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Pacetti

SCAMBIATORI - BOLLITORI - SERBATOI

BME-X

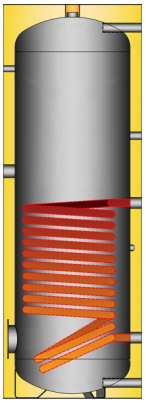
DHW CALORIFIER
WITH SINGLE OR TWIN BUILT-IN SPIRAL COILS
FOR SOLAR PRIMARY

Cooke Industries - Phone: +64 9 579 2185 Email: sales@cookeindustries.co.nz Web: www.cookeindustries.co.nz

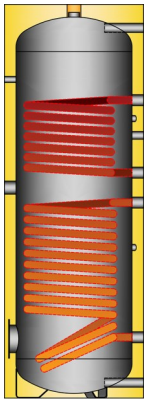
DHW CALORIFIER WITH SINGLE OR DOUBLE BUILT-IN SPIRAL COILS FOR SOLAR PRIMARY

Water heaters for DHW production and storage designed for connection to solar systems and other energy sources, if any. **BME-X** range tanks are equipped with fixed spiral coils to get the highest heating exchange surface in relation to the storage capacity.
The **BME1-X** model is equipped with a single spiral coil which allows the discontinuous energy supplied by the solar panels to be exploited in the best possible manner.
The **BME2-X** model is equipped with a single spiral coil to be connected to the solar panels and a second spiral coil to be connected to an additional energy source, either conventional or renewable type, serving as a booster when the solar energy source is available or as a single supply during the periods in which the solar energy source is unable to satisfy the request.
Thermal insulation ensures minimum heat loss, keeping the temperature of the water stored inside the tank constant. This results in a reduced number of start-ups of heating generators connected, leading to operating costs reduction and increased reliability. Insulations are factory made: the external cladding can be choosen between PVC –suitable for indoor installation only– and embossed aluminium sheet –suitable for indoor and outdoor insallation.

CONSTRUCTION



BME1-X



BME2-X

	BME1-X	BME2-X
TANK MATERIAL	Stainless Steel AISI 316L	Stainless Steel AISI 316L
SPIRAL COIL MATERIAL	Stainless Steel AISI 316L	Stainless Steel AISI 316L
INTERNAL SURFACE STEEL TREATMENT	Pickling and passivation	Pickling and passivation
EXTERNAL SURFACE STEEL TREATMENT	Pickling and passivation	Pickling and passivation
CAPACITY	150÷2000 L	200÷2000 L
VERSION	Vertical	Vertical
CONNECTION TYPE	Threaded	Threaded
INSULATION | 200÷500 L	**Hard foam polyurethane** 55mm injected	**Hard foam polyurethane** 55mm injected
INSULATION | 800÷1000 L	**Hard foam polyurethane** 55mm removable half-shells	**Hard foam polyurethane** 55mm removable half-shells
INSULATION | 1500÷2000 L	**PLFH** 100 mm High density eco-friendly polyester fiber	**PLFH** 100 mm High density eco-friendly polyester fiber
CLADDING	Light grey PVC RAL7035	Light grey PVC RAL7035
ANODE TYPE	—	—
ACCESSORIES (factory fitted)	Thermometer	Thermometer

Energy efficiency class - Regulation 812/2013 & 814/2013 | European Directive 2009/125/CE

				Capacity– L	150	200	300	500	800	1000	1500	2000
	Energy efficiency class				C	C	C	C	C	C	C	C
BME1-X	Standing loss	S	W		58	67	81	102	98	106	143	169
	Storage volume	V	L		154	204	286	500	756	875	1466	1977
	Energy efficiency class					C	C	C	C	C	C	C
BME2-X	Standing loss	S	W			67	82	102	97	105	145	171
	Storage volume	V	L			201	282	495	746	864	1451	1959

STANDARD WORKING CONDITIONS

	Capacity– L	150	200	300	500	800	1000	1500	2000
Tank working pressure	bar	ATM÷8	ATM÷8	ATM÷8	ATM÷8	ATM÷8	ATM÷8	ATM÷8	ATM÷8
Coils working pressure	bar	ATM÷10	ATM÷10	ATM÷10	ATM÷10	ATM÷10	ATM÷10	ATM÷10	ATM÷10
Tank working temperature	°C	AMB÷99	AMB÷99	AMB÷99	AMB÷99	AMB÷99	AMB÷99	AMB÷99	AMB÷99
Coils working temperature	°C	AMB÷110	AMB÷110	AMB÷110	AMB÷110	AMB÷110	AMB÷110	AMB÷110	AMB÷110

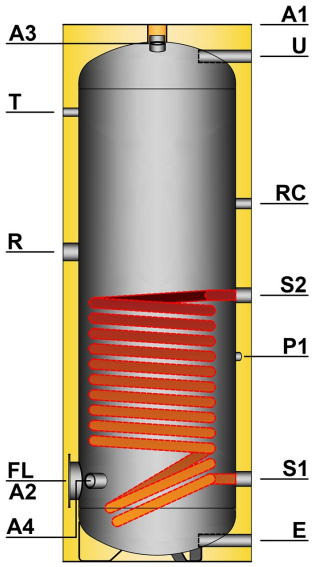
REGULATORY COMPLIANCE

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

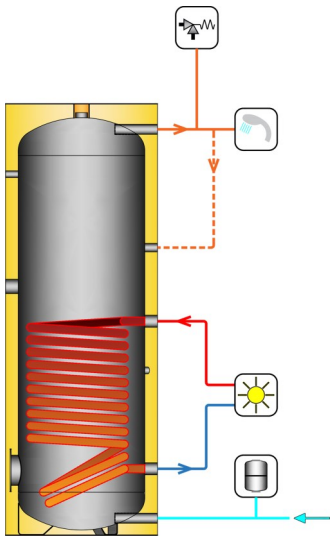
European Pressure Equipment Directive (PED) 2014/68/EU | SEP (Sound Engineering Practice) - exclusion from CE marking - Art. 4.3

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

DHW CALORIFIER WITH SINGLE OR DOUBLE BUILT-IN SPIRAL COILS FOR SOLAR PRIMARY



INSTALLATION EXAMPLE

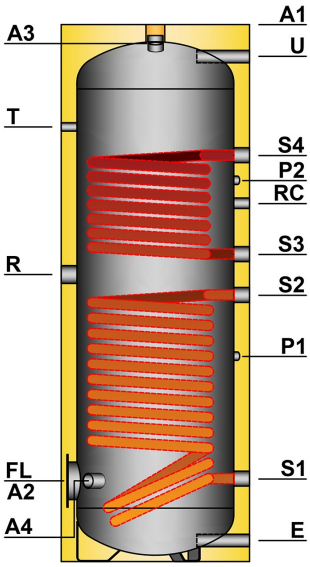


The proposed diagrams are purely by way of example.

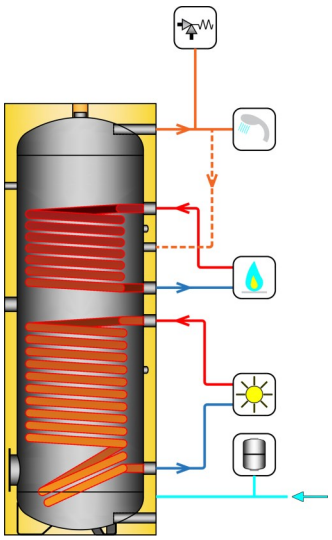
GENERAL CHARACTERISTICS - SINGLE COIL

			BME1-X							
		Capacity - L	150	200	300	500	800	1000	1500	2000
DIMENSIONS										
Diameter without insulation		mm	500	500	500	650	790	790	1000	1200
Diameter with insulation		mm	610	610	610	760	970	970	1200	1400
Maximum height		mm	995	1260	1650	1740	1835	2085	2225	2245
Overturning height with | without insulation		mm	1170	1400	1760	1900	1965 | 1850	2205 | 2100	2400 | 2250	2476 | 2273
CONNECTIONS										
E	Cold water inlet	mm | Ø	140 | 1"	140 | 1"	140 | 1"	175 | 1"¼	220 | 1"¼	220 | 1"¼	315 | 2"	370 | 2"
U	Hot water outlet	mm | Ø	825 |1"	1090 | 1"	1480 | 1"	1555 | 1"¼	1590 | 1"¼	1840 | 1"¼	1935 | 2"	1910 | 2"
RC	Recirculation	mm | Ø	670 | ¾"	915 | ¾"	1140 | ¾"	1315 | 1"	1350 | 1"	1545 | 1"	1460 | 1"	1575 | 1"
R	Immersion electric heater	mm | Ø	590 | 1"½	797 | 1"½	914 | 1"½	1150 | 1"½	1050 | 1"½	1050 | 1"½	1257 | 1"½	1325 | 1"½
P1	Sensor	mm | Ø	474 | ½"	653 | ½"	653 | ½"	825 | ½"	775 | ½"	870 | ½"	800 | ½"	880 | ½"
T	Thermometer	mm | Ø	740 | ½"	1007 | ½"	1384 | ½"	1400 | ½"	1430 | ½"	1680 | ½"	1827 | ½"	1710 | ½"
A1	Anode	mm | Ø	995 | ½"	1260 | ½"	1650 | ½"	1740 | ½"	1835 | ½"	2085 | ½"	2225 | ½"	2245 | ½"
A2	Anode	mm | Ø	—	—	—	—	—	—	—	—
A3	Anode	mm | Ø	—	—	—	—	—	—	—	—
A4	Anode	mm | Ø	—	—	—	—	—	—	—	685 | ½"
S1	Spiral coil primary outlet	mm | Ø	264 | 1"¼	264 | 1"¼	263 | 1"¼	320 | 1"¼	385 | 1"¼	385 | 1"¼	470 | 1"¼	550 | 1"¼
S2	Spiral coil primary inlet	mm | Ø	579 | 1"¼	759 | 1"¼	848 | 1"¼	1075 | 1"¼	970 | 1"¼	970 | 1"¼	1170 | 1"¼	1250 | 1"¼
FL	Inspection opening	mm	280 |	280	280	335	400	400	550	685
		Ø mm	120×180	120×180	120×180	120×180	120×180	120×180	120×180	220×300
SPIRAL COIL PERFORMANCE										
Spiral coil surface area		**m²**	**0,8**	**1,2**	**1,5**	**2,2**	**3,0**	**3,5**	**5,0**	**6,0**
Spiral coil output (Primary 90/55°C - Secondary 10/45°C)		kW	36	53	67	98	133	156	222	267
DHW continuous flow 10/45°C		l/h	874	1311	1639	2404	3279	3825	5464	6557
WEIGHT										
Empty weight		kg	46	65	74	100	154	176	238	296

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.



INSTALLATION EXAMPLE



The proposed diagrams are purely by way of example

GENERAL CHARACTERISTICS - DOUBLE COIL

			BME2-X						
		Capacity - L	200	300	500	800	1000	1500	2000
DIMENSIONS									
Diameter without insulation		mm	500	500	650	790	790	1000	1200
Diameter with insulation		mm	610	610	760	970	970	1200	1400
Maximum height		mm	1260	1650	1740	1835	2085	2225	2245
Overturning height with | without insulation		mm	1400	1760	1900	1965 | 1850	2205 | 2100	2400 | 2250	2476 | 2273
CONNECTIONS									
E	Cold water inlet	mm | Ø	140 | 1"	140 | 1"	175 | 1"¼	220 | 1"¼	220 | 1"¼	315 | 2"	370 | 2"
U	DHW outlet	mm | Ø	1090 | 1"	1480 | 1"	1555 | 1"¼	1590 | 1"¼	1840 | 1"¼	1935 | 2"	1910 | 2"
RC	Recirculation	mm | Ø	884 | ¾"	1140 | ¾"	1235 | 1"	1235 | 1"	1235 | 1"	1430 | 1"	1575 | 1"
R	Immersion electric heater	mm | Ø	629 | 1"½	914 | 1"½	945 | 1"½	890 | 1"½	890 | 1"½	1257 | 1"½	1325 | 1"½
P1	Sensor	mm | Ø	474 | ½"	653 | ½"	685 | ½"	685 | ½"	685 | ½"	800 | ½"	880 | ½"
P2	Sensor	mm | Ø	914 | ½"	1214 | ½"	1285 | ½"	1340 | ½"	1340 | ½"	1460 | ½"	1525 | ½"
T	Thermometer	mm | Ø	1007 | ½"	1384 | ½"	1440 | ½"	1460 | ½"	1680 | ½"	1827 | ½"	1710 | ½"
A1	Anode	mm | Ø	1260 | ½"	1650 | ½"	1740 | ½"	1835 | ½"	2085 | ½"	2225 | ½"	2245 | ½"
A2	Anode	mm | Ø	—	—	—	—	—	—	—
A3	Anode	mm | Ø	—	—	—	—	—	—	—
A4	Anode	mm | Ø	—	—	—	—	—	—	685 | ½"
S1	Lower spiral coil primary outlet	mm | Ø	264 | 1"¼	263 | 1"¼	305 | 1"¼	385 | 1"¼	385 | 1"¼	470 | 1"¼	550 | 1"¼
S2	Lower spiral coil primary inlet	mm | Ø	579 | 1"¼	848 | 1"¼	865 | 1"¼	835 | 1"¼	835 | 1"¼	1170 | 1"¼	1250 | 1"¼
S3	Upper spiral coil primary outlet	mm | Ø	679 | 1"¼	979 | 1"¼	985 | 1"¼	990 | 1"¼	990 | 1"¼	1330 | 1"¼	1385 | 1"¼
S4	Upper spiral coil primary inlet	mm | Ø	994 | 1"¼	1294 | 1"¼	1335 | 1"¼	1440 | 1"¼	1440 | 1"¼	1680 | 1"¼	1735 | 1"¼
FL	Inspection opening	mm	280	280	335	400	400	550	685
		Ø mm	120×180	120×180	120×180	120×180	120×180	120×180	220×300
SPIRAL COILS PERFORMANCES									
Lower spiral coil surface area		**m²**	**1,0**	**1,5**	**2,0**	**2,5**	**3,0**	**5,0**	**6,0**
Lower spiral coil output (Primary 90/55°C - Secondary 10/45°C)		kW	44	67	89	111	133	222	267
DHW continuous flow 10/45°C		l/h	1093	1639	2186	2732	3279	5464	6557
Upper spiral coil surface area		**m²**	**0,8**	**1,0**	**1,0**	**2,5**	**2,5**	**2,5**	**3,0**
Upper spiral coil output (Primary 90/55°C - Secondary 10/45°C)		kW	27	34	34	84	84	84	100
DHW continuous flow 10/45°C		l/h	661	826	826	2064	2064	2064	2476
WEIGHT									
Empty weight		kg	83	102	151	238	259	414	499

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.

BME1-X - SOLAR COIL OUTPUT

Primary (90-55)°C | Secondary (10-45)°C

Tank capacity	Solar coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow	Output first 10'	Output first 60'
L	m^2	kW	L/h	L/h	L	L
150	0,8	36	874	574	296	1024
200	1,2	53	1311	1311	419	1511
300	1,5	67	1639	1639	573	1939
500	2,2	98	2404	2404	901	2904
800	3,0	133	3279	3279	1346	4079
1000	3,5	156	3825	3825	1638	4825
1500	5,0	222	5464	5464	2411	6964
2000	6,0	267	6557	6557	3093	8557

Primary (80-55)°C | Secondary (10-45)°C

Tank capacity	Solar coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow	Output first 10'	Output first 60'
L	m^2	kW	L/h	L/h	L	L
150	0,8	27	922	658	260	808
200	1,2	40	1382	987	365	1187
300	1,5	50	1728	1234	506	1534
500	2,2	74	2534	1810	802	2310
800	3,0	100	3456	2469	1211	3269
1000	3,5	117	4032	2880	1480	3880
1500	5,0	167	5760	4114	2186	5614
2000	6,0	201	6912	4937	2823	6937

Primary (75-55)°C | Secondary (10-45)°C

Tank capacity	Solar coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow	Output first 10'	Output first 60'
L	m^2	kW	L/h	L/h	L	L
150	0,8	23	975	557	243	707
200	1,2	34	1463	836	339	1036
300	1,5	43	1828	1045	474	1345
500	2,2	62	2681	1532	755	2032
800	3,0	85	3656	2089	1148	2889
1000	3,5	99	4266	2438	1406	3438
1500	5,0	142	6094	3482	2080	4982
2000	6,0	170	7313	4179	2696	6179

Primary (70-50)°C | Secondary (10-45)°C

Tank capacity	Solar coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow	Output first 10'	Output first 60'
L	m^2	kW	L/h	L/h	L	L
150	0,8	18	767	438	223	588
200	1,2	27	1151	657	310	857
300	1,5	33	1438	822	437	1122
500	2,2	49	2109	1205	701	1705
800	3,0	67	2876	1644	1074	2444
1000	3,5	78	3356	1918	1320	2918
1500	5,0	111	4794	2739	1957	4239
2000	6,0	134	5753	3287	2548	5287

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

Tank capacity	Solar coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow	Output first 10'	Output first 60'
L	m^2	kW	L/h	L/h	L	L
150	0,8	15	880	377	213	527
200	1,2	23	1320	566	294	766
300	1,5	29	1650	707	418	1007
500	2,2	42	2420	1037	673	1537
800	3,0	58	3300	1414	1036	2214
1000	3,5	67	3850	1650	1275	2650
1500	5,0	96	5500	2357	1893	3857
2000	6,0	115	6600	2829	2471	4829

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

Tank capacity	Solar coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow	Output first 10'	Output first 60'
L	m^2	kW	L/h	L/h	L	L
150	0,8	12	693	297	200	447
200	1,2	18	1040	446	274	646
300	1,5	23	1300	557	393	857
500	2,2	33	1907	817	636	1317
800	3,0	45	2600	1114	986	1914
1000	3,5	53	3033	1300	1217	2300
1500	5,0	76	4333	1857	1810	3357
2000	6,0	91	5200	2229	2371	4229

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

Tank capacity	Solar coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow	Output first 10'	Output first 60'
L	m^2	kW	L/h	L/h	L	L
150	0,8	10	864	247	191	397
200	1,2	15	1296	370	262	570
300	1,5	19	1620	463	377	763
500	2,2	28	2376	679	613	1179
800	3,0	38	3240	926	954	1726
1000	3,5	44	3780	1080	1180	2080
1500	5,0	63	5400	1543	1757	3043
2000	6,0	75	6480	1851	2309	3851

Primary (50-40)°C | Secondary (10-45)°C

Tank capacity	Solar coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow	Output first 10'	Output first 60'
L	m^2	kW	L/h	L/h	L	L
150	0,8	7	560	160	177	310
200	1,2	10	840	240	240	440
300	1,5	12	1050	300	350	600
500	2,2	18	1540	440	573	940
800	3,0	24	2100	600	900	1400
1000	3,5	28	2450	700	1117	1700
1500	5,0	41	3500	1000	1667	2500
2000	6,0	49	4200	1200	2200	3200

BME2-X - LOWER COIL OUTPUT (SOLAR)

Primary (90-55)°C | Secondary (10-45)°C

Tank capacity	Solar coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow	Output first 10'	Output first 60'
L	m^2	kW	L/h	L/h	L	L
200	1,0	44	1093	1093	382	1293
300	1,5	67	1639	1639	573	1939
500	2,0	89	2186	2186	864	2686
800	2,5	111	2732	2732	1255	3532
1000	3,0	133	3279	3279	1546	4279
1500	5,0	222	5464	5464	2411	6964
2000	6,0	267	6557	6557	3093	8557

Primary (80-55)°C | Secondary (10-45)°C

Tank capacity	Solar coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow	Output first 10'	Output first 60'
L	m^2	kW	L/h	L/h	L	L
200	1,0	33	1152	823	337	1023
300	1,5	50	1728	1234	506	1534
500	2,0	67	2304	1646	774	2146
800	2,5	84	2880	2057	1143	2857
1000	3,0	100	3456	2469	1411	3469
1500	5,0	167	5760	4114	2186	5614
2000	6,0	201	6912	4937	2823	6937

Primary (75-55)°C | Secondary (10-45)°C

Tank capacity	Solar coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow	Output first 10'	Output first 60'
L	m^2	kW	L/h	L/h	L	L
200	1,0	28	1219	696	316	896
300	1,5	43	1828	1045	474	1345
500	2,0	57	2438	1393	732	1893
800	2,5	71	3047	1741	1090	2541
1000	3,0	85	3656	2089	1348	3089
1500	5,0	142	6094	3482	2080	4982
2000	6,0	170	7313	4179	2696	6179

Primary (70-50)°C | Secondary (10-45)°C

Tank capacity	Solar coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow	Output first 10'	Output first 60'
L	m^2	kW	L/h	L/h	L	L
200	1,0	22	959	548	291	748
300	1,5	33	1438	822	437	1122
500	2,0	45	1918	1096	683	1596
800	2,5	56	2397	1370	1028	2170
1000	3,0	67	2876	1644	1274	2644
1500	5,0	111	4794	2739	1957	4239
2000	6,0	134	5753	3287	2548	5287

BME2-X - UPPER COIL OUTPUT (additional heating source)

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

Tank capacity	Upper coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow
L	m^2	kW	L/h	L/h
200	0,8	27	2312	661
300	1,0	34	2890	826
500	1,0	34	2890	826
800	2,5	84	7225	2064
1000	2,5	84	7225	2064
1500	2,5	84	7225	2064
2000	3,0	101	8686	2482

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

Tank capacity	Upper coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow
L	m^2	kW	L/h	L/h
200	0,8	22	1920	549
300	1,0	28	2400	686
500	1,0	28	2400	686
800	2,5	45	3840	1097
1000	2,5	45	3840	1097
1500	2,5	45	3840	1097
2000	3,0	54	4644	1720

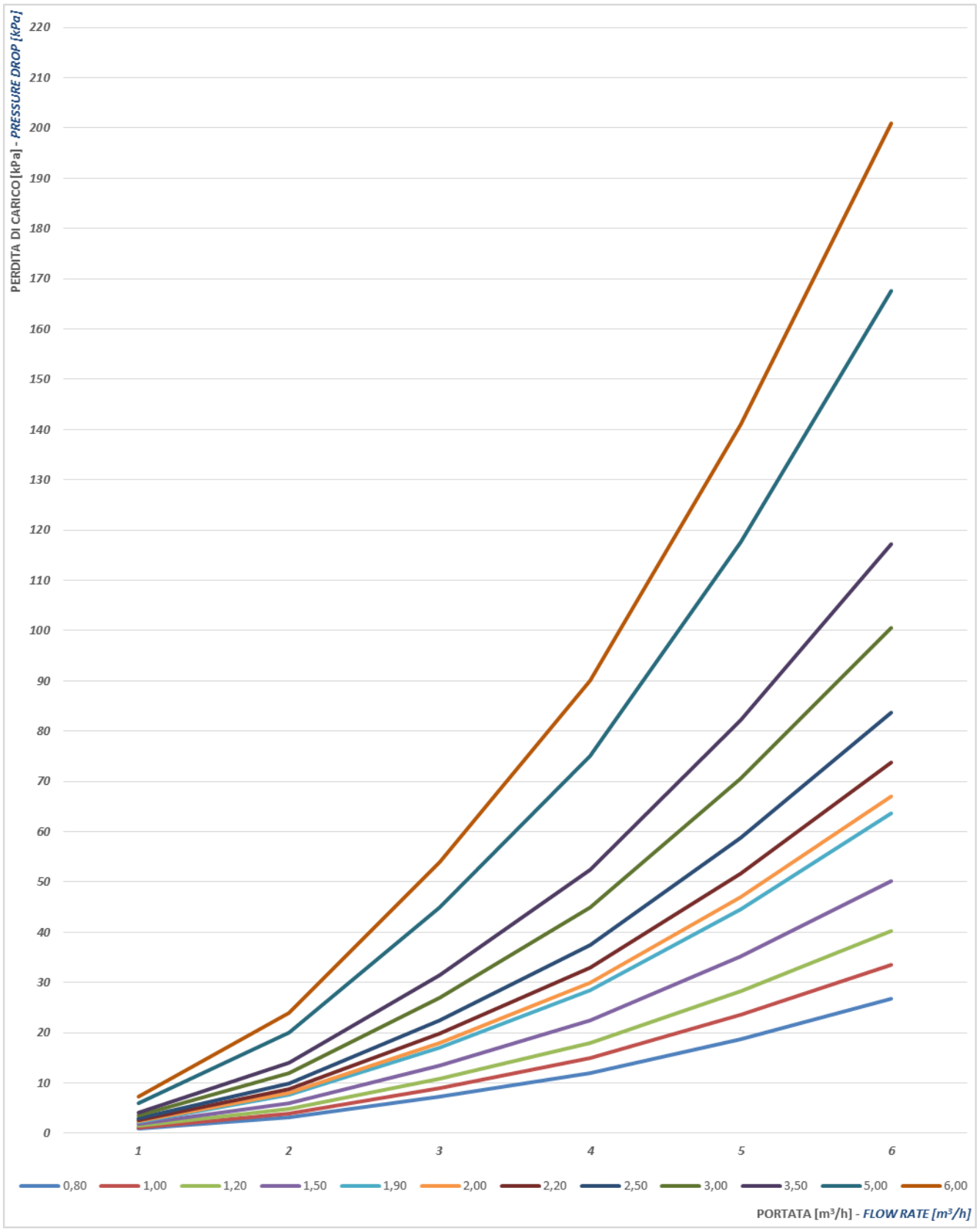
Primary (60-50)°C | Secondary (10-45)°C

Tank capacity	Upper coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow
L	m^2	kW	L/h	L/h
200	0,8	15	880	377
300	1,0	19	1100	471
500	1,0	19	1100	471
800	2,5	31	1760	754
1000	2,5	31	1760	754
1500	2,5	31	1760	754
2000	3,0	37	3440	909

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

Tank capacity	Upper coil surface area	Max. output	Primary flow	SECONDARY (DHW) Continuous flow
L	m^2	kW	L/h	L/h
200	0,8	12	693	297
300	1,0	15	867	371
500	1,0	15	867	371
800	2,5	24	1387	594
1000	2,5	24	1387	594
1500	2,5	24	1387	594
2000	3,0	29	1663	713

BME1-X | BME2-X SPIRAL COILS PRESSURE DROP



HOW TO ORDER

1 → Single fixed coil
2 → Twin fixed coil

E → Titanium anode (on request)
N → no anode

5 → Insulation thick 55 mm
7 → Insulation thick 75 mm
9 → Insulation thick 85 mm
0 → Insulation thick 100 mm

Tank capacity

BME	1	-	V	X	N	5	/	0200

ACCESSORIES AND SPARE PARTS

ITEM	PART NUMBER
THERMOMETER Ø65 mm | L=50 mm | *(0÷120)°C*	*TERMOMETRO-D65_S*
SENSOR POCKET Ø½" portasonda | L=50 mm | $Ø_{int}$10 mm	*POZZETTO_S*
THERMOSTAT Ø½" *(0÷90)°C*	*TERMOSTATO*
MAGNESIUM ANODE SET | BME-X 150÷500 L	*ANODE012X380_P*
MAGNESIUM ANODE SET | BME-X 800-1000 L	*ANODE012X430_P*
MAGNESIUM ANODE SET | BME-X 1500-2000 L	*ANODE012X430X2_P*
EPDM GASKET FOR INSPECTION OPENING | BME-X 00÷1000 L	*GUGOM175X122ST*
EPDM GASKET FOR INSPECTION OPENING | BME-X 1500-2000 L	*GUGOMEPDM300X220ST*
FLANGE COVER Ø180 mm| BME-X 150÷1500 L	*PIASTRAX180*
FLANGE COVER Ø300 mm| BME-X 2000 L	*PIASTRAX300-6X*


THERMOMETER


SENSOR POCKET


THERMOSTAT


TITANIUM ANODE

IMMERSION ELECTRIC HEATERS 1-3 PHASE-SS316L / INCOLOY
Screw connection 1"½ | Aluminium box IP55 | V230/400

Power	Tank capacity	Length	1-THERMOSTAT Temp. Regulation only	2-THERMOSTAT Temp. Regulation + overtemp. protection
Watt	*L*	*mm*	*PART NUMBER*	*PART NUMBER*
2000	200÷2000	280	*RES020-112-L280-6-M*	*RES020-112-L280-6-B*
3000	200÷2000	380	*RES030-112-L380-6-M*	*RES030-112-L380-6-B*
5000	200÷2000	500	*RES050-112-L500-6-M*	*RES050-112-L500-6-B*
6000	500÷2000	600	*RES060-112-L600-6-M*	*RES060-112-L600-6-B*
9000	800÷2000	750	*RES090-112-L750-6-M*	*RES090-112-L750-6-B*
10000	800÷2000	820	*RES100-112-L820-6-M*	*RES100-112-L820-6-B*
12000	1500÷2000	980	*RES120-112-L980-6-M*	*RES120-112-L980-6-B*

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ANTI-CORROSION PROTECTION STEEL TREATMENTS

PROTECTIVE TREATMENTS FOR STAINLESS STEEL TANKS

Pickling and passivation

DHW storage tanks made of Stainless Steel 316L are treated with full immersion pickling procedures and subsequent passivation to ensure the highest hygiene standards.

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 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.

INSULATIONS

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 foam Polyurethane shells	✓	75 mm	40÷42 kg/m³	λ = 0,019 W/mK	Amb. / +99°C	F
Hard foam Polyurethane injected	✗	55 mm	40÷42 kg/m³	λ = 0,019 W/mK	-10°C / +99°C	F

PLFH / PLF – Polyester fibre

- 100% recyclable
- Environmental friendly
- Lightweight
- Self-supporting
- Fire-retardant
- Rot-proof
- Resistant to 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 foam Polyurethane

Thermal and anti-condensation insulation made of hard closed cell polyurethane foam (PU), free from CFC and HCFC.
It is available in various thickness and can be injected directly to the shell of the tank to prevent it from condensation and provide the lower thermal dispersion. For some sizes it is pre-formed into half-shells to ease the insulation removal in case the tank has to pass through narrow doors.

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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