

dal 1968



SCAMBIATORI - BOLLITORI - SERBATOI



# BTH-X - BT-X



STAINLESS STEEL DHW CALORIFIER EQUIPPED WITH ONE  
REMOVABLE TUBE BUNDLE HEAT EXCHANGER

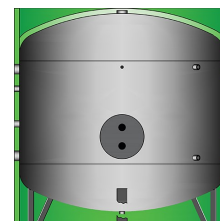
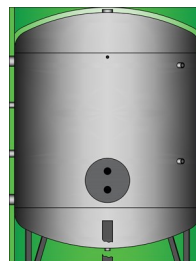
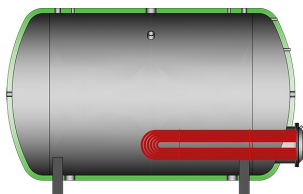
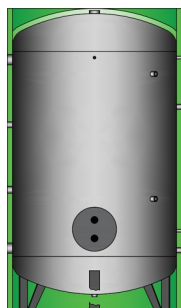
# STAINLESS STEEL DHW CALORIFIER EQUIPPED WITH ONE REMOVABLE TUBE BUNDLE HEAT EXCHANGER

Calorifiers made of Stainless Steel AISI 316L pickled and passivated with one removable tube bundle heat exchanger for production and storage of DHW. Designed for connection to a single primary energy source.

The calorifiers of the **BTH-X | BT-X** range stand out for the wide choice of capacities, from 200 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 tube bundle heat exchanger is made of Stainless Steel AISI 316L as standard.

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.

## CONSTRUCTION



**BTH-X | BT-X**

**BTH-OX | BT-OX**

**BTH-RX | BT-RX**

**BT-XX**

TANK MATERIAL	Stainless steel AISI 316L	Stainless steel AISI 316L	Stainless steel AISI 316L	Stainless steel AISI 316L
INTERNAL SURFACE TREATMENT	Pickling and passivation	Pickling and passivation	Pickling and passivation	Pickling and passivation
EXTERNAL SURFACE TREATMENT	Pickling and passivation	Pickling and passivation	Pickling and passivation	Pickling and passivation
CAPACITY	200 ÷ 5000 l	200 ÷ 5000 l	1500 ÷ 5000 l	3000 ÷ 5000 l
VERSION	Vertical	Horizontal	Vertical-LOW	Vertical EXTRA-LOW
CONNECTIONS	Threaded	Threaded	Threaded	Threaded
PRIMARY CHEST MATERIAL	Stainless steel AISI 316L	Stainless steel AISI 316L	Stainless steel AISI 316L	Stainless steel AISI 316L
TUBE BUNDLE HEAT EXCHANGER MATERIAL	Stainless steel AISI 316L	Stainless steel AISI 316L	Stainless steel AISI 316L	Stainless steel AISI 316L
INSULATION   200 ÷ 500 L	<b>Hard Polyurethane</b> 80 mm injected	<b>Hard Polyurethane</b> 50 mm injected	—	—
INSULATION   800 ÷ 2000 L	<b>PLFH</b> 100 mm High density eco-friendly polyester fiber	<b>PLFH</b> 100 mm High density eco-friendly polyester fiber	<b>PLFH</b> 100 mm High density eco-friendly polyester fiber	—
INSULATION   2500 ÷ 5000 L	<b>PLF</b> 50 mm Eco-friendly polyester fiber	<b>PLF</b> 50 mm Eco-friendly polyester fiber	<b>PLF</b> 50 mm Eco-friendly polyester fiber	<b>PLF</b> 50 mm Eco-friendly polyester fiber
CLADDING	<ul style="list-style-type: none"> <li>Yellow PVC RAL1023</li> <li>Aluminium</li> </ul>	<ul style="list-style-type: none"> <li>Yellow PVC RAL1023</li> <li>Aluminium</li> </ul>	<ul style="list-style-type: none"> <li>Yellow PVC RAL1023</li> <li>Aluminium</li> </ul>	<ul style="list-style-type: none"> <li>Yellow PVC RAL1023</li> <li>Aluminium</li> </ul>
ANODE TYPE	Electronic (optional)	Electronic (optional)	Electronic (optional)	Electronic (optional)
ACCESSORIES (factory fitted)	Thermometer	Thermometer	Thermometer	Thermometer

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

		Capacity		200	300	500	800	1000	1500	2000
<b>BTH-X</b>	Energy efficiency class			<b>B</b>	<b>B</b>	<b>B</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
	Standing loss	S	W	56	66	83	111	118	168	186
	Storage volume	V	L	194	296	506	797	921	1509	1972
<b>BTH-OX</b>	Energy efficiency class			<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
	Standing loss	S	W	67	80	103	133	143	168	186
	Storage volume	V	L	193	295	487	792	915	1509	1972
<b>BTH-RX</b>	Energy efficiency class							<b>C</b>		<b>C</b>
	Standing loss	S	W					166		185
	Storage volume	V	L					1520		1961

## STANDARD WORKING CONDITIONS

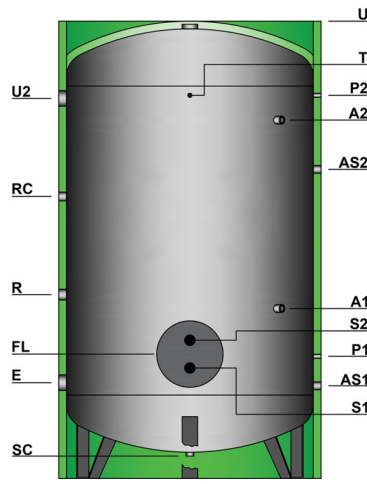
		Capacity - L										
		200	300	500	800	1000	1500	2000	2500	3000	4000	5000
Tank working pressure	bar	ATM ÷ 10	ATM ÷ 10	ATM ÷ 10	ATM ÷ 8	ATM ÷ 8	ATM ÷ 8	ATM ÷ 8	ATM ÷ 8	ATM ÷ 6	ATM ÷ 6	ATM ÷ 6
Heat exchanger working pressure	bar	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12
Tank working temperature	°C	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99
Heat exchanger working temperature	°C	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99

## REGULATORY COMPLIANCE

ErP - Reg. 812/2013 & 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



**GENERAL CHARACTERISTICS - VERTICAL STANDARD VERSION**

		Capacity - L	200	300	500	800	1000	1500
<b>DIMENSIONS</b>								
Diameter without insulation	mm		450	550	650	800	800	1000
Diameter with insulation	mm		610	710	810	1000	1000	1200
Overall height	mm		1513	1554	1844	1950	2200	2245
Overturning height with   without insulation	mm		1613   —	1709   —	2014   —	2080   1918	2316   2166	2415   2240
<b>CONNECTIONS</b>								
E Cold water supply	mm   Ø		353   1 1/2"	369   1 1/2"	384   1 1/2"	420   2"	420   2"	480   2 1/2"
U DHW return	mm   Ø		1513   1 1/2"	1554   1 1/2"	1844   1 1/2"	1950   2"	2200   2"	2245   2 1/2"
U2 DHW additional return	mm   Ø		—	—	—	—	—	—
RC Recirculation	mm   Ø		1003   1 1/2"	1019   1 1/2"	1259   1 1/2"	1370   1 1/2"	1405   1 1/2"	1395   1 1/2"
R Immersion electric heater	mm   Ø		773   2"	789   2"	804   2"	1010   2"	1010   2"	950   2"
P1 Sensor	mm   Ø		473   1/2"	489   1/2"	504   1/2"	610   1/2"	608   1/2"	650   1/2"
P2 Sensor	mm   Ø		1253   1/2"	1269   1/2"	1534   1/2"	1550   1/2"	1698   1/2"	1680   1/2"
T Thermometer	mm   Ø		1253   1/2"	1269   1/2"	1534   1/2"	1550   1/2"	1800   1/2"	1840   1/2"
A1 Anode	mm   Ø		853   1/2"	869   1/2"	884   1/2"	920   1/2"	608   1/2"	860   1/2"
A2 Anode	mm   Ø		—	—	—	—	—	1680   1/2"
AS1 Spare	mm   Ø		353   1 1/4"	369   1 1/4"	384   1 1/4"	420   1 1/4"	418   1 1/4"	450   1 1/4"
AS2 Spare	mm   Ø		1153   1 1/4"	1169   1 1/4"	1184   1 1/4"	1220   1 1/4"	1818   1 1/4"	1850   1 1/4"
FL Heat exchanger manhole	mm   Ø		473   220x300	489   220x300	504   220x300	610   300x380	610   300x380	650   300x380
S1 Heat exchanger return	mm   Ø		413   1"	429   1"	444   1"	535   2"	535   2"	575   2"
S2 Heat exchanger supply	mm   Ø		533   1"	549   1"	564   1"	685   2"	685   2"	725   2"
SC Drain	mm   Ø		118   1 1/4"	109   1 1/4"	99   1 1/4"	95   1 1/4"	95   1 1/4"	130   1 1/4"

**TUBE BUNDLE HEAT EXCHANGERS PERFORMANCES**

	m²	0,50	0,75	1,00	1,50	2,00	3,00
Heat exchanger heating surface area							
HEX output (Prim. 80/70°C - Sec. 10/45°C)	kW	18	27	36	54	72	108
DHW continuous flow 10/45°C	L/h	441	662	882	1323	1764	2646

**EMPTY WEIGHTS**

Empty weight	kg	70	75	105	155	170	240
--------------	----	----	----	-----	-----	-----	-----

**GENERAL CHARACTERISTICS - VERTICAL HORIZONTAL VERSION**

		Capacity	2000	2500	3000	4000	5000
<b>DIMENSIONS</b>							
Diameter without insulation	mm		1200	1200	1250	1400	1600
Diameter with insulation	mm		1400	1300	1350	1500	1700
Overall height	mm		2184	2590	2790	2869	2960
Overturning height with   without insulation	mm		2418   2197	2773   2600	2976   2800	3088   2883	3232   2982

**CONNECTIONS**

E Cold water supply	mm   Ø		504   2 1/2"	530   3"	525   3"	559   3"	620   3"
U DHW return	mm   Ø		2184   2 1/2"	2590   3"	2790   3"	2869   3"	2960   3"
U2 DHW additional return	mm   Ø		—	—	—	2399   3"	2460   3"
RC Recirculation	mm   Ø		1319   1 1/2"	1645   1 1/2"	1730   1 1/2"	1764   1 1/2"	1825   1 1/2"
R Immersion electric heater	mm   Ø		899   2"	1100   2"	1095   2"	1129   2"	1190   2"
P1 Sensor	mm   Ø		649   1/2"	700   1/2"	695   1/2"	729   1/2"	790   1/2"
P2 Sensor	mm   Ø		1714   1/2"	2190   1/2"	2385   1/2"	2419   1/2"	2480   1/2"
T Thermometer	mm   Ø		1714   1/2"	2190   1/2"	2385   1/2"	2419   1/2"	2480   1/2"
A1 Anode	mm   Ø		834   1/2"	1010   1/2"	1005   1/2"	1039   1/2"	1100   1/2"
A2 Anode	mm   Ø		1554   1/2"	2030   1/2"	2225   1/2"	2259   1/2"	2320   1/2"
AS1 Spare	mm   Ø		484   1 1/4"	510   1 1/4"	505   1 1/4"	539   1 1/4"	600   1 1/4"
AS2 Spare	mm   Ø		1284   1 1/4"	1910   1 1/4"	1905   1 1/4"	1939   1 1/4"	2000   1 1/4"
FL Heat exchanger manhole	mm   Ø		649   300x380	700   300x380	695   300x380	729   350x430	790   350x430
S1 Heat exchanger return	mm   Ø		574   2"	625   2"	620   2"	629   2"	690   2"
S2 Heat exchanger supply	mm   Ø		724   2"	775   2"	770   2"	829   2"	890   2"
SC Drain	mm   Ø		109   1 1/4"	135   1 1/4"	125   1 1/4"	114   1 1/4"	145   1 1/4"

**TUBE BUNDLE HEAT EXCHANGERS PERFORMANCES**

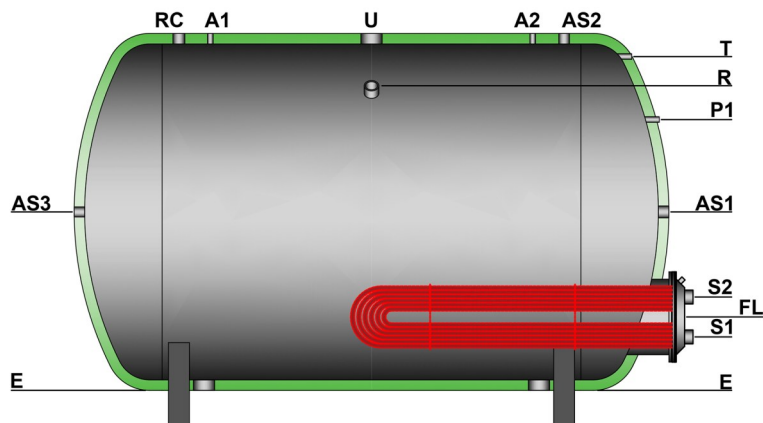
	m²	4,00	5,00	6,00	8,00	10,00
Heat exchanger heating surface area						
HEX output (Prim. 80/70°C - Sec. 10/45°C)	kW	144	180	215	287	359
DHW continuous flow 10/45°C	L/h	3529	4411	5293	7057	8821

**EMPTY WEIGHTS**

Empty weight	kg	295	365	405	580	640
--------------	----	-----	-----	-----	-----	-----

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.





**GENERAL CHARACTERISTICS - HORIZONTAL VERSION**

	Capacity - L	200	300	500	800	1000	1500
<b>DIMENSIONS</b>							
Diameter without insulation	mm	450	550	650	800	800	1000
Diameter with insulation	mm	550	650	750	1000	1000	1200
Overall height	mm	656	755	855	1091	1091	1300
Overall length	mm	1469	1519	1819	2049	2299	2300
<b>CONNECTIONS</b>							
E Cold water supply	mm   Ø	106   1 1/2"	105   1 1/2"	105   1 1/2"	121   2"	121   2"	150   2 1/2"
U DHW return	mm   Ø	656   1 1/2"	755   1 1/2"	855   1 1/2"	1091   2"	1091   2"	1300   2 1/2"
RC Recirculation	mm   Ø	656   1 1/2"	755   1 1/2"	855   1 1/2"	1091   1 1/2"	1091   1 1/4"	1300   1 1/2"
R Immersion electric heater	mm   Ø	575   2"	660   2"	745   2"	945   2"	945   2"	1123   2"
P1 Sensor	mm   Ø	486   1/2"	548   1/2"	609   1/2"	831   1/2"	831   1/2"	925   1/2"
T Thermometer	mm   Ø	576   1/2"	655   1/2"	727   1/2"	931   1/2"	931   1/2"	1075   1/2"
A1 Anode	mm   Ø	656   1/2"	755   1/2"	855   1/2"	1091   1/2"	1091   1/2"	1300   1/2"
A2 Anode	mm   Ø	—	—	—	—	—	1300   1/2"
AS1 Spare	mm   Ø	—	—	—	591   1 1/2"	591   1 1/2"	700   1 1/2"
AS2 Spare	mm   Ø	656   1 1/4"	755   1 1/4"	855   1 1/4"	1091   1 1/4"	1091   1 1/4"	1300   1 1/4"
AS3 Spare	mm   Ø	381   1/2"	430   1/2"	480   1/2"	591   1/2"	591   1/2"	700   1/2"
FL Heat exchanger manhole	mm   Ø	296   220x300	300   220x300	280   220x300	351   300x380	351   300x380	425   300x380
S1 Heat exchanger return	mm   Ø	236   1"	242   1"	221   1"	276   2"	276   2"	350   2"
S2 Heat exchanger supply	mm   Ø	356   1"	359   1"	338   1"	426   2"	426   2"	500   2"

**TUBE BUNDLE HEAT EXCHANGERS PERFORMANCES**

Heat exchanger heating surface area	m <sup>2</sup>	0,50	0,75	1,00	1,50	2,00	3,00
HEX output (Prim. 80/70°C - Sec. 10/45°C)	kW	18	27	36	54	72	108
DHW continuous flow 10/45°C	L/h	441	662	882	1323	1764	2646

**EMPTY WEIGHTS**

Empty weight	kg	70	75	105	155	170	240
--------------	----	----	----	-----	-----	-----	-----

	Capacity - L	2000	2500	3000	4000	5000
--	--------------	------	------	------	------	------

**DIMENSIONS**

Diameter without insulation	mm	1200	1200	1250	1400	1600
Diameter with insulation	mm	1400	1300	1350	1500	1700
Overall height	mm	1488	1493	1540	1680	1872
Overall length	mm	2170	2590	2804	2907	2947

**CONNECTIONS**

E Cold water supply	mm   Ø	188   2 1/2"	193   3"	190   3"	180   3"	172   3"
U DHW return	mm   Ø	1488   2 1/2"	1493   3"	1540   3"	1680   3"	1872   3"
RC Recirculation	mm   Ø	1488   1 1/2"	1493   1 1/2"	1540   1 1/2"	1680   1 1/2"	1872   3"
R Immersion electric heater	mm   Ø	1326   2"	1303   2"	1342   2"	1459   2"	1619   2"
P1 Sensor	mm   Ø	1185   1/2"	1243   1/2"	1190   1/2"	1279   1/2"	1462   1/2"
T Thermometer	mm   Ø	1285   1/2"	1343   1/2"	1390   1/2"	1569   1/2"	1762   1/2"
A1 Anode	mm   Ø	1488   1/2"	1493   1/2"	1540   1/2"	1680   1/2"	1872   1/2"
A2 Anode	mm   Ø	1488   1/2"	1493   1/2"	1540   1/2"	1680   1/2"	1872   1/2"
AS1 Spare	mm   Ø	795   1 1/2"	843   1 1/2"	865   1 1/2"	929   1 1/2"	1022   1 1/2"
AS2 Spare	mm   Ø	1488   1 1/4"	1493   1 1/4"	1540   1 1/4"	1680   1 1/4"	1872   1 1/4"
AS3 Spare	mm   Ø	795   1/2"	843   1/2"	865   1/2"	929   1/2"	1022   1/2"
FL Heat exchanger manhole	mm   Ø	445   300x380	493   300x380	491   300x380	529   350x430	522   350x430
S1 Heat exchanger return	mm   Ø	363   2"	418   2"	416   2"	429   2"	422   2"
S2 Heat exchanger supply	mm   Ø	513   2"	568   2"	566   2"	629   2"	622   2"

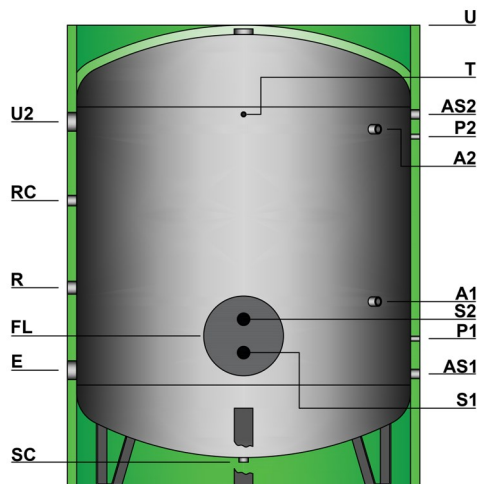
**TUBE BUNDLE HEAT EXCHANGERS PERFORMANCES**

Heat exchanger heating surface area	m <sup>2</sup>	4,00	5,00	6,00	8,00	10,00
HEX output (Prim. 80/70°C - Sec. 10/45°C)	kW	144	180	215	287	359
DHW continuous flow 10/45°C	L/h	3529	4411	5293	7057	8821

**EMPTY WEIGHTS**

Empty weight	kg	295	385	405	580	640
--------------	----	-----	-----	-----	-----	-----

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.



**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	1300	1450	1500	1500	1700	1900
Overall height	mm	2015	2039	2119	2369	2460	2483
Overturning height with   without insulation	mm	2237   2019	2310   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	2015   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	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"	864   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
FL Heat exchanger manhole	mm   Ø	655   300×380	674   300×380	729   300×380	729   300×380	790   350×430	792   350×430
S1 Heat exchanger return	mm   Ø	580   2"	599   2"	654   2"	654   2"	691   2"	693   2"
S2 Heat exchanger supply	mm   Ø	730   2"	749   2"	804   2"	804   2"	891   2"	893   2"
SC Drain	mm   Ø	123   1"¼	106   1"¼	114   1"¼	114   1"¼	145   1"¼	126   1"¼

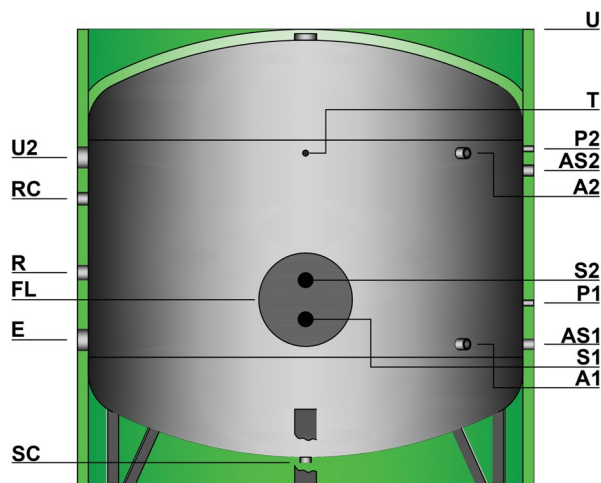
**TUBE BUNDLE HEAT EXCHANGERS PERFORMANCES**

Heat exchanger heating surface area	m²	3,00	4,00	5,00	6,00	8,00	10,00
HEX output (Prim. 80/70°C - Sec. 10/45°C)	kW	108	144	180	215	287	359
DHW continuous flow 10/45°C	L/h	2646	3529	4411	5293	7057	8821

**EMPTY WEIGHTS**

Empty weight	kg	260	335	440	480	585	750
--------------	----	-----	-----	-----	-----	-----	-----

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.



**GENERAL CHARACTERISTICS - VERTICAL EXTRA-LOW VERSION**

	Capacity	3000	4000	5000
--	----------	------	------	------

**DIMENSIONS**

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	2452   2161	2579   2230	2628   2160

**CONNECTIONS**

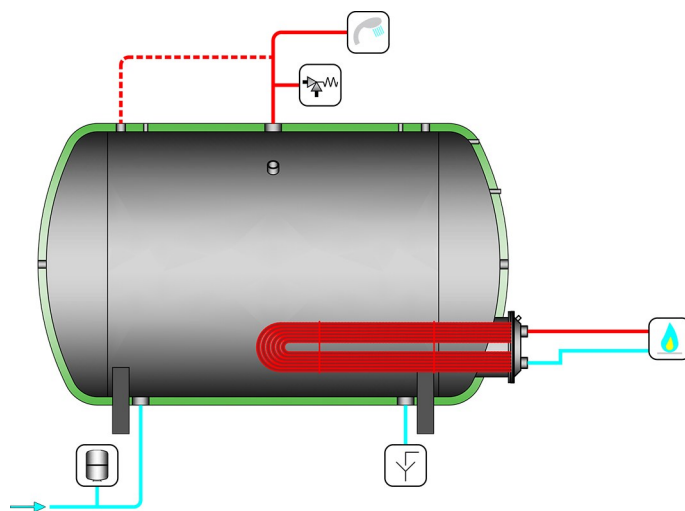
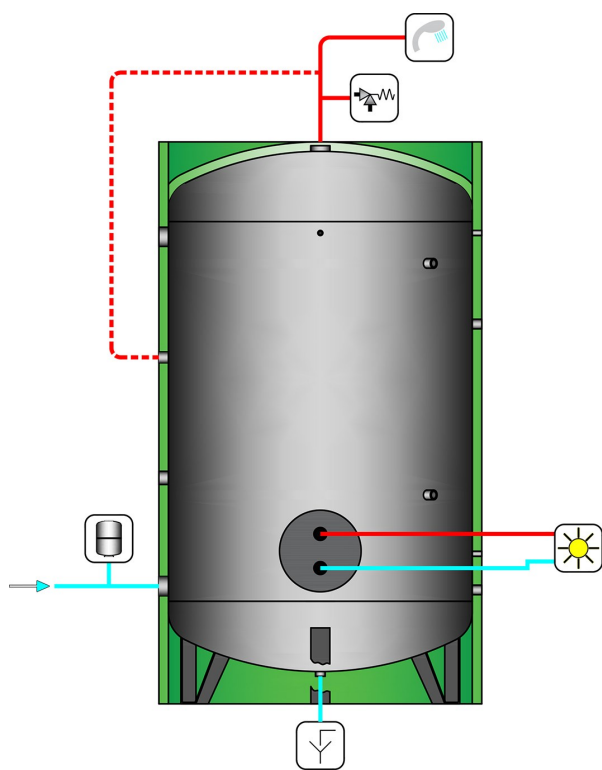
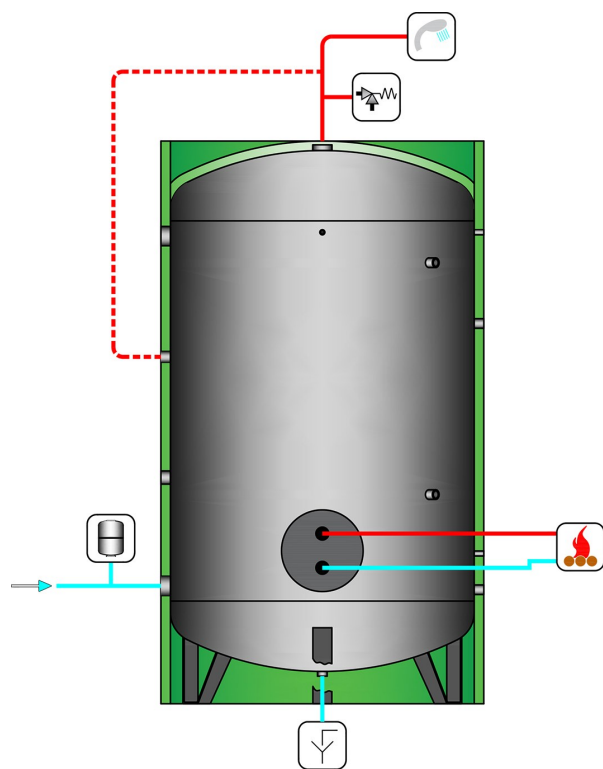
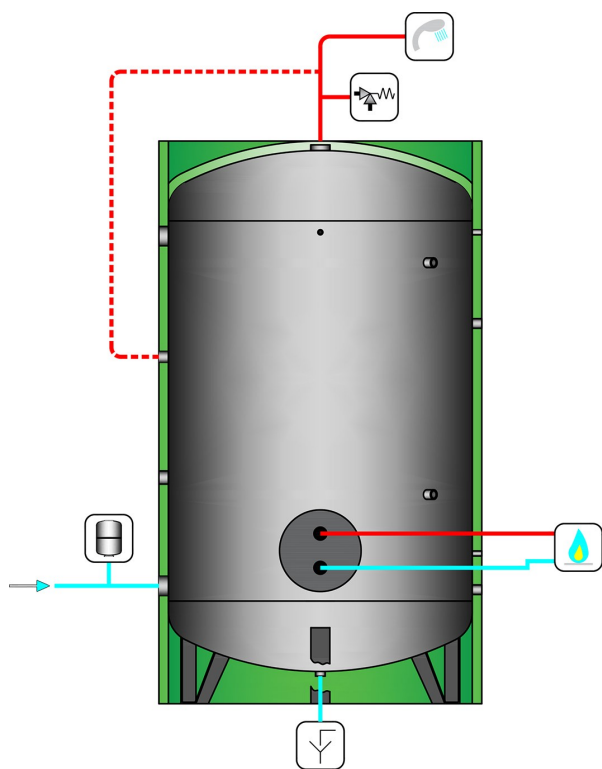
E Cold water supply	mm   Ø	560   3"	590   3"	670   3"
U DHW return	mm   Ø	2130   3"	2190   3"	2100   3"
U2 DHW additional return	mm   Ø	1650   3"	1680   3"	1510   3"
RC Recirculation	mm   Ø	1340   1"½	1370   1"½	1320   1"½
R Immersion electric heater	mm   Ø	1030   2"	1060   2"	980   2"
P1 Sensor	mm   Ø	730   ½"	760   ½"	840   ½"
P2 Sensor	mm   Ø	1670   ½"	1700   ½"	1530   ½"
T Thermometer	mm   Ø	1670   ½"	1700   ½"	1530   ½"
A1 Anode	mm   Ø	540   ½"	570   ½"	650   ½"
A2 Anode	mm   Ø	1590   ½"	1620   ½"	1530   ½"
AS1 Spare	mm   Ø	540   1"¼	570   1"¼	650   1"¼
AS2 Spare	mm   Ø	1340   1"¼	1370   1"¼	1450   1"¼
FL Heat exchanger manhole	mm   Ø	730   350×430	760   350×430	840   350×430
S1 Heat exchanger return	mm   Ø	655   2"	661   2"	741   2"
S2 Heat exchanger supply	mm   Ø	805   2"	861   2"	941   2"
SC Drain	mm   Ø	105   1"¼	105   1"¼	105   1"¼

**TUBE BUNDLE HEAT EXCHANGERS PERFORMANCES**

Heat exchanger heating surface area	m <sup>2</sup>	6,00	8,00	10,00
HEX output (Prim. 80/70°C - Sec. 10/45°C)	kW	215	287	359
DHW continuous flow 10/45°C	L/h	5293	7057	8821

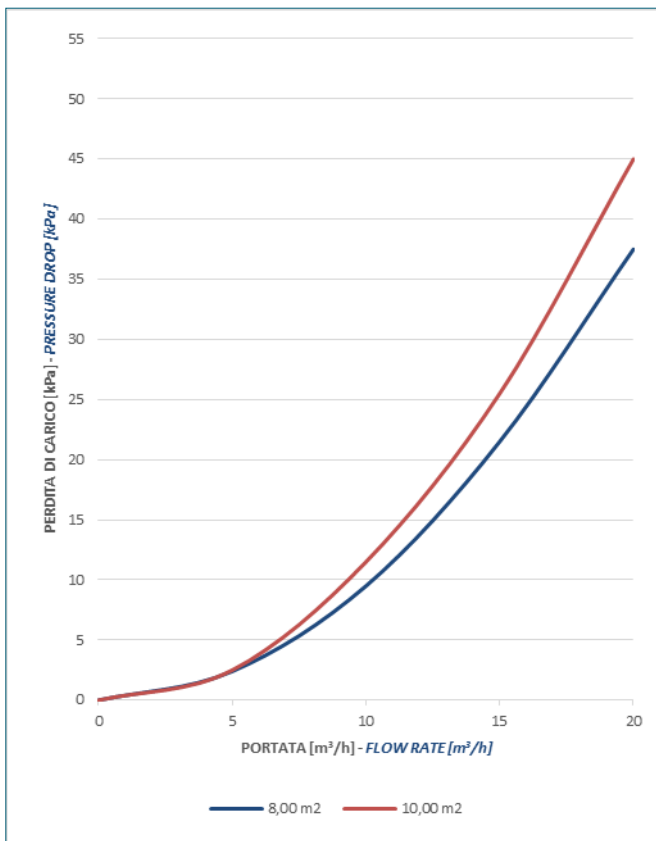
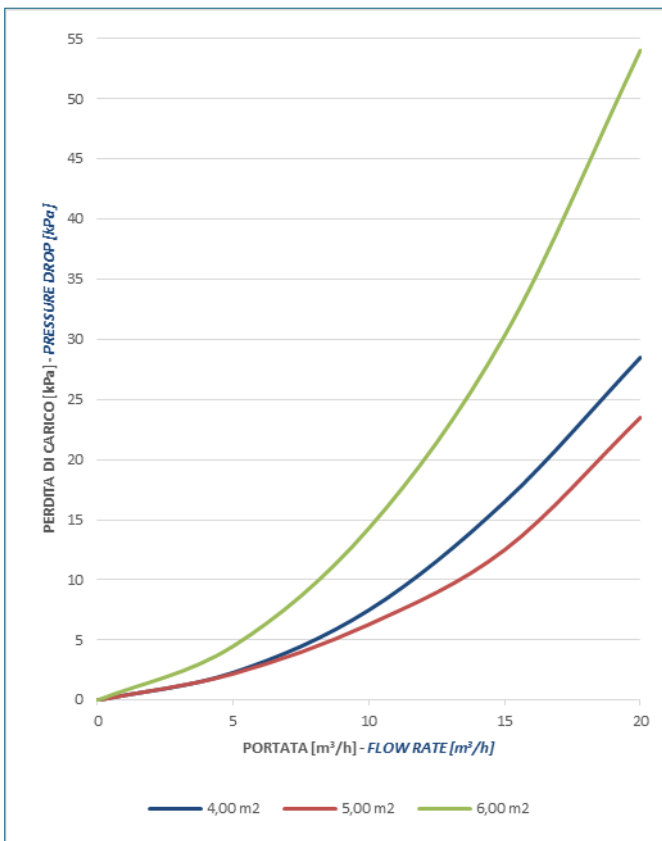
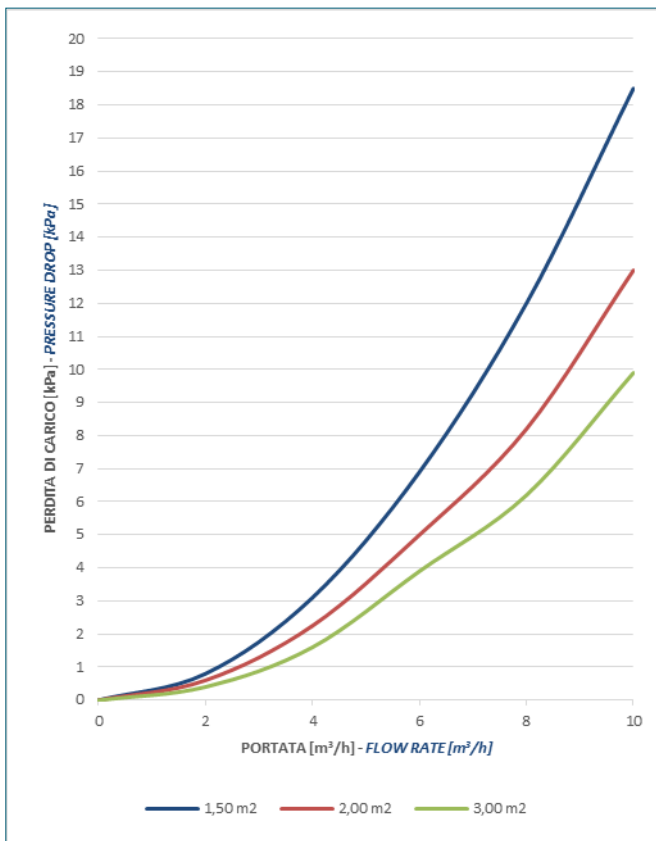
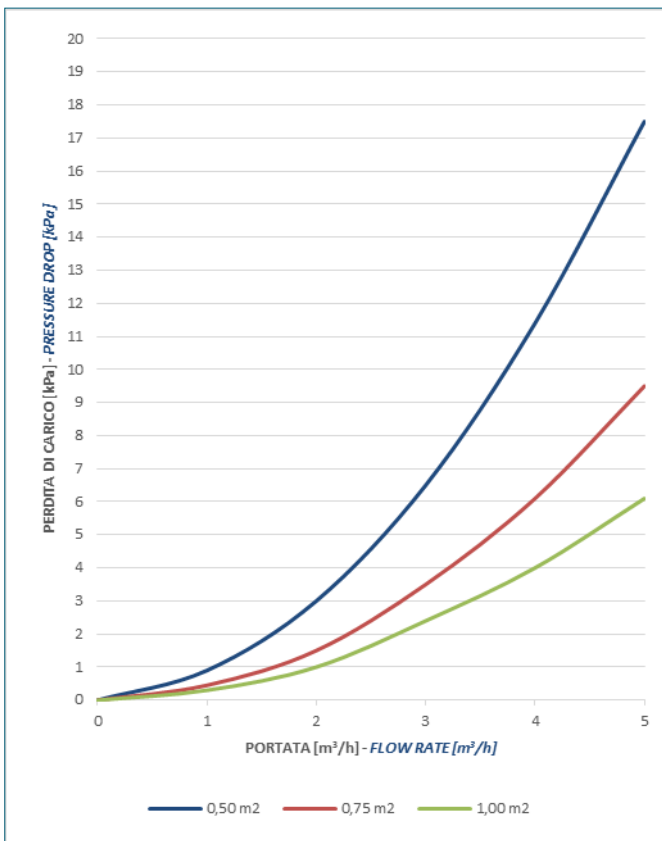
**EMPTY WEIGHTS**

Emty weight	kg	480	630	740
-------------	----	-----	-----	-----



HEAT EXCHANGER PRESSURE DROP

BTH-X - BT-X



STAINLESS STEEL DHW CALORIFIER EQUIPPED WITH ONE REMOVABLE TUBE BUNDLE HEAT EXCHANGER

TUBE BUNDLE HEAT EXCHANGER OUTPUT

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

Storage Volume	Heating surface area	Max. output	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>
200	0,50	18	1544	441	274	641
300	0,75	27	2316	662	410	962
500	1,00	36	3088	882	647	1382
800	1,50	54	4631	1323	1021	2123
1000	2,00	72	6175	1764	1294	2764
1500	3,00	108	9263	2646	1941	4146
2000	4,00	144	12350	3529	2588	5529
2500	5,00	180	15438	4411	3235	6911
3000	6,00	215	18525	5293	3882	8293
4000	8,00	287	24700	7057	5176	11057
5000	10,00	359	30875	8821	6470	13821

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

Storage Volume	Heating surface area	Max. output	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>
200	0,50	13	1125	321	254	521
300	0,75	20	1688	482	380	782
500	1,00	26	2250	643	607	1143
800	1,50	39	3375	964	961	1764
1000	2,00	52	4500	1286	1214	2286
1500	3,00	78	6750	1929	1821	3429
2000	4,00	105	9000	2571	2429	4571
2500	5,00	131	11250	3214	3036	5714
3000	6,00	157	13500	3857	3643	6857
4000	8,00	209	18000	5143	4857	9143
5000	10,00	262	22500	6429	6071	11429

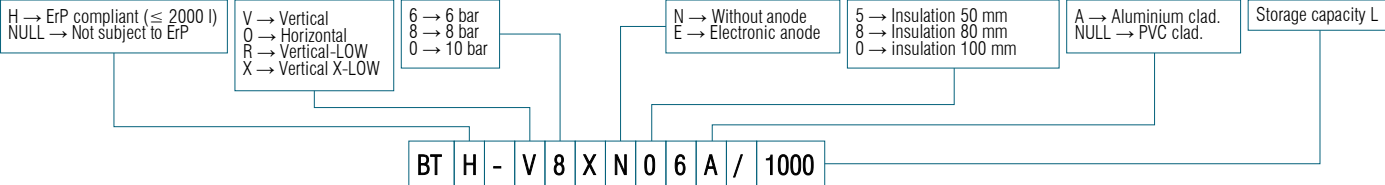
Primary (60-50)°C | Secondary (10-45)°C

Storage Volume	Heating surface area	Max. output	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>
200	0,50	9	756	216	236	416
300	0,75	13	1134	324	354	624
500	1,00	18	1513	432	572	932
800	1,50	26	2269	648	908	1448
1000	2,00	35	3025	864	1144	1864
1500	3,00	53	4538	1296	1716	2796
2000	4,00	70	6050	1729	2288	3729
2500	5,00	88	7563	2161	2860	4661
3000	6,00	106	9075	2593	3432	5593
4000	8,00	141	12100	3457	4576	7457
5000	10,00	176	15125	4321	5720	9321

BTH-X - BT-X



HOW TO ORDER



ACCESSORIES & SPARE PARTS

ITEM

	PART NO.		
THERMOMETER Ø65 mm   L=150 mm   (0÷120)°C	TERMOMETRO-D65_L		
THERMOMETER Ø100mm   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		
TITANIUM ANODE for SS 316L tanks   200÷1000 L	ANODE_ARTHX1-150/400		
TITANIUM ANODE for SS 316L tanks   1500-5000 L	ANODE_ARTHX2-150/400		

PRIMARY CHEST AND SEALING GASKETS

Diameter Internal×External mm	Capacity L	Primary chest made of stainless steel	EPDM gasket without cross bar	EPDM gasket with cross bar
		Part no.	Part no.	Part no.
220×300	200 ÷ 500	TESTA300X220X5-X	GUGOMEPDM300X220ST	GUGOMEPDM300X220CT
300×380	800 ÷ 3000	TESTA380X300X5-X	GUGOMEPDM380X300ST	GUGOMEPDM380X300CT
350×430	4000-5000	TESTA430X350X5-X	GUGOMEPDM430X350ST	GUGOMEPDM430X350CT

TUBE BUNDLE HEAT EXCHANGERS

Heating surface area m <sup>2</sup>	Dimensions		Stainless Steel Tubes & plate Part no.
	D mm	L mm	
0,50	300	445	SFX6005D300-X
0,75	300	445	SFX6007D300-X
1,00	300	473	SFX6010D300-X
1,50	380	594	SFX6015D380-X
2,00	380	594	SFX6020D380-X
3,00	380	718	SFX6030D380-X
4,00	380	850	SFX6040D380-X
5,00	380	1050	SFX6050D380-X
6,00	380	1250	SFX6060D380-X
8,00	430	1250	SFX6080D430-X
10,00	430	1510	SFX6100D430-X



STAINLESS STEEL DHW CALORIFIER EQUIPPED WITH ONE REMOVABLE TUBE BUNDLE HEAT EXCHANGER

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

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



1-PHASE



3-PHASE

BTH-X - BT-X

**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
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	✓	100 mm	25 kg/m <sup>3</sup>	$\lambda = 0,034 \text{ W/mK}$	Amb. / +99°C	B-s2, d0
Hard Polyurethane	✗	80 mm	40÷42 kg/m <sup>3</sup>	$\lambda = 0,019 \text{ W/mK}$	-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](http://www.pacetti.it)



MADE IN ITALY

**PACETTI S.r.l.**

Via G. Marconi, 240/242

44122 - Ferrara - ITALY

Tel. +39 0532 774066

Fax +39 0532 773835

[info@pacetti.it](mailto:info@pacetti.it)