

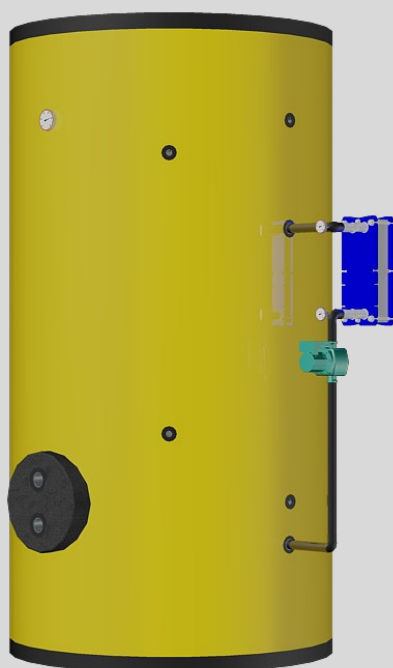
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SCAMBIATORI - BOLLITORI - SERBATOI



BTEHI



ENAMELLED STEEL DHW CALORIFIER
EQUIPPED WITH ONE SPIRAL FINNED COPPER COIL
AND EXTERNAL GASKETED PLATE HEAT EXCHANGER

This is an integrated system designed for the storage and rapid production of domestic hot water. It is designed to be highly adaptable to multi-energy systems that use two different heat sources.

The combination of a gasketed plate heat exchanger (PK 43), a stainless steel sanitary pump and a DHW storage tank (BTEH) enables any user demand to be met. Sizing the external plate heat exchanger correctly allows the storage tank volume to be reduced when high power is available, or conversely, allows a large supply of domestic hot water to be ensured under opposite conditions.

The high-performance spiral finned copper coil can be connected to an additional energy source, such as solar or biomass, to maximise the system's potential by concentrating all energy on the entire volume of available water.

The electronic anode supplied as standard guarantees permanent cathodic protection.

This makes it the ideal solution for applications with high peak demand, such as sports centres, hotels, restaurants and residential buildings, where the recovery time of the storage tank is essential to guarantee high instantaneous hot water production.

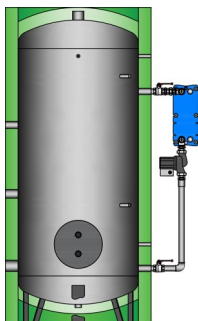
The many advantages of adopting this type of system include:

- Reduced recovery time
- Reduced storage volume
- Ability to adapt to changing demands
- Ease of maintenance

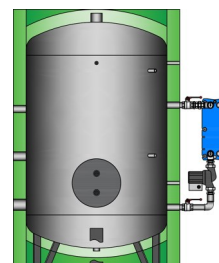
The external PHE set is supplied fully assembled to speed up installation on site. The galvanised pipework is fully insulated and includes two thermometers at the heat exchanger's inlet and outlet, which allow operating conditions to be monitored instantly and heat exchange efficiency to be assessed. This prevents potential drops in performance by enabling any necessary plate cleaning to be scheduled. A thermostat is also installed on the storage tank to control the on/off operation of the connected generator.

For the technical and construction specifications of the components installed on the BTEHI, please refer to the DHW calorifier BTEH series and the PK 43 gasketed plate heat exchangers.

CONSTRUCTIONS



BTEHI



BTEHI-R

TANK MATERIAL	Carbon steel	Carbon steel
INTERNAL SURFACE TREATMENT	CERAMFLON enamel	CERAMFLON enamel
EXTERNAL SURFACE TREATMENT	Anti-rust primer	Anti-rust primer
CAPACITY	200 ÷ 2000 L	1500 - 2000 L
VERSION	Vertical	Vertical - LOW height
CONNECTIONS	Threaded	Threaded
EXTERNAL GASKETED PHE MODEL	PK 43	PK 43
GASKETED PHE PLATES MATERIAL	Stainless Steel AISI 316L	Stainless Steel AISI 316L
GASKETED PHE GASKETS MATERIAL	EPDM	EPDM
EXTERNAL PHE PIPEWORK MATERIAL	Galvanized Steel	Galvanized Steel
REMOVABLE SPIRAL FINNED COIL MATERIAL	COPPER	COPPER
INSULATION 200 ÷ 500 L	Injected Hard Polyurethane 80 mm	—
INSULATION 800 ÷ 2000 L	PLFH (HD Polyester fibre) 100 mm	PLFH (HD Polyester fibre) 100 mm
CLADDING	<ul style="list-style-type: none"> • PVC Yellow RAL1023 • Aluminium 	<ul style="list-style-type: none"> • PVC Yellow RAL1023 • Aluminium
ANODE (factory fitted)	ELECTRONIC	ELECTRONIC
DHW STORAGE TANK	THERMOMETER	THERMOMETER
ACCESSORIES (factory fitted)		
EXTERNAL PHE KIT	<ul style="list-style-type: none"> • 2x Thermometer (in/out) • Thermostat • Sanitary pump 	<ul style="list-style-type: none"> • 2x Thermometer (in/out) • Thermostat • Sanitary pump
ACCESSORIES (factory fitted)		

REGULATORY COMPLIANCE

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

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

D.M. 174/04 | Suitable for contact with water for human consumption

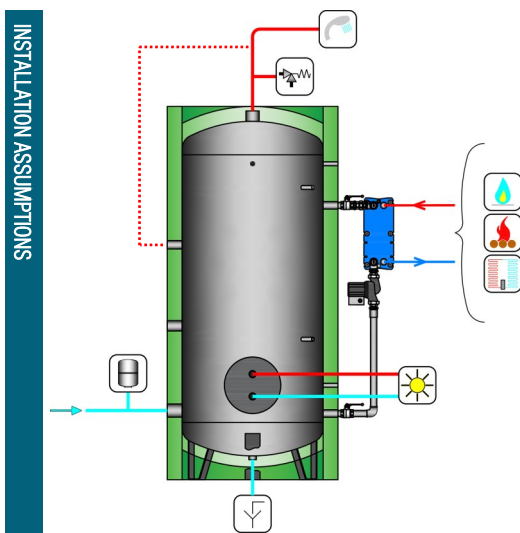
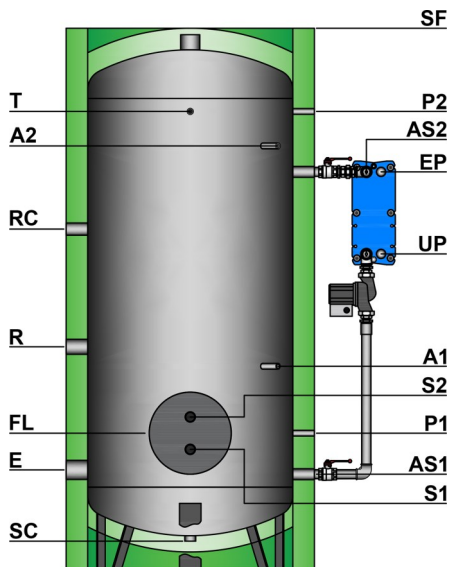
ENAMELLED STEEL DHW CALORIFIER WITH REMOVABLE SPIRAL FINNED COPPER COIL AND GASKETED PHE

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

		Capacity		200	300	500	800	1000	1500	2000
		Energy efficiency class		B	B	B	C	C	C	C
BTEHI	Standing loss	S	W	55	64	81	133	143	167	189
	Storage volume	V	L	193	294	503	793	917	1482	1987
		Energy efficiency class							C	C
BTEHI-R	Standing loss	S	W						166	185
	Storage volume	V	L						1520	1961

STANDARD WORKING CONDITIONS

		Capacity		200	300	500	800	1000	1500	2000
Tank and pipework working pressure		bar		ATM ÷ 8	ATM ÷ 8	ATM ÷ 8	ATM ÷ 8	ATM ÷ 8	ATM ÷ 6	ATM ÷ 6
Tank and pipework working temperature		°C		AMB ÷ 85	AMB ÷ 85	AMB ÷ 85	AMB ÷ 85	AMB ÷ 85	AMB ÷ 85	AMB ÷ 85
Primary side PHE working pressure		bar		ATM ÷ 21	ATM ÷ 21	ATM ÷ 21	ATM ÷ 21	ATM ÷ 21	ATM ÷ 21	ATM ÷ 21
Primary side PHE working temperature		°C		-10 ÷ 110	-10 ÷ 110	-10 ÷ 110	-10 ÷ 110	-10 ÷ 110	-10 ÷ 110	-10 ÷ 110
Copper removable heat exchanger working pressure		bar		ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12	ATM ÷ 12
Copper removable heat exchanger working temperature		°C		AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99	AMB ÷ 99



The proposed diagrams are for illustration purposes only.

GENERAL CHARACTERISTICS BTEHI

	Capacity	200	300	500	800	1000	1500	2000
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DIMENSIONS

Diameter without insulation	mm	450	550	650	800	800	950	1100
Diameter with insulation	mm	610	710	810	1000	1000	1150	1300
Overall height	mm	1513	1554	1844	1950	2200	2510	2535
Kit exchanger side space	mm	1010	11100	1210	1400	1400	1550	1700
Overturning height with without insulation	mm	1613 —	1709 —	2014 —	2080 1918	2316 2166	2654 2502	2712 2541

CONNECTIONS

E Cold water supply	mm Ø	353 1"½	369 1"½	384 1"½	420 2"	420 2"	465 2"½	485 2"½
U DHW return	mm Ø	1513 1"½	1554 1"½	1844 1"½	1950 2"	2200 2"	2510 2"½	2535 2"½
RC Recirculation	mm Ø	1003 1"½	1019 1"½	1259 1"½	1370 1"½	1405 1"½	1580 1"½	1600 1"½
R Immersion electric heater	mm Ø	773 2"	789 2"	804 2"	1010 2"	1010 2"	1035 2"	1055 2"
P1 Sensor	mm Ø	473 ½"	489 ½"	504 ½"	610 ½"	610 ½"	635 ½"	655 ½"
P2 Sensor	mm Ø	1253 ½"	1269 ½"	1534 ½"	1550 ½"	1700 ½"	2125 ½"	2095 ½"
T Thermometer	mm Ø	1253 ½"	1269 ½"	1534 ½"	1550 ½"	1800 ½"	2125 ½"	2095 ½"
A1 Anode	mm Ø	853 ½"	869 ½"	884 ½"	920 ½"	920 ½"	945 ½"	965 ½"
A2 Anode	mm Ø	—	—	—	—	—	1965 ½"	1935 ½"
AS1 Spare	mm Ø	353 1"¼	369 1"¼	384 1"¼	420 1"¼	420 1"¼	445 1"¼	465 1"¼
AS2 Spare	mm Ø	1153 1"¼	1169 1"¼	1184 1"¼	1220 1"¼	1820 1"¼	1845 1"¼	1865 1"¼
EP Primary side supply	mm Ø	1155 1"M	1169 1"M	1184 1"M	1220 1"M	1820 1"M	1845 1"M	1865 1"M
UP Primary side return	mm Ø	775 1"M	789 1"M	804 1"M	840 1"M	1440 1"M	1465 1"M	1485 1"M
S1 Heat exchanger return	mm Ø	438 ¾"M	454 ¾"M	469 ¾"M	575 ¾"M	565 1"¼AM	590 1"¼AM	610 1"¼AM
S2 Heat exchanger supply	mm Ø	508 ¾"M	524 ¾"M	539 ¾"M	645 ¾"M	655 1"¼AM	725 1"¼AM	700 1"¼AM
SC Drain	mm Ø	145 1"¼	134 1"¼	124 1"¼	120 1"¼	120 1"¼	160 1"¼	145 1"¼
FL Heat exchanger manhole	mm Ø	473 220x300	489 220x300	504 220x300	610 300x380	610 300x380	635 300x380	655 300x380

PERFORMANCES

Heah exchanger heating surface area	m²	0,76	1,58	2,27	3,17	3,60	4,54	5,26
HEX power (Primary 80/55°C - Secondary 10/45°C)	kW	25	41	47	52	59	73	81
DHW production 10/45°C	L/h	602	1011	1156	1276	1445	1794	1999

EMPTY WEIGHTS

Empty weight	kg	100	110	140	175	190	250	310
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PHE PERFORMANCES

Primary (80-60)°C | Secondary (12-48)°C | Primary side pressure drop: 30 kPa | Secondary side pressure drop: 20 kPa

	Plates NO.	9	17	25	35	43	51	61
Power	kW	50	100	150	200	250	275	320
Continuous productions	L/h	1194	2389	3583	4778	5972	6569	7644

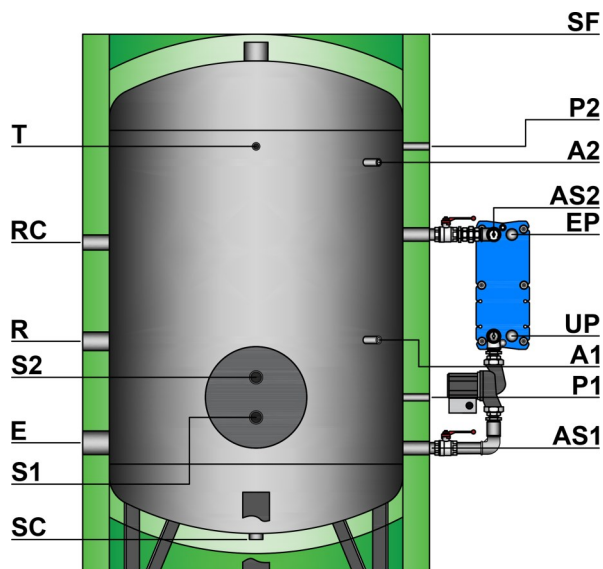
Primary (65-50)°C | Secondary (12-48)°C | Primary side pressure drop: 30 kPa | Secondary side pressure drop: 20 kPa

	Plates NO.	9	17	25	35	43	51	61
Power	kW	30	65	95	130	160	185	225
Continuous production	L/h	717	1553	2269	3106	3822	4419	5375

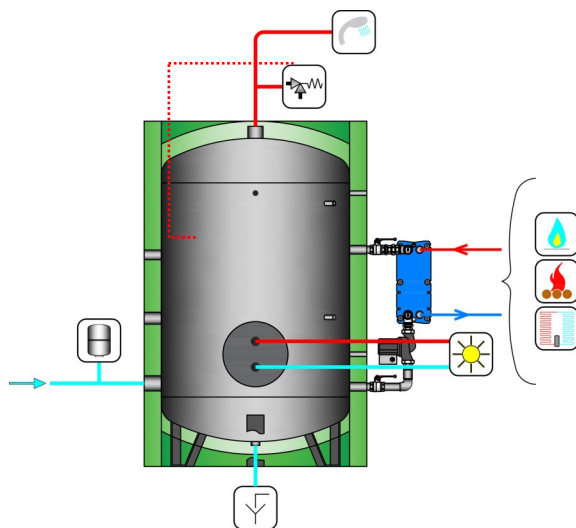
Primary (55-50)°C | Secondary (12-48)°C | Primary side pressure drop :40 kPa | Secondary side pressure drop: 20 kPa

	Plates NO.	9	17	25	35	43	51	61
Power	kW	13	25	38	49	60	68	80
Continuous production	L/h	316	597	908	1171	1433	1624	1911

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 BTEHI-R

	Capacity	1500	2000
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DIMENSIONS			
Diameter without insulation	mm	1100	1250
Diameter with insulation	mm	1300	1450
Overall height	mm	2015	2039
Overturning height with without insulation	mm	2237 2019	2310 2059

CONNECTIONS			
E Cold water supply	mm Ø	485 2"½	504 2"½
U DHW return	mm Ø	2015 2"½	2039 2"½
U2 Additional DHW return	mm Ø	—	—
RC Recirculation	mm Ø	1235 1"½	1254 1"½
R Immersion electric heater	mm Ø	865 2"	884 2"
P1 Sensor	mm Ø	655 ½"	674 ½"
P2 Sensor	mm Ø	1595 ½"	1564 ½"
T Thermometer	mm Ø	1595 ½"	1564 ½"
A1 Anode	mm Ø	870 ½"	864 ½"
A2 Anode	mm Ø	1535 ½"	1504 ½"
AS1 Spare	mm Ø	465 1"¼	484 1"¼
AS2 Spare	mm Ø	1265 1"¼	1284 1"¼
FL Heat exchanger manhole	mm Ø	655 300×380	674 300×380
EP Primary side supply	mm Ø	1265 1"¼M	1284 1"¼M
UP Primary side return	mm Ø	885 1"¼M	904 1"¼M
S1 Heat exchanger return	mm Ø	610 1"¼M	629 1"¼M
S2 Heat exchanger supply	mm Ø	700 1"¼M	719 1"¼M
SC Drain	mm Ø	123 1"¼	106 1"¼
FL Heat exchanger manhole	mm Ø	655 300×380	674 300×380

PERFORMANCES			
Heath exchanger heating surface area	m²	4,54	5,26
HEX power (Primary 80/55°C - Secondary 10/45°C)	kW	73	81
DHW production 10/45°C	L/h	1794	1999

EMPTY WEIGHTS			
Empty weight	kg	248	315

PHE PERFORMANCES

Primary (80-60)°C | Secondary (12-48)°C | Primary side pressure drop: 30 kPa | Secondary side pressure drop: 20 kPa

	Plates NO.	9	17	25	35	43	51	61
Power	kW	50	100	150	200	250	275	320
Continuous productions	L/h	1194	2389	3583	4778	5972	6569	7644

Primary (65-50)°C | Secondary (12-48)°C | Primary side pressure drop: 30 kPa | Secondary side pressure drop: 20 kPa

	Plates NO.	9	17	25	35	43	51	61
Power	kW	30	65	95	130	160	185	225
Continuous productions	L/h	717	1553	2269	3106	3822	4419	5375

Primary (55-50)°C | Secondary (12-48)°C | Primary side pressure drop :40 kPa | Secondary side pressure drop: 20 kPa

	Plates NO.	9	17	25	35	43	51	61
Power	kW	13	25	38	49	60	68	80
Continuous productions	L/h	316	597	908	1171	1433	1624	1911

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.



BTEHI - SPIRAL FINNED COPPER COIL PERFORMANCES

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

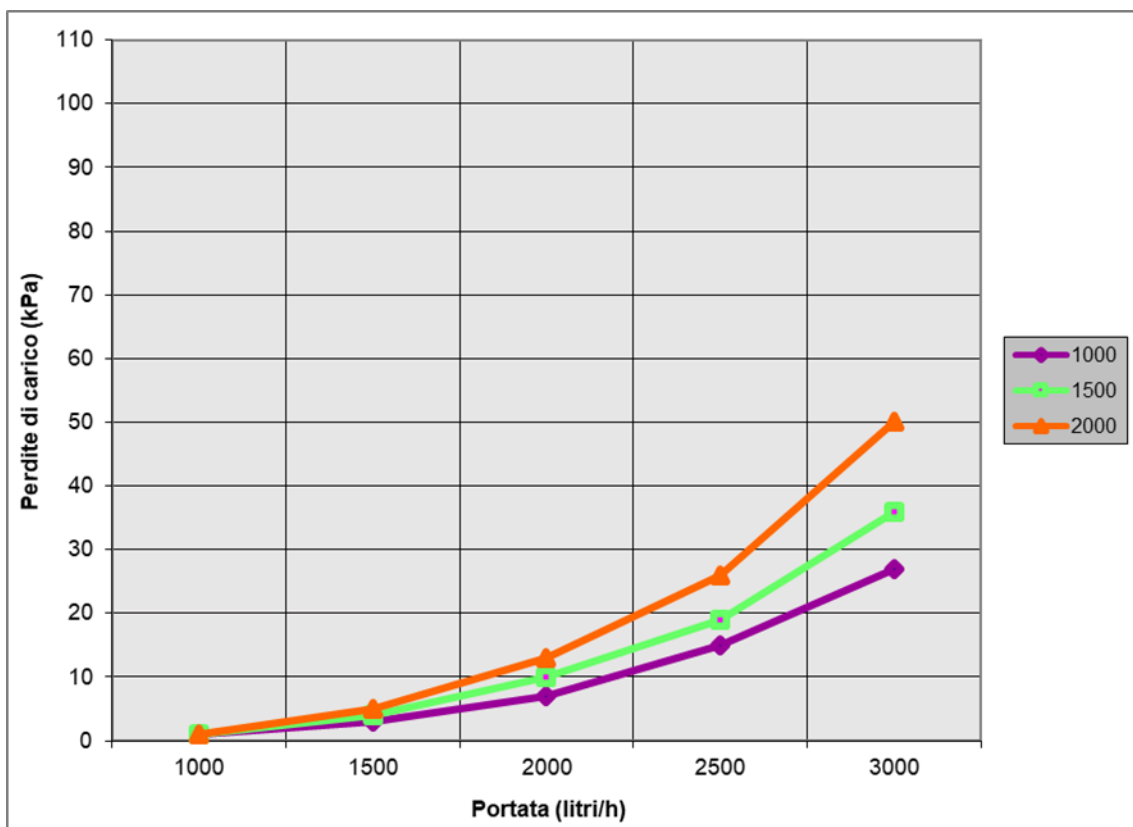
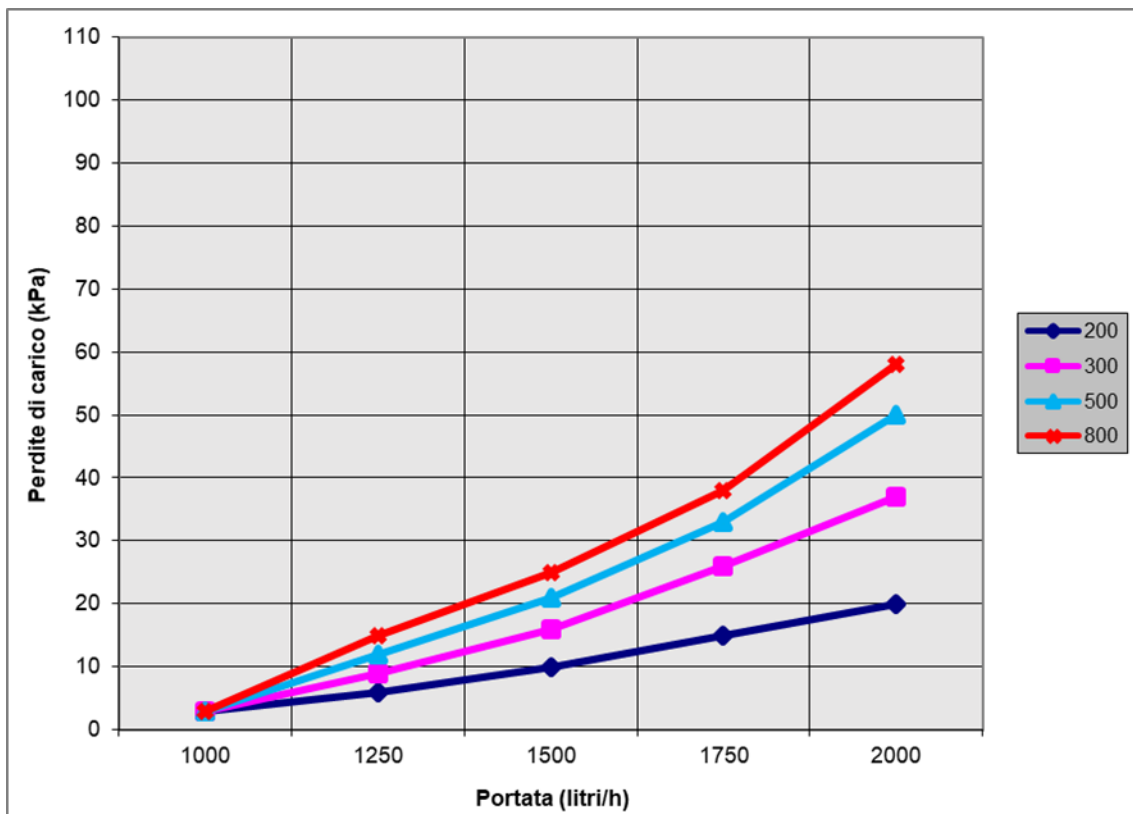
Storage Capacity	Heating Surface area	Capacity	Primary Flow	SECONDARY SIDE		
				Continuous production	Production first 10'	Production first 60'
<i>L</i>	<i>m²</i>	<i>kW</i>	<i>L/h</i>	<i>L/h</i>	<i>L</i>	<i>L</i>
200	0,76	25	843	602	300	802
300	1,58	41	1416	1011	469	1311
500	2,27	47	1618	1156	693	1656
800	3,17	52	1787	1276	1013	2076
1000	3,60	59	2023	1445	1241	2445
1500	4,54	73	2512	1794	1799	3294
2000	5,26	81	2798	1999	2333	3999

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

Storage Capacity	Heating Surface area	Capacity	Primary Flow	SECONDARY SIDE		
				Continuous production	Production first 10'	Production first 60'
<i>L</i>	<i>m²</i>	<i>kW</i>	<i>L/h</i>	<i>L/h</i>	<i>L</i>	<i>L</i>
200	0,76	18	759	433	272	633
300	1,58	32	1373	784	431	1084
500	2,27	37	1589	908	651	1408
800	3,17	41	1770	1011	969	1811
1000	3,60	47	2023	1156	1193	2156
1500	4,54	59	2546	1455	1743	2955
2000	5,26	66	2853	1631	2272	3631

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

Storage Capacity	Heating Surface area	Capacity	Primary Flow	SECONDARY SIDE		
				Continuous production	Production first 10'	Production first 60'
<i>L</i>	<i>m²</i>	<i>kW</i>	<i>L/h</i>	<i>L/h</i>	<i>L</i>	<i>L</i>
200	0,76	11	642	275	246	475
300	1,58	23	1324	568	395	868
500	2,27	27	1565	671	612	1171
800	3,17	31	1766	757	926	1557
1000	3,60	36	2047	877	1146	1877
1500	4,54	46	2629	1127	1688	2627
2000	5,26	52	2970	1273	2212	3273



ENAMELLED STEEL DHW CALORIFIER WITH REMOVABLE SPIRAL FINNED COPPER COIL AND GASKETED PHE

PERFORMANCE AND MATCHING TABLE FOR GASKETED PLATE HEAT EXCHANGER PK43

Primary (80-60)°C | Secondary (12-48)°C | Primary side pressure drop: 30 kPa | Secondary side pressure drop: 20 kPa

Capacity L	PK43 NP	Power kW	Primary side L/h	Continuous prod. L/h	First 10' prod. L	First 60 prod. ¹ L	Set up min	NUMBER OF BATHROOMS SERVED			
								Buildings	Hotels	Seasonal hotels	Sport facilities
200	9	50	2150	1194	399	1394	10	17	12	9	7
	17	100	4300	2389	598	2589	5	32	22	16	13
	25	145	6235	3464	777	3664	3	46	31	23	18
	35	200	8600	4778	996	4978	3	62	41	31	25
	43	245	10535	5853	1175	6053	2	76	50	38	30
	51	275	11825	6569	1295	6769	2	85	56	42	34
	61	320	13760	7644	1474	7844	2	98	65	49	39
300	9	50	2150	1194	499	1494	15	20	13	10	8
	17	100	4300	2389	698	2689	8	35	24	18	14
	25	145	6235	3464	877	3764	5	50	33	25	20
	35	200	8600	4778	1096	5078	4	67	45	33	27
	43	245	10535	5853	1275	6153	3	81	54	40	32
	51	275	11825	6569	1395	6869	3	90	60	45	36
	61	320	13760	7644	1574	7944	2	105	70	52	42
500	9	50	2150	1194	699	1694	25	24	16	12	9
	17	100	4300	2389	898	2889	13	40	27	20	16
	25	145	6235	3464	1077	3964	9	55	37	28	22
	35	200	8600	4778	1296	5278	6	73	49	37	29
	43	245	10535	5853	1475	6353	5	88	59	44	35
	51	275	11825	6569	1595	7069	5	98	65	49	39
	61	320	13760	7644	1774	8144	4	113	75	57	45
800	9	50	2150	1194	999	1994	40	29	20	15	12
	17	100	4300	2389	1198	3189	20	47	31	23	19
	25	145	6235	3464	1377	4264	14	63	42	31	25
	35	200	8600	4778	1596	5578	10	82	55	41	33
	43	250	10750	5972	1795	6772	8	100	66	50	40
	51	275	11825	6569	1895	7369	7	108	72	54	43
	61	320	13760	7644	2074	8444	6	124	83	62	50
1000	9	50	2150	1194	1199	2194	50	34	23	17	14
	17	100	4300	2389	1398	3389	25	53	35	26	21
	25	145	6235	3464	1577	4464	17	70	46	35	28
	35	200	8600	4778	1796	5778	13	90	60	45	36
	43	245	10535	5853	1975	6853	10	107	71	54	43
	51	275	11825	6569	2095	7569	9	118	79	59	47
	61	320	13760	7644	2274	8644	8	135	90	68	54
1500	9	50	2150	1194	1699	2694	75	45	30	22	18
	17	100	4300	2389	1898	3889	38	65	43	32	26
	25	145	6235	3464	2077	4964	26	83	55	41	33
	35	200	8600	4778	2296	6278	19	105	70	52	42
	43	245	10535	5853	2475	7353	15	123	82	61	49
	51	275	11825	6569	2595	8069	14	134	90	67	54
	61	320	13760	7644	2774	9144	12	152	102	76	61
2000	9	50	2150	1194	2199	3194	100	57	38	29	23
	17	100	4300	2389	2398	4389	50	78	52	39	31
	25	145	6235	3464	2577	5464	35	98	65	49	39
	35	200	8600	4778	2796	6778	25	121	81	61	48
	43	245	10535	5853	2975	7853	21	140	93	70	56
	51	275	11825	6569	3095	8569	18	153	102	77	61
	61	320	13760	7644	3274	9644	16	172	115	86	69
2500	9	50	2150	1194	2699	3694	126	71	47	36	28
	17	100	4300	2389	2898	4889	63	94	63	47	38
	25	145	6235	3464	3077	5964	43	115	76	57	46
	35	200	8600	4778	3296	7278	31	140	93	70	56
	43	245	10535	5853	3475	8353	26	161	107	80	64
	51	275	11825	6569	3595	9069	23	174	116	87	70
	61	320	13760	7644	3774	10144	20	195	130	98	78
3000	9	50	2150	1194	3199	4194	151	87	58	44	35
	17	100	4300	2389	3398	5389	75	112	75	56	45
	25	145	6235	3464	3577	6464	52	135	90	67	54
	35	200	8600	4778	3796	7778	38	162	108	81	65
	43	245	10535	5853	3975	8853	31	184	123	92	74
	51	275	11825	6569	4095	9569	27	199	133	100	80
	61	320	13760	7644	4274	10644	24	222	148	111	89
4000	9	50	2150	1194	4199	5194	201	118	79	59	47
	17	100	4300	2389	4398	6389	100	145	97	73	58
	25	145	6235	3464	4577	7464	69	170	113	85	68
	35	200	8600	4778	4796	8778	50	199	133	100	80
	43	245	10535	5853	4975	9853	41	224	149	112	90
	51	275	11825	6569	5095	10569	37	240	160	120	96
	61	320	13760	7644	5274	11644	31	265	176	132	106
5000	9	50	2150	1194	5199	6194	251	155	103	77	62
	17	100	4300	2389	5398	7389	126	185	123	92	74
	25	150	6450	3583	5597	8583	84	215	143	107	86
	35	200	8600	4778	5796	9778	63	244	163	122	98
	43	250	10750	5972	5995	10972	50	274	183	137	110
	51	275	11825	6569	6095	11569	46	289	193	145	116
	61	320	13760	7644	6274	12644	39	316	211	158	126

ENAMELLED STEEL DHW CALORIFIER WITH REMOVABLE SPIRAL FINNED COPPER COIL AND GASKETED PHE

PERFORMANCE AND MATCHING TABLE FOR GASKETED PLATE HEAT EXCHANGER PK43

Primary (65-50)°C | Secondary (12-48)°C | Primary side pressure drop: 30 kPa | Secondary side pressure drop: 20 kPa

Capacity L	PK43 NP	Power kW	Primary side L/h	Continuous prod. L/h	First 10' prod. L	First 60 prod.' L	Set up min	NUMBER OF BATHROOMS SERVED			
								Buildings	Hotels	Seasonal hotels	Sport facilities
200	9	30	1720	717	319	917	17	11	8	6	5
	17	65	3727	1553	459	1753	8	22	15	11	9
	25	95	5447	2269	578	2469	5	31	21	15	12
	35	130	7453	3106	718	3306	4	41	28	21	17
	43	160	9173	3822	837	4022	3	50	34	25	20
	51	185	10607	4419	937	4619	3	58	38	29	23
	61	225	12900	5375	1096	5575	2	70	46	35	28
300	9	30	1720	717	419	1017	25	13	9	7	5
	17	65	3727	1553	559	1853	12	24	16	12	10
	25	95	5447	2269	678	2569	8	34	23	17	14
	35	130	7453	3106	818	3406	6	45	30	22	18
	43	160	9173	3822	937	4122	5	54	36	27	22
	51	185	10607	4419	1037	4719	4	62	41	31	25
	61	225	12900	5375	1196	5675	3	75	50	37	30
500	9	30	1720	717	619	1217	42	17	11	8	7
	17	65	3727	1553	759	2053	19	29	19	14	11
	25	95	5447	2269	878	2769	13	38	26	19	15
	35	130	7453	3106	1018	3606	10	50	33	25	20
	43	160	9173	3822	1137	4322	8	60	40	30	24
	51	185	10607	4419	1237	4919	7	68	46	34	27
	61	225	12900	5375	1396	5875	6	82	54	41	33
800	9	30	1720	717	919	1517	67	22	15	11	9
	17	65	3727	1553	1059	2353	31	35	23	17	14
	25	95	5447	2269	1178	3069	21	45	30	23	18
	35	130	7453	3106	1318	3906	15	57	38	29	23
	43	160	9173	3822	1437	4622	13	68	45	34	27
	51	185	10607	4419	1537	5219	11	77	51	38	31
	61	225	12900	5375	1696	6175	9	91	61	45	36
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	17	65	3727	1553	1259	2553	39	40	27	20	16
	25	95	5447	2269	1378	3269	26	51	34	26	20
	35	130	7453	3106	1518	4106	19	64	43	32	26
	43	160	9173	3822	1637	4822	16	75	50	38	30
	51	185	10607	4419	1737	5419	14	85	56	42	34
	61	225	12900	5375	1896	6375	11	100	66	50	40
1500	9	30	1720	717	1619	2217	126	37	25	18	15
	17	65	3727	1553	1759	3053	58	51	34	25	20
	25	95	5447	2269	1878	3769	40	63	42	31	25
	35	130	7453	3106	2018	4606	29	77	51	38	31
	43	160	9173	3822	2137	5322	24	89	59	44	35
	51	185	10607	4419	2237	5919	20	99	66	49	39
	61	225	12900	5375	2396	6875	17	115	76	57	46
2000	9	30	1720	717	2119	2717	167	49	32	24	19
	17	65	3727	1553	2259	3553	77	63	42	32	25
	25	95	5447	2269	2378	4269	53	76	51	38	30
	35	130	7453	3106	2518	5106	39	91	61	46	36
	43	160	9173	3822	2637	5822	31	104	69	52	42
	51	185	10607	4419	2737	6419	27	115	76	57	46
	61	225	12900	5375	2896	7375	22	132	88	66	53
2500	9	30	1720	717	2619	3217	209	62	41	31	25
	17	65	3727	1553	2759	4053	97	78	52	39	31
	25	95	5447	2269	2878	4769	66	92	61	46	37
	35	130	7453	3106	3018	5606	48	108	72	54	43
	43	160	9173	3822	3137	6322	39	122	81	61	49
	51	185	10607	4419	3237	6919	34	133	89	67	53
	61	225	12900	5375	3396	7875	28	151	101	76	61
3000	9	30	1720	717	3119	3717	251	77	52	39	31
	17	65	3727	1553	3259	4553	116	95	63	47	38
	25	95	5447	2269	3378	5269	79	110	73	55	44
	35	130	7453	3106	3518	6106	58	127	85	64	51
	43	160	9173	3822	3637	6822	47	142	95	71	57
	51	185	10607	4419	3737	7419	41	155	103	77	62
	61	225	12900	5375	3896	8375	33	174	116	87	70
4000	9	30	1720	717	4119	4717	335	107	71	54	43
	17	65	3727	1553	4259	5553	155	126	84	63	50
	25	95	5447	2269	4378	6269	106	142	95	71	57
	35	130	7453	3106	4518	7106	77	161	108	81	65
	43	160	9173	3822	4637	7822	63	178	119	89	71
	51	185	10607	4419	4737	8419	54	191	128	96	77
	61	225	12900	5375	4896	9375	45	213	142	107	85
5000	9	30	1720	717	5119	5717	419	143	95	71	57
	17	65	3727	1553	5259	6553	193	164	109	82	66
	25	95	5447	2269	5378	7269	132	182	121	91	73
	35	130	7453	3106	5518	8106	97	203	135	101	81
	43	160	9173	3822	5637	8822	78	221	147	110	88
	51	185	10607	4419	5737	9419	68	235	157	118	94
	61	225	12900	5375	5896	10375	56	259	173	130	104

ENAMELLED STEEL DHW CALORIFIER WITH REMOVABLE SPIRAL FINNED COPPER COIL AND GASKETED PHE

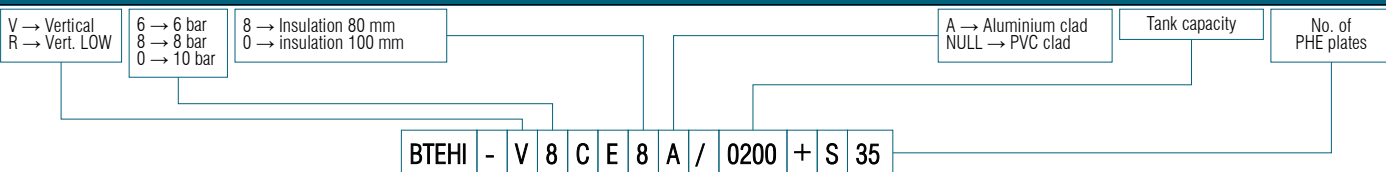
PERFORMANCE AND MATCHING TABLE FOR GASKETED PLATE HEAT EXCHANGER PK43

Primary (55-50)°C | Secondary (12-48)°C | Primary side pressure drop: 40 kPa | Secondary side pressure drop: 20 kPa

Capacity L	PK43 NP	Power kW	Primary side L/h	Continuous prod. L/h	First 10' prod. L	First 60' prod. L	Set up min	NUMBER OF BATHROOMS SERVED			
								Buildings	Hotels	Seasonal hotels	Sport facilities
200	17	25	4300	597	300	797	20	10	7	5	4
	25	38	6536	908	351	1108	13	14	9	7	6
	35	49	8428	1171	395	1371	10	17	11	9	7
	43	60	10320	1433	439	1633	8	20	14	10	8
	51	68	11696	1624	471	1824	7	23	15	11	9
	61	80	13760	1911	519	2111	6	26	18	13	11
300	17	25	4300	597	400	897	30	12	8	6	5
	25	38	6536	908	451	1208	20	16	11	8	6
	35	49	8428	1171	495	1471	15	19	13	10	8
	43	60	10320	1433	539	1733	13	23	15	11	9
	51	68	11696	1624	571	1924	11	25	17	13	10
	61	80	13760	1911	619	2211	9	29	19	15	12
500	17	25	4300	597	600	1097	50	15	10	8	6
	25	38	6536	908	651	1408	33	20	13	10	8
	35	49	8428	1171	695	1671	26	23	15	12	9
	43	60	10320	1433	739	1933	21	27	18	13	11
	51	68	11696	1624	771	2124	18	30	20	15	12
	61	80	13760	1911	819	2411	16	33	22	17	13
800	17	25	4300	597	900	1397	80	21	14	10	8
	25	38	6536	908	951	1708	53	25	17	13	10
	35	49	8428	1171	995	1971	41	29	19	14	12
	43	60	10320	1433	1039	2233	33	33	22	16	13
	51	68	11696	1624	1071	2424	30	36	24	18	14
	61	80	13760	1911	1119	2711	25	40	27	20	16
1000	17	25	4300	597	1100	1597	100	25	17	12	10
	25	38	6536	908	1151	1908	66	30	20	15	12
	35	49	8428	1171	1195	2171	51	34	23	17	14
	43	60	10320	1433	1239	2433	42	38	25	19	15
	51	68	11696	1624	1271	2624	37	41	27	21	16
	61	80	13760	1911	1319	2911	31	45	30	23	18
1500	17	25	4300	597	1600	2097	151	35	23	17	14
	25	38	6536	908	1651	2408	99	40	27	20	16
	35	49	8428	1171	1695	2671	77	45	30	22	18
	43	60	10320	1433	1739	2933	63	49	33	24	20
	51	68	11696	1624	1771	3124	55	52	35	26	21
	61	80	13760	1911	1819	3411	47	57	38	28	23
2000	17	25	4300	597	2100	2597	201	46	31	23	19
	25	38	6536	908	2151	2908	132	52	35	26	21
	35	49	8428	1171	2195	3171	103	57	38	28	23
	43	60	10320	1433	2239	3433	84	61	41	31	25
	51	68	11696	1624	2271	3624	74	65	43	32	26
	61	80	13760	1911	2319	3911	63	70	47	35	28
2500	17	25	4300	597	2600	3097	251	60	40	30	24
	25	38	6536	908	2651	3408	165	66	44	33	26
	35	49	8428	1171	2695	3671	128	71	47	35	28
	43	60	10320	1433	2739	3933	105	76	50	38	30
	51	68	11696	1624	2771	4124	92	79	53	40	32
	61	80	13760	1911	2819	4411	78	85	57	42	34
3000	17	25	4300	597	3100	3597	301	75	50	37	30
	25	38	6536	908	3151	3908	198	81	54	41	33
	35	49	8428	1171	3195	4171	154	87	58	43	35
	43	60	10320	1433	3239	4433	126	92	62	46	37
	51	68	11696	1624	3271	4624	111	96	64	48	39
	61	80	13760	1911	3319	4911	94	102	68	51	41
4000	17	25	4300	597	4100	4597	402	104	70	52	42
	25	38	6536	908	4151	4908	264	112	74	56	45
	35	49	8428	1171	4195	5171	205	118	78	59	47
	43	60	10320	1433	4239	5433	167	123	82	62	49
	51	68	11696	1624	4271	5624	148	128	85	64	51
	61	80	13760	1911	4319	5911	126	134	90	67	54
5000	17	25	4300	597	5100	5597	502	140	93	70	56
	25	38	6536	908	5151	5908	330	148	98	74	59
	35	49	8428	1171	5195	6171	256	154	103	77	62
	43	60	10320	1433	5239	6433	209	161	107	80	64
	51	68	11696	1624	5271	6624	185	166	110	83	66
	61	80	13760	1911	5319	6911	157	173	115	86	69

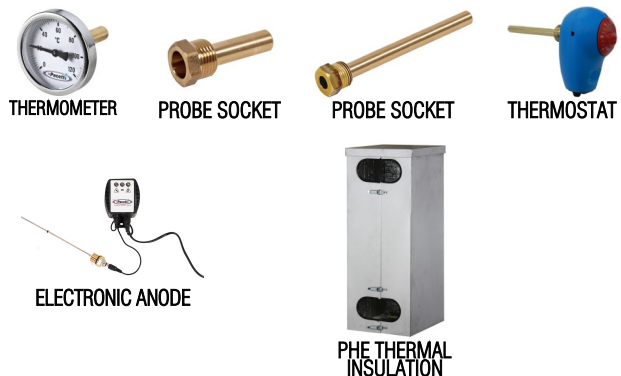
ENAMELLED STEEL DHW CALORIFIER WITH REMOVABLE SPIRAL FINNED COPPER COIL AND GASKETED PHE

HOW TO ORDER



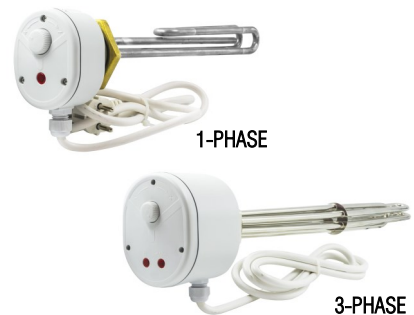
ACCESSORIES & SPARE PARTS

ITEM	PART NO.
THERMOMETER Ø65 mm L=50 mm (0÷120)°C	TERMOMETRO-D65_S
THERMOMETER Ø65 mm L=150 mm (0÷120)°C	TERMOMETRO-D65_L
THERMOMETER Ø100 mm L=150 mm (0÷120)°C	TERMOMETRO-D100
PROBE SOCKET Ø½" L=50 mm Ø _{int} 10 mm	POZZETTO_S
PROBE SOCKET Ø½" L=150 mm Ø _{int} 10 mm	POZZETTO_L
THERMOSTAT Ø½" (0÷90)°C	TERMOSTATO
ELECTRONIC ANODE KIT 200÷500 L	ANODE012X380_P
ELECTRONIC ANODE KIT 800-1000 L	ANODE012X430_P
ELECTRONIC ANODE KIT 1500÷2000 L	ANODE012X430X2_P
REMOVABLE THERMAL INSULATION FOR PHE - SMALL (7 to 25 plates)	ISOLPK043C
REMOVABLE THERMAL INSULATION FOR PHE - LARGE (26 to 61 plates)	ISOLPK043L



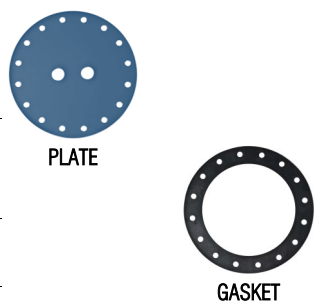
1-3 PHASE IMMERSION ELECTRIC HEATER - STAINLESS STEEL 316 / INCOLOY TUBES
Threaded plug 1 1/2" with adapter for 2" diameter | Plastic box IP54 | V230/400

Power Watt	Phases distribution/ Voltage V	Capacity/L matching L	Length mm	2-THERMOSTAT Temp. regulation & overheating protection PART NO.
2000	Single-phase/230	200 ÷ 2000	310	RES020-L310-6-M-BT
3000	Single-phase/230	200 ÷ 2000	350	RES030-L350-6-M-BT
5000	Three-phase/400	200 ÷ 2000	375	RES050-L375-6-T-BT
6000	Three-phase/400	200 ÷ 2000	435	RES060-L435-6-T-BT
9000	Three-phase/400	500 ÷ 2000	610	RES090-L610-6-T-BT
10000	Three-phase/400	500 ÷ 2000	670	RES100-L670-6-T-BT
12000	Three-phase/400	800 ÷ 2000	730	RES120-L727-6-T-BT
15000	Three-phase/400	800 ÷ 2000	870	RES150-L870-6-T-BT



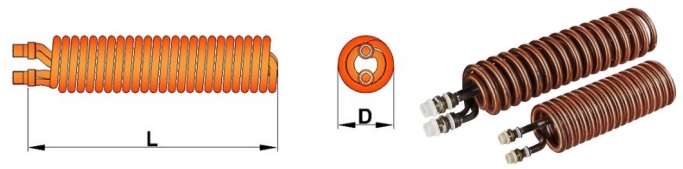
FLANGE SPARE PARTS

ITEM	Capacity/L matching L	HEX Capacity matching m²	Diameter mm	PART NO.
ENAMELLED PLATE WITH ¾" HOLES	200 ÷ 500	0,76	300	PIASTRAN3001-076-C
ENAMELLED PLATE WITH ¾" HOLES		1,58	300	PIASTRAN3001-158-C
ENAMELLED PLATE WITH ¾" HOLES		2,27	300	PIASTRAN3001-227-C
ENAMELLED PLATE WITH ¾" HOLES		3,17	300	PIASTRAN3001-317-C
ENAMELLED PLATE WITH 1 ¼" HOLES	800 ÷ 2000	3,60	380	PIASTRAN3802-360-C
ENAMELLED PLATE WITH 1 ¼" HOLES		4,54	380	PIASTRAN3802-454-C
ENAMELLED PLATE WITH 1 ¼" HOLES		5,26	380	PIASTRAN3802-526_634-C
EPDM GASKET	200 ÷ 500	0,76 ÷ 3,17	220/300	GUGOME PDM300X220ST
EPDM GASKET	800 ÷ 2000	3,60 ÷ 5,26	300/380	GUGOME PDM380X300ST
SEAL KIT ¾"	200 ÷ 500	0,76 ÷ 3,17	—	KIT034
SEAL KIT 1 ¼"	800 ÷ 2000	3,60 ÷ 5,26	—	KIT114



SPIRAL FINNED COPPER COIL

Heating surface area m²	Connection Ø	Diameter "D" mm	Length "L" mm	PART NO.
0,76	¾"	140	440	SSPI076
1,58	¾"	170	510	SSPI158
2,27	¾"	170	670	SSPI227
3,17	¾"	190	665	SSPI317
3,60	1 ¼"	190	690	SSPI360
4,54	1 ¼"	190	780	SSPI454
5,26	1 ¼"	190	910	SSPI526



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



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/m ³	$\lambda = 0,034 \text{ W/mK}$	Amb. / +99°C	B-s2, d0
Hard foam Polyurethane injected	✗	80 mm	40 ÷ 42 kg/m ³	$\lambda = 0,019 \text{ W/mK}$	-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.

ITEM

	PART NO.
PVC CLADDING YERLLOW RAL1023	COVER-RAL1023
PVC CLADDING OREANGE RAL2004	COVER-RAL2004
PVC CLADDING RED RAL3000	COVER-RAL3000
PVC CLADDING BLUE RAL5015	COVER-RAL5015
PVC CLADDING WHITE RAL9016	COVER-RAL9016
PVC CLADDING LIGHT GREY RAL7035	COVER-RAL7035
PVC CLADDING DARK GREY RAL7024	COVER-RAL7024
PVC CLADDING 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.



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