dal 1968

Pacetti

SCAMBIATORI - BOLLITORI - SERBATOI

BKPN

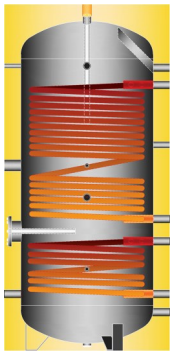
DHW CALORIFIER
WITH SINGLE OR TWIN BUILT-IN, OVERSIZED SPIRAL COILS
FOR HEAT PUMP PRIMARY

DHW CALORIFIER WITH SINGLE OR TWIN BUILT-IN, OVERSIZED SPIRAL COILS FOR HEAT PUMP PRIMARY

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.
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.

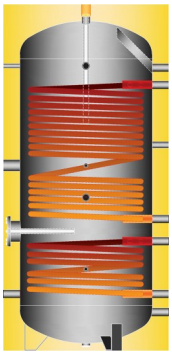
CONSTRUCTION

BKPN1-V



BKPN2-V

BKPN1-X



BKPN2-X

	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	200÷2000 L	300÷2000 L	200÷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)	Magnesium (factory fitted)	Electronic (on request)	Electronic (on request)
ACCESSORIES (factory fitted)	Thermometer	Thermometer	Thermometer	Thermometer

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**
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**
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	bar		ATM÷10	ATM÷10	ATM÷10	ATM÷10	ATM÷10	ATM÷10	ATM÷10
	Stainless Steel tank	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
Working temperature	Tank	°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

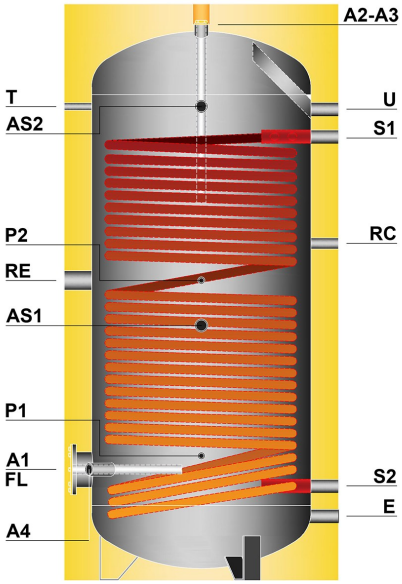
REGULATORY COMPLIANCE

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

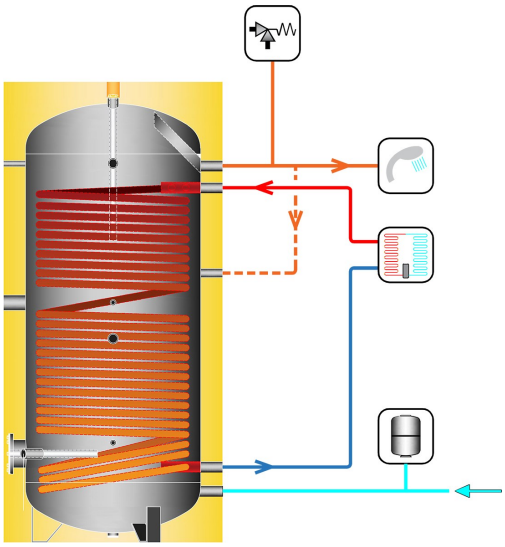
European Pressure Equipment Directive (PED) 2014/68/EU | SEP (Sound Engineering Practice) - exclusion from CE marking - Art. 4.3

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

DHW CALORIFIER WITH SINGLE OR TWIN BUILT-IN, OVERSIZED SPIRAL COILS FOR HEAT PUMP PRIMARY



INSTALLATION EXAMPLE



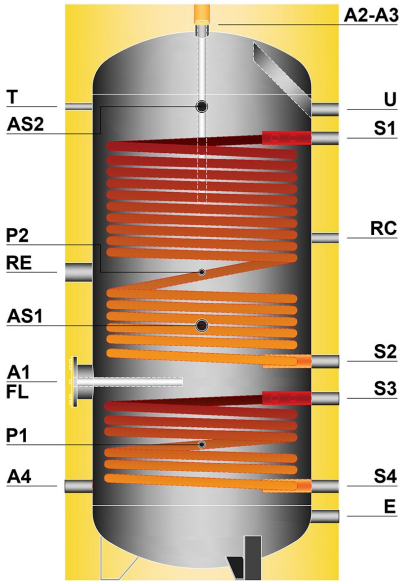
The proposed diagrams are purely by way of example.

BKPN1-V GENERAL CHARACTERISTICS

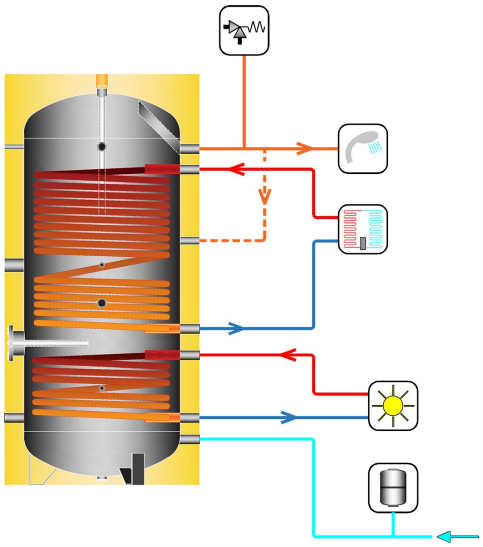
		Capacity	200	300	500	800	1000	1500	2000
DIMENSIONS									
Diameter without insulation		mm	500	500	650	800	800	1000	1200
Diameter with insulation		mm	610	610	760	1000	1000	1200	1400
Maximum height		mm	1320	1640	1720	1854	2104	2265	2245
Overturning height with | without insulation		mm	1460	1760	1890	2110 | 1840	2340 | 2090	2570 | 2270	2650 | 2280
CONNECTIONS		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	Spare	mm | Ø	275 | 1"¼	595 | 1"¼	635 | 1"¼	680 | 1"¼	930 | 1"¼	1005 | 1"¼	895 | 1"¼
AS2	Spare / Recirculation	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"
FL	Inspection opening	mm | Ø	325 | 120x184	325 | 120x184	350 | 120x184	405 | 120x184	405 | 120x184	555 | 120x184	685 | 220x300
PERFORMANCE									
Spiral coil surface area		m^2	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	131	146	199	285	345	410	480

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.

DHW CALORIFIER WITH SINGLE OR TWIN BUILT-IN, OVERSIZED SPIRAL COILS FOR HEAT PUMP PRIMARY



INSTALLATION EXAMPLE



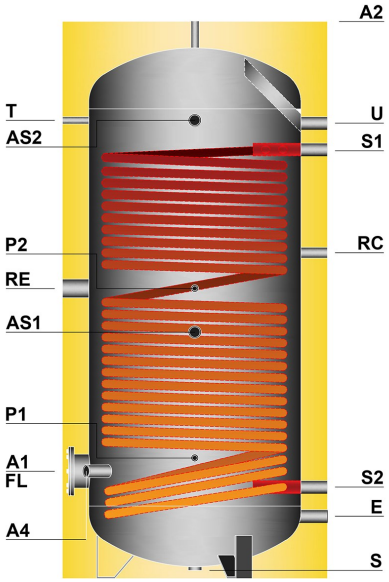
The proposed diagrams are purely by way of example.

BKPN2-V GENERAL CHARACTERISTICS

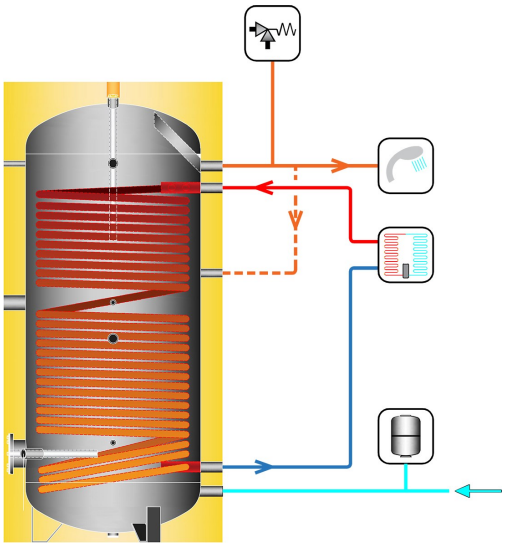
		Capacity	300	500	800	1000	1500	2000
DIMENSIONS								
Diameter without insulation		mm	500	650	800	800	1000	1200
Diameter with insulation		mm	610	760	1000	1000	1200	1400
Maximum height		mm	1640	1720	1854	2104	2265	2245
Overturning height with | without insulation		mm	1760	1890	2110 | 1840	2330 | 2080	2570 | 2280	2650 | 2280
CONNENCTIONS		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	Spare	mm | Ø	595 | 1"¼	635 | 1"¼	680 | 1"¼	930 | 1"¼	1005 | 1"¼	895 | 1"¼
AS2	Spare / Recirculation	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	665 | M8	685 | M8	680 | M8	725 | M8	580 | 1"¼	—
A2	Anode	mm | Ø	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	—	—	—	—	—	555 | 1"¼
S1	Lower 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	Lower 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	Upper 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	Upper Spiral coil primary inlet	mm | Ø	250 | 1"¼	295 | 1"¼	345 | 1"¼	345 | 1"¼	435 | 1"½	585 | 1"½
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	151	201	272	328	400	485

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.

DHW CALORIFIER WITH SINGLE OR TWIN BUILT-IN, OVERSIZED SPIRAL COILS FOR HEAT PUMP PRIMARY



INSTALLATION EXAMPLE



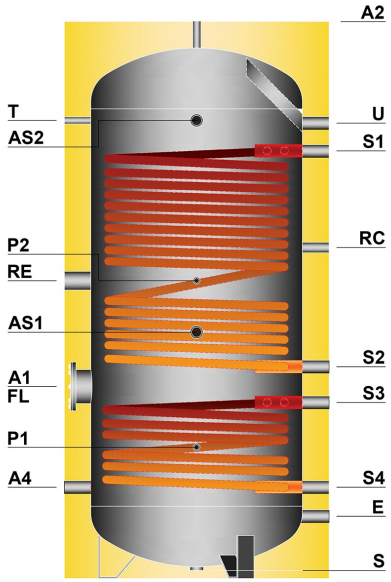
The proposed diagrams are purely by way of example.

BKPN1-X GENERAL CHARACTERISTICS

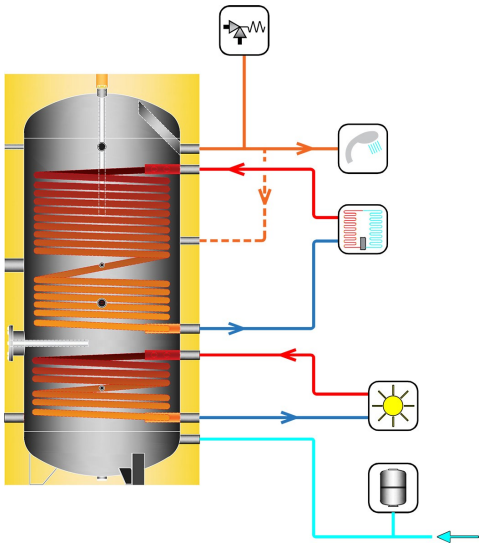
		Capacity	200	300	500	800	1000	1500	2000
DIMENSIONS									
Diameter without insulation		mm	500	500	650	800	800	1000	1200
Diameter with insulation		mm	610	610	760	1000	1000	1200	1400
Maximum height		mm	1320	1640	1715	1854	2104	2205	2245
Overturning height with | without insulation		mm	1460	1760	1890	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"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"	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	Spare	mm | Ø	240 | 1"¼	595 | 1"¼	635 | 1"¼	680 | 1"¼	930 | 1"¼	1005 | 1"¼	895 | 1"¼
AS2	Spare / Recirculation	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	—	—	—	—	—	555 | ½"	—
A2	Anode	mm | Ø	1320 | ½"	1640 | ½"	1715 | ½"	1854 | ½"	2104 | ½"	2205 | ½"	2245 | ½"
A4	Anode	mm | Ø	—	—	—	—	—	—	740 | ½"
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"
S	Drain	mm | Ø	—	—	—	—	—	110 | 1"¼	90 | 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		m^2	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	125	134	186	277	331	398	471

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.

DHW CALORIFIER WITH SINGLE OR TWIN BUILT-IN, OVERSIZED SPIRAL COILS FOR HEAT PUMP PRIMARY



INSTALLATION EXAMPLE



The proposed diagrams are purely by way of example.

BKPN2-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
U	Hot water outlet	mm | Ø	1395 | 1"	1515 | 1"	1470 | 1"¼	1720 | 1"¼	1795 | 2"	1815
RC	Recirculation	mm | Ø	1050 | 1"	1095 | 1"	1150 | 1"	1250 | 1"	1420 | 1"½	1450
R	Immersion electric heater	mm | Ø	890 | 2"	970 | 2"	1045 | 2"	1125 | 2"	1305 | 2"	1380
P1	Sensor	mm | Ø	385 | ½"	440 | ½"	455 | ½"	495 | ½"	595 | ½"	725
P2	Sensor	mm | Ø	890 | ½"	970 | ½"	1045 | ½"	1125 | ½"	1305 | ½"	1380
AS1	Spare	mm | Ø	595 | 1"¼	635 | 1"¼	680 | 1"¼	930 | 1"¼	1005 | 1"¼	895
AS2	Spare / Recirculation	mm | Ø	1395 | 1"¼	1435 | 1"¼	1480 | 1"¼	1730 | 1"¼	1805 | 1"¼	1695
T	Thermometer	mm | Ø	1395 | ½"	1435 | ½"	1480 | ½"	1730 | ½"	1805 | ½"	1695
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	Lower 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	Lower 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	Upper 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	Upper Spiral coil primary inlet	mm | Ø	250 | 1"¼	295 | 1"¼	345 | 1"¼	345 | 1"¼	435 | 1"½	585 | 1"½
S	Drain	mm | Ø	—	—	—	—	110 | 1"¼	90 | 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	145	196	264	321	389	469

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'
Litres	*m^2*	*kW*	*Litres/Hour*	*Litres/Hour*	*Litres*	*Litres*
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'
Litres	*m^2*	*kW*	*Litres/Hour*	*Litres/Hour*	*Litres*	*Litres*
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'
Litres	*m^2*	*kW*	*Litres/Hour*	*Litres/Hour*	*Litres*	*Litres*
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

				SECONDARY (DHW)		
Tank capacity	HP coil surface area	Max. output	Primary flow	Continuous flow	Output first 10'	Output first 60'
Litres	*m^2*	*kW*	*Litres/Hour*	*Litres/Hour*	*Litres*	*Litres*
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'
Litres	*m^2*	*kW*	*Litres/Hour*	*Litres/Hour*	*Litres*	*Litres*
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'
Litres	*m^2*	*kW*	*Litres/Hour*	*Litres/Hour*	*Litres*	*Litres*
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	*m^2*	*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

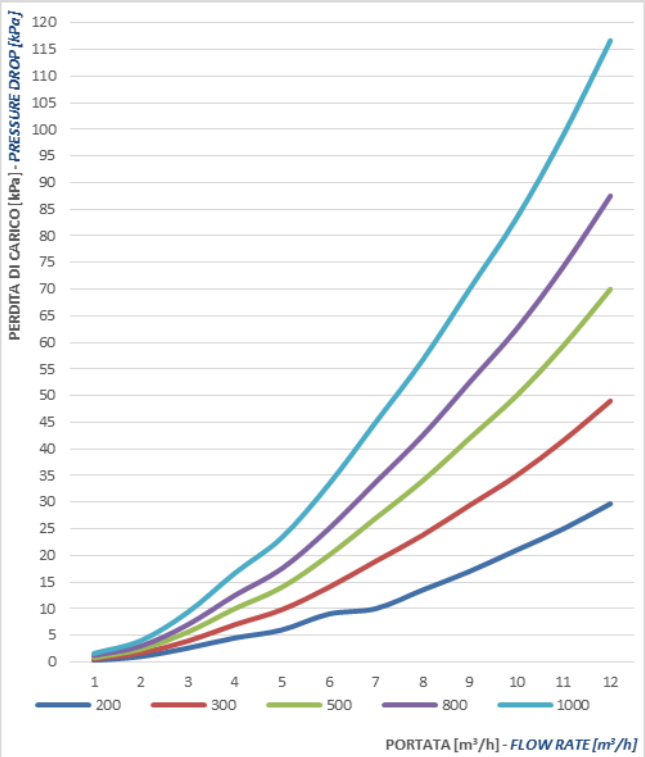
Primary (70-60)°C | Secondary (10-45)°C

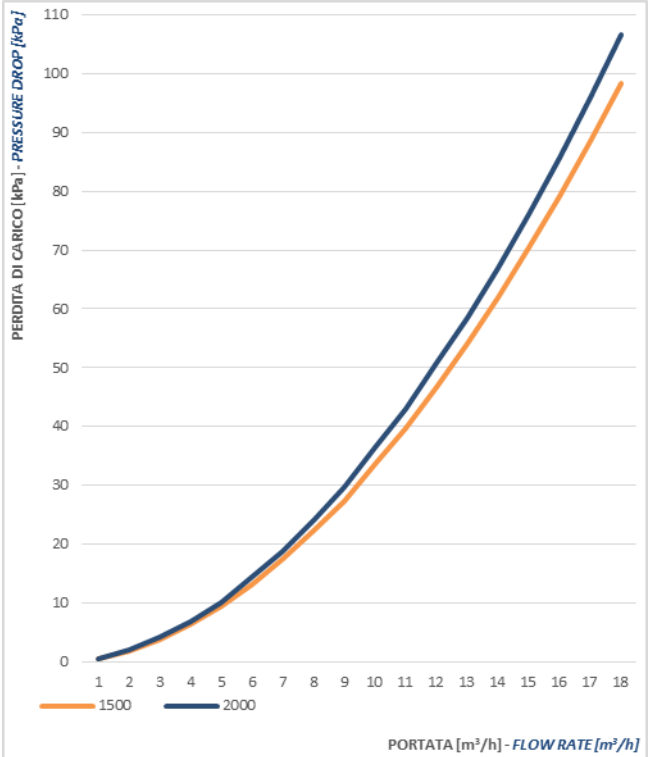
				SECONDARY (DHW)
Tank capacity	Lower coil surface area	Max. output	Primary flow	Continuous flow
Litres	*m^2*	*kW*	*Litres/Hour*	*Litres/Hour*
300	1,7	**41**	3506	1002
500	1,8	**43**	3713	1061
800	2,0	**48**	4175	1179
1000	3,0	**72**	6188	1768
1500	4,5	**108**	9281	2652
2000	5,0	**120**	10313	2946

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

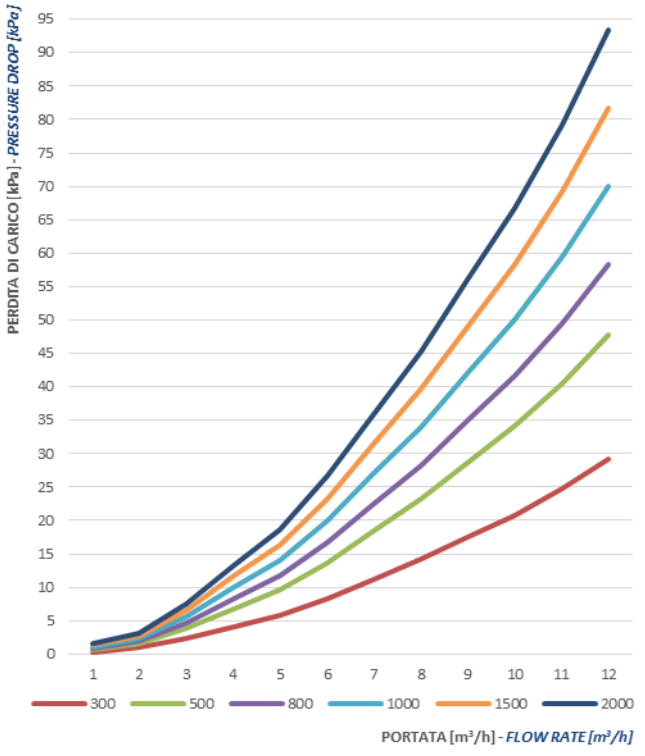
				SECONDARY (DHW)
Tank capacity	Lower coil surface area	Max. output	Primary flow	Continuous flow
Litres	*m^2*	*kW*	*Litres/Hour*	*Litres/Hour*
300	1,7	**30**	1700	729
500	1,8	**31**	1800	771
800	2,0	**35**	2000	857
1000	3,0	**52**	3000	1286
1500	4,5	**78**	4500	1929
2000	5,0	**87**	5010	2147

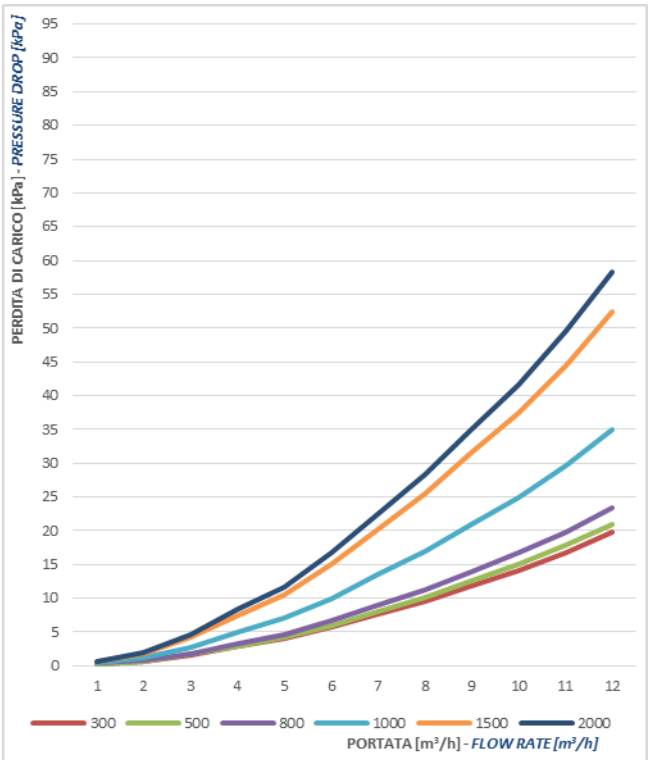
BKPN1-V | BKPN1-X - SINGLE COIL PRESSURE DROP





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





DHW CALORIFIER WITH SINGLE OR TWIN BUILT-IN, OVERSIZED SPIRAL COILS FOR HEAT PUMP PRIMARY

HOW TO ORDER

1 → Single fixed coil 2 → Twin fixed coil	8 → 8 bar (SS 316L) 0 → 10 bar (Glass-lined steel)	V → Glass-lined steel X → SS 316L	T → Magnesium anode E → Titanium anode N → no anode (SS 316L only)	5 → Insulation thick. 55 mm 0 → Insulation thick. 100 mm	Tank capacity

BKPN	1	-	V	0	V	T	5	/	0200

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	*GUGOMEPDM300X220ST*
GLASS ENAMELLED TANKS	
MAGNESIUM ANODE SET | BKPN-V 200 L	*KIT-ANOD_20*
MAGNESIUM ANODE SET | BKPN-V 300 L	*KIT-ANOD_21*
MAGNESIUM ANODE SET | BKPN-V 500 L	*KIT-ANOD_22*
MAGNESIUM ANODE SET | BKPN-V 800 L	*KIT-ANOD_23*
MAGNESIUM ANODE SET | BKPN-V 1000 L	*KIT-ANOD_24*
MAGNESIUM ANODE SET | BKPN-V 1500 L	*KIT-ANOD_25*
MAGNESIUM ANODE SET | BKPN-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 | BKPNI-V 200÷1500 L	*PIASTRAN180-V-F*
GLASS-LINED BLIND FLANGE Ø300 mm | BKPNI-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 | BKPNI-X 200÷1500 L	*PIASTRAX180*
STAINLESS STEEL 316L BLIND FLANGE Ø300 mm | BKPNI-X 2000 L	*PIASTRAX300-6X*


THERMOMETER


PROBE SOCKET


THERMOSTAT


MAGNESIUM ANODE


TITANIUM ANODE


BLIND FLANGE


MANHOLE EPDM GASKET

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
Watt	*L*	*mm*	*mm*	*mm*	*PART NO.*
2000	200÷2000	310	220/1 240/1	SHUKO	*RES020-L310-6-M-BT*
3000	200÷2000	350			*RES030-L350-6-M-BT*
5000	200÷2000	375	400/3	Not supplied	*RES050-L375-6-T-BT*
6000	200÷2000	435			*RES060-L435-6-T-BT*
9000	500÷2000	610			*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*


1-PHASE


3-PHASE

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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
PLFH High density polyester fibre	✓	100 mm	25 kg/m³	λ = 0,034 W/mK	Amb. / +99°C	B-s2, d0
Hard polyurethane injected	✗	55 mm	40÷42 kg/m³	λ = 0,019 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	*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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