

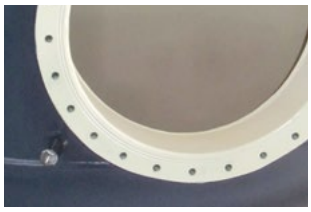
BV1VS - Glass lined calorifier with PED certified steam removable heat exchanger

BV1KS - Keramtech lined calorifier with PED certified steam removable heat exchanger

Calorifier for the production and storage of domestic hot water (DHW).
The cylinder is made of carbon steel and is internally protected by glass lining (Mod. BV1VS for capacities up to 2.000 litres) or with Keramtech ceramic lining (Mod. BV1KS for capacities from 2000 to 5000 litres).
The tank is equipped with an AISI 316L Stainless steel U tube bundle removable heat exchanger designed to be fed by steam.
The steam heat exchanger is provided by a PED compliance certification (according to EU Directive 2014/68/UE – Annex VII).
Cylinders are also prepared to host a backup immersion heater (not supplied).

HEAT SOURCE

APPLICATION





TECHNICAL FEATURES

		BV1VS	BV1KS
DHW cylinder	**Material**	Glass lined S 235 Jr Carbon steel	Keramtech lined S235 Jr Carbon steel
	Internal protective treatment	Enamelling according to DIN 4753.3	Alimentary epoxy-ceramic lining
	External protective treatment	Anti rust protection + epoxy painting	Anti rust protection + epoxy painting
	Rating (P max. / T max.)	8 bar / 95°C	6 bar / 100 °C
	Cathodic protection	Magnesium anode	Magnesium anode
Heat exchanger	**Material**	AISI 316L Stainless steel (1.4404) over a stainless steel plate	
	Internal protective treatment	Pickling and passivation	
	External protective treatment	Pickling and passivation	
	Type	U tube bundle (fed by steam) expanded over a removable plate	
	Rating (P max. / T max.)	6 bar / 165 °C or 12 bar / 191,7 °C	
General features	**Capacity**	500 - 2000 L	2000 - 5000 L
	Warranty	5 years (DHW cylinder) - 2 years (heat exchanger)	
	Insulation	- Soft insulation with polyester + PVC: Fire retardant class B2 (DIN 4102) - Hard insulation: - up to 2000 L with polyurethane foam + PVC: Fire retardant class B3 (DIN 4102) - from 2500 to 5000 L with polyester (15 mm) + polystyrene (85 mm) + PVC: Fire retardant class B2 (DIN 4102)	
	In compliance with	- Pressure Equipment Directive (PED) 2014/68/UE Art. 4 Para 3 - Italian MOH specifications (products suitable to contain potable water) - Energy related Products (Erp) Directive 2009/125/CE	

ACCESSORIES (page 218)



Impressed current electronic anode



Electronic control unit



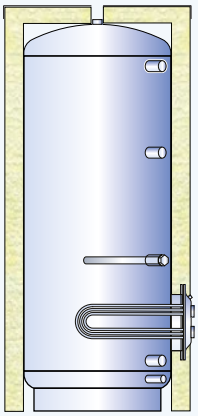
Thermostat



Thermometer



1"½ electric immersion heater

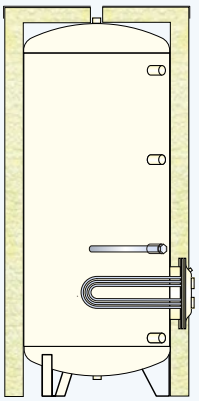


BV1VS - Hard insulation with rigid polyurethane foam and PVC jacket

STEAM SIDE WORKING PRESSURE 6 BAR CODE	STEAM SIDE WORKING PRESSURE 12 BAR CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	HEAT EXCHANGER (m^2) / (L) *
BV1VS6 00500 R	BV1VS12 00500 R	50	C	86,1	501,7	1,00 / 6,1
BV1VS6 00800 R	BV1VS12 00800 R	100	C	113,8	754,9	1,50 / 6,6
BV1VS6 01000 R	BV1VS12 01000 R	100	C	117,6	936,6	2,00 / 10,4
BV1VS6 01500 R	BV1VS12 01500 R	100	C	136,7	1478,0	3,00 / 15,7
BV1VS6 02000 R	BV1VS12 02000 R	100	C	149,2	1958,6	3,00 / 15,7

BV1VS - Soft insulation with polyester and PVC jacket

STEAM SIDE WORKING PRESSURE 6 BAR CODE	STEAM SIDE WORKING PRESSURE 12 BAR CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	HEAT EXCHANGER (m^2) / (L) *
BV1VS6 00800 F	BV1VS12 00800 F	130	C	132,6	754,9	1,50 / 6,6
BV1VS6 01000 F	BV1VS12 01000 F	130	C	143,9	936,6	2,00 / 10,4
BV1VS6 01500 F	BV1VS12 01500 F	130	C	169,2	1478,0	3,00 / 15,7
BV1VS6 02000 F	BV1VS12 02000 F	130	C	182,7	1958,6	3,00 / 15,7



BV1KS - Hard insulation and PVC jacket

STEAM SIDE WORKING PRESSURE 6 BAR CODE	STEAM SIDE WORKING PRESSURE 12 BAR CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	HEAT EXCHANGER (m^2) / (L) *
BV1KS6 02000 R	BV1KS12 02000 R	100	C	151,4	1962,5	3,00 / 15,7
BV1KS6 02500 R	BV1KS12 02500 R	100	C	-	2506,0	3,00 / 15,7
BV1KS6 03000 R	BV1KS12 03000 R	100	C	-	2970,0	3,00 / 15,7
BV1KS6 04000 R	BV1KS12 04000 R	100	C	-	3906,9	4,00 / 21,7
BV1KS6 05000 R	BV1KS12 05000 R	100	C	-	5017,7	5,00 / 27,4

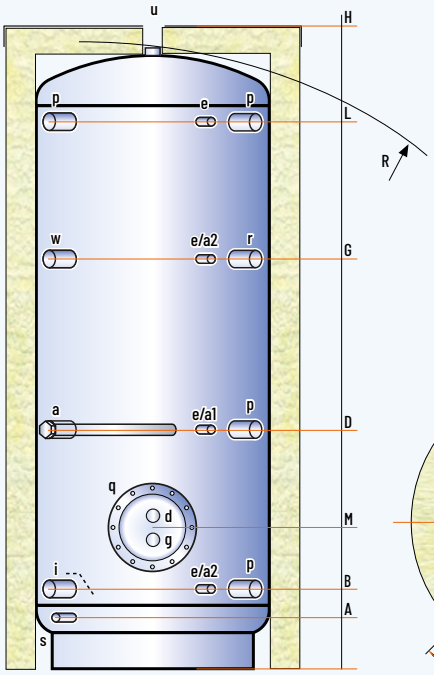
BV1KS - Soft insulation with polyester and PVC jacket

STEAM SIDE WORKING PRESSURE 6 BAR CODE	STEAM SIDE WORKING PRESSURE 12 BAR CODE	INSULATION THICK. (mm)	ErP CLASS	HEAT LOSS S (W)	REAL CAPACITY (L)	HEAT EXCHANGER (m^2) / (L) *
BV1KS6 02000 F	BV1KS12 02000 F	130	C	185,6	1962,5	3,00 / 15,7
BV1KS6 02500 F	BV1KS12 02500 F	100	-	-	2506,0	3,00 / 15,7
BV1KS6 03000 F	BV1KS12 03000 F	100	-	-	2970,0	3,00 / 15,7
BV1KS6 04000 F	BV1KS12 04000 F	100	-	-	3906,9	4,00 / 21,7
BV1KS6 05000 F	BV1KS12 05000 F	100	-	-	5017,7	5,00 / 27,4

** Volume occupied by the heat exchanger and its support structure*

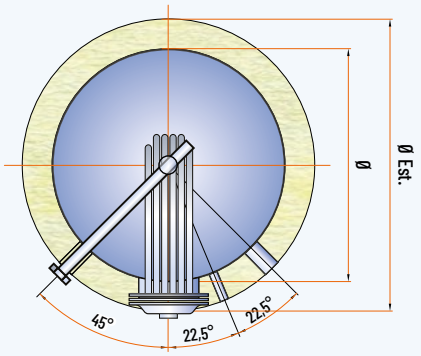
Dimensions and heights

BV1VS

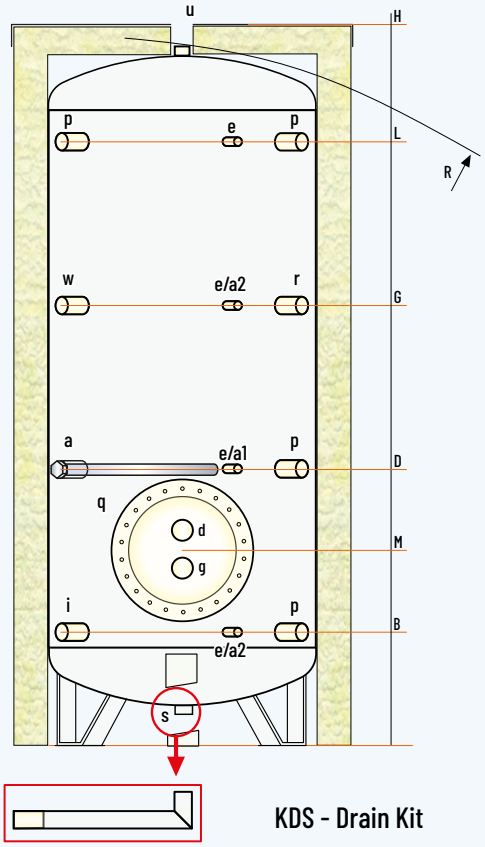


LEGEND

- **a .** Magnesium anode
- **a1-a2.** Opening for electronic anode
- **d .** Boiler flow
- **e .** Thermometer - Sensor
- **g .** Boiler return
- **i .** Domestic cold water inlet
- **p .** Free connection
- **q .** Heat exchanger flange
- **r .** Recirculation
- **s .** Drain
- **u .** Domestic hot water outlet
- **w.** Opening for immersion heater



BV1KS



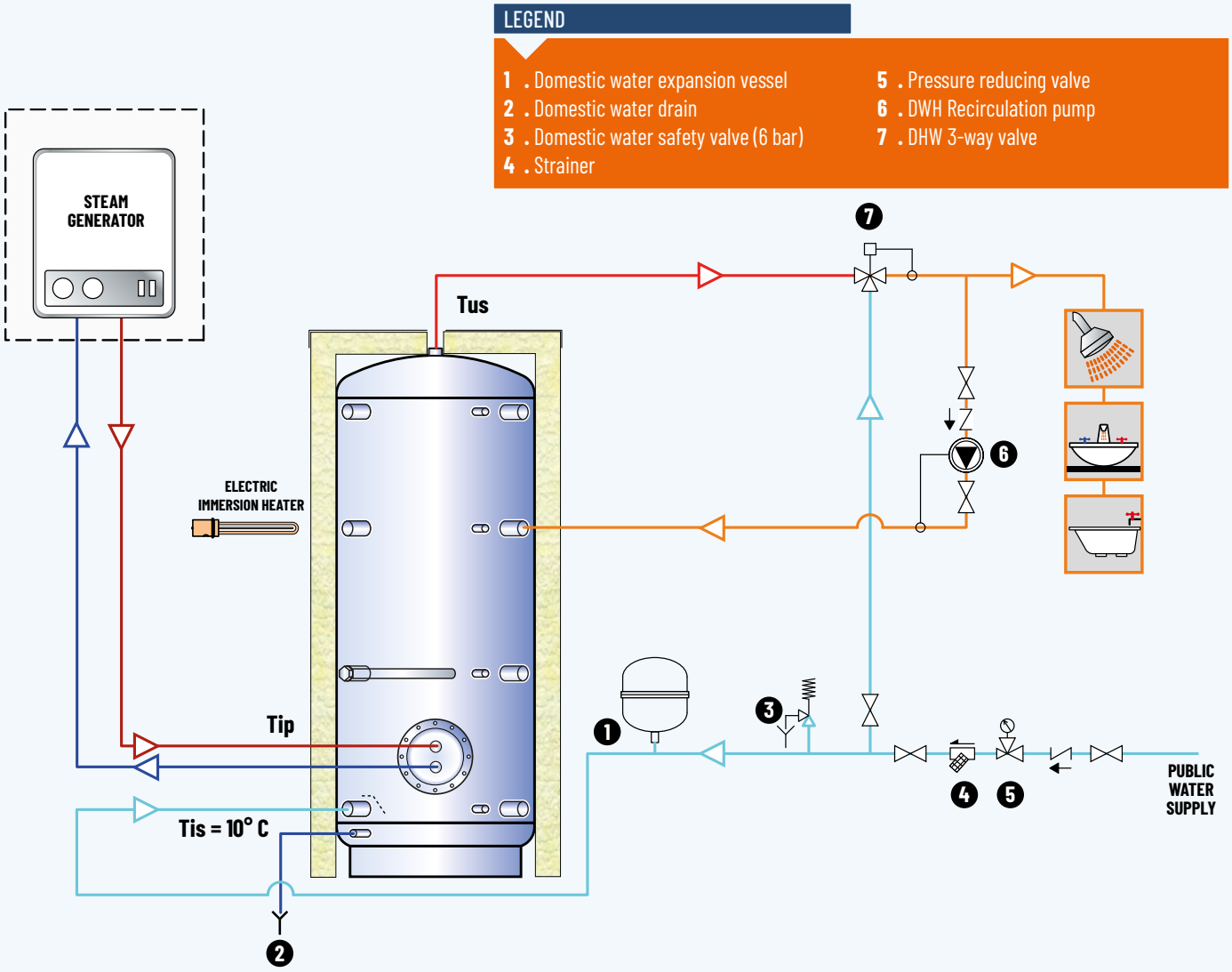
KDS - Drain Kit

MODEL	DIMENSIONS (mm) Ø	H	Ø EXT ** (Hard/Soft ins.)	R *	HEAT EXCHANGER (m^2)	Electronic anode (optional)	WEIGHT (kg)
BV1VS_ 00500 R	650	1645	750	1820	1,00	a1 (EPS 375/125)	111
BV1VS_ 00800_	790	1750	990/1050	1745	1,50	a1 (EPS 375/125)	188
BV1VS_ 01000_	790	2110	990/1050	2095	2,00	a1 (EPS 375/125)	216
BV1VS_ 01500_	1000	2115	1200/1260	2145	3,00	a2 (EPS 375/125)	330
BV1VS_ 02000_	1100	2465	1300/1360	2465	3,00	a2 (EPS 375/125)	465
BV1KS_ 02000_	1100	2465	1300/1360	2465	3,00	a2 (EPS 375/125)	303
BV1KS_ 02500_	1200	2595	1400	2640	3,00	a2 (EPS 700/200)	348
BV1KS_ 03000_	1250	2795	1450	2835	3,00	a2 (EPS 700/200)	388
BV1KS_ 04000_	1400	2925	1600	2995	4,00	a2 (EPS 700/200)	544
BV1KS_ 05000_	1600	2955	1800	3090	5,00	a2 (EPS 700/200)	649

** For the 500 litres model, the tilt height refers to the insulated cylinder*
*** The insulation is removable except for the 500 litres model*

MODEL	HEIGHTS (mm) A	B	D	G	L	M	CONNECTIONS (GAS) a p r	d g	e	i u	s	w	q
BV1VS_ 00500 R	135	240	615	1105	1375	445	1"¼	1"	½"	1"¼	1"	1"½	220/290
BV1VS_ 00800_	150	275	655	1145	1410	450	1"¼	2"	½"	1"½	1"	1"½	300/380
BV1VS_ 01000_	150	275	810	1355	1755	455	1"¼	2"	½"	1"½	1"	1"½	300/380
BV1VS_ 01500_	235	340	765	1400	1720	520	1"¼	2"	½"	2"	1"	1"½	300/380
BV1VS_ 02000_	265	370	930	1435	1945	575	1"¼	2"	½"	2"	1"	1"½	350/430
BV1KS_ 02000_	-	475	1010	1515	1975	680	1"¼	2"	½"	2"	1"¼	1"½	400/480
BV1KS_ 02500_	-	505	1040	1600	2105	715	1"¼	2"	½"	2	1"¼	1"½	400/480
BV1KS_ 03000_	-	515	1100	1730	2300	700	1"¼	2"	½"	3"	1"¼	1"½	400/480
BV1KS_ 04000_	-	595	1190	1815	2380	780	1"¼	2"	½"	3"	1"¼	1"½	400/480
BV1KS_ 05000_	-	600	1185	1815	2385	785	1"¼	2"	½"	3"	1"¼	1"½	400/480

Disclaimer: *this layout is purely indicative. It does not replace consultant's design*



Heat exchanger performance at different steam working pressures (P)

CODE	HEAT EXCHANGER m² (L)	P = 1 bar Tip = 120,4 °C Power * (kW)	P = 1 bar Tip = 120,4 °C Flow rate * (L/h)	P = 3 bar Tip = 143 °C Power * (kW)	P = 3 bar Tip = 143 °C Flow rate * (L/h)	P = 6 bar Tip = 165 °C Power * (kW)	P = 6 bar Tip = 165 °C Flow rate * (L/h)	P = 12 bar Tip = 191,7 °C Power * (kW)	P = 12 bar Tip = 191,7 °C Flow rate * (L/h)	First 10 minutes rating ** (L/10')
BV1VS_ 00500 R	1,0 (4,7)	89,8	2205	111,9	2751	133,5	3280	159,5	3920	985
BV1VS_ 00800_	1,5 (7,7)	133,3	3274	166,2	4083	198,1	4868	236,8	5818	1508
BV1VS_ 01000_	2,0 (9,5)	177,7	4366	221,6	5444	264,1	6490	315,7	7757	1866
BV1VS_ 01500_	3,0 (13,0)	266,5	6548	332,3	8166	396,2	9735	473,5	11635	2668
BV1_S_ 02000_	3,0 (13,0)	272,0	6684	339,3	8338	404,6	9943	483,7	11886	3211
BV1KS_ 02500_	3,0 (13,0)	272,0	6684	339,3	8338	404,6	9943	483,7	11886	3791
BV1KS_ 03000_	3,0 (13,0)	272,0	6684	339,3	8338	404,6	9943	483,7	11886	4320
BV1KS_ 04000_	4,0 (17,2)	355,3	8731	443,1	10888	528,3	12980	631,4	15513	5623
BV1KS_ 05000_	5,0 (20,8)	434,9	10685	542,1	13319	646,0	15874	772,0	18968	6786

** Tus = 45°C*
*** The above are values calculated with heat exchanger fed by steam at 6 bar (Storage temperature at 60 °C)*