

Heat Exchanger



Plate Heat Exchanger



RANGE

PHC Plate to plate Exchangers range is composed by 4 sizes, each one combined with innumerable number of plates, giving suitable solutions to several application of the HVAC industry.

In particular PHC 3120 plate allows an output from 43kw to 370kw with high delta T (80°C primary circuit and 10°C to 45°C on the secondary). With similar energy request but different and lower delta T, the PHC 4620 and PHC 7420 shall be selected.

For big output request version PHC 7431 is recommended.

The following tables shall be considered as merely indicative tool, for an optimized designing of Heat exchanger Dimension, our technical department will support you on every request.

domestic application, the PHC are suitable for district heating installation.

TECHNICAL INFORMATION

PHC exchangers are inspectionable plate to plate type. Their shape ensures the possibility of open the exchanger for cleaning.

The modular design allows you to change the configuration of the exchanger even after a period of use (within certain limits).

PHC exchangers are designed for the use stated on Art. 3.3 of PED 97/23/CE.. In particular, they are intended to be used with non-dangerous liquids with steam pressure at maximum operating temperature not exceeding 0.5 bar above normal atmospheric pressure.

Every Exchanger has serial number label and end-user manual.

MAXIMUM OPERATING CONDITIONS

Max. Pressure= 10bar

Max. Temperature= 140°C (to be intended as max working temperature of gaskets).

Pressure not exceeding 0.5 bar above normal atmospheric pressure.

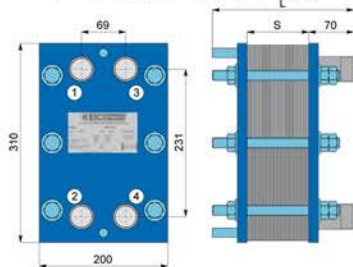
MATERIAL

- Frame (not in contact with fluids) in painted mild steel
- Guide for Heat exchanger plates, bolts and screw nuts (not in contact with fluids) in galvanized mild steel
- Nipples and plates (in contact with fluid) in 316L Stainless Steel
- EPDM Gaskets

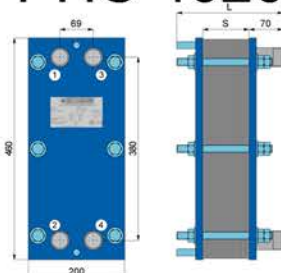
APPLICATION

PHC Heat exchangers are used in domestic and industrial installation. In particular they're suitable for production of D.H.W., as well as for heating of swimming pools using different energy sources (traditional boiler, solid fuel, solar thermal system). For

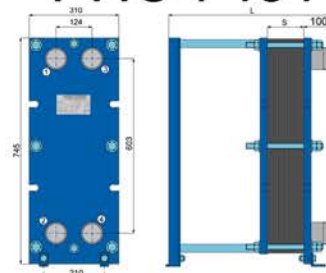
PHC 3120



PHC 4620



PHC 7431



N° of PLATES	Art. Nr.		S Fixing quote	L	Primary Vol. = Secondary Vol.	Output (*)		Primary Flow rate	Secondary Flow rate	Primary Circuit Inlet	Secondary Circuit Outlet
			[mm]			[mm]	[Kcal/h]				
9	3175056650009	PHC 3120	27	220	0,2	36973	43	2,5	2,5	3/4"	3/4"
13	3175056650013		39		0,3	65348	76	2,5	2,5	3/4"	3/4"
17	3175056650017		51		0,4	93723	109	5,00	5,00	1"	1"
21	3175056650021		63		0,5	122958	143	7,5	7,5	1"	1"
25	3175056650025		75		0,6	151333	176	7,5	7,5	1"	1"
29	3175056650029		87		0,7	180567	210	10,00	10,00	1"1/4	1"1/4
33	3175056650033		99	0,8	209802	244	10,00	10,00	1"1/4	1"1/4	
37	3175056650037		111	0,9	239037	278	15,00	15,00	1"1/2	1"1/2	
41	3175056650041		123	1	268272	312	15,00	15,00	1"1/2	1"1/2	
45	3175056650045		135	1,1	292347	340	15,00	15,00	1"1/2	1"1/2	
55	3175056650055		165	1,35	318143	370	15,00	15,00	1"1/2	1"1/2	
41	3175056651041		PHC 4620	123	370	1,8	327601	381	15,00	15,00	1"1/2
45	3175056651045	135		1,98		343938	400	20,00	20,00	2"	2"
49	3175056651049	147		2,16		356836	415	20,00	20,00	2"	2"
53	3175056651053	159		2,34		369733	430	20,00	20,00	2"	2"
17	3175056653017	PHC 7431	60	630	2,24	408426	475	20,00	20,00	2"	2"
21	3175056653021		73		2,8	524506	610	30,00	30,00	2"1/2	2"1/2
25	3175056653025		87		3,36	646604	752	30,00	30,00	2"1/2	2"1/2
29	3175056653029		101		3,92	766982	892	37,5	37,5	2"1/2	2"1/2
33	3175056653033		114		4,48	887360	1032	50,00	50,00	2"1/2	2"1/2
37	3175056653037		128		5,04	1007739	1172	60,00	60,00	3"	3"
41	3175056653041		142		5,6	1128117	1312	60,00	60,00	3"	3"
45	3175056653045		155		6,16	1246776	1450	65,00	65,00	3"	3"
49	3175056653049		169		6,72	1367154	1590	70,00	70,00	3"	3"
53	3175056653053		183		7,28	1487532	1730	75,00	75,00	4"	4"
55	3175056653055	190	7,56	1547721	1800	80,00	80,00	4"	4"		

EXTRA 1 / VAPORE

CALORIFIERS WITH 1 EXTRACTABLE HEAT EXCHANGER

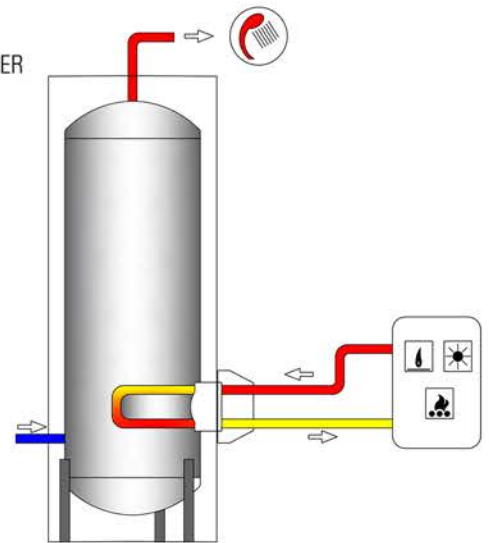


Water Heat Exchanger

[liters]	FINISHING	STORAGE		HEAT EXCHANGERS	
		WPmax	WTmax	WPmax	WTmax
200 ÷ 1000	POLYWARM [®]	8 bar	90 °C	12 bar	110 °C
1500 ÷ 5000	POLYWARM [®]	6 bar			

Steam Heat Exchanger

[liters]	STORAGE		HEAT EXCHANGER	
	WPmax	WTmax	WPmax	WTmax
500 ÷ 1000	8 bar	90 °C	6 bar	165 °C
1500 ÷ 5000	6 bar			



APPLICATION

Production and storage of sanitary hot water for domestic and industrial uses.

MATERIAL

Material and finishings, suitable drinkable water according to D. M. n. 174 dated 06.04.04.;

- Mild steel Polywarm[®] coated (certification ACS - SSICA - DVGW - W270 - UBA - WRAS)
- Galvanized version (on request)

HEAT EXCHANGER

The thermal exchange is ensured by the innovative Heat Exchanger for legionellosis-prophilaxis, with tubes bent to the bottom (available on Stainless Steel 316L or Copper)

INSULATION

NOFIRE[®] 50 mm soft polyester fibre 100% made of recyclable material, with high Thermal insulation and Thermal conductivity: **0.035 W/mK**. Fire resistance class **B-s2d0** according to **EN 13501**.

Grey PVC external lining complete with top and flange cover.

CATHODE PROTECTION

- Polywarm[®]: magnesium anode with Anoden-tester
 - Galvanized: magnesium anode
- For capacity > 1500lt n° 2 magnesium anodes.
Electronic anode on request (see accessories).

DRAIN

External confluence through drain connection.

For capacity > 1t 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

- Silicone gaskets suitable for alimentary use for max temperature up to 200 °C. (D.M. n.174 dated 2004)
- Flange plate.

WARRANTY

- 5 years (Polywarm[®])
- See general sales conditions and warranty

EXTRA 1 WXC VT VAPORE/STEAM

Capacity [liters]	D.H.W. Storage: POLYWARM[®] coated Heat Exchanger: STAINLESS STEEL	
	Art. Nr.	Surface m ²
500	3069162360103	1
800	3069162360104	1,5
1000	3069162360105	2
1500	3069162360106	3
2000	3069162360107	3
2500	3069162360111	3
3000	3069162360108	3
4000	3069162360109	4
5000	3069162360110	5

EXTRA 1 WXC VT WATER

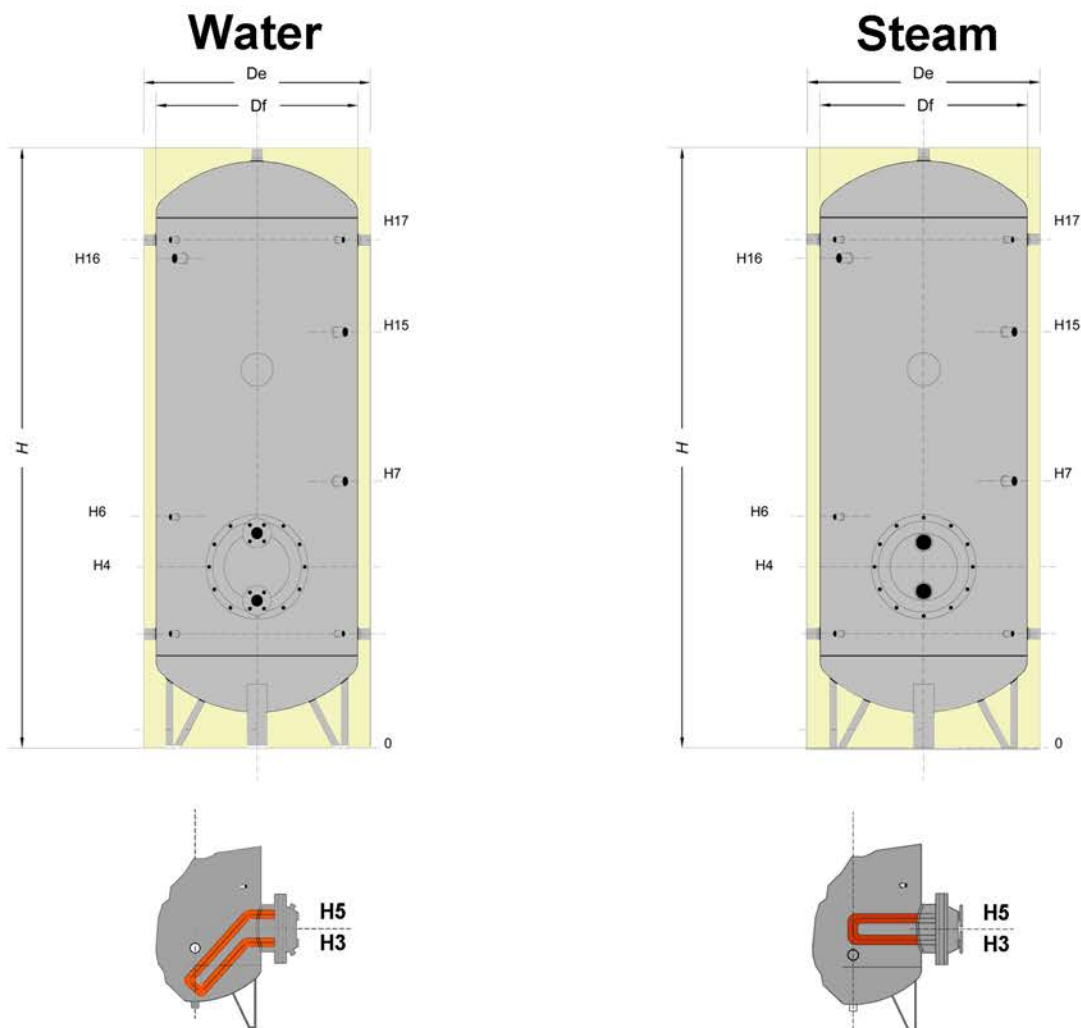
Capacity [liters]	D.H.W. Storage: POLYWARM[®] coated Heat Exchanger: STAINLESS STEEL	
	Art. Nr.	Surface m ²
200	3072162360102	0,5
300	3072162360103	0,75
500	3072162360104	1
800	3072162360105	1,5
1000	3072162360106	2
1500	3072162360107	3
2000	3072162360108	4
2500	3072162360113	5
3000	3072162360109	6
4000	3072162360110	8
5000	3072162360112	10

EXTRA 1 WRC VT WATER

Capacity [liters]	D.H.W. Storage: POLYWARM[®] coated Heat Exchanger: COPPER	
	Art. Nr.	Surface m ²
200	3072162350102	0,5
300	3072162350103	0,75
500	3072162350104	1
800	3072162350105	1,5
1000	3072162350106	2
1500	3072162350107	3
2000	3072162350108	4
2500	3072162350113	5
3000	3072162350109	6
4000	3072162350110	8
5000	3072162350112	10



Stainless Steel Heat Exchangers 316L, for a total Hygienic and long product life. For special executions please refer to our Sales Dept.



	Capacity	Net Volume	Df	De	H	H7	H16	H17	H3	H4	H5	H6
	[liters]	[liters]	[mm]									
Water Steam	200	189	450	550	1441	701	1066	1176	351	401	451	511
	300	290	550	650	1549	785	1150	1260	435	485	535	595
	500	499	650	750	1841	801	1370	1526	451	501	551	611
	800	791	750	850	2138	898	1638	1793	478	568	658	718
	1000	1037	850	950	2192	989	1660	1814	499	589	679	739
	1500	1440	950	1050	2390	1075	1895	2050	585	675	765	825
	2000	1980	1100	1200	2442	842	1877	2057	587	692	797	867
	2500	2314	1250	1350	2311	976	1732	1891	671	776	881	951
	3000	2921	1250	1350	2811	1036	2232	2391	731	836	941	1011
	4000	3766	1400	1500	2875	1035	2238	2410	750	855	960	1030
5000	4986	1600	1700	2915	1035	2265	2420	750	855	960	1030	