

dal 1968



SCAMBIATORI - BOLLITORI - SERBATOI



BKPNS



DHW CALORIFIER WITH SINGLE OR TWIN BUILT-IN, OVERSIZED SPIRAL COILS FOR HEAT PUMP PRIMARY AND EXTERNAL BRAZED PLATE HEAT EXCHANGER KIT

Water heaters designed for domestic hot water (DHW) production and storage. They are compatible with heat pumps and any other energy source. **BKPN** range tanks are equipped with fixed spiral coils to maximise the heating exchange surface area in relation to storage capacity.

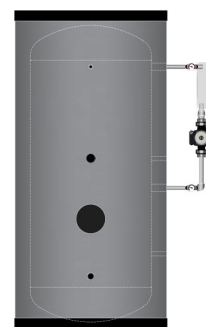
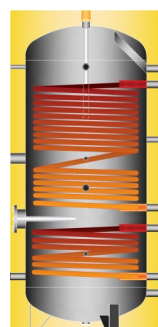
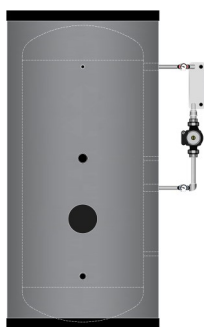
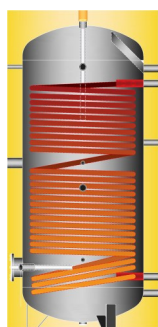
The **BKPN1** model is equipped with an oversized single spiral coil, and its high heat exchange surface allows for optimal efficiency when connected to a heat pump.

The **BKPN2** model is equipped with an oversized single spiral coil for connection to the heat pump, and a second coil for connection to an additional energy source, either conventional or renewable, serving as a booster to the heat pump or a separate power supply.

The **BKPNs** series is equipped with an external plate heat exchanger kit that allows a third heating source to be managed simultaneously. Combining the high performance of **BKPN** water heaters with the external kit, which comprises a copper brazed plate heat exchanger, a stainless steel circulator and ready-to-install hydraulic connection pipework, makes the **BKPNs** series suitable for use in demanding applications where heating sources have different power and thermal efficiencies. Thanks to the external gasketed plate heat exchanger, all available energy sources can be exploited and conveyed to one storage unit for maximum efficiency and to save space at installation sites.

Thermal insulation is an effective solution for ensuring minimal heat loss, thereby maintaining a constant temperature of the water stored inside the tank. This results in a reduced number of starts of connected heating generators, leading to savings in operating costs and increased reliability. Insulations are factory-made, and the external cladding can be selected from either a technical fabric, suitable for indoor installation only, or an embossed aluminium sheet, suitable for both indoor and outdoor installation. **BKPN** range tanks are available in two options: glass-lined carbon steel (**BKPN...-V**), which complies with DIN4753.3, and stainless steel AISI 316L (**BKPN...-X**), which meets the most demanding quality requirements.

CONSTRUCTION



BKPN1S-V

BKPN1S-X

BKPN2S-V

BKPN2S-X

WATER HEATER

TANK MATERIAL	Carbon Steel	Stainless Steel AISI 316L	Carbon Steel	Stainless Steel AISI 316L
SPIRAL COIL MATERIAL	Carbon steel (glass-lined externally)	Stainless Steel AISI 316L	Carbon steel (glass-lined externally)	Stainless Steel AISI 316L
INT. SURFACE STEEL TREATMENT	Glass-lining (DIN 4753.3)	Pickling and passivation	Glass-lining (DIN 4753.3)	Pickling and passivation
EXT. SURFACE STEEL TREATMENT	Antirust primer	Pickling and passivation	Antirust primer	Pickling and passivation
CAPACITY	200 ÷ 2000 L	200 ÷ 2000 L	300 ÷ 2000 L	300 ÷ 2000 L
VERSION	Vertical	Vertical	Vertical	Vertical
CONNECTION TYPE	Threaded	Threaded	Threaded	Threaded
INSULATION 200 ÷ 500 L	55 mm Hard foam polyurethane injected	55 mm Hard foam polyurethane injected	55 mm Hard foam polyurethane injected	55 mm Hard foam polyurethane injected
INSULATION 800 ÷ 2000 L	100 mm PLFH High density polyester fiber eco-friendly	100 mm PLFH High density polyester fiber eco-friendly	100 mm PLFH High density polyester fiber eco-friendly	100 mm PLFH High density polyester fiber eco-friendly
OUTER CLADDING	Light grey PVC - RAL7035	Light grey PVC - RAL7035	Light grey PVC - RAL7035	Light grey PVC - RAL7035
ANODE TYPE	Magnesium (factory fitted)	Electronic (on request)	Magnesium (factory fitted)	Electronic (on request)
ACCESSORIES (factory fitted)	Thermometer	Thermometer	Thermometer	Thermometer

EXTERNAL COPPER BRAZED PLATE HEAT EXCHANGER KIT

COPPER BRAZED PHE MODEL	BV 26	BV 26	BV 26	BV 26
PALTES MATERIAL	Stainless Steel AISI 316L	Stainless Steel AISI 316L	Stainless Steel AISI 316L	Stainless Steel AISI 316L
PIPEWORK MATERIAL	Galvanized steel	Stainless steel	Galvanized steel	Stainless steel
ACCESSORIES (factory fitted)	<ul style="list-style-type: none"> • PHE temp. gauges (in/out) • Thermostat • DHV circulator pump 	<ul style="list-style-type: none"> • PHE temp. gauges (in/out) • Thermostat • DHV circulator pump 	<ul style="list-style-type: none"> • PHE temp. gauges (in/out) • Thermostat • DHV circulator pump 	<ul style="list-style-type: none"> • PHE temp. gauges (in/out) • Thermostat • DHV circulator pump

REGULATORY COMPLIANCE

WATER HEATER

European Pressure Equipment Directive (PED) 2014/68/EU | SEP (Sound Engineering Practice) - exclusion from CE marking - Art. 4.3

ErP - Reg. 812/2013 & Reg. 814/2013 (European Directive 2009/125/CE)

D.M. 174/04 or Reg. (CE) 1935/04 | Compatible with potable water

EXTERNAL BRAZED PLATE HEAT EXCHANGER KIT

European Pressure Equipment Directive (PED) 2014/68/EU | SEP (Sound Engineering Practice) - exclusion from CE marking - Art. 4.3

D.M. 174/04 or Reg. (CE) 1935/04 | Compatible with potable water

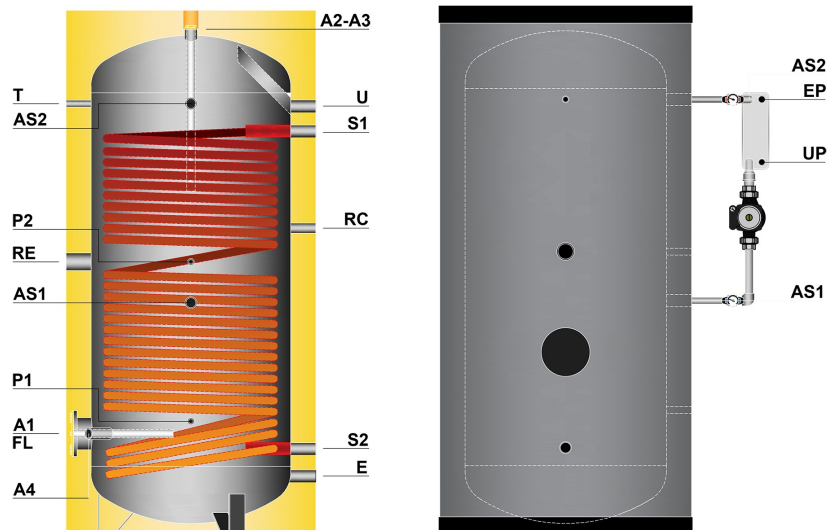
DHW CALORIFIER WITH BUILT-IN OVERSIZED SPIRAL COILS FOR HP PRIMARY AND EXTERNAL BRAZED PHE KIT

Energy efficiency class - Regulation EU 812/2013 & 814/2013 (European Directive 2009/125/CE)

		Capacity - L		200	300	500	800	1000	1500	2000
Energy efficiency class				C	C	C	C	C	C	C
BKPN1-V	Standing loss	S	W	65	78	103	122	132	154	178
	Storage total volume	V	L	193	256	447	752	864	1400	1904
Energy efficiency class				C	C	C	C	C	C	C
BKPN2-V	Standing loss	S	W		79	104	124	132	155	179
	Storage total volume	V	L		256	433	755	869	1424	1909
Energy efficiency class				C	C	C	C	C	C	C
BKPN1-X	Standing loss	S	W	65	78	103	122	132	154	178
	Storage total volume	V	L	193	256	447	752	864	1400	1904
Energy efficiency class				C	C	C	C	C	C	C
BKPN2-X	Standing loss	S	W		79	104	124	132	155	179
	Storage total volume	V	L		256	433	755	869	1424	1909

STANDARD WORKING CONDITIONS

		Capacity - L		200	300	500	800	1000	1500	2000
Working pressure	Glass-lined tank and galvanized steel pipework	bar		ATM ÷ 10	ATM ÷ 10	ATM ÷ 10	ATM ÷ 10	ATM ÷ 10	ATM ÷ 10	ATM ÷ 10
	Stainless steel tank and stainless steel pipework	bar		ATM ÷ 8	ATM ÷ 8	ATM ÷ 8	ATM ÷ 8	ATM ÷ 8	ATM ÷ 8	ATM ÷ 8
	Spiral coil	bar		ATM ÷ 10	ATM ÷ 10	ATM ÷ 10	ATM ÷ 10	ATM ÷ 10	ATM ÷ 10	ATM ÷ 10
	Brazed Plate heat exchanger [primary side]	bar		ATM ÷ 30	ATM ÷ 30	ATM ÷ 30	ATM ÷ 30	ATM ÷ 30	ATM ÷ 30	ATM ÷ 30
Working temperature	Glass-lined tank and galvanized steel pipework	°C		AMB ÷ 95	AMB ÷ 95	AMB ÷ 95	AMB ÷ 95	AMB ÷ 95	AMB ÷ 95	AMB ÷ 95
	Stainless steel tank and stainless steel pipework	°C		AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99
	Spiral coil	°C		AMB ÷ 110	AMB ÷ 110	AMB ÷ 110	AMB ÷ 110	AMB ÷ 110	AMB ÷ 110	AMB ÷ 110
	Brazed Plate heat exchanger [primary side]	°C		-160 ÷ 200	-160 ÷ 200	-160 ÷ 200	-160 ÷ 200	-160 ÷ 200	-160 ÷ 200	-160 ÷ 200



BKPN1S-V GENERAL CHARACTERISTICS

	Capacity	200	300	500	800	1000	1500	2000
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DIMENSIONS

Diameter without insulation	mm	500	500	650	800	800	1000	1200
Diameter with insulation	mm	610	610	760	1000	1000	1200	1400
Maximum height	mm	1320	1640	1720	1854	2104	2265	2245
Overturning height with without insulation	mm	1460	1760	1890	2110 1840	2340 2090	2570 2270	2650 2280

CONNENCTIONS

H from ground | Ø

E Cold water inlet	mm Ø	150 1"	150 1"	185 1"	235 1"¼	235 1"¼	315 2"	445 2"
U Hot water outlet	mm Ø	1070 1"	1395 1"	1515 1"	1470 1"¼	1720 1"¼	1795 2"	1815 2"
RC Recirculation	mm Ø	770 1"	1050 1"	1095 1"	1050 1"	1230 1"¼	1300 1"½	1300 1"½
R Immersion electric heater	mm Ø	700 2"	955 2"	920 2"	935 2"	1095 2"	1165 2"	1160 2"
P1 Sensor	mm Ø	360 ½"	345 ½"	350 ½"	455 ½"	455 ½"	595 ½"	685 ½"
P2 Sensor	mm Ø	700 ½"	955 ½"	920 ½"	935 ½"	1095 ½"	1165 ½"	1160 ½"
AS1 PHE fitting	mm Ø	275 1"¼	595 1"¼	635 1"¼	680 1"¼	930 1"¼	1005 1"¼	895 1"¼
AS2 PHE fitting	mm Ø	1075 1"¼	1395 1"¼	1435 1"¼	1480 1"¼	1730 1"¼	1805 1"¼	1695 1"¼
T Thermometer	mm Ø	1075 ½"	1395 ½"	1435 ½"	1480 ½"	1730 ½"	1805 ½"	1695 ½"
A1 Anode	mm Ø	325 M8	325 M8	350 M8	405 M8	405 M8	555 1"¼	—
A2 Anode	mm Ø	1320 1"¼	1640 1"¼	1720 1"¼	1779 1"¼	2029 1"¼	2185 1"¼	2165 1"¼
A3 Anode	mm Ø	—	—	—	1779 1"¼	2029 1"¼	2185 1"¼	2165 1"¼
A4 Anode	mm Ø	—	—	—	—	—	—	740 1"¼
S1 Spiral coil primary outlet	mm Ø	990 1"¼	1235 1"¼	1285 1"¼	1315 1"¼	1620 1"¼	1655 2"	1650 2"
S2 Spiral coil primary inlet	mm Ø	255 1"¼	255 1"¼	295 1"¼	345 1"¼	345 1"¼	465 2"	595 2"
EP Primary inlet (PHE)	mm Ø	1075 1"¼	1395 1"¼	1435 1"¼	1480 1"¼	1730 1"¼	1805 1"¼	1695 1"¼
UP Primary outlet (PHE)	mm Ø	825 1"¼	1145 1"¼	1185 1"¼	1230 1"¼	1480 1"¼	1555 1"¼	1445 1"¼
FL Inspection opening	mm Ø	325 120x184	325 120x184	350 120x184	405 120x184	405 120x184	555 120x184	685 220x300

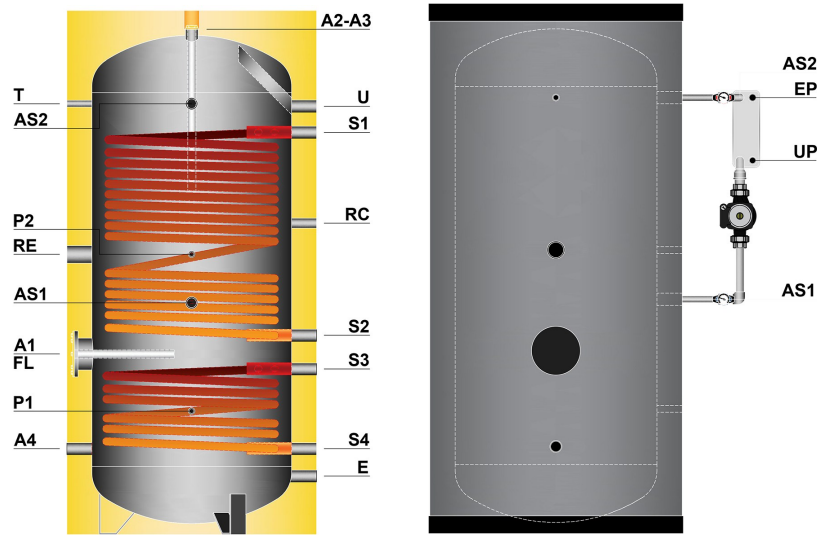
PERFORMANCE

Spiral coil surface area	m²	3,0	4,2	6,0	7,5	10,0	12,0	13,0
Spiral coil output (Primary 50/45°C - Secondary 10/45°C)	kW	21	29	42	52	70	84	91
DHW continuous flow 10/45°C	l/h	516	720	1029	1286	1714	2057	2229

WEIGHT

Empty weight	kg	160	175	228	314	382	439	509
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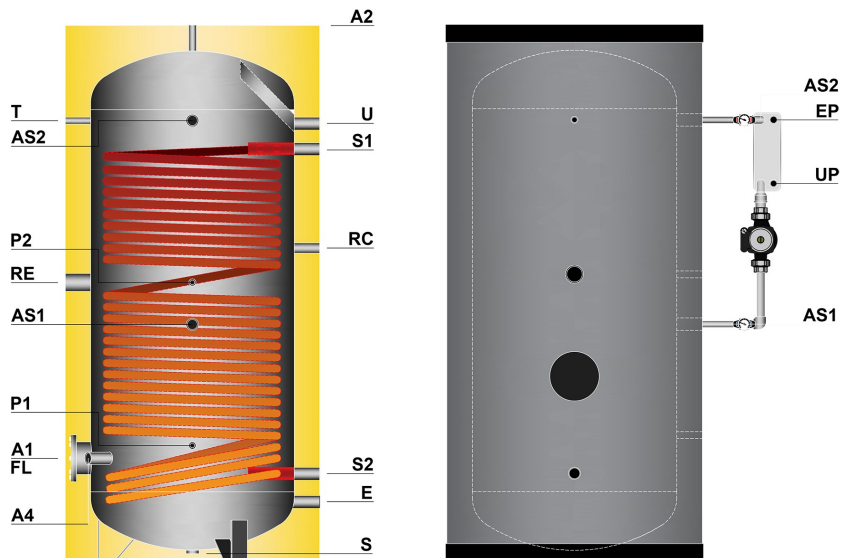
NOTE: All the measurements of the hydraulic connections are considered "from the ground" - All the threads are female GAS type, unless otherwise specified. Tanks higher than 2200mm are packaged horizontally.



BKPNS-V GENERAL CHARACTERISTICS

	Capacity	300	500	800	1000	1500	2000
DIMENSIONS							
Diameter without insulation	mm	500	650	800	800	1000	1200
Diameter with insulation	mm	610	760	1000	1000	1200	1400
Maximum height	mm	1640	1720	1854	2104	2265	2245
Overturning height with without insulation	mm	1760	1890	2110 1840	2330 2080	2570 2280	2650 2280
CONNECTIONS							
	H from ground Ø						
E Cold water inlet	mm Ø	150 1"	185 1"	235 1 1/4"	235 1 1/4"	315 2"	445 2"
U Hot water outlet	mm Ø	1395 1"	1515 1"	1470 1 1/4"	1720 1 1/4"	1795 2"	1815 2"
RC Recirculation	mm Ø	1050 1"	1095 1"	1150 1"	1250 1"	1420 1 1/2"	1450 1 1/2"
R Immersion electric heater	mm Ø	890 2"	970 2"	1045 2"	1125 2"	1305 2"	1380 2"
P1 Sensor	mm Ø	385 1/2"	440 1/2"	455 1/2"	495 1/2"	595 1/2"	725 1/2"
P2 Sensor	mm Ø	890 1/2"	970 1/2"	1045 1/2"	1125 1/2"	1305 1/2"	1380 1/2"
AS1 Spare	mm Ø	595 1 1/4"	635 1 1/4"	680 1 1/4"	930 1 1/4"	1005 1 1/4"	895 1 1/4"
AS2 Spare / Recirculation	mm Ø	1395 1 1/4"	1435 1 1/4"	1480 1 1/4"	1730 1 1/4"	1805 1 1/4"	1695 1 1/4"
T Thermometer	mm Ø	1395 1/2"	1435 1/2"	1480 1/2"	1730 1/2"	1805 1/2"	1695 1/2"
A1 Anode	mm Ø	665 M8	685 M8	680 M8	725 M8	580 1 1/4"	—
A2 Anode	mm Ø	1640 1 1/4"	1720 1 1/4"	1779 1 1/4"	2029 1 1/4"	2185 1 1/4"	2165 1 1/4"
A3 Anode	mm Ø	—	—	1779 1 1/4"	2029 1 1/4"	2185 1 1/4"	2165 1 1/4"
A4 Anode	mm Ø	—	—	—	—	—	555 1 1/4"
S1 Upper Spiral coil primary outlet	mm Ø	1305 1 1/4"	1405 1 1/4"	1365 1 1/4"	1615 1 1/4"	1655 1 1/2"	1680 1 1/2"
S2 Upper Spiral coil primary inlet	mm Ø	710 1 1/4"	760 1 1/4"	760 1 1/4"	800 1 1/4"	955 1 1/2"	1080 1 1/2"
S3 Lower Spiral coil primary outlet	mm Ø	620 1 1/4"	605 1 1/4"	625 1 1/4"	665 1 1/4"	805 1 1/2"	930 1 1/2"
S4 Lower Spiral coil primary inlet	mm Ø	250 1 1/4"	295 1 1/4"	345 1 1/4"	345 1 1/4"	435 1 1/2"	585 1 1/2"
EP Primary PHE input (BV26)	mm Ø	1395 1"M	1435 1"M	1480 1"M	1730 1"M	1805 1"M	1695 1"M
UP Primary PHE output (BV26)	mm Ø	1145 1"M	1185 1"M	1230 1"M	1480 1"M	1555 1"M	1445 1"M
FL Inspection opening	mm Ø	665 120x184	685 120x184	680 120x184	725 120x184	580 120x184	1005 220x300
PERFORMANCE							
Lower Spiral coil surface area	m²	1,7	1,8	2,0	3,0	4,5	5,0
Lower Spiral coil output (Primary 75/65°C - Secondary 10/45°C)	kW	50	53	59	89	133	149
DHW continuous flow 10/45°C	l/h	1239	1311	1457	2186	3279	3649
Upper Spiral coil surface area	m²	2,5	4,1	5,0	6,0	7,0	8,0
Upper Spiral coil output (Primary 50/45°C - Secondary 10/45°C)	kW	17	29	35	42	49	56
DHW continuous flow 10/45°C	l/h	429	703	857	1029	1200	1371
WEIGHT							
Empty weight	kg	180	230	301	357	429	514

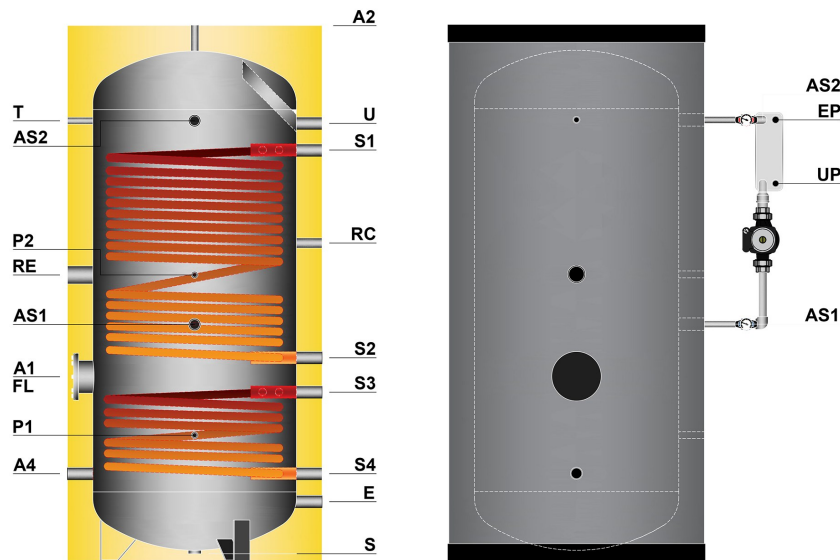
NOTE: All the measurements of the hydraulic connections are considered "from the ground" - All the threads are female GAS type, unless otherwise specified. Tanks higher than 2200mm are packaged horizontally.



BKPN1S-X GENERAL CHARACTERISTICS

	Capacity	200	300	500	800	1000	1500	2000
DIMENSIONS								
Diameter without insulation	mm	500	500	650	800	800	1000	1200
Diameter with insulation	mm	610	610	760	1000	1000	1200	1400
Maximum height	mm	1320	1640	1715	1854	2104	2205	2245
Overturning height with without insulation	mm	1460	1760	1890	2110 1840	2340 2090	2520 2270	2650 2330
CONNECTIONS								
		H from ground Ø						
E Cold water inlet	mm Ø	150 1"	150 1"	185 1"	235 1 1/4"	235 1 1/4"	315 2"	445 2"
U Hot water outlet	mm Ø	1070 1"	1395 1"	1515 1"	1470 1 1/4"	1720 1 1/4"	1795 2"	1815 2"
RC Recirculation	mm Ø	770 1"	1050 1"	1095 1"	1050 1"	1230 1"	1300 1 1/2"	1300 1 1/2"
R Immersion electric heater	mm Ø	700 2"	955 2"	920 2"	935 2"	1095 2"	1165 2"	1160 2"
P1 Sensor	mm Ø	360 1/2"	345 1/2"	350 1/2"	455 1/2"	455 1/2"	595 1/2"	685 1/2"
P2 Sensor	mm Ø	700 1/2"	955 1/2"	920 1/2"	935 1/2"	1095 1/2"	1165 1/2"	1160 1/2"
AS1 PHE fitting	mm Ø	275 1 1/4"	595 1 1/4"	635 1 1/4"	680 1 1/4"	930 1 1/4"	1005 1 1/4"	895 1 1/4"
AS2 PHE fitting	mm Ø	1075 1 1/4"	1395 1 1/4"	1435 1 1/4"	1480 1 1/4"	1730 1 1/4"	1805 1 1/4"	1695 1 1/4"
T Thermometer	mm Ø	1075 1/2"	1395 1/2"	1435 1/2"	1480 1/2"	1730 1/2"	1805 1/2"	1695 1/2"
A1 Anode	mm Ø	—	—	—	—	—	555 1/2"	—
A2 Anode	mm Ø	1320 1/2"	1640 1/2"	1715 1/2"	1854 1/2"	2104 1/2"	2205 1/2"	2245 1/2"
A4 Anode	mm Ø	—	—	—	—	—	—	740 1/2"
S1 Spiral coil primary outlet	mm Ø	990 1 1/4"	1235 1 1/4"	1285 1 1/4"	1315 1 1/4"	1620 1 1/4"	1655 2"	1650 2"
S2 Spiral coil primary inlet	mm Ø	255 1 1/4"	255 1 1/4"	295 1 1/4"	345 1 1/4"	345 1 1/4"	465 2"	595 2"
S Drain	mm Ø	—	—	—	—	—	110 1 1/4"	90 1 1/4"
EP Primary inlet (PHE)	mm Ø	1075 1"M	1395 1"M	1435 1"M	1480 1"M	1730 1"M	1805 1"M	1695 1"M
UP Primary outlet (PHE)	mm Ø	825 1"M	1145 1"M	1185 1"M	1230 1"M	1480 1"M	1555 1"M	1445 1"M
FL Inspection opening	mm Ø	325 120x184	325 120x184	350 120x184	405 120x184	405 120x184	555 120x184	685 220x300
PERFORMANCE								
Spiral coil surface area	m²	3,0	4,2	6,0	7,5	10,0	12,0	13,0
Spiral coil output (Primary 50/45°C - Secondary 10/45°C)	kW	21	29	42	52	70	84	91
DHW continuous flow 10/45°C	l/h	516	720	1029	1286	1714	2057	2229
WEIGHT								
Empty weight	kg	154	163	215	306	360	427	500

NOTE: All the measurements of the hydraulic connections are considered "from the ground" - All the threads are female GAS type, unless otherwise specified. Tanks higher than 2200mm are packaged horizontally.



BKPNS-X GENERAL CHARACTERISTICS

	Capacity	300	500	800	1000	1500	2000
DIMENSIONS							
Diameter without insulation	mm	500	650	800	800	1000	1200
Diameter with insulation	mm	610	760	1000	1000	1200	1400
Maximum height	mm	1640	1715	1854	2104	2205	2245
Overturning height with without insulation	mm	1760	1890	2110 1840	2340 2090	2520 2270	2650 2330
CONNECTIONS							
		H from ground Ø					
E Cold water inlet	mm Ø	150 1"	185 1"	235 1"¼	235 1"¼	315 2"	445 2"
U Hot water outlet	mm Ø	1395 1"	1515 1"	1470 1"¼	1720 1"¼	1795 2"	1815 2"
RC Recirculation	mm Ø	1050 1"	1095 1"	1150 1"	1250 1"	1420 1"½	1450 1"½
R Immersion electric heater	mm Ø	890 2"	970 2"	1045 2"	1125 2"	1305 2"	1380 2"
P1 Sensor	mm Ø	385 ½"	440 ½"	455 ½"	495 ½"	595 ½"	725 ½"
P2 Sensor	mm Ø	890 ½"	970 ½"	1045 ½"	1125 ½"	1305 ½"	1380 ½"
AS1 PHE fitting	mm Ø	595 1"¼	635 1"¼	680 1"¼	930 1"¼	1005 1"¼	895 1"¼
AS2 PHE fitting	mm Ø	1395 1"¼	1435 1"¼	1480 1"¼	1730 1"¼	1805 1"¼	1695 1"¼
T Thermometer	mm Ø	1395 ½"	1435 ½"	1480 ½"	1730 ½"	1805 ½"	1695 ½"
A1 Anode	mm Ø	—	—	—	—	580 ½"	—
A2 Anode	mm Ø	1640 ½"	1715 ½"	1854 ½"	2104 ½"	2205 ½"	2245 ½"
A4 Anode	mm Ø	—	—	—	—	—	555 ½"
S1 Upper Spiral coil primary outlet	mm Ø	1305 1"¼	1405 1"¼	1365 1"¼	1615 1"¼	1655 1"½	1680 1"½
S2 Upper Spiral coil primary inlet	mm Ø	710 1"¼	760 1"¼	760 1"¼	800 1"¼	955 1"½	1080 1"½
S3 Lower Spiral coil primary outlet	mm Ø	620 1"¼	605 1"¼	625 1"¼	665 1"¼	805 1"½	930 1"½
S4 Lower Spiral coil primary inlet	mm Ø	250 1"¼	295 1"¼	345 1"¼	345 1"¼	435 1"½	585 1"½
EP Primary inlet (PHE)	mm Ø	1395 1"¼	1435 1"¼	1480 1"¼	1730 1"¼	1805 1"¼	1695 1"¼
UP Primary outlet (PHE)	mm Ø	1145 1"¼	1185 1"¼	1230 1"¼	1480 1"¼	1555 1"¼	1445 1"¼
FL Inspection opening	mm Ø	665 120x184	685 120x184	680 120x184	725 120x184	580 120x184	1005 220x300
PERFORMANCE							
Lower Spiral coil surface area	m²	1,7	1,8	2,0	3,0	4,5	5,0
Lower Spiral coil output (Primary 75/65°C - Secondary 10/45°C)	kW	50	53	59	89	133	149
DHW continuous flow 10/45°C	l/h	1239	1311	1457	2186	3279	3649
Upper Spiral coil surface area	m²	2,5	4,1	5,0	6,0	7,0	8,0
Upper Spiral coil output (Primary 50/45°C - Secondary 10/45°C)	kW	17	29	35	42	49	56
DHW continuous flow 10/45°C	l/h	429	703	857	1029	1200	1371
WEIGHT							
Empty weight	kg	174	225	293	350	418	498

NOTE: All the measurements of the hydraulic connections are considered "from the ground" - All the threads are female GAS type, unless otherwise specified. Tanks higher than 2200mm are packaged horizontally.

BKPN1-V | BKPN1-X - SINGLE COIL OUTPUT

Primary (60-50)°C | Secondary (10-45)°C

Tank capacity	HP coil surface area	Max. output	Primary flow	SECONDARY (DHW)		
				Continuous flow	Output first 10'	Output first 60'
<i>Litres</i>	<i>m²</i>	<i>kW</i>	<i>Litres/Hour</i>	<i>Litres/Hour</i>	<i>Litres</i>	<i>Litres</i>
200	3,0	48	4128	1180	397	1380
300	4,2	67	5775	1650	575	1950
500	6,0	96	8256	2357	893	2857
800	7,5	120	10313	2946	1291	3746
1000	10,0	160	13750	3929	1655	4929
1500	12,0	192	16500	4714	2286	6214
2000	13,0	208	17875	5107	2851	7107

Primary (55-45)°C | Secondary (10-45)°C

Tank capacity	HP coil surface area	Max. output	Primary flow	SECONDARY (DHW)		
				Continuous flow	Output first 10'	Output first 60'
<i>Litres</i>	<i>m²</i>	<i>kW</i>	<i>Litres/Hour</i>	<i>Litres/Hour</i>	<i>Litres</i>	<i>Litres</i>
200	3,0	31	2666	762	327	962
300	4,2	44	3780	1080	480	1380
500	6,0	63	5400	1543	757	2043
800	7,5	78	6750	1929	1121	2729
1000	10,0	105	9000	2571	1429	3571
1500	12,0	126	10800	3086	2014	4586
2000	13,0	136	11700	3343	2557	5343

Primary (50-45)°C | Secondary (10-45)°C

Tank capacity	HP coil surface area	Max. output	Primary flow	SECONDARY (DHW)		
				Continuous flow	Output first 10'	Output first 60'
<i>Litres</i>	<i>m²</i>	<i>kW</i>	<i>Litres/Hour</i>	<i>Litres/Hour</i>	<i>Litres</i>	<i>Litres</i>
200	3,0	21	3612	516	286	716
300	4,2	29	5040	720	420	1020
500	6,0	42	7200	1029	671	1529
800	7,5	52	9000	1286	1014	2086
1000	10,0	70	12000	1714	1286	2714
1500	12,0	84	14400	2057	1843	3557
2000	13,0	91	15600	2229	2371	4229

BKPN2-V | BKPN2-X - UPPER COIL OUTPUT (HP)

Primary (65-50)°C | Secondary (10-45)°C

Tank capacity	HP coil surface area	Max. output	Primary flow	SECONDARY (DHW)		
				Continuous flow	Output first 10'	Output first 60'
<i>Litres</i>	<i>m²</i>	<i>kW</i>	<i>Litres/Hour</i>	<i>Litres/Hour</i>	<i>Litres</i>	<i>Litres</i>
300	2,5	44	2500	1071	479	1371
500	4,1	72	4100	1757	793	2257
800	5,0	87	5000	2143	1157	2943
1000	6,0	105	6000	2571	1429	3571
1500	7,0	122	7000	3000	2000	4500
2000	8,0	140	8000	3429	2571	5429

Primary (55-45)°C | Secondary (10-45)°C

Tank capacity	HP coil surface area	Max. output	Primary flow	SECONDARY (DHW)		
				Continuous flow	Output first 10'	Output first 60'
<i>Litres</i>	<i>m²</i>	<i>kW</i>	<i>Litres/Hour</i>	<i>Litres/Hour</i>	<i>Litres</i>	<i>Litres</i>
300	2,5	26	2250	643	407	943
500	4,1	43	3690	1054	676	1554
800	5,0	52	4500	1286	1014	2086
1000	6,0	63	5400	1543	1257	2543
1500	7,0	73	6300	1800	1800	3300
2000	8,0	84	7200	2057	2343	4057

Primary (50-45)°C | Secondary (10-45)°C

Tank capacity	HP coil surface area	Max. output	Primary flow	SECONDARY (DHW)		
				Continuous flow	Output first 10'	Output first 60'
<i>Litres</i>	<i>m²</i>	<i>kW</i>	<i>Litres/Hour</i>	<i>Litres/Hour</i>	<i>Litres</i>	<i>Litres</i>
300	2,5	17	3000	429	371	729
500	4,1	29	4920	703	617	1203
800	5,0	35	6000	857	943	1657
1000	6,0	42	7200	1029	1171	2029
1500	7,0	49	8400	1200	1700	2700
2000	8,0	56	9600	1371	2229	3371

BKPN2-V | BKPN2-X - LOWER COIL OUTPUT (Additional heating source)

Primary (75-65)°C | Secondary (10-45)°C

Tank capacity	Lower coil surface area	Max. output	Primary flow	SECONDARY (DHW)
				Continuous flow
<i>Litres</i>	<i>m²</i>	<i>kW</i>	<i>Litres/Hour</i>	<i>Litres/Hour</i>
300	1,7	50	4335	1239
500	1,8	53	4590	1311
800	2,0	59	5100	1457
1000	3,0	89	7650	2186
1500	4,5	133	11475	3279
2000	5,0	149	12771	3649

Primary (70-60)°C | Secondary (10-45)°C

Tank capacity	Lower coil surface area	Max. output	Primary flow	SECONDARY (DHW)
				Continuous flow
<i>Litres</i>	<i>m²</i>	<i>kW</i>	<i>Litres/Hour</i>	<i>Litres/Hour</i>
300	1,7	41	3506	1002
500	1,8	43	3713	1061
800	2,0	48	4175	1179
1000	3,0	72	6188	1768
1500	4,5	108	9281	2652
2000	5,0	120	10313	2946

Primary (60-50)°C | Secondary (10-45)°C

Tank capacity	Lower coil surface area	Max. output	Primary flow	SECONDARY (DHW)
				Continuous flow
<i>Litres</i>	<i>m²</i>	<i>kW</i>	<i>Litres/Hour</i>	<i>Litres/Hour</i>
300	1,7	30	1700	729
500	1,8	31	1800	771
800	2,0	35	2000	857
1000	3,0	52	3000	1286
1500	4,5	78	4500	1929
2000	5,0	87	5010	2147

PERFORMANCE AND MATCHING TABLE FOR BV26 BRAZED PLATE HEAT EXCHANGER

Primary (80-60)°C | Secondary (12-48)°C | Primary pressure drop: 40 kPa | Secondary pressure drop: 20 kPa

Capacity L	BV26 Plates No.	Power kW	Primary flow L/h	Continuos production L/h	Production first 10' L	Production first 60' L	Recovery time minutes	NUMBER OF BATHROOMS / SHOWERS			
								Apartments	Hotels	Seasonal hotels	Sport facilities
200	20	70	3001	1667	478	1867	7	23	16	12	9
	30	105	4502	2501	617	2701	5	34	23	17	14
	40	140	5999	3333	755	3533	4	44	29	22	18
	50	170	7250	4028	871	4228	3	53	35	26	21
300	20	70	3001	1667	578	1967	11	26	17	13	10
	30	105	4502	2501	717	2801	7	37	25	18	15
	40	140	5999	3333	855	3633	5	48	32	24	19
	50	170	7250	4028	971	4328	4	57	38	28	23
500	20	70	3001	1667	778	2167	18	30	20	15	12
	30	105	4502	2501	917	3001	12	42	28	21	17
	40	140	5999	3333	1055	3833	9	53	35	27	21
	50	170	7250	4028	1171	4528	7	63	42	31	25
800	20	70	3001	1667	1078	2467	29	36	24	18	15
	30	105	4502	2501	1217	3301	19	49	32	24	19
	40	140	5999	3333	1355	4133	14	61	41	30	24
	50	170	7250	4028	1471	4828	12	71	47	35	28
1000	20	70	3001	1667	1278	2667	36	42	28	21	17
	30	105	4502	2501	1417	3501	24	55	36	27	22
	40	140	5999	3333	1555	4333	18	68	45	34	27
	50	170	7250	4028	1671	5028	15	79	52	39	31
1500	20	70	3001	1667	1778	3167	54	53	35	26	21
	30	105	4502	2501	1917	4001	36	67	44	33	27
	40	140	5999	3333	2055	4833	27	81	54	40	32
	50	170	7250	4028	2171	5528	22	92	61	46	37
2000	20	70	3001	1667	2278	3667	72	65	44	33	26
	30	105	4502	2501	2417	4501	48	80	54	40	32
	40	140	5999	3333	2555	5333	36	95	63	48	38
	50	170	7250	4028	2671	6028	30	108	72	54	43

Primary (65-50)°C | Secondary (12-48)°C | Primary pressure drop: 40 kPa | Secondary pressure drop: 20 kPa

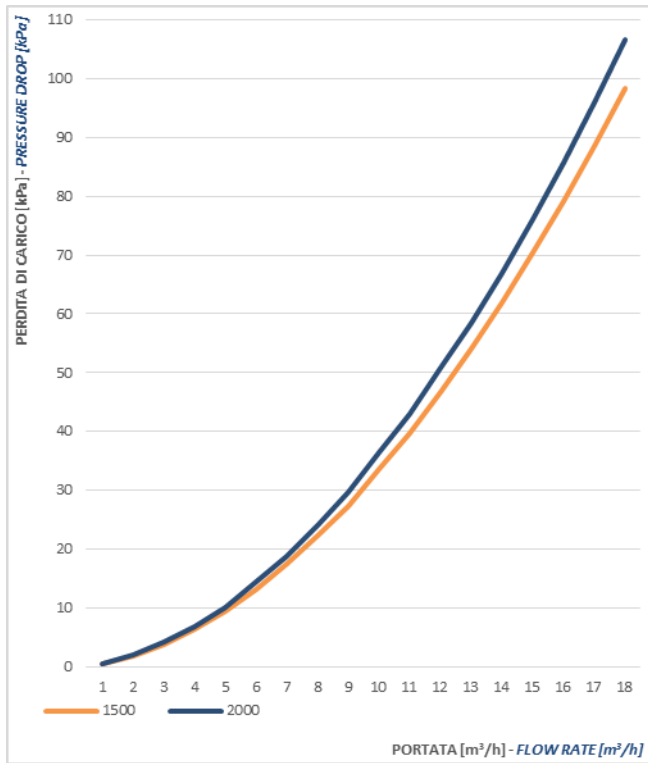
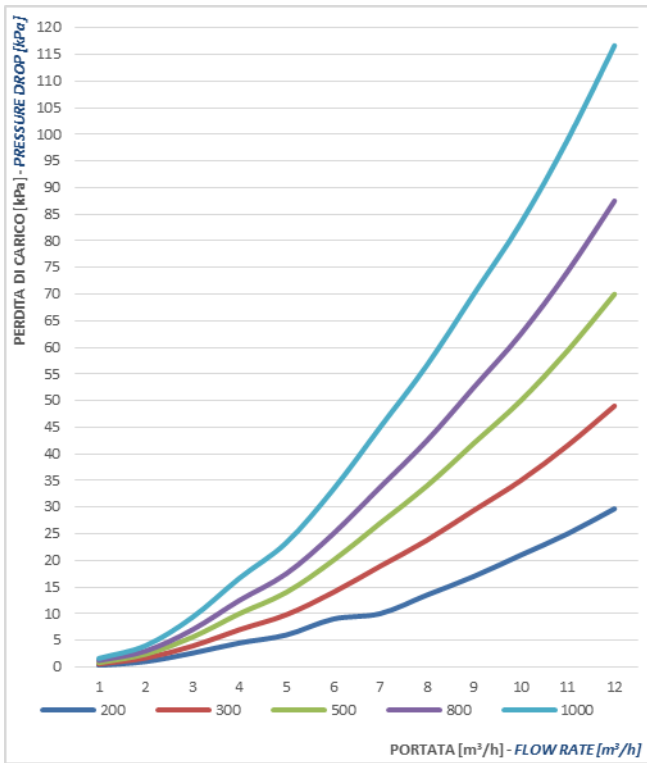
Capacity L	BV26 Plates No.	Power kW	Primary flow L/h	Continuos production L/h	Production first 10' L	Production first 60' L	Recovery time minutes	NUMBER OF BATHROOMS / SHOWERS			
								Apartments	Hotels	Seasonal hotels	Sport facilities
200	20	36	2113	860	343	1060	14	13	9	7	5
	30	60	3522	1435	439	1633	8	20	14	10	8
	40	85	4989	2033	538	2231	6	28	19	14	11
	50	115	6750	2750	658	2947	4	37	25	18	15
300	20	36	2113	860	443	1160	21	15	10	8	6
	30	60	3522	1435	539	1733	13	23	15	11	9
	40	85	4989	2033	638	2331	9	31	20	15	12
	50	115	6750	2750	758	3047	7	40	27	20	16
500	20	36	2113	860	643	1360	35	19	13	9	8
	30	60	3522	1435	739	1933	21	27	18	13	11
	40	85	4989	2033	838	2531	15	35	23	18	14
	50	115	6750	2750	958	3247	11	45	30	23	18
800	20	36	2113	860	943	1660	56	24	16	12	10
	30	60	3522	1435	1039	2233	33	33	22	16	13
	40	85	4989	2033	1138	2831	24	42	28	21	17
	50	115	6750	2750	1258	3547	17	52	35	26	21
1000	20	36	2113	860	1143	1860	70	29	19	15	12
	30	60	3522	1435	1239	2433	42	38	25	19	15
	40	85	4989	2033	1338	3031	30	47	32	24	19
	50	115	6750	2750	1458	3747	22	59	39	29	23
1500	20	36	2113	860	1643	2360	105	39	26	20	16
	30	60	3522	1435	1739	2933	63	49	33	24	20
	40	85	4989	2033	1838	3531	44	59	39	29	24
	50	115	6750	2750	1958	4247	33	71	47	35	28
2000	20	36	2113	860	2143	2860	140	51	34	26	20
	30	60	3522	1435	2239	3433	84	61	41	31	25
	40	85	4989	2033	2338	4031	59	72	48	36	29
	50	115	6750	2750	2458	4747	44	85	57	42	34

PERFORMANCE AND MATCHING TABLE FOR BV26 BRAZED PLATE HEAT EXCHANGER

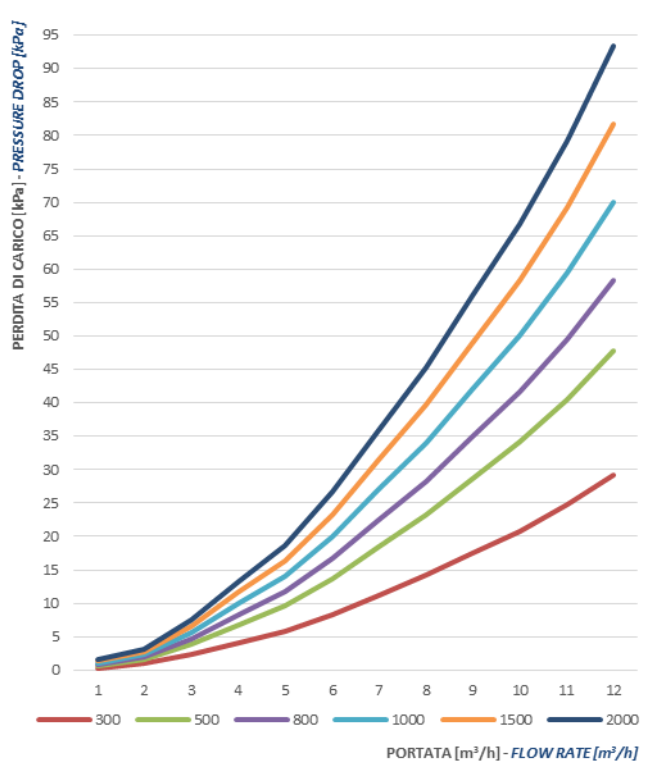
Primary (55-50)°C | Secondary (12-48)°C | Primary pressure drop: 40 kPa | Secondary pressure drop: 20 kPa

Capacity <i>L</i>	BV26 Plates No.	Power <i>kW</i>	Primary flow <i>L/h</i>	Continuos production <i>L/h</i>	Production first 10' <i>L</i>	Production first 60' <i>L</i>	Recovery time <i>minutes</i>	NUMBER OF BATHROOMS / SHOWERS			
								Apartments	Hotels	Seasonal hotels	Sport facilities
200	20	10	1752	239	240	439	50	5	4	3	2
	30	17	2979	406	268	606	30	8	5	4	3
	40	23	4030	549	292	749	22	9	6	5	4
	50	32	5607	764	327	964	16	12	8	6	5
300	20	10	1752	239	340	539	75	7	4	3	3
	30	17	2979	406	368	706	44	9	6	4	4
	40	23	4030	549	392	849	33	11	7	5	4
	50	32	5607	764	427	1064	24	13	9	7	5
500	20	10	1752	239	540	739	126	10	7	5	4
	30	17	2979	406	568	906	74	13	8	6	5
	40	23	4030	549	592	1049	55	15	10	7	6
	50	32	5607	764	627	1264	39	18	12	9	7
800	20	10	1752	239	840	1039	201	15	10	8	6
	30	17	2979	406	868	1206	118	18	12	9	7
	40	23	4030	549	892	1349	87	20	13	10	8
	50	32	5607	764	927	1564	63	23	15	12	9
1000	20	10	1752	239	1040	1239	251	19	13	10	8
	30	17	2979	406	1068	1406	148	22	15	11	9
	40	23	4030	549	1092	1549	109	24	16	12	10
	50	32	5607	764	1127	1764	78	28	18	14	11
1500	20	10	1752	239	1540	1739	377	29	19	14	12
	30	17	2979	406	1568	1906	222	32	21	16	13
	40	23	4030	549	1592	2049	164	34	23	17	14
	50	32	5607	764	1627	2264	118	38	25	19	15
2000	20	10	1752	239	2040	2239	502	40	27	20	16
	30	17	2979	406	2068	2406	295	43	29	21	17
	40	23	4030	549	2092	2549	218	46	30	23	18
	50	32	5607	764	2127	2764	157	49	33	25	20

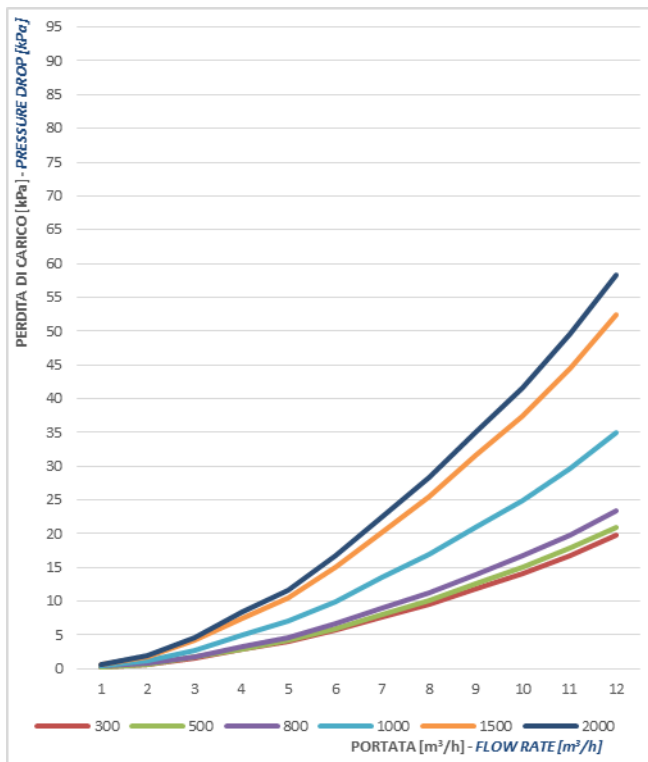
BKPN1-V | BKPN1-X - SINGLE COIL PRESSURE DROP



BKPN2-V | BKPN2-X - TWIN COIL PRESSURE DROP

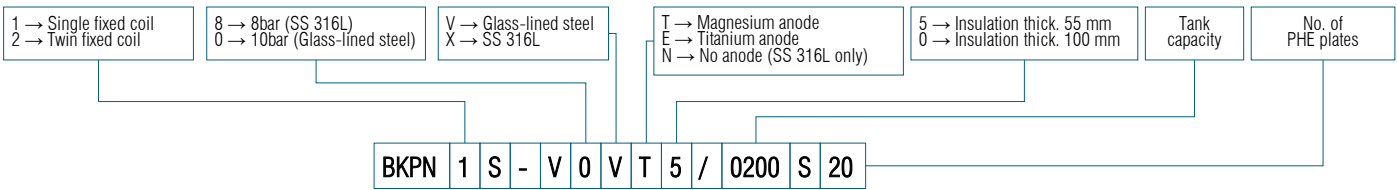


UPPER SPIRAL COIL



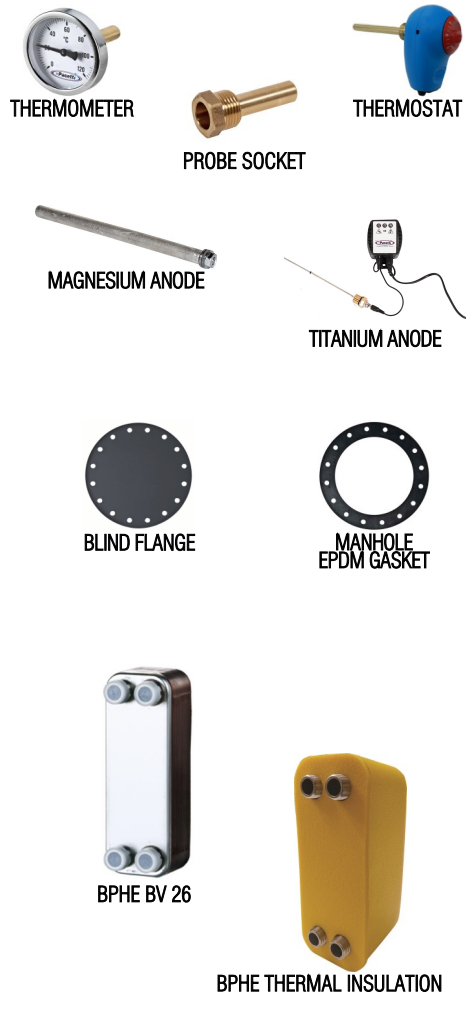
LOWER SPIRAL COIL

HOW TO ORDER



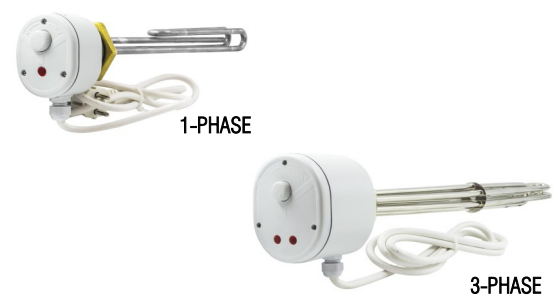
ACCESSORIES & SPARE PARTS

ITEM	PART.NO
THERMOMETER Ø65 mm L=50 mm (0÷120)°C	TERMOMETRO-D65_S
PROBE SOCKET Ø½" L=50 mm Ø _{int} 10 mm	POZZETTO_S
THERMOSTAT Ø½" (0÷90)°C	TERMOSTATO
MANHOLE EPDM GASKET 200÷1500 L	GUGOM175X122ST
MANHOLE EPDM GASKET 2000 L	GUGOMEPPDM300X220ST
GLASS ENAMELLED TANKS	
MAGNESIUM ANODE SET BKPNS-V 200 L	KIT-ANOD_20
MAGNESIUM ANODE SET BKPNS-V 300 L	KIT-ANOD_21
MAGNESIUM ANODE SET BKPNS-V 500 L	KIT-ANOD_22
MAGNESIUM ANODE SET BKPNS-V 800 L	KIT-ANOD_23
MAGNESIUM ANODE SET BKPNS-V 1000 L	KIT-ANOD_24
MAGNESIUM ANODE SET BKPNS-V 1500 L	KIT-ANOD_25
MAGNESIUM ANODE SET BKPNS-V 2000 L	KIT-ANOD_26
TITANIUM ANODE for glass-enamelled tanks 200÷500 L	ANODE012X380_P
TITANIUM ANODE for glass-enamelled tanks 800÷1000 L	ANODE012X430_P
TITANIUM ANODE for glass-enamelled tanks 1500÷2000 L	ANODE012X430X2_P
GLASS-LINED BLIND FLANGE Ø180 mm W/ ANODE HOLE BKPNS-V 200÷1500 L	PIASTRAN180-V-F
GLASS-LINED BLIND FLANGE Ø300 mm BKPNS-V 2000 L	PIASTRAN300-V
STAINLESS STEEL 316L TANKS	
TITANIUM ANODE for SS 316L tanks 200÷1000 L	ANODE_ARTHX1-150/400
TITANIUM ANODE for SS 316L tanks 1500-2000 L	ANODE_ARTHX2-150/400
STAINLESS STEEL 316L BLIND FLANGE Ø180 mm BKPNS-X 200÷1500 L	PIASTRAX180
STAINLESS STEEL 316L BLIND FLANGE Ø300 mm BKPNS-X 2000 L	PIASTRAX300-6X
BRAZED PLATE HEAT EXCHANGER BY 26	
BRAZED PLATE HEAT EXCHANGER BY 26 20 PLATES	BV026/020-H
BRAZED PLATE HEAT EXCHANGER BY 26 30 PLATES	BV026/030-H
BRAZED PLATE HEAT EXCHANGER BY 26 40 PLATES	BV026/040-H
BRAZED PLATE HEAT EXCHANGER BY 26 50 PLATES	BV026/050-H
NON-REMOVABLE THERMAL AND ANTI-CONDENSATION INSULATION (20 plates)	ISOLBV026AT-20
NON-REMOVABLE THERMAL AND ANTI-CONDENSATION INSULATION (30 plates)	ISOLBV026AT-30
NON-REMOVABLE THERMAL AND ANTI-CONDENSATION INSULATION (40 plates)	ISOLBV026AT-40
NON-REMOVABLE THERMAL AND ANTI-CONDENSATION INSULATION (50 plates)	ISOLBV026AT-50



1-PHASE & 3-PHASE IMMERSION ELECTRIC HEATER - STAINLESS STEEL 316L TUBES
Threaded plug 1.1/2" with brass adapter 1.1/2" to 2" | Aluminium box IP54 | V220/1-V240/1 or V400/3

Capacity	Capacity/L matching	Length	Volt	Plug type	2-THERMOSTAT Temperature regulation & overheating protection	PART NO.
Watt	L	mm	mm	mm		
2000	200 ÷ 2000	310	220/1	SHUKO		RES020-L310-6-M-BT
3000	200 ÷ 2000	350	240/1			RES030-L350-6-M-BT
5000	200 ÷ 2000	375				RES050-L375-6-T-BT
6000	200 ÷ 2000	435				RES060-L435-6-T-BT
9000	500 ÷ 2000	610	400/3	Not supplied		RES090-L610-6-T-BT
10000	500 ÷ 2000	670				RES100-L670-6-T-BT
12000	800 ÷ 2000	730				RES120-L727-6-T-BT
15000	1500 ÷ 5000	870				RES150-L870-6-T-BT



PROTECTIVE TREATMENTS FOR CARBON STEEL TANKS

Glass-enamelling.

The glass-enamelling treatment is obtained with the application of one or two layers of enamel with characteristics of resistance to water and steam, which gives the treated product a high level of protection against the corrosion normally caused by the oxygen and the mineral salts dissolved in the water. The complete reliability of this type of treatment derives from its inorganic composition and from the link created between the enamel and the metallic surface.

After baking in an oven at about 850°C according to Bayer's method and DIN 4753.3 the enamel does not absorb water and does not conduct ions, allowing the 99.9% protection of the structure of the product. The remaining 0.01% (due to possible uncovered spots) is eliminated by inserting protective anticorrosive systems into the product such as the sacrificial magnesium anodes or the permanent electronic anodes.

PROTECTIVE TREATMENTS FOR STAINLESS STEEL TANKS.

Pickling and passivation

The calorifiers manufactured with the use of stainless steels are treated with pickling procedures with full immersion and subsequent passivation, where planned.

CATHODIC PROTECTION

The corrosion of a metal structure occurs mainly in areas in which there is the passage of current (oxidation-reduction process) from the structure towards the outside (water or gas) causing a dissolution of the structure itself.

Cathodic protection by means of magnesium anodes.

The application of sacrificial magnesium anodes is a simple and economic method to obtain a cathodic protection.

The sacrificial anode creates a situation similar to an electric battery, where the electrodes are represented by the anode and the metal structure to be protected.

Since the magnesium has a dissolution voltage which is much higher than that of other metals, the corrosion will only affect the anode, which will dissolve slowly, to the advantage of the metal structure to be protected.

Given the importance of the protection of the metal against corrosion, the wear of the anode is systematically controlled and it is immediately replaced if consumed.



Cathodic protection by means of electronic impressed current system.

As an alternative to the galvanic system (coupling of materials with different potentials) there is a protection method which consists in applying an equal and opposite continuous current to the metallic structure to be protected, neutralising the voltages formed inside the tank.

Thanks to the modern techniques there is an innovative electronic system of cathodic protection with continuous impressed current.

The main advantages are:

- active protection by means of impressed currents from the outside;
- excellent flexibility of operation in order to adhere to the changeable internal coating conditions and the mass of water;
- reduction of maintenance costs due to the permanent protection of the system.



INSULATION

Insulating material	Removable	Thickness	Density	Thermal conductivity coefficient at 45°C	Operating temperature	Fire reaction class Euroclass EN13501-1
PLFH High density polyester fibre	✓	100 mm	25 kg/m ³	$\lambda = 0,034 \text{ W/mK}$	Amb. / +99°C	B-s2, d0
Hard polyurethane injected	✗	55 mm	40 ÷ 42 kg/m ³	$\lambda = 0,019 \text{ W/mK}$	-10°C / +99°C	F

PLF – Polyester fibre

- 100% recyclable
- Environmentally compatible
- Lightweight
- Self-supporting
- Fire-retardant
- Rot-proof
- Cannot be attacked by mould, bacteria or rodents
- Hypoallergenic
- Water repellent



The raw materials consist of polyester fibres and heat-bonded co-polyester fibres, coming mainly from the recycling of plastic bottles obtained from urban waste collection. It does not contain substances harmful to humans, may be handled and installed in complete safety, does not release powder, is hypoallergenic and cannot be attacked by microorganisms, mould and insects. PLFH/PLF is a heat insulating product considered environmentally sustainable, even though it is not of natural origin: it is in fact recyclable and the quantity of embodied energy necessary to obtain it is extremely low. The composition of the polyester fibre makes it an insulating material with an extremely low heat dispersion and its characteristics remain unaltered over time as it is not affected by humidity and its compact, flexible and resistant original structure is not modified. Thanks to its characteristics, PLFH/PLF is an insulating material with the highest performance characteristics, which allows the requirements set by the severest technical standards to be satisfied, guaranteeing the maximum environmental compatibility for its entire life cycle.

Hard polyurethane

Thermal and anti-condensation insulation made of rigid closed cell polyurethane foam (PU), free from CFC and HCFC. It is available in various thickness and can be injected directly to the walls of the tank to eliminate the possibility of formation of condensation and guarantee the minimum thermal dispersion, or pre-formed in removable half-shells to conserve the heat accumulated in the tank. The extremely low thermal conductivity coefficient not only allows the limits specified by the ErP reference standard to be complied with, but actually to improve on them: the tanks of the new **Q** range, thanks to the careful study of the thicknesses and of the compounds, obtain the prestigious energy class "A" due to their limited heat dispersion values.

CLADDINGS



PVC

External cladding made of coloured PVC with hinge closing, suitable for installations in locations protected against adverse weather conditions. The standard colours of each product are indicated in their construction characteristics, but different colours can be requested for each model as shown in the following table.

In the personalised TLR storage tanks the choice of the alternative colour is free of cost and does not incur any surcharge.

ITEM

ITEM	PART NUMBER
PVC COVER YELLOW RAL1023	COVER-RAL1023
PVC COVER ORANGE RAL2004	COVER-RAL2004
PVC COVER RED RAL3000	COVER-RAL3000
PVC COVER BLUE RAL5015	COVER-RAL5015
PVC COVER WHITE RAL9016	COVER-RAL9016
PVC COVER LIGHT GREY RAL7035	COVER-RAL7035
PVC COVER DARK GREY RAL7024	COVER-RAL7024
PVC COVER BLACK RAL9004	COVER-RAL9004



ALUMINIUM

External cladding made of embossed aluminium sheeting suitable also for outdoor installations. The insulations made with this type of cladding consist of panels joined together by means of rivets and extruded aluminium slats with an exclusive design, specifically designed to facilitate assembly even directly at the installation site.

The coverings and flange covers made of same material securely anchored to the insulation guarantee the same levels of quality in terms of duration and outside appearance and do not risk being damaged by the wind and adverse weather conditions.

www.pacetti.it



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