCHANGER FOR SANITARY HOT WATER (150 - 2000 LITRES)



BSV 800 - 1000



BSV 150 - 200 - 300 - 400 - 500



KEYWORD

DN1: Primary fluid inlet, heat exchanger side; **DN2:** Primary fluid outlet, heat exchanger side; **DN3:** Sanitary cold water inlet; **DN4:** Sanitary hot water outlet; **DN5:** Sanitary hot water outlet; **DN6:** Recirculation; **DN7:** Heating element/Visual indicator light; **DN8:** Probe; **DN9:** Thermometer; **DN10:** Magnesium anode; **DN11:** Drain; **DN12:** Sanitary expansion tank; **DN13:** Heating element (only BSV 1500-BSV 2000)

	CYLINDER		+ 95°C CYLINDER MAX TEMPERATURE
	FOR SANITARY HOT WATER		+ 110°C EXCHANGER MAX TEMPERATURE
	SUITABLE FOR SOLAR SYSTEMS		
	ANODE WITH TESTER (150 - 1000)		
	2 MAGNESIUM ANODES (1500 - 2000)		
	INTERNAL, ANTI-CORROSIVE GLASSLINING PROCESS		
	POLYURETHANE INSULATION		
		P_{MAX}	10 bar (150 - 1000) MAX WORKING PRESSURE
		P_{MAX}	6 bar (1500 - 2000) MAX WORKING PRESSURE
		P_{SCA}	12 bar HEAT EXCHANGER MAX PRESSURE

WARRANTY: 5 YEARS

INSULATION:

Expanded polyurethane without CFC and HCFC

HEAT EXCHANGER:

fixed single-tube coil

REFERENCE STANDARDS

CYLINDER:

2014/68/UE Directive - ART. 4.3, without CE marking
Standard EN 12897:2016

Designed and built in accordance with the requirements of the 2009/125/EC.

Labeling in accordance with the requirements of the 2010/30/EU.

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

DIMENSIONS

MODEL	CODE	ENERGY LABEL		HEAT EXCHANGER						NOTES
				LITRES	m ²	LITRES	mm	mm		
BSV-150	A3A0L43 PGP40	C		150	0,60	4	600	950		
BSV-200	A3A0L47 PGP40	C		200	0,70	5	600	1170		
BSV-300	A3A0L51 PGP40	C		300	1,05	7	650	1395		
BSV-400	A3A0L53 PGP40	D		400	1,20	8	750	1445		
BSV-500	A3A0L55 PGP40	D		500	1,45	9	750	1695		
BSV-800	A3A0L60 PGP40	/		800	2,00	13	900	1795		
BSV-1000	A3A0L62 PGP40	/		1000	2,40	15	900	2045		
BSV-800+FL.*	A3A1L60 SWS50	/		800	2,00	13	900	1795		
BSV-1000+FL.*	A3A1L62 SWS50	/		1000	2,40	15	900	2045		
BSV-1500+FL.*	A3A1H67 VW050	/		1500	3,60	36	1100	2465		
BSV-2000+FL.*	A3A1H70 VW050	/		2000	4,30	43	1200	2445		

*Flange Version

MODEL	A mm	B mm	C mm	D mm	E mm	F mm	G mm	I mm	L mm	P mm	Q mm
BSV-150	220	300	/	485	715	/	765	250	465	685	220
BSV-200	235	320	/	/	670	765	935	275	785	935	220
BSV-300	255	340	/	/	955	1055	1155	270	955	1155	240
BSV-400	280	365	/	/	900	1040	1180	295	980	1180	265
BSV-500	280	365	/	/	1060	1245	1430	295	1080	1430	265
BSV-800	340	450	635	995	1195	/	1470	365	/	1470	320
BSV-1000	340	450	645	1295	1495	/	1710	435	/	1720	320
BSV-800+FL.	340	450	635	995	1195	/	1470	435	/	1470	320
BSV-1000+FL.	340	450	645	1295	1495	/	1710	435	/	1720	320
BSV-1500+FL.	455	545	750	/	1345	1695	2035	550	/	2035	80
BSV-2000+FL.	445	535	760	/	1425	1685	2025	540	/	2025	80

MODEL	ANODE		DN1	DN2	DN3	DN4	DN5	DN6	DN7	DN8	DN9	DN10	DN11
	Ø x Ø conn. x L												
BSV-150	32 x 1.1/4" x 350		1"	1"	1"	1"	1.1/4"	3/4"	2"	1/2"	1/2"	1.1/4"	1/2"
BSV-200	32 x 1.1/4" x 350		1"	1"	1"	1"	1.1/4"	3/4"	2"	1/2"	1/2"	1.1/4"	1/2"
BSV-300	32 x 1.1/4" x 550		1"	1"	1"	1"	1.1/4"	3/4"	2"	1/2"	1/2"	1.1/4"	1/2"
BSV-400	32 x 1.1/4" x 550		1"	1"	1"	1"	1.1/4"	3/4"	2"	1/2"	1/2"	1.1/4"	1/2"
BSV-500	32 x 1.1/4" x 700		1"	1"	1"	1"	1.1/4"	3/4"	2"	1/2"	1/2"	1.1/4"	1/2"
BSV-800	32 x 1.1/4" x 700		1.1/4"	1.1/4"	1"	1.1/4"	1.1/4"	1"	2"	1/2"	1/2"	1.1/4"	3/4"
BSV-1000	32 x 1.1/4" x 700		1.1/4"	1.1/4"	1"	1.1/4"	1.1/4"	1"	2"	1/2"	1/2"	1.1/4"	3/4"
BSV-800+FL.	32 x 1.1/4" x 700		1.1/4"	1.1/4"	1"	1.1/4"	1.1/4"	1"	Øi 220	1/2"	1/2"	1.1/4"	3/4"
BSV-1000+FL.	32 x 1.1/4" x 700		1.1/4"	1.1/4"	1"	1.1/4"	1.1/4"	1"	Øi 220	1/2"	1/2"	1.1/4"	3/4"
BSV-1500+FL.*	32 x 1.1/4" x 670		1.1/4"	1.1/4"	1.1/2"	1.1/2"	3"	1.1/4"	Øi 220	1/2"	1/2"	1.1/4"	1"
BSV-2000+FL.*	32 x 1.1/4" x 670		1.1/4"	1.1/4"	1.1/2"	1.1/2"	3"	1.1/4"	Øi 220	1/2"	1/2"	1.1/4"	1"

*2 Anodes

MODEL	M mm	N mm	O mm	DN 12	DN 13
BSV-1500+FL.	895	1445	1595	1.1/4"	1.1/2"
BSV-2000+FL.	885	1475	1605	1.1/4"	1.1/2"

TECHNICAL CHARACTERISTICS

MODEL	MAX WORKING PRESSURE CYLINDER (Secondary circuit)	MAX. WORKING PRESSURE HEAT EXCHANGER (Primary circuit)	HEAT EXCHANGER PRESSURE DROP			
BSV 150	10 bar	12 bar	15 mbar			
BSV 200			30 mbar			
BSV 300			65 mbar			
BSV 400			85 mbar			
BSV 500			140 mbar			
BSV 800			55 mbar			
BSV 1000			90 mbar			
BSV 1500	6 bar		265 mbar			
BSV 2000			425 mbar			
MODEL	INSULATION TYPE	INSULATION THICKNESS	INSULATION DENSITY	INITIAL THERMAL CONDUCTIVITY	(*) INSULATION THERMAL LOSS	EXTERNAL COVER
BSV 150	95% closed cells rigid expanded polyurethane, CFC - HCFC free	50 mm	40 kg/m ³	23,5 mW/m K	1,752 kWh / 24h	Grey polystyrene RAL 9006
BSV 200					1,992 kWh / 24h	
BSV 300					2,208 kWh / 24h	
BSV 400					2,856 kWh / 24h	
BSV 500					3,192 kWh / 24h	
BSV 800					3,958 kWh / 24h	
BSV 1000					4,449 kWh / 24h	
BSV 1500	Open cells flexible expanded polyurethane	50 mm	15 kg/m ³	39,0 mW/m K	9,969 kWh / 24h	Skay white RAL 9001
BSV 2000					10,865 kWh / 24h	

(*) Thermal loss calculated with an accumulation temperature equal to 65 °C and with an external temperature equal to 20 °C.

STANDARD EQUIPMENT

- Anode tester

SAFETY DEVICES

The cylinders must be protected from the effects of over pressure by installing:

- **SAFETY VALVE** calibrated to pressure lower than the max. cylinder pressure
- **SANITARY EXPANSION TANK** mod. ELBI **D - DV** series

MODEL	RECOMMENDED SANITARY EXPANSION TANK (mod. ELBI D-DV series)
BSV 150	D - 11
BSV 200	D - 18
BSV 300	D - 24
BSV 400	D - 35
BSV 500	D - 35
BSV 800	DV - 50
BSV 1000	DV - 80
BSV 1500	DV - 150
BSV 2000	DV - 150

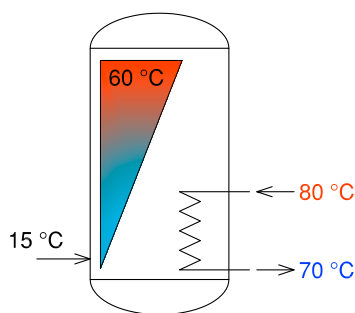
Dimensioning carried out with the following parameters: T. accumulation = 85 °C / T. inlet = 15 °C / P. pre-charge = 3 bar / P. max = 6 bar
The recommended capacities must be verified on the basis of the actual dimensions of the system implemented.

MODEL	MAGNESIUM ANODE SUPPLIED	CATHODIC PROTECTION APPLICABLE
BSV 150	1,1/4" x 350 / Cod.8560046	Cathodic protection for cylinders 100/400 l. Code 8560170
BSV 200	1,1/4" x 350 / Cod.8560046	
BSV 300	1,1/4" x 550 / Cod.8560066	
BSV 400	1,1/4" x 550 / Cod.8560066	
BSV 500	1,1/4" x 700 / Cod.8560086	Cathodic protection for cylinders 500/1000 l. Code 8560175
BSV 800	1,1/4" x 700 / Cod.8560086	
BSV 1000	1,1/4" x 700 / Cod.8560086	
BSV 1500	n.2 x 1,1/4" x 670 / Cod. 8560070	
BSV 2000	n.2 x 1,1/4" x 670 / Cod. 8560070	Cathodic protection for cylinders 1500/2500 l. Code 8560180

ACCUMULATION AT 60 °C

HEAT EXCHANGER: T. inlet = 80°C; $\Delta T = 10^\circ\text{C}$.

STORAGE WATER HEATER: T. inlet =15°C; T. accumulation= 60°C.



MODEL CYLINDER	THERMAL POWER [kW]	PUMP CAPACITY [l/hour]	HEATING TIME ⁽¹⁾ [min]	PRODUCTION DHW AT 60°C [l/hour]	QUANTITY DHW AT 45°C FOR FIRST 10 min. ⁽²⁾ [l]
BSV 150	15,00	1320	37	287	176
BSV 200	19,50	1720	34	373	224
BSV 300	25,90	2290	34	495	300
BSV 400	29,00	2500	45	554	375
BSV 500	33,00	2900	47	630	449
BSV 800	50,00	4400	49	955	668
BSV 1000	60,00	5300	47	1140	770
BSV 1500	79,00	6900	60	1500	1040
BSV 2000	93,00	8200	67	1800	1300

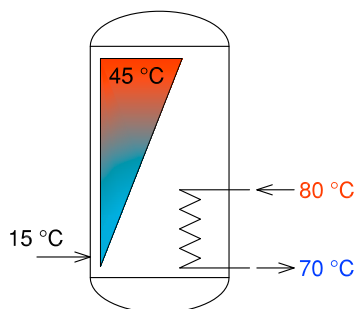
(1) Time required to bring the temperature of the cylinder from 15 °C to 60 °C

(2) Quantity of DHW (Sanitary Hot Water) at 45°C available in first 10 minutes with accumulation of DHW at 60° C.

ACCUMULATION AT 45 °C

HEAT EXCHANGER: T.inlet = 80°C; $\Delta T = 10^\circ\text{C}$.

STORAGE WATER HEATER: T.inlet =15°C; T.accumulation= 45°C



MODEL CYLINDER	THERMAL POWER [kW]	PUMP CAPACITY [l/hour]	HEATING TIME ⁽¹⁾ [min]	PRODUCTION DHW AT 45°C [l/hour]
BSV 150	18,80	1650	20	536
BSV 200	25,00	2200	18	715
BSV 300	33,00	2900	18	945
BSV 400	36,00	3170	24	1030
BSV 500	43,00	3800	24	1230
BSV 800	59,50	5200	28	1700
BSV 1000	68,50	6000	27	1960
BSV 1500	95,00	8300	33	2700
BSV 2000	112,00	9850	37	3200

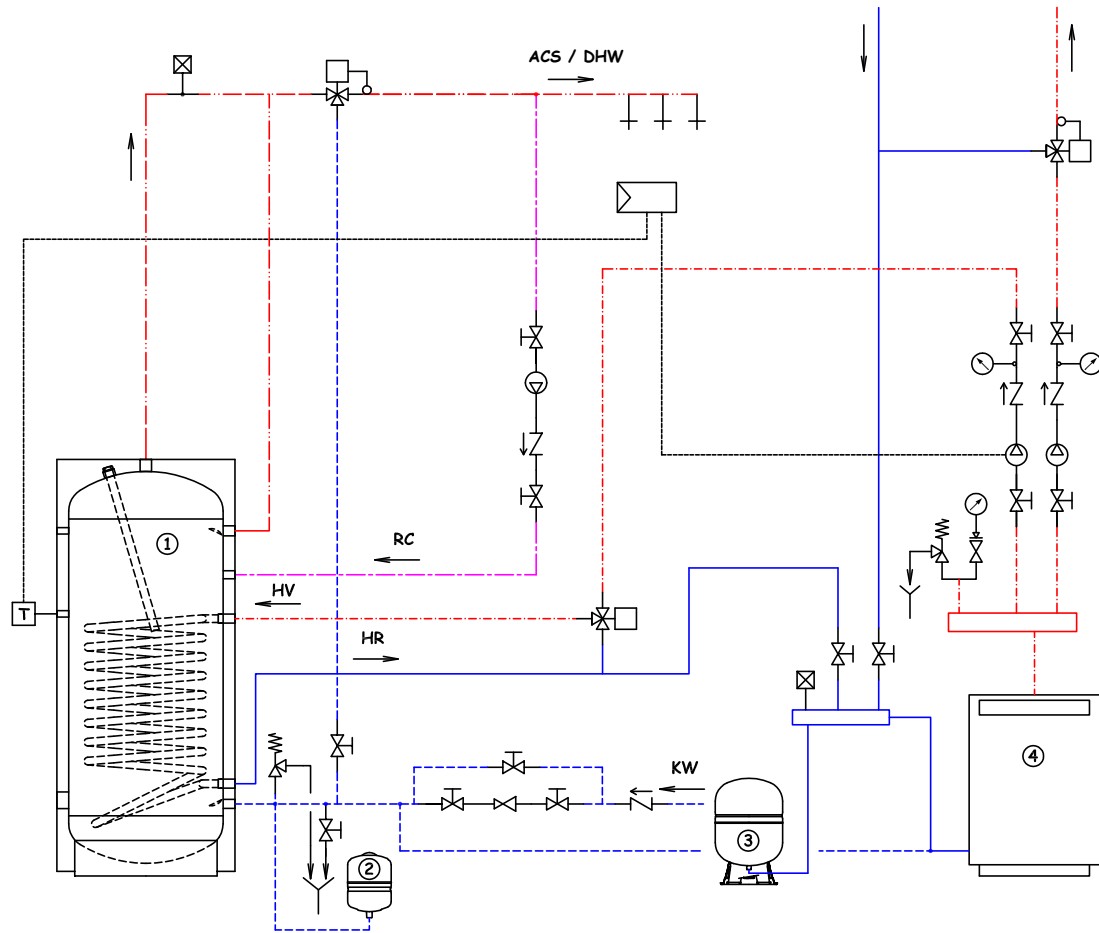
(1) Time required to bring cylinder temperature from 15 °C to 45 °C

TABLE OF HEATING ELEMENT APPLICABILITY TO CYLINDERS

Heating element model					Water heating time from 15° C to 60 °C (expressed in minutes) <i>The heating times outlined are approximate</i>								
CODE	Power (kW)	Voltage (Volt)	Connection	Length (mm)	BSV-150	BSV-200	BSV-300	BSV-400	BSV-500	BSV-800	BSV-1000	BSV-1500	BSV-2000
8601000	1	220 V / MF	G 1.1/4"	295	480 min.	630 min.	960 min.	1270 min.	1580 min.	2520 min.	3150 min.	4720 min.	6300 min.
8601650	1.65	220 V / MF	G 1.1/4"	450	285 min.	380 min.	580 min.	770 min.	970 min.	1550 min.	1920 min.	2870 min.	3820 min.
8602000	2	220 V / MF	G 1.1/4"	515	n.a.	n.a.	n.a.	640 min.	800 min.	1270 min.	1580 min.	2370 min.	3150 min.
8602600	2.6	220 V / MF	G 1.1/4"	675	n.a.	n.a.	n.a.	n.a.	n.a.	980 min.	1230 min.	1830 min.	2450 min.
8602601	2.6	220 V / MF	G 1.1/4"	360	180 min.	250 min.	370 min.	490 min.	630 min.	980 min.	1230 min.	1830 min.	2450 min.
8603300	3.3	220 V / MF	G 1.1/4"	825	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1450 min.	1940 min.
8603301	3.3	220 V / MF	G 1.1/4"	435	145 min.	200 min.	295 min.	390 min.	490 min.	780 min.	980 min.	1450 min.	1940 min.
8604001	4	220 V / MF	G 1.1/4"	510	n.a.	n.a.	n.a.	320 min.	410 min.	640 min.	800 min.	1200 min.	1600 min.
8705000	5	380 V / TF	G 1.1/2"	445	95 min.	140 min.	200 min.	260 min.	330 min.	520 min.	640 min.	950 min.	1300 min.
8706000	6	380 V / TF	G 1.1/2"	510	n.a.	n.a.	n.a.	220 min.	280 min.	430 min.	540 min.	800 min.	1060 min.
8708000	8	380 V / TF	G 1.1/2"	670	n.a.	n.a.	n.a.	n.a.	n.a.	330 min.	420 min.	610 min.	800 min.
8710000	10	380 V / TF	G 1.1/2"	820	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	490 min.	640 min.
8712000	12	380 V / TF	G 1.1/2"	970	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	410 min.	540 min.

n.a.= Heating element not applicable

HYDRAULIC DIAGRAM 1 (BSV CYLINDER WITH BOILER)



HYDRAULIC DIAGRAM 2 (BSV CYLINDER WITH SOLAR)

SEE TABLE OF SYMBOLS
IN THE SHUTTER OF THE
COVER

