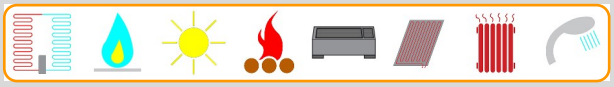
dal 1968

Pacetti

SCAMBIATORI - BOLLITORI - SERBATOI



BKPN TOP

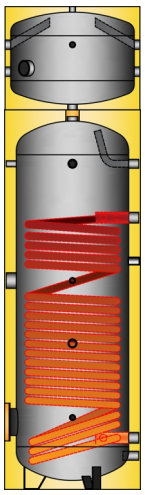
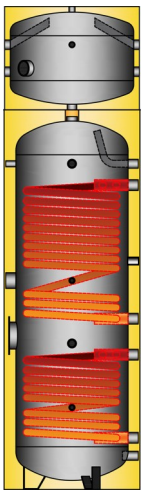
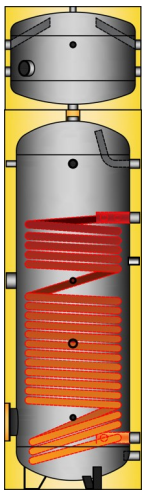
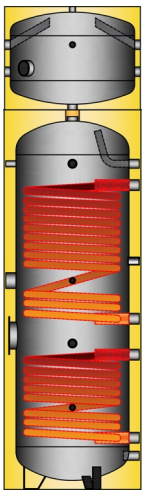
COMBO DHW STORAGE CALORIFIER & BUFFER TANK
FOR HEAT PUMP PRIMARY

BKPN-T is an innovative combined system comprising a hot/cold water buffer vessel (**V-TOP**) and a Domestic Hot Water storage calorifier (**BKPN**).
It is designed for connection to heat pumps and other energy sources.
By combining two separate tanks into a single system, the BKPN-T optimises space in heat pump-powered installations.
The structure consists of two stacked storage tanks:

1. at the base is the DHW calorifier from the BKPN range, made of glass-lined steel or Stainless Steel AISI 316L
2. above, firmly anchored to the tank below, is a small buffer vessel made of untreated carbon steel (V-TOP), which acts as an inertial storage tank. It is essential for optimising compressor operation.

The hard foam polyurethane injected insulation supplied with the buffer tank reduces heat loss during hot water storage and prevents condensation when cold water is stored for the cooling system during the summer, when the DHW calorifier is heated only on demand.
When water at different temperatures is stored within the two tanks, the dielectric seal at the junction between the BKPN and V-TOP ensures perfect insulation and separation between the two tanks, eliminating any risk of a thermal bridge between them.
The V-TOP can be used with single and double coil water heaters from the BKPN range, and features the same external finish as the BKPN, ensuring an aesthetically pleasing look.
The design of the structure allows the upper V-TOP to be rotated so that the fitting can be aligned and joined to the pipes at the installation site.
Furthermore, no clearance is required above the unit for anode replacement.
In rooms with low ceilings, the V-TOP buffer tank can be removed from the top and positioned elsewhere, either on the floor or wall-mounted using the optional mounting brackets.
The BKPN-T is the only solution suitable for any system configuration.

CONSTRUCTION

DHW STORAGE CALORIFIER	BKPN1-V	BKPN2-V	BKPN1-X	BKPN2-X
TANK MATERIAL	Carbon steel	Carbon steel	Stainless Steel AISI 316L	Stainless Steel AISI 316L
SPIRAL COIL MATERIAL	Carbon steel (glass-lined externally)	Carbon steel (glass-lined externally)	Stainless Steel AISI 316L	Stainless Steel AISI 316L
INT. SURFACE STEEL TREATMENT	Glass-lining (DIN 4753.3)	Glass-lining DIN 4753.3)	Pickling and passivation	Pickling and passivation
EXT. SURFACE STEEL TREATMENT	Antirust primer	Antirust primer	Pickling and passivation	Pickling and passivation
CAPACITY - Litre	200÷500 L	300-500 L	200÷500 L	300-500 L
VERSION	Vertical	Vertical	Vertical	Vertical
CONNECTION TYPE	Threaded	Threaded	Threaded	Threaded
INSULATION	**Hard foam polyurethane** 55 mm	**Hard foam polyurethane** 55 mm	**Hard foam polyurethane** 55 mm	**Hard foam polyurethane** 55 mm
CLADDING	Light grey PVC - RAL7035	Light grey PVC - RAL7035	Light grey PVC - RAL7035	Light grey PVC - RAL7035
ANODE TYPE	Magnesium (factory fitted)	Magnesium (factory fitted)	Electronic (optional)	Electronic (optional)
ACCESSORIES (factory fitted)	Thermometer	Thermometer	Thermometer	Thermometer

TOP BUFFER TANK	V-TOP
TANK MATERIAL	Carbon steel
INT. SURFACE STEEL TREATMENT	—
EXT. SURFACE STEEL TREATMENT	Antirust primer
CAPACITY - Litre	90 - 140
VERSION	Vertical
CONNECTION TYPE	Threaded
INSULATION	**Hard foam polyurethane** 30 mm
CLADDING	Light grey PVC - RAL7035
ACCESSORIES (factory fitted)	Thermometer

REGULATORY COMPLIANCE

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

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

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

COMBO DHW STORAGE CALORIFIER & BUFFER TANK FOR HEAT PUMP PRIMARY

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

				Capacity - L	200	300	500
BKPN1-V	Energy efficiency class				C	C	C
	Standing loss	S	W		65	78	103
	Storage total volume	V	L		193	256	447
BKPN2-V	Energy efficiency class					C	C
	Standing loss	S	W			79	104
	Storage total volume	V	L			256	433
BKPN1-X	Energy efficiency class				C	C	C
	Standing loss	S	W		65	78	103
	Storage total volume	V	L		193	256	447
BKPN2-X	Energy efficiency class					C	C
	Standing loss	S	W			79	104
	Storage total volume	V	L			256	433

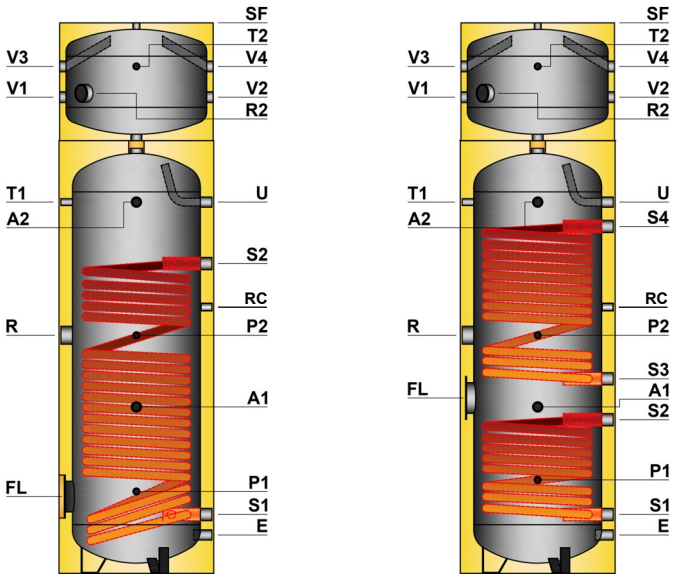
				Capacity - L	90	140
V-TOP	Energy efficiency class				B	C
	Standing loss	S	W		44	58
	Storage total volume	V	L		81	145

DHW CALORIFIER STANDARD WORKING CONDITIONS

Glass-lined calorifier	Working Pressure BKPN1-V/BKPN2-V	bar	ATM÷10
	Working Temperature BKPN1-V/BKPN2-V	°C	AMB÷95
Stainless Steel calorifier	Working Pressure BKPN1-X/BKPN2-X	bar	ATM÷8
	Working Temperature BKPN1-X/BKPN2-X	°C	AMB÷99
Spiral coil	Working Pressure	bar	ATM÷10
	Working Temperature	°C	AMB÷110

BUFFER TANK STANDARD WORKING CONDITIONS

Working Pressure V-TOP	bar	ATM÷3
Working Temperature V-TOP	°C	-10÷99

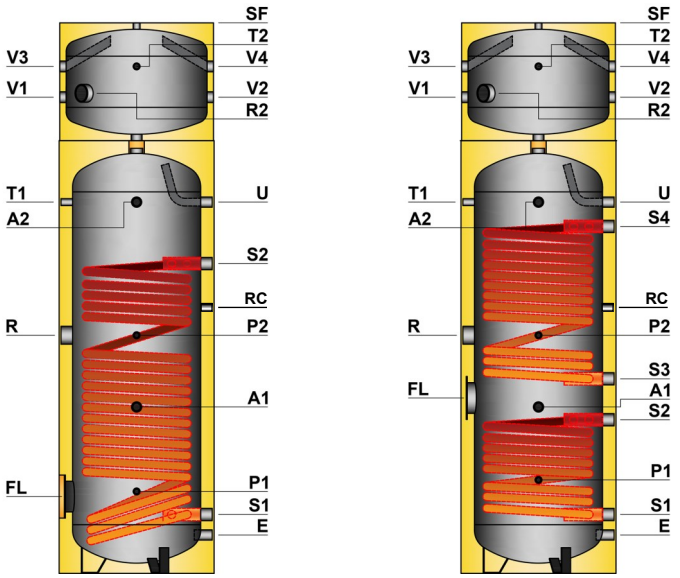


GENERAL CHARACTERISTICS

			BKPN1-V-TOP			BKPN2-V-TOP	
		Capacity - L	**200**	**300**	**500**	**300**	**500**
		DHW calorifier - L	200	300	500	300	500
		Buffer Vessel - L	90	90	140	90	140
DIMENSIONS							
Diameter without insulation BKPN		mm	500	500	650	500	650
Diameter without insulation V-TOP		mm	550	550	700	550	700
Diameter with insulation		mm	610	610	760	610	760
Maximum height		mm	1780	2100	2210	2100	2210
Overturning height with insulation		mm	1850	2240	2350	2240	2350
CONNECTIONS BKPN	**H from ground- Ø**						
E	Potable water inlet	mm | Ø	150 | 1"	150 | 1"	185 | 1"	150 | 1"	185 | 1"
U	DHW outlet	mm | Ø	1070 | 1"	1395 | 1"	1515 | 1"	1395 | 1"	1515 | 1"
A1	Spare	mm | Ø	275 | 1"¼	595 | 1"¼	635 | 1"¼	595 | 1"¼	635 | 1"¼
A2	Spare / Recirculation	mm | Ø	1075 | 1"¼	1395 | 1"¼	1435 | 1"¼	1395 | 1"¼	1435 | 1"¼
RC	Recirculation	mm | Ø	770 | 1"	1050 | 1"	1095 | 1"	1050 | 1"	1095 | 1"
R	Immersion electric heater	mm | Ø	700 | 2"	955 | 2"	920 | 2"	890 | 2"	970 | 2"
T1	Thermometer	mm | Ø	1075 | ½"	1395 | ½"	1435 | ½"	1395 | ½"	1435 | ½"
P1	Sensor	mm | Ø	360 | ½"	345 | ½"	350 | ½"	385 | ½"	440 | ½"
P2	Sensor	mm | Ø	700 | ½"	955 | ½"	920 | ½"	890 | ½"	970 | ½"
S1	Lower Spiral coil primary outlet	mm | Ø	255 | 1"¼	255 | 1"¼	295 | 1"¼	250 | 1"¼	295 | 1"¼
S2	Lower Spiral coil primary inlet	mm | Ø	990 | 1"¼	1235 | 1"¼	1285 | 1"¼	620 | 1"¼	605 | 1"¼
S3	Upper Spiral coil primary outlet	mm | Ø	—	—	—	710 | 1"¼	760 | 1"¼
S4	Upper Spiral coil primary inlet	mm | Ø	—	—	—	1305 | 1"¼	1405 | 1"¼
FL	Inspection opening / Magnesium anode	mm | Ø	325 | 120x184	325 | 120x184	350 | 120x184	665 | 120x184	685 | 120x184
CONNECTIONS V-TOP							
V1-V2	Spare	mm | Ø	1490 | 1"	1810 | 1"	1905 | 1"	1810 | 1"	1905 | 1"
V3-V4	Spare	mm | Ø	1610 | 1"	1930 | 1"	2040 | 1"	1930 | 1"	2040 | 1"
T2	Thermometer	mm | Ø	1610 | 1"	1930 | 1"	2040 | 1"	1930 | 1"	2040 | 1"
R2	Immersion electric heater	mm | Ø	1505 | 2"	1825 | 2"	1920 | 2"	1825 | 2"	1920 | 2"
SF	Drain	mm | Ø	1780 | ½"	2100 | ½"	2210 | ½"	2100 | ½"	2210 | ½"
PERFORMANCE							
DHW content BKPN		litri	193	256	447	256	433
Hot water content V-TOP		litri	81	81	145	81	145
Lower Spiral coil surface area		**m²**	**3,0**	**4,2**	**6,0**	**1,7**	**1,8**
Upper Spiral coil surface area		**m²**	**—**	**—**	**—**	**2,5**	**4,1**
WEIGHT							
Empty weight		kg	165	180	240	185	242

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.

COMBO DHW STORAGE CALORIFIER & BUFFER TANK FOR HEAT PUMP PRIMARY



GENERAL CHARACTERISTICS

			BKPN1-X-TOP			BKPN2-X-TOP	
		Capacity - L	**200**	**300**	**500**	**300**	**500**
		DHW calorifier - L	200	300	500	300	500
		Buffer Vessel - L	90	90	140	90	140
DIMENSIONS							
Diameter without insulation BKPN		mm	500	500	650	500	650
Diameter without insulation V-TOP		mm	550	550	700	550	700
Diameter with insulation		mm	610	610	760	610	760
Maximum height		mm	1780	2100	2210	2100	2210
Overturning height with insulation		mm	1890	2240	2350	2240	2350
CONNECTIONS BKPN		**H from ground- Ø**					
E	Cold water supply	mm | Ø	150 | 1"	150 | 1"	185 | 1"	150 | 1"	185 | 1"
U	DHW return	mm | Ø	1070 | 1"	1395 | 1"	1515 | 1"	1395 | 1"	1515 | 1"
A1	Spare	mm | Ø	275 | 1"¼	595 | 1"¼	635 | 1"¼	595 | 1"¼	635 | 1"¼
A2	Spare / Recirculation	mm | Ø	1075 | 1"¼	1395 | 1"¼	1435 | 1"¼	1395 | 1"¼	1435 | 1"¼
RC	Recirculation	mm | Ø	770 | 1"	1050 | 1"	1095 | 1"	1050 | 1"	1095 | 1"
R	Immersion electric heater	mm | Ø	700 | 2"	955 | 2"	920 | 2"	890 | 2"	970 | 2"
T1	Thermometer	mm | Ø	1075 | ½"	1395 | ½"	1435 | ½"	1395 | ½"	1435 | ½"
P1	Sensor	mm | Ø	360 | ½"	345 | ½"	350 | ½"	385 | ½"	440 | ½"
P2	Sensor	mm | Ø	700 | ½"	955 | ½"	920 | ½"	890 | ½"	970 | ½"
S1	Lower Spiral coil primary outlet	mm | Ø	255 | 1"¼	255 | 1"¼	295 | 1"¼	250 | 1"¼	295 | 1"¼
S2	Lower Spiral coil primary inlet	mm | Ø	990 | 1"¼	1235 | 1"¼	1285 | 1"¼	620 | 1"¼	605 | 1"¼
S3	Upper Spiral coil primary outlet	mm | Ø	—	—	—	710 | 1"¼	760 | 1"¼
S4	Upper Spiral coil primary inlet	mm | Ø	—	—	—	1305 | 1"¼	1405 | 1"¼
FL	Inspection opening / Magnesium anode	mm | Ø	325 | 120x184	325 | 120x184	350 | 120x184	665 | 120x184	685 | 120x184
CONNECTIONS V-TOP							
V1-V2	Spare	mm | Ø	1490 | 1"	1810 | 1"	1905 | 1"	1810 | 1"	1905 | 1"
V3-V4	Spare	mm | Ø	1610 | 1"	1930 | 1"	2040 | 1"	1930 | 1"	2040 | 1"
T2	Thermometer	mm | Ø	1610 | 1"	1930 | 1"	2040 | 1"	1930 | 1"	2040 | 1"
R2	Immersion electric heater	mm | Ø	1505 | 2"	1825 | 2"	1920 | 2"	1825 | 2"	1920 | 2"
SF	Drain	mm | Ø	1780 | ½"	2100 | ½"	2210 | ½"	2100 | ½"	2210 | ½"
PERFORMANCE							
DHW content BKPN		litri	193	256	447	256	433
Hot water content V-TOP		litri	81	81	145	81	145
Lower Spiral coil surface area		**m²**	**3,0**	**4,2**	**6,0**	**1,7**	**1,8**
Upper Spiral coil surface area		**m²**	**—**	**—**	**—**	**2,5**	**4,1**
WEIGHT							
Empty weight		kg	165	180	240	185	242

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

				SECONDARY (DHW)		
Tank capacity	HP coil surface area	Max. output	Primary flow	Continuous flow	Output first 10'	Output first 60'
L	*m²*	*kW*	*Litres/Hour*	*L/Hour*	*L*	*L*
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

				SECONDARY (DHW)		
Tank capacity	HP coil surface area	Max. output	Primary flow	Continuous flow	Output first 10'	Output first 60'
L	*m²*	*kW*	*Litres/Hour*	*L/Hour*	*L*	*L*
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

				SECONDARY (DHW)		
Tank capacity	HP coil surface area	Max. output	Primary flow	Continuous flow	Output first 10'	Output first 60'
L	*m²*	*kW*	*Litres/Hour*	*L/Hour*	*L*	*L*
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 (60-50)°C | Secondary (10-45)°C

				SECONDARY (DHW)		
Tank capacity	HP coil surface area	Max. output	Primary flow	Continuous flow	Output first 10'	Output first 60'
L	*m²*	*kW*	*Litres/Hour*	*L/Hour*	*L*	*L*
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

				SECONDARY (DHW)		
Tank capacity	HP coil surface area	Max. output	Primary flow	Continuous flow	Output first 10'	Output first 60'
L	*m²*	*kW*	*Litres/Hour*	*L/Hour*	*L*	*L*
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

				SECONDARY (DHW)		
Tank capacity	HP coil surface area	Max. output	Primary flow	Continuous flow	Output first 10'	Output first 60'
L	*m²*	*kW*	*Litres/Hour*	*L/Hour*	*L*	*L*
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

				SECONDARY (DHW)
Tank capacity	Lower coil surface area	Max. output	Primary flow	Continuous flow
Litres	*m²*	*kW*	*Litres/Hour*	*Litres/Hour*
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

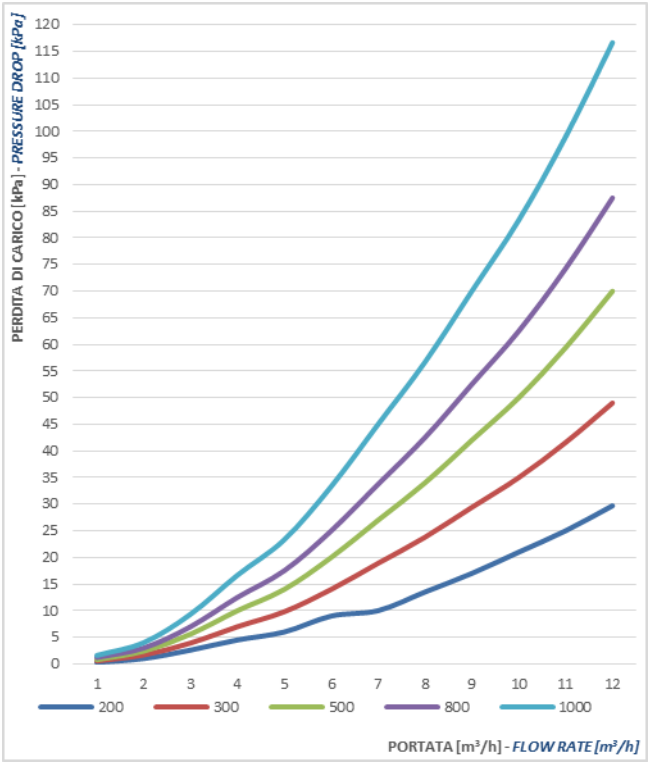
Primary (70-60)°C | Secondary (10-45)°C

				SECONDARY (DHW)
Tank capacity	Lower coil surface area	Max. output	Primary flow	Continuous flow
Litres	*m²*	*kW*	*Litres/Hour*	*Litres/Hour*
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

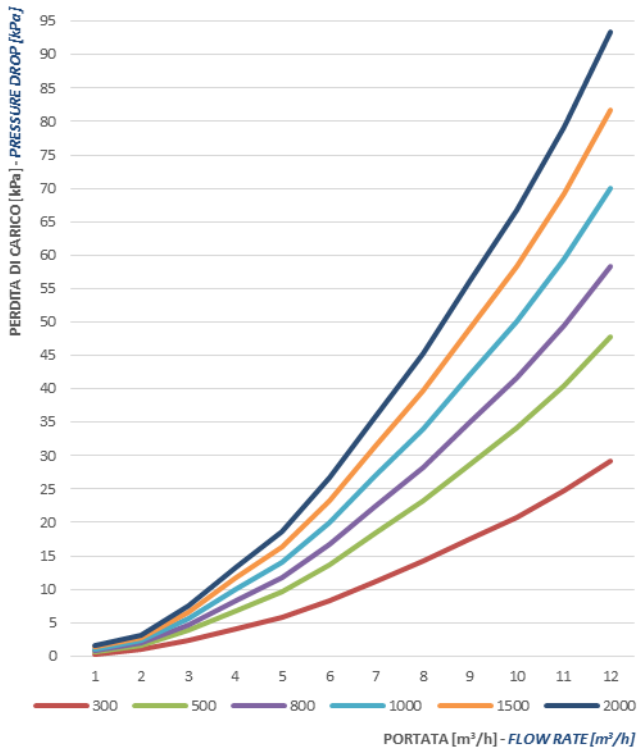
Primary (60-50)°C | Secondary (10-45)°C

				SECONDARY (DHW)
Tank capacity	Lower coil surface area	Max. output	Primary flow	Continuous flow
Litres	*m²*	*kW*	*Litres/Hour*	*Litres/Hour*
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

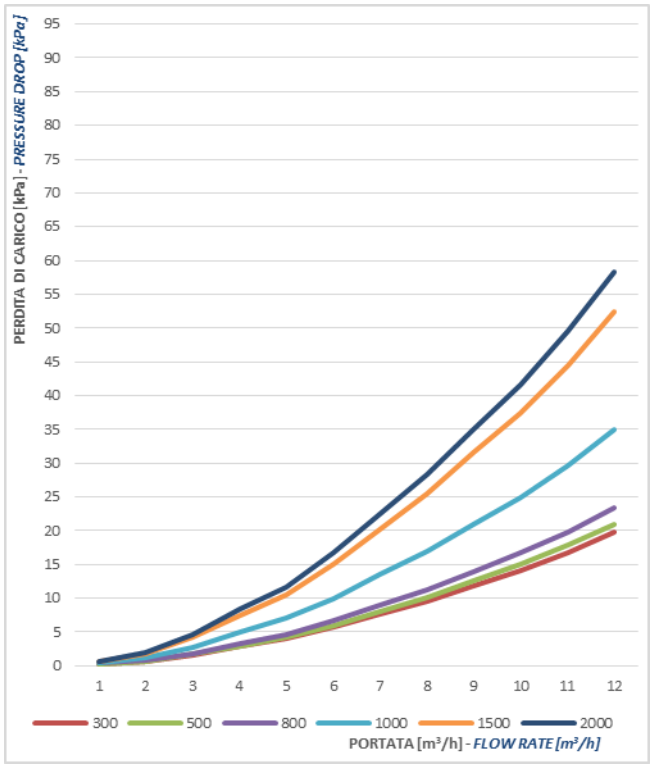
BKPN1-V | BKPN1-X - SINGLE COIL PRESSURE DROP



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

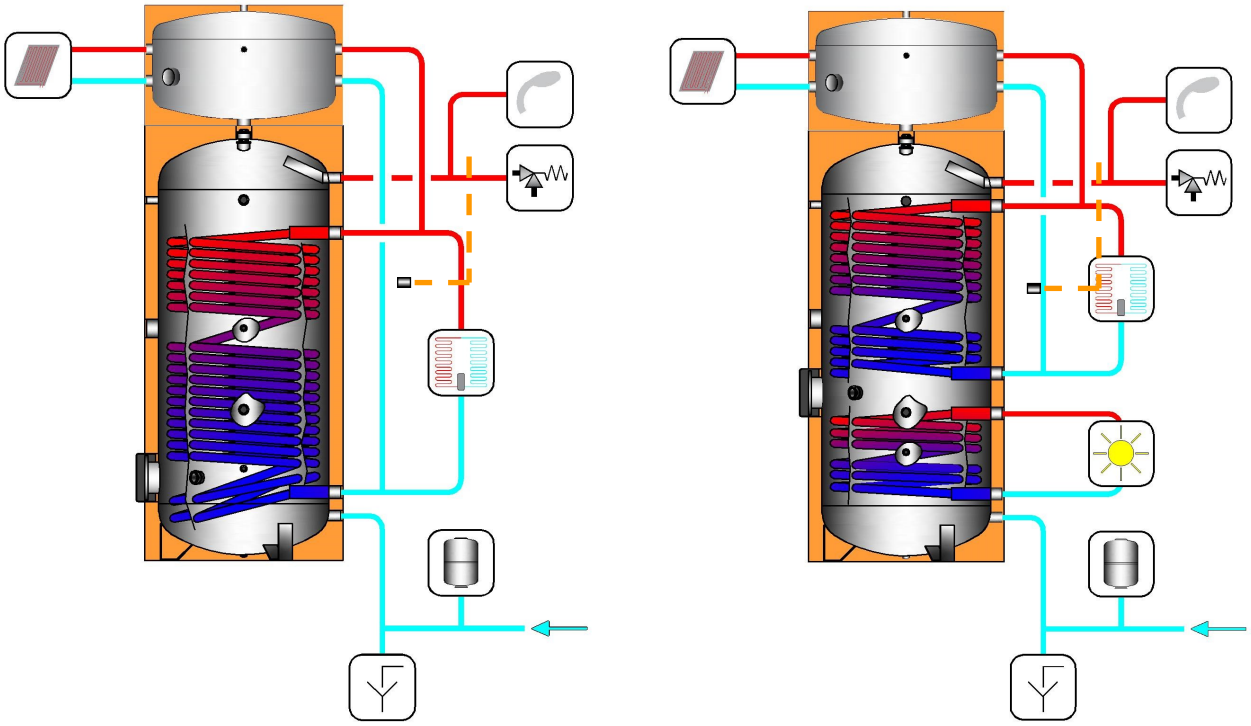


UPPER COIL (HP)



LOWER COIL (ADDITIONAL HEATING SOURCE)

INSTALLATION DIAGRAM EXAMPLE



The proposed diagrams are for illustration purposes only.

HOW TO ORDER - BKPN + V-TOP

BKPN	1	T	-	V	0	V	T	5	/	0200

1 → 1 Single fixed coil (HP)
2 → 2 Twin fixed coil (1 HP + 1 additional)

V → Glass-lined steel
X → SS 316L

N → No anode (SS 316L)
E → Titanium anode

Tank capacity (L)

HOW TO ORDER - V-TOP only

V	-	TOP	-	V	3	G	C	B	/	090

Tank capacity (L)

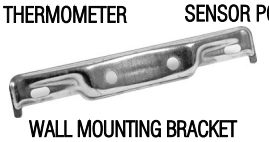
ACCESSORIES AND SPARE PARTS

ITEM	PART NUMBER
THERMOMETER Ø65 mm | L=50 mm | *(0÷120)°C*	*TERMOMETRO-D65_S*
SENSOR POCKET Ø½" | L=50 mm | $Ø_{int}$ 10 mm	*POZZETTO_S*
THERMOSTAT Ø½" *(0÷90)°C*	*TERMOSTATO*
WALL MOUNTING BRACKET | V-TOP	*KIT_STAFFA_SOST_MURO*
HYDRAULIC CONNECTION KIT V-TOP to BKPN1-V / BKPN2-V	*KIT_COLL_V-TOP-V*
HYDRAULIC CONNECTION KIT V-TOP to BKPN1-X / BKPN2-X	*KIT_COLL_V-TOP-X*
MAGNESIUM ANODE KIT | BKPN-V TOP 200	*KIT-ANOD_20*
MAGNESIUM ANODE KIT | BKPN-V TOP 300	*KIT-ANOD_21*
MAGNESIUM ANODE KIT | BKPN-V TOP 500	*KIT-ANOD_22*
TITANIUM ANODE for GLASS-LINED tanks	ANODE012X380_P
TITANIUM ANODE for SS316L tanks	ANODE_ARTHX1-150/400
EPDM GASKET FOR INSPECTION OPENING	*GUGOM175X122ST*
GLASS-LINED BLIND FLANGE W/ANODE FITTING | BKPN-V TOP	*PIASTRAN180-V-F*
STAINLESS STEEL 316L BLIND FLANGE | BKPN-X TOP	*PIASTRAX180*


THERMOMETER


SENSOR POCKET


THERMOSTAT


WALL MOUNTING BRACKET


MAGNESIUM ANODE


EPDM GASKET


BLIND FLANGE


TITANIUM ANODE

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

BKPN-V & BKPN-X:

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


1-PHASE

V-TOP:

Capacity	Capacity/L matching	Length	Volt	Plug type	2-THERMOSTAT Temp. regulation & overheating protection
Watt		*mm*	*V*	*mm*	*PART NO.*
2000	90÷140	310	220/1 240/1	SHUKO	*RES020-L310-6-M-BT*
3000	90÷140	350			*RES030-L350-6-M-BT*
5000	90÷140	375	400/3	Not supplied	*RES050-L375-6-T-BT*
6000	90÷140	435			*RES060-L435-6-T-BT*
9000	140	610			*RES090-L610-6-T-BT*
10000	140	670			*RES100-L670-6-T-BT*


3-PHASE

ANTI-CORROSION PROTECTION STEEL TREATMENTS

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 picking 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
Hard polyurethane injected	✗	55 mm	40÷42 kg/m³	λ = 0,019 W/mK	-10°C / +99°C	F

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 allows the limits specified by the ErP reference standard to be complied with.

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.

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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