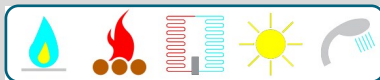


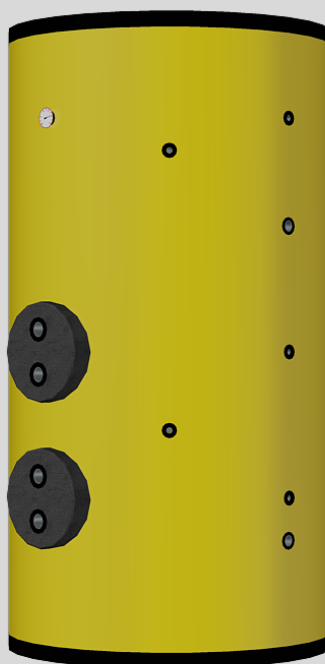
dal 1968



SCAMBIATORI - BOLLITORI - SERBATOI



# BT2H-C - BT2-C



ENAMELLED STEEL DHW CALORIFIER EQUIPPED WITH  
TWO REMOVABLE TUBE BUNDLE HEAT EXCHANGERS

# ENAMELLED STEEL DHW CALORIFIER EQUIPPED WITH TWO REMOVABLE TUBE BUNDLE HEAT EXCHANGERS

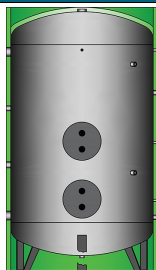
Calorifiers made of enamelled steel with two removable tube bundle heat exchangers for production and storage of DHW. Designed for connection to one or two different primary energy sources.

The two heat exchangers, with equal heating surface area, are positioned in the lower and middle areas of the tank and allow the use of a single energy source by connecting them together; This allows double the yield compared to a calorifier equipped with one tube bundle heat exchanger, so that the connected source can be exploited to the full. This solution is particularly recommended with Heat Pump or low-temperature primary source. In the case of two different energy sources the configuration of **BT2H-C | BT2-C** guarantees high thermal output for both, ensuring the production of a large quantity of DHW.

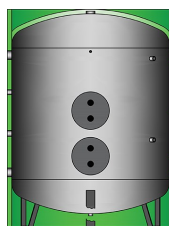
The calorifiers of the **BT2H-C | BT2-C** range stand out for the wide choice of capacities, from 1000 to 5000 L as standard and over upon request. They are available, in the larger sizes, in vertical-low and vertical extra-low versions to allow them to be installed in circumstances where the available height is not sufficient for the standard measurement. The two tube bundle heat exchangers, made of Stainless Steel AISI 304 as standard, are also available in Stainless Steel AISI 316L.

The possibility of selecting between various operating pressures - up to 10 bar - and the availability of different external claddings for indoor or outdoor installation, extends their use to all the possible applications. Protection from galvanic currents is provided by the electronic anodes fitted as standard, which both save on costs of checking and replacing conventional magnesium anodes and ensure superior reliability and durability.

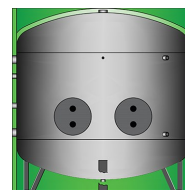
## CONSTRUCTION



**BT2H-C | BT2-C**



**BT2H-RC | BT2-RC**



**BT2-XC**

TANK MATERIAL	Carbon steel	Carbon steel	Carbon steel
INTERNAL SURFACE TREATMENT	CERAMFLON enamel	CERAMFLON enamel	CERAMFLON enamel
EXTERNAL SURFACE TREATMENT	Anti-rust primer	Anti-rust primer	Anti-rust primer
CAPACITY	1000 ÷ 5000 L	1500 ÷ 5000 L	3000 ÷ 5000 L
VERSION	Vertical	Vertical LOW-height	Vertical EXTRA-LOW height
CONNECTIONS	Threaded	Threaded	Threaded
PRIMARY CHEST MATERIAL	CERAMFLON enamelled steel	CERAMFLON enamelled steel	CERAMFLON enamelled steel
REMOVABLE TUBE BUNDLE HEAT EXCHANGER MATERIAL	<ul style="list-style-type: none"> <li>Stainless steel AISI 304</li> <li>Stainless steel AISI 316L</li> </ul>	<ul style="list-style-type: none"> <li>Stainless steel AISI 304</li> <li>Stainless steel AISI 316L</li> </ul>	<ul style="list-style-type: none"> <li>Stainless steel AISI 304</li> <li>Stainless steel AISI 316L</li> </ul>
INSULATION   1000 L	Hard Polyurethane 85mm removable shells	—	—
INSULATION   1500-2000 L	PLFH 120 mm High density eco-friendly polyester fiber	PLFH 120 mm High density eco-friendly polyester fiber	—
INSULATION   2500 ÷ 5000 L	PLF 50 mm Eco-friendly polyester fiber	PLF 50 mm Eco-friendly polyester fiber	PLF 50 mm Eco-friendly polyester fiber
CLADDING	<ul style="list-style-type: none"> <li>PVC Yellow RAL1023</li> <li>Aluminium</li> </ul>	<ul style="list-style-type: none"> <li>PVC Yellow RAL1023</li> <li>Aluminium</li> </ul>	<ul style="list-style-type: none"> <li>PVC Yellow RAL1023</li> <li>Aluminium</li> </ul>
ANODE TYPE (factory fitted)	Electronic	Electronic	Electronic
ACCESSORIES (factory fitted)	Thermometer	Thermometer	Thermometer

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

		Capacity - L		1000	1500	2000
<b>BT2H-C</b>	Energy efficiency class			<b>C</b>	<b>C</b>	<b>C</b>
	Standing loss	S	W	142	166	189
	Storage volume	V	L	918	1483	1983
<b>BT2H-RC</b>	Energy efficiency class				<b>C</b>	<b>C</b>
	Standing loss	S	W		165	187
	Storage volume	V	L		1515	1978

## STANDARD WORKING CONDITIONS

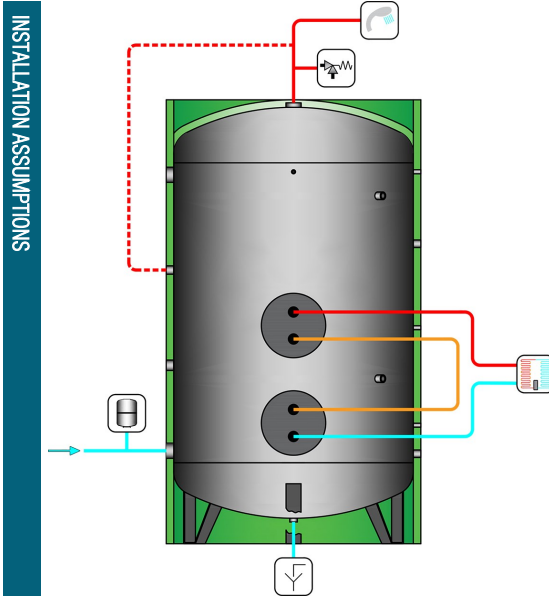
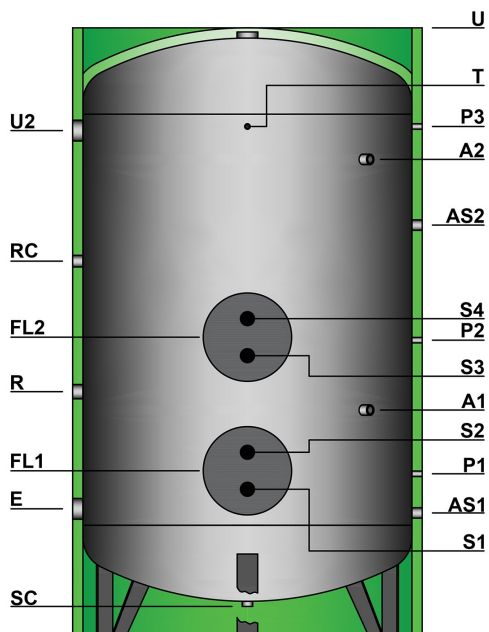
		Capacity - L						
		1000	1500	2000	2500	3000	4000	5000
Tank working pressure	bar	ATM ÷ 8	ATM ÷ 6	ATM ÷ 6	ATM ÷ 6	ATM ÷ 6	ATM ÷ 6	ATM ÷ 6
Tank working temperature	°C	AMB ÷ 85	AMB ÷ 85	AMB ÷ 85	AMB ÷ 85	AMB ÷ 85	AMB ÷ 85	AMB ÷ 85
Heat exchangers working pressure	bar	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12
Heat exchangers working temperature	°C	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99

## REGULATORY COMPLIANCE

ErP - Reg. 812/2013 e Reg. 814/2013 | CE

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

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



The proposed diagrams are for illustration purposes only.

**GENERAL CHARACTERISTICS - VERTICAL STANDARD VERSION**

	Capacity - L	1000	1500	2000	2500	3000	4000	5000
<b>DIMENSIONS</b>								
Diameter without insulation	mm	800	950	1100	1200	1250	1400	1600
Diameter with insulation	mm	970	1190	1340	1300	1350	1500	1700
Overall height	mm	2185	2530	2535	2590	2790	2869	2960
Overturning height with   without insulation	mm	2297   2201	2679   2532	2719   2541	2773   2600	2976   2800	3088   2883	3232   2982

**CONNECTIONS**

E Cold water supply	mm   Ø	420   2"	465   2"½	485   2"½	530   3"	525   3"	559   3"	620   3"
U DHW return	mm   Ø	2185   2"	2530   2"½	2535   2"½	2590   3"	2790   3"	2869   3"	2960   3"
U2 DHW additional return	mm   Ø	—	—	—	—	—	2399   3"	2460   3"
RC Recirculation	mm   Ø	1405   1"½	1580   1"½	1600   1"½	1645   1"½	1730   1"½	1764   1"½	1825   1"½
R Immersion electric heater	mm   Ø	885   2"	1035   2"	1055   2"	1100   2"	1095   2"	1129   2"	1190   2"
P1 Sensor	mm   Ø	610   ½"	635   ½"	655   ½"	700   ½"	505   ½"	729   ½"	790   ½"
P2 Sensor	mm   Ø	1080   ½"	1235   ½"	1255   ½"	1300   ½"	1345   ½"	1379   ½"	1440   ½"
P3 Sensor	mm   Ø	1700   ½"	2125   ½"	2095   ½"	2190   ½"	2385   ½"	2419   ½"	2480   ½"
T Thermometer	mm   Ø	1800   ½"	2125   ½"	2095   ½"	2190   ½"	2385   ½"	2419   ½"	2480   ½"
A1 Anode	mm   Ø	810   ½"	945   ½"	965   ½"	1010   ½"	1005   ½"	1039   ½"	1100   ½"
A2 Anode	mm   Ø	—	1965   ½"	1935   ½"	2030   ½"	2225   ½"	2259   ½"	2320   ½"
AS1 Spare	mm   Ø	420   1"¼	445   1"¼	465   1"¼	510   1"¼	505   1"¼	539   1"¼	600   1"¼
AS2 Spare	mm   Ø	1820   1"¼	1845   1"¼	1865   1"¼	1910   1"¼	1905   1"¼	1939   1"¼	2000   1"¼
FL1 Lower heat exchanger manhole	mm	610	635	655	700	695	729	790
	Ø mm	300×380	300×380	300×380	300×380	300×380	350×430	350×430
FL2 Upper heat exchanger manhole	mm	1080	1235	1255	1300	1345	1379	1440
	Ø mm	300×380	300×380	300×380	300×380	300×380	350×430	350×430
S1 Lower heat exchanger return	mm   Ø	535   2"	560   2"	580   2"	625   2"	620   2"	631   2"	690   2"
S2 Lower heat exchanger supply	mm   Ø	685   2"	710   2"	730   2"	775   2"	770   2"	831   2"	890   2"
S3 Upper heat exchanger return	mm   Ø	1005   2"	1160   2"	1180   2"	1225   2"	1270   2"	1281   2"	1340   2"
S4 Upper heat exchanger supply	mm   Ø	1155   2"	1310   2"	1330   2"	1375   2"	1420   2"	1481   2"	1540   2"
SC Drain	mm   Ø	95   1"¼	135   1"¼	123   1"¼	135   1"¼	125   1"¼	114   1"¼	145   1"¼

**TUBE BUNDLE HEAT EXCHANGERS PERFORMANCES**

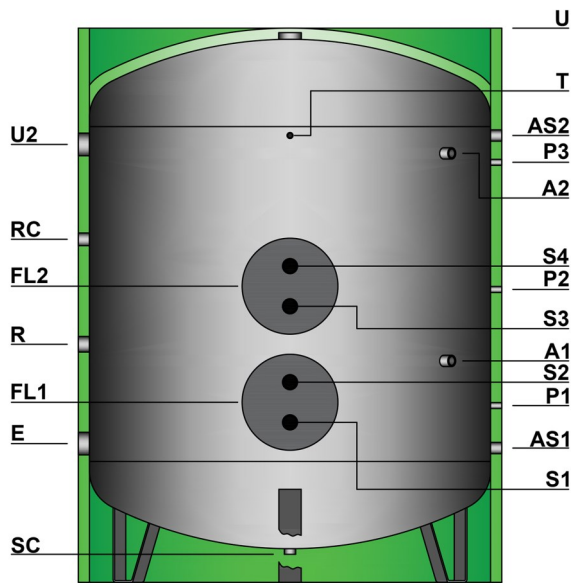
<b>Lower heat exchanger heating surface area</b>	<b>m²</b>	<b>2,00</b>	<b>3,00</b>	<b>4,00</b>	<b>5,00</b>	<b>6,00</b>	<b>8,00</b>	<b>10,00</b>
Lower HEX output (Prim 80/70°C - Sec 10/45°C)	kW	72	108	144	180	215	287	359
<b>Upper heat exchanger heating surface area</b>	<b>m²</b>	<b>2,00</b>	<b>3,00</b>	<b>4,00</b>	<b>5,00</b>	<b>6,00</b>	<b>8,00</b>	<b>10,00</b>
Upper HEX output (Prim 80/70°C - Sec 10/45°C)	kW	72	108	144	180	215	287	359
DHW continuous flow 10/45°C	L/h	3529	5293	7057	8821	10586	14114	17643

**EMPTY WEIGHTS**

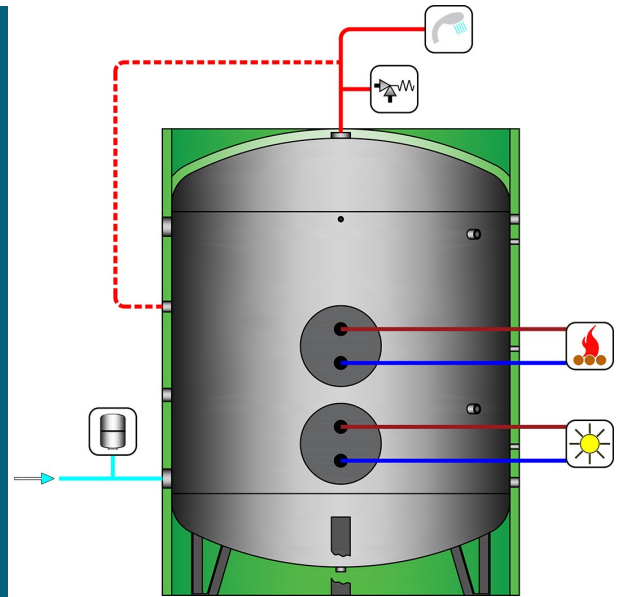
Empty Weight	kg	245	310	390	450	585	750	890
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Note: All the measurements of the connections are considered "from the ground". The thread are female GAS type, unless otherwise specified. The tanks higher than 2200mm are packaged horizontally.





INSTALLATION ASSUMPTIONS



The proposed diagrams are for illustration purposes only.

GENERAL CHARACTERISTICS - VERTICAL-LOW VERSION

	Capacity - L	1500	2000	2500	3000	4000	5000
<b>DIMENSIONS</b>							
Diameter without insulation	mm	1100	1250	1400	1400	1600	1800
Diameter with insulation	mm	1340	1490	1500	1500	1700	1900
Overall height	mm	2035	2039	2119	2369	2460	2483
Overturning height with   without insulation	mm	2264   2048	2319   2059	2410   2147	2632   2392	2781   2490	2874   2523

CONNECTIONS

E Cold water supply	mm   Ø	485   2"½	504   2"½	559   3"	559   3"	620   3"	622   3"
U DHW return	mm   Ø	2035   2"½	2039   2"½	2119   3"	2369   3"	2460   3"	2483   3"
U2 DHW additional return	mm   Ø	—	—	1649   3"	1899   3"	1960   3"	1962   3"
RC Recirculation	mm   Ø	1235   1"½	1254   1"½	1309   1"½	1474   1"½	1535   1"½	1537   1"½
R Immersion electric heater	mm   Ø	865   2"	884   2"	939   2"	1004   2"	1065   2"	1067   2"
P1 Sensor	mm   Ø	655   ½"	674   ½"	729   ½"	729   ½"	790   ½"	792   ½"
P2 Sensor	mm   Ø	1065   ½"	1084   ½"	1139   ½"	1199   ½"	1310   ½"	1312   ½"
P3 Sensor	mm   Ø	1595   ½"	1564   ½"	1669   ½"	1819   ½"	1880   ½"	1882   ½"
T Thermometer	mm   Ø	1595   ½"	1564   ½"	1669   ½"	1939   ½"	2000   ½"	2002   ½"
A1 Anode	mm   Ø	870   ½"	889   ½"	944   ½"	929   ½"	990   ½"	992   ½"
A2 Anode	mm   Ø	1535   ½"	1504   ½"	1609   ½"	1859   ½"	1920   ½"	1922   ½"
AS1 Spare	mm   Ø	465   1"¼	484   1"¼	539   1"¼	539   1"¼	600   1"¼	602   1"¼
AS2 Spare	mm   Ø	1265   1"¼	1284   1"¼	1339   1"¼	1939   1"¼	2000   1"¼	2002   1"¼
FL1 Lower heat exchanger manhole	mm   Ø	655   300×380	674   300×380	729   300×380	729   300×380	790   350×430	792   350×430
FL2 Upper heat exchanger manhole	mm   Ø	1065   300×380	1084   300×380	1139   300×380	1199   300×380	1310   350×430	1312   350×430
S1 Lower heat exchanger return	mm   Ø	580   2"	599   2"	654   2"	654   2"	691   2"	693   2"
S2 Lower heat exchanger manhole	mm   Ø	730   2"	749   2"	804   2"	804   2"	891   2"	893   2"
S3 Upper heat exchanger return	mm   Ø	990   2"	1009   2"	1064   2"	1124   2"	1211   2"	1213   2"
S4 Upper heat exchanger supply	mm   Ø	1140   2"	1159   2"	1214   2"	1274   2"	1411   2"	1413   2"
SC Drain	mm   Ø	123   1"¼	106   1"¼	114   1"¼	114   1"¼	145   1"¼	126   1"¼

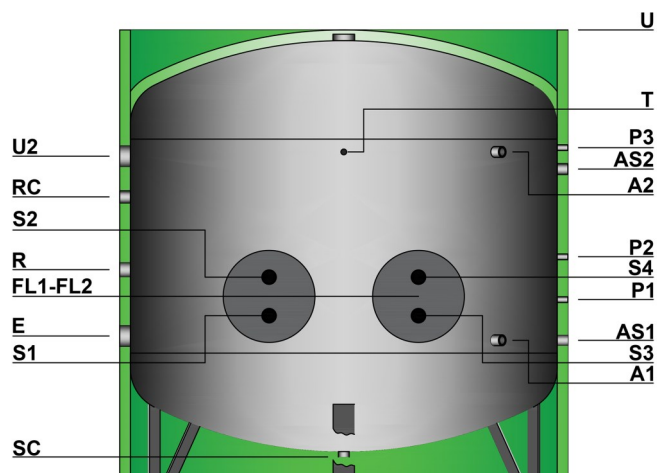
TUBE BUNDLE HEAT EXCHANGERS PERFORMANCES

Lower heat exchanger heating surface area	m <sup>2</sup>	3,00	4,00	5,00	6,00	8,00	10,00
Lower HEX output (Prim 80/70°C - Sec 10/45°C)	kW	108	144	180	215	287	359
Upper heat exchanger heating surface area	m <sup>2</sup>	3,00	4,00	5,00	6,00	8,00	10,00
Upper HEX output (Prim 80/70°C - Sec 10/45°C)	kW	108	144	180	215	287	359
DHW production 10/45°C	L/h	5293	7057	8821	10586	14114	17643

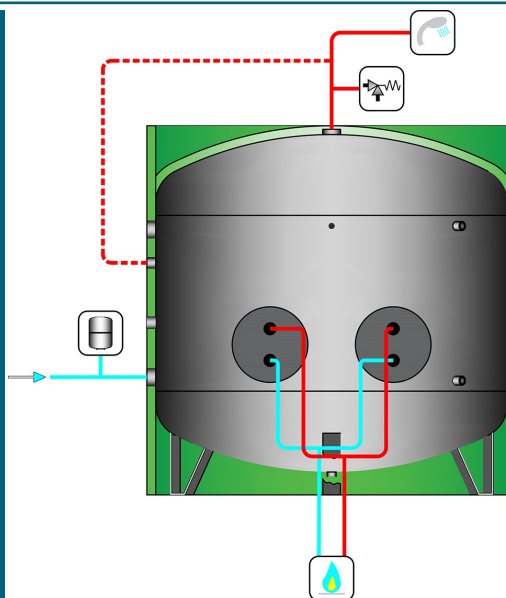
EMPTY WEIGHTS

Empty weight	kg	325	405	505	600	725	915
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Note: All the measurements of the connections are considered "from the ground". The thread are female GAS type, unless otherwise specified. The tanks higher than 2200mm are packaged horizontally.



INSTALLATION ASSUMPTIONS



The proposed diagrams are for illustration purposes only.

GENERAL CHARACTERISTICS - VERTICAL EXTRA-LOW VERSION

	Capacity - L	3000	4000	5000
<b>DIMENSIONS</b>				
Diameter without insulation	mm	1500	1700	2000
Diameter with insulation	mm	1600	1800	2100
Overall height	mm	2130	2190	2100
Overturning height with   without insulation	mm	2450   2158	2578   2229	2628   2160

CONNECTIONS

		3000	4000	5000
E	Cold water supply	mm   Ø	558   3"	670   3"
U	DHW return	mm   Ø	2130   3"	2100   3"
U2	DHW additional return	mm   Ø	1650   3"	1510   3"
RC	Recirculation	mm   Ø	1308   1"½	1320   1"½
R	Immersion electric heater	mm   Ø	938   2"	1070   2"
P1	Sensor	mm   Ø	728   ½"	850   ½"
P2	Sensor	mm   Ø	1138   ½"	1050   ½"
P3	Sensor	mm   Ø	1668   ½"	1530   ½"
T	Thermometer	mm   Ø	1668   ½"	1530   ½"
A1	Anode	mm   Ø	943   ½"	650   ½"
A2	Anode	mm   Ø	1668   ½"	1530   ½"
AS1	Spare	mm   Ø	538   1"¼	650   1"¼
AS2	Spare	mm   Ø	1337   1"¼	1450   1"¼
FL1	Lower heat exchanger manhole	mm   Ø	728   300×380	850   350×430
FL2	Upper heat exchanger manhole	mm   Ø	1138   300×380	850   350×430
S1	Lower heat exchanger return	mm   Ø	653   2"	751   2"
S2	Lower heat exchanger manhole	mm   Ø	803   2"	951   2"
S3	Upper heat exchanger return	mm   Ø	1063   2"	751   2"
S4	Upper heat exchanger supply	mm   Ø	1213   2"	951   2"
SC	Drain	mm   Ø	103   1"¼	105   1"¼

TUBE BUNDLE HEAT EXCHANGERS PERFORMANCES

<b>Lower heat exchanger heating surface area</b>	<b>m²</b>	<b>6,00</b>	<b>8,00</b>	<b>10,00</b>
Lower HEX output (Prim. 80/70°C - Sec. 10/45°C)	kW	215	287	359
<b>Upper heat exchanger heating surface area</b>	<b>m²</b>	<b>6,00</b>	<b>8,00</b>	<b>10,00</b>
Upper HEX output (Prim. 80/70°C - Sec. 10/45°C)	kW	215	287	359
DHW continuous flow 10/45°C	L/h	10586	14114	17643

EMPTY WEIGHTS

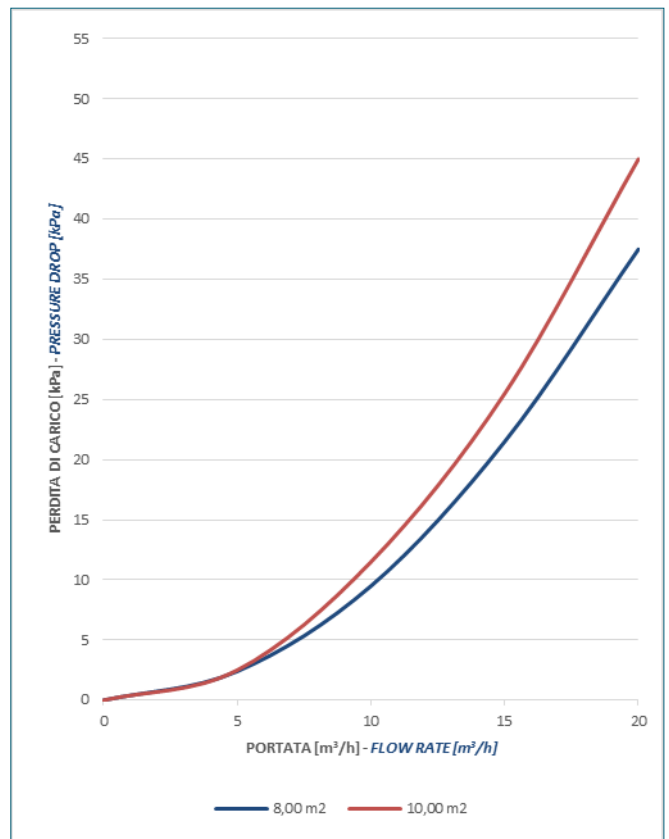
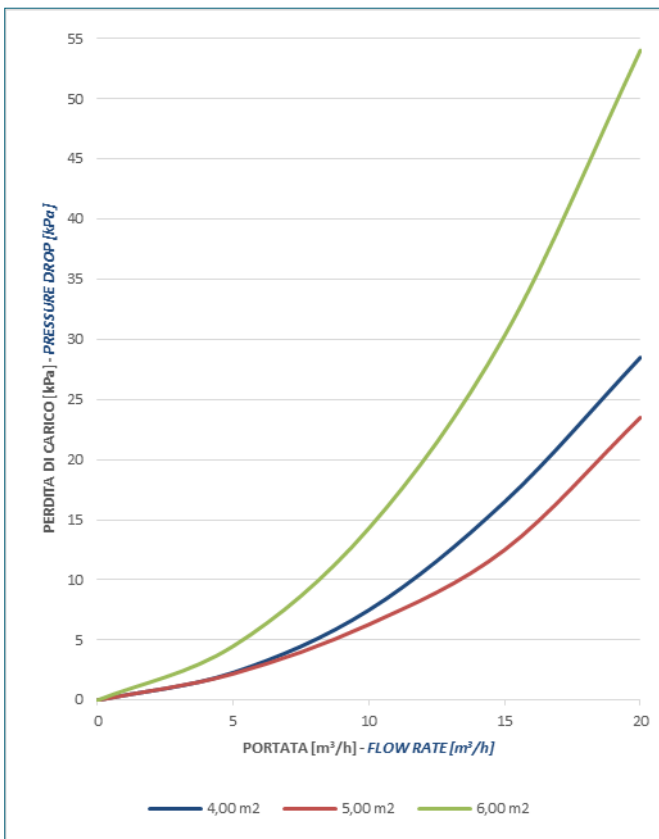
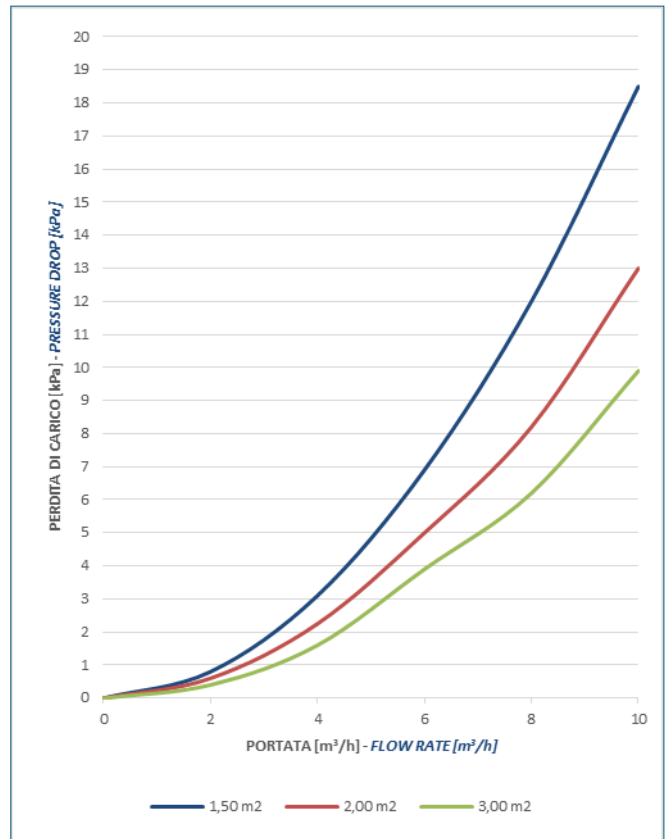
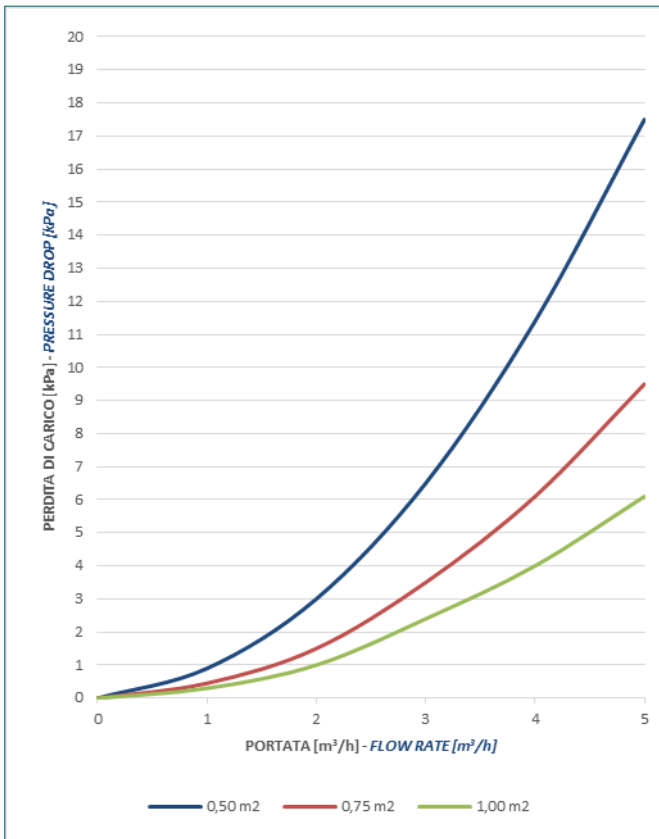
Empty weight	kg	600	770	905
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Note: All the measurements of the connections are considered "from the ground". The thread are female GAS type, unless otherwise specified. The tanks higher than 2200mm are packaged horizontally.



TUBE BUNDLE HEAT EXCHANGER PRESSURE DROP

BT2H-C - BT2-C



ENAMELLED STEEL DHW CALORIFIER EQUIPPED WITH TWO REMOVABLE TUBE BUNDLE HEAT EXCHANGERS

TUBE BUNDLE HEAT EXCHANGER OUTPUT

Primary (80-70)°C | Secondary (10-45)°C

Storage Volume	Heating surface area	Capacity	Primary flow	SECONDARY (DHW)		
				Continuous production	Production first 10'	Production first 60'
<i>L</i>	<i>m<sup>2</sup></i>	<i>kW</i>	<i>L/h</i>	<i>L/h</i>	<i>L</i>	<i>L</i>
1000	2,00	72	6175	3529	1588	4529
	2,00	72	6175			
1500	3,00	108	9263	5293	2382	6793
	3,00	108	9263			
2000	4,00	144	12350	7057	3176	9057
	4,00	144	12350			
2500	5,00	180	15438	8821	3970	11321
	5,00	180	15438			
3000	6,00	215	18525	10586	4764	13586
	6,00	215	18525			
4000	8,00	287	24700	14114	6352	18114
	8,00	287	24700			
5000	10,00	359	30870	17643	7940	22643
	10,00	359	30875			

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

Storage Volume	Heating surface area	Capacity	Primary flow	SECONDARY (DHW)		
				Continuous production	Production first 10'	Production first 60'
<i>L</i>	<i>m<sup>2</sup></i>	<i>kW</i>	<i>L/h</i>	<i>L/h</i>	<i>L</i>	<i>L</i>
1000	2,00	52	4500	2571	1429	3571
	2,00	52	4500			
1500	3,00	78	6750	3857	2143	5357
	3,00	78	6750			
2000	4,00	105	9000	5143	2857	7143
	4,00	105	9000			
2500	5,00	131	11250	6429	3571	8929
	5,00	131	11250			
3000	6,00	157	13500	7714	4286	10714
	6,00	157	13500			
4000	8,00	209	18000	10286	5714	14286
	8,00	209	18000			
5000	10,00	262	22500	12857	7143	17857
	10,00	262	22500			

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

Storage Volume	Heating surface area	Capacity	Primary flow	SECONDARY (DHW)		
				Continuous production	Production first 10'	Production first 60'
<i>L</i>	<i>m<sup>2</sup></i>	<i>kW</i>	<i>L/h</i>	<i>L/h</i>	<i>L</i>	<i>L</i>
1000	2,00	35	3025	1729	1288	2729
	2,00	35	3025			
1500	3,00	53	4538	2593	1932	4093
	3,00	53	4538			
2000	4,00	70	6050	3457	2576	5457
	4,00	70	6050			
2500	5,00	88	7563	4321	3220	6821
	5,00	88	7563			
3000	6,00	106	9075	5186	3864	8186
	6,00	106	9075			
4000	8,00	141	12100	6914	5152	10914
	8,00	141	12100			
5000	10,00	176	15125	8643	6440	13643
	10,00	176	15125			

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

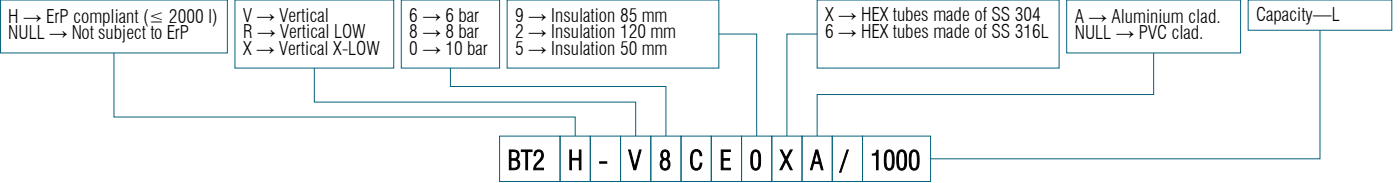
Storage Volume	Heating surface area	Capacity	Primary flow	SECONDARY (DHW)		
				Continuous production	Production first 10'	Production first 60'
<i>L</i>	<i>m<sup>2</sup></i>	<i>kW</i>	<i>L/h</i>	<i>L/h</i>	<i>L</i>	<i>L</i>
1000	2,00	21	1800	1029	1171	2029
	2,00	21	1800			
1500	3,00	31	2700	1543	1757	3043
	3,00	31	2700			
2000	4,00	42	3600	2057	2343	4057
	4,00	42	3600			
2500	5,00	52	4500	2571	2929	5071
	5,00	52	4500			
3000	6,00	63	5400	3086	3514	6086
	6,00	63	5400			
4000	8,00	84	7200	4114	4686	8114
	8,00	84	7200			
5000	10,00	105	9000	5143	5857	10143
	10,00	105	9000			

BT2H-C - BT2-C



# ENAMELLED STEEL DHW CALORIFIER EQUIPPED WITH TWO REMOVABLE TUBE BUNDLE HEAT EXCHANGERS

## HOW TO ORDER



## ACCESSORIES & SPARE PARTS

### ITEM

### PART NO.

THERMOMETER Ø65 mm | L=150 mm | (0÷120)°C *TERMOMETRO-D65\_L*

THERMOMETER Ø100 mm | L=150 mm | (0÷120)°C *TERMOMETRO-D100*

SENSOR SOCKET Ø½" | L=150 mm | Ø<sub>int</sub> 10 mm *POZZETTO\_L*

THERMOSTAT Ø½" (0÷90)°C *TERMOSTATO*

ELECTRONIC ANODE KIT 1000 L *ANODE012X430\_P*

ELECTRONIC ANODE KIT 1500÷5000 L *ANODE012X430X2\_P*



THERMOMETER



SENSOR SOCKET



THERMOSTAT



ELECTRONIC 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

Capacity	Capacity/L matching	Length	Volt	Plug type	2-THERMOSTAT Temperature regulation & overheating protection
Watt	L	mm	mm	mm	PART NO.
2000	1000÷5000	310	220/1	SHUKO	<i>RES020-L310-6-M-BT</i>
3000	1000÷5000	350	240/1		<i>RES030-L350-6-M-BT</i>
5000	1000÷5000	375	400/3	Not supplied	<i>RES050-L375-6-T-BT</i>
6000	1000÷5000	435			<i>RES060-L435-6-T-BT</i>
9000	1000÷5000	610			<i>RES090-L610-6-T-BT</i>
10000	1000÷5000	670			<i>RES100-L670-6-T-BT</i>
12000	1000÷5000	730			<i>RES120-L727-6-T-BT</i>
15000	1500÷5000	870			<i>RES150-L870-6-T-BT</i>



1-PHASE



3-PHASE

## PRIMARY CHESTS AND SEALING GASKETS

Diameter Internal×External	Capacity	Primary chest made of galvanized steel	EPDM gasket without cross bar	EPDM gasket with cross bar
mm	L	Part. No.	Part. No.	Part. No.
300×380	1000÷3000	<i>TESTA380X300X5-Z</i>	<i>GUGOMEPDM380X300ST</i>	<i>GUGOMEPDM380X300CT</i>
350×430	4000-5000	<i>TESTA430X350X5-Z</i>	<i>GUGOMEPDM430X350ST</i>	<i>GUGOMEPDM430X350CT</i>

## TUBE BUNDLE HEAT EXCHANGERS

Heating surface area	Dimensions		Stainless Steel AISI 304 tubes & CERAMFLON enamelled steel plate	Stainless Steel AISI 316L tubes & CERAMFLON enamelled steel plate
	D	L	Part. No.	Part. No.
m <sup>2</sup>	mm	mm		
2,00	380	594	<i>SFX4020D380-S</i>	<i>SFX6020D380-S</i>
3,00	380	718	<i>SFX4030D380-S</i>	<i>SFX6030D380-S</i>
4,00	380	850	<i>SFX4040D380-S</i>	<i>SFX6040D380-S</i>
5,00	380	1050	<i>SFX4050D380-S</i>	<i>SFX6050D380-S</i>
6,00	380	1250	<i>SFX4060D380-S</i>	<i>SFX6060D380-S</i>
8,00	430	1250	<i>SFX4080D430-S</i>	<i>SFX6080D430-S</i>
10,00	430	1510	<i>SFX4100D430-S</i>	<i>SFX6100D430-S</i>



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**PROTECTIVE TREATMENTS FOR CARBON STEEL TANKS**

**CERAMFLON enamelling**

The "CERAMFLON" anti-corrosion treatment is an innovative system for the protection of the metallic walls which has been introduced by the recent developments in the studies on resins, guaranteeing hygiene and many other qualities:

- it is inert and insensitive corrosion thanks to its considerable resistance to ageing;
- it is water-repellent and impermeable to steam and moisture;
- it has a practically zero absorption of humidity and the stability is maintained both at high and low temperatures, so they can withstand even very high thermal excursions;
- it has a high impact resistance and a very low friction coefficient, which avoids large and hazardous adherence phenomena which, in the majority of cases, can be attributed to limescale;
- it has a low dielectric constant which is maintained at variations in operating temperatures.

The application of the resins using triboelectric guns, carried out after careful cleaning of the support, is consolidated on the product after baking in an oven at 200°C.

**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.



## INSULATION

Insulating material	Removable	Thickness	Density	Thermal conductivity coefficient at 45°C	Operating temperature	Fire reaction class Euroclass EN13501-1
PLF Polyester fibre	✓	50 mm	20 kg/m <sup>3</sup>	$\lambda = 0,037 \text{ W/mK}$	Amb. / +99°C	B-s2, d0
PLFH High Density Polyester fibre	✓	120 mm	25 kg/m <sup>3</sup>	$\lambda = 0,034 \text{ W/mK}$	Amb. / +99°C	B-s2, d0
Hard Polyurethane	✓	85 mm	40 ÷ 42 kg/m <sup>3</sup>	$\lambda = 0,019 \text{ W/mK}$	Amb. / +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

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](http://www.pacetti.it)



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