

PLATE HEAT EXCHANGERS

STAINLESS STEEL 316L



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 Dimesion, our technical department will support you on every request.

Material

- Frame (not in contact with fluids) in painted carbon steel
- Guide for Heat exchanger plates, bolts and screw nuts (not in contact with fluids) in galvanized carbon 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 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.

Chemical compatibility

Material used for PHC Exchangers are suitable for following liquids.

- Water
- Milk
- Whisky
- Acetone
- Glycole
- Glycoled Water
- Mineral Water
- Wine
- Wine Vinegar
- Etanol
- Etilenic Glycole
- De-mineralized Water
- Acetic Acid
- Beer
- Liquors
- Methanol
- Propylenic Glyco

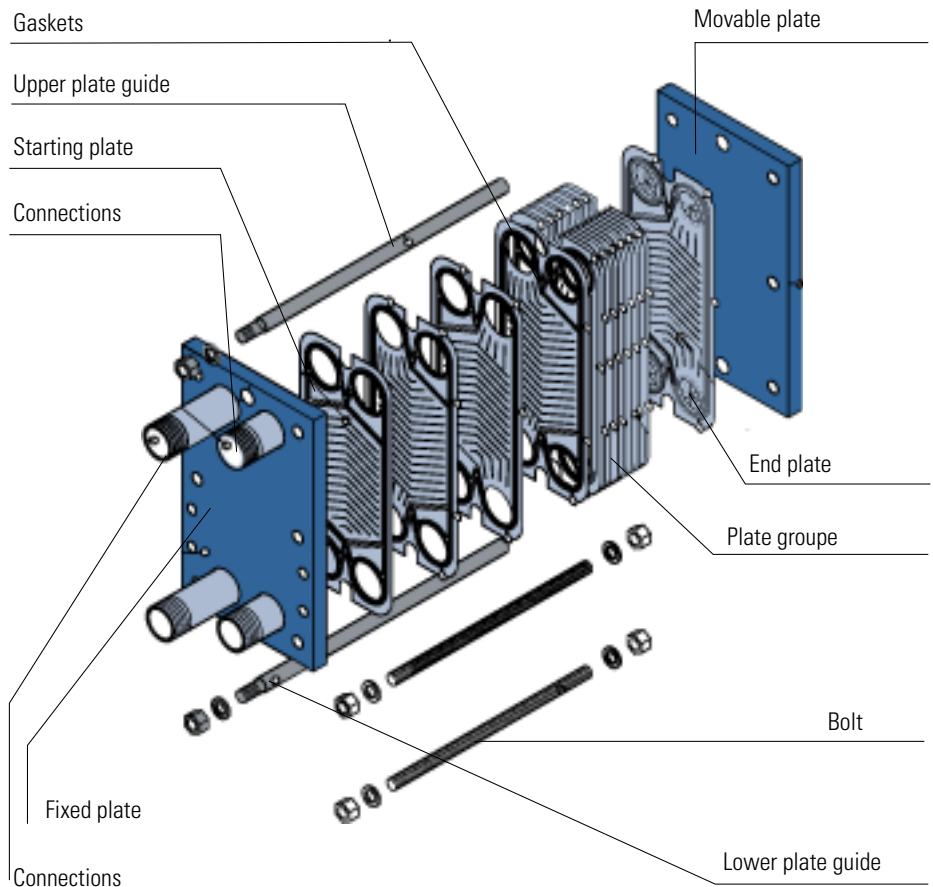


PLATE TO PLATE HEAT EXCHANGER WITH GASKET PHC CORDIVARI, HAVE BEEN REALIZED WITH ADVANCED AND RELIABLE TECHNOLOGY ENSURING THE FOLLOWING ADVANTAGES:

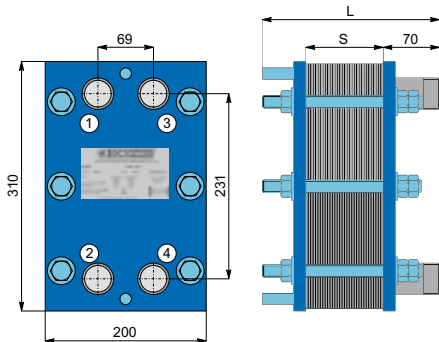
- Easy removal and maintenance
- Saving
- Efficient Heat exchange
- Designed and manufactured according PED 97/23/CE for pressure working tanks
- Hygienic protection thanks to 316L stainless steel material

THE GASKETS ALREADY INCLUDED IN THE PHC SETS HAVE THE FOLLOWING FEATURES:

One piece EPDM gasket.
Flexible structure but solid resistance, they are engineered to resist to mechanical shocks.



EXCHANGERS PHC 3120



CONNECTIONS		
	Dimension	
1	1" 1/4 Gas M	Primary Inlet
2		Primary Outlet
3		Secondary Outlet
4		Secondary Inlet



PROMPT DELIVERY

All Cordivari PHC exchangers are dispatched in 1-5 working days. (Delivery time excluded)

N° PLATES	ART. NR.	S Fixing quote	L	Primary Vol. = Secondary Vol.	Output (*)		Primary Flow rate	Secondary Flow rate	Primary Pressure loss	Secondary Pressure loss
		[mm]			[litres]	[KW]				
9	3175056650009	27	220	0,4	36973	43	1.89	1.06	1.42	0.60
13	3175056650013	39		0,5	65348	76	3.35	1.88	1.92	0.81
17	3175056650017	51		0,6	93723	109	4.80	2.70	2.19	0.93
21	3175056650021	63		0,7	122958	143	6.29	3.54	2.39	1.01
25	3175056650025	75		0,8	151333	176	7.75	4.36	2.51	1.06
29	3175056650029	87		0,9	180567	210	9.24	5.20	2.61	1.11
33	3175056650033	99		1,0	209802	244	10.74	6.04	2.69	1.14
37	3175056650037	111		1,1	239037	278	12.24	6.88	2.75	1.17
41	3175056650041	123		1,2	268272	312	13.73	7.72	2.80	1.19
45	3175056650045	135		1,3	292347	340	14.97	8.41	2.76	1.17
49	3175056650049	147	370	1,4	300946	350	15.00	8.66	2.73	1.05
53	3175056650053	159		1,5	313844	365	15.00	9.03	2.05	0.98
55	3175056650055	165		1,5	318143	370	15.00	9.16	1.91	0.94

(*) Output is referred to water/water heat exchanging with primary inlet temperature 80°C and production of DHW from 10°C to 45°C. For other working condition (different fluids and/or temperatures) dimensioning from our technical dept. is required

PLATE HEAT EXCHANGERS

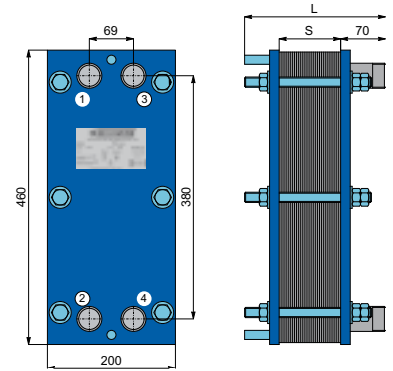
STAINLESS STEEL 316L

EXCHANGERS PHC 4620

CONNECTIONS		
Dimension		
1	1"1/4 Gas M	Primary Inlet
2		Primary Outlet
3		Secondary Outlet
4		Secondary Inlet



PROMPT DELIVERY
All Cordivari PHC exchangers are dispatched in 1-5 working days. (Delivery time excluded)



N° PLATES	ART. NR.	S Fixing quote	L [mm]	Primary Vol. = Secondary Vol. [litres]	Output (*)		Primary Flow rate [m³/h]	Secondary Flow rate [m³/h]	Primary Pressure loss [m.c.a.]	Secondary Pressure loss [m.c.a.]
		[mm]			[Kcal/h]	[KW]				
9	3175056651009	27	220	0,5	58469	68	2,99	1,08	4,82	0,86
13	3175056651013	39		0,7	99742	116	5,11	1,83	6,08	1,09
17	3175056651017	51		0,9	134136	156	6,87	2,47	6,18	1,11
21	3175056651021	63		1,1	168530	196	8,63	3,10	6,24	1,12
25	3175056651025	75		1,2	202923	236	10,39	3,73	6,27	1,12
29	3175056651029	87		1,4	236457	275	12,10	4,35	6,26	1,12
33	3175056651033	99	370	1,6	270851	315	13,87	4,98	6,29	1,13
37	3175056651037	111		1,8	313844	365	15,00	5,77	5,87	1,19
41	3175056651041	123		2,0	327601	381	15,00	6,02	4,86	1,06
45	3175056651045	135		2,1	343938	400	15,00	6,32	4,10	0,97
49	3175056651049	147		2,3	356836	415	15,00	6,56	3,50	0,89
53	3175056651053	159		2,5	369733	430	15,00	6,80	3,04	0,82
55	3175056651055	165		2,6	374893	436	15,00	6,89	2,84	0,78

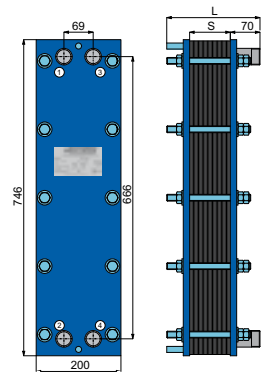
(*) Output is referred to water/water heat exchanging with primary inlet temperature 80°C and production of DHW from 10°C to 65°C. For other working condition (different fluids and/or temperatures) dimensioning from our technical dept. is required

EXCHANGERS PHC 7420

CONNECTIONS		
Dimension		
1	1"1/4 Gas M	Primary Inlet
2		Primary Outlet
3		Secondary Outlet
4		Secondary Inlet



PROMPT DELIVERY
All Cordivari PHC exchangers are dispatched in 1-5 working days. (Delivery time excluded)



N° PLATES	ART. NR.	S Fixing quote	L [mm]	Primary Vol. = Secondary Vol. [litres]	Output (*)		Primary Flow rate [m³/h]	Secondary Flow rate [m³/h]	Primary Pressure loss [m.c.a.]	Secondary Pressure loss [m.c.a.]
		[mm]			[Kcal/h]	[KW]				
9	3175056652009	27	220	0,80	48151	56	2,45	1,08	6,18	1,51
13	3175056652013	39		1,12	70507	82	3,58	1,58	5,92	1,45
17	3175056652017	51		1,44	96303	112	4,89	2,16	6,18	1,51
21	3175056652021	63		1,76	120378	140	6,12	2,70	6,18	1,51
25	3175056652025	75		2,08	145314	169	7,38	3,26	6,25	1,53
29	3175056652029	87		2,40	169390	197	8,60	3,80	6,24	1,53
33	3175056652033	99	370	2,72	194325	226	9,87	4,36	6,28	1,54
37	3175056652037	111		3,04	218401	254	11,09	4,90	6,27	1,54
41	3175056652041	123		3,36	242476	282	12,32	5,44	6,26	1,53
45	3175056652045	135		3,68	266552	310	13,54	5,98	6,26	1,53
49	3175056652049	147		4,0	290628	338	14,76	6,52	6,25	1,53
53	3175056652053	159		4,32	348237	405	15,00	7,81	5,61	1,84
55	3175056652055	165		4,48	351677	409	15,00	7,89	5,24	1,75

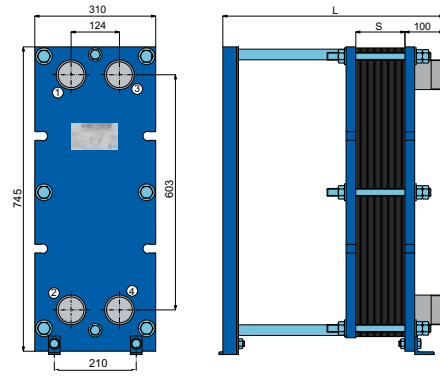
(*) Output is referred to water/water heat exchanging with primary inlet temperature 55°C and production of DHW from 10°C to 60°C. For other working condition (different fluids and/or temperatures) dimensioning from our technical dept. is required

EXCHANGERS PHC 7431

CONNECTIONS		
Dimension		
1	2"1/2	Primary Inlet
2		Primary Outlet
3		Secondary Outlet
4		Secondary Inlet



PROMPT DELIVERY
All Cordivari PHC exchangers are dispatched in 1-5 working days. (Delivery time excluded)



CALORIFIERS

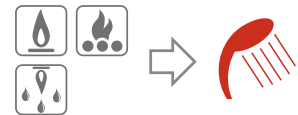
N° PLATES	ART. NR.	S Fixing quote	L	Primary Vol. = Secondary Vol.	Output (*)		Primary Flow rate	Secondary Flow rate	Primary Pressure loss	Secondary Pressure loss
		[mm]			[litres]	[KW]				
13	3175056653013	46	630	2,66	288048	335	14,75	8,29	3,88	1,73
17	3175056653017	60		3,29	408426	475	20,91	11,75	4,34	1,93
21	3175056653021	73		3,92	524506	610	26,85	15,10	4,55	2,02
25	3175056653025	87		4,55	646604	752	33,10	18,61	4,77	2,12
29	3175056653029	101		5,18	766982	892	39,26	22,07	4,92	2,19
33	3175056653033	114		5,81	887360	1032	45,42	25,54	5,03	2,24
37	3175056653037	128		6,44	1007739	1172	51,59	29,00	5,11	2,27
41	3175056653041	142		7,07	1128117	1312	57,75	32,47	5,18	2,30
45	3175056653045	155		7,70	1246776	1450	63,82	35,88	5,22	2,32
49	3175056653049	169		8,33	1367154	1590	69,98	39,35	5,27	2,34
53	3175056653053	183	880	8,96	1487532	1730	76,15	42,81	5,31	2,36
55	3175056653055	190		9,28	1547721	1800	79,23	44,54	5,33	2,37

(*) Output is referred to water/water heat exchanging with primary inlet temperature 80°C and production of DHW from 10°C to 45°C. For other working condition (different fluids and/or temperatures) dimensioning from our technical dept. is required

FAST HEAT EXCHANGER



Model	ART. NR.	Surface	External exchanger diameter	Altezza H	1-2	3-4	5
		[m²]			[mm]	Connections	
24000	3681160120001	0,5	175	320	1" 1/2	1/2"	3/8"
35000	3681160120002	0,7		425	1" 1/2	1/2"	3/8"
45000	3681160120003	0,9		525	1" 1/2	1/2"	3/8"



Technical descriptions

Fast Heat Exchanger consisting in a double spiral copper coil closed in carbon steel case. Its particular internal shape, allows the two fluids to circulate in opposite direction, granting a fast and efficient heating exchange.

They are mainly used in thermo-hydraulic field, they are well used to prepare the DHW with fireplaces or biomass generator.

Application

Fast production of domestic hot water.

External case

Carbon steel

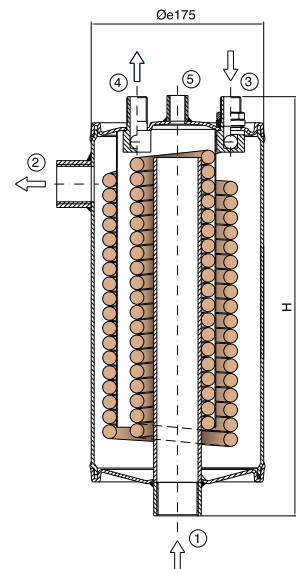
Heat exchanger

Fixed Heat Exchanger with double spiral copper coil.

Warranty

2 years - See general sales terms and conditions

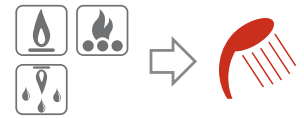
CONNECTIONS	
1	Primary inlet
2	Primary outlet
3	Secondary inlet
4	Secondary outlet
5	Air clearing



Model	Output		Primary flow rate	DHW Production	Exchanged Power		Primary Capacity	DHW Production	
	[Kcal/h]	[Kw]			[lt/h]	[lt/h]			[Kcal/h]
24000	24200	28,14	1880	480	24147	28,08	1880	685	
35000	35651	41,46	2150	709	35335	41,09	2150	1004	
45000	45124	52,48	2380	897	44554	51,82	2380	1267	
Primary temperature 85 °C, Temp. secondary 10 °C to 60 °C					Primary temperature 75 °C, Temp. secondary 10 to 45 °C				

BRAZED PLATE EXCHANGERS

STAINLESS STEEL 316L



NEW



Technical Information

New brazed Plate Exchangers SLB Cordivari, provides the most compact and economical solution suitable for many applications. The SLB plate exchangers are designed for different needs in heating, refrigeration, evaporation, industrial processing, cooling.

Main advantages:

- high Efficiency
- long lasting
- savings
- high reliability
- huge possibility to modify the relation between storage volume and Heat exchange

Technical characteristic:

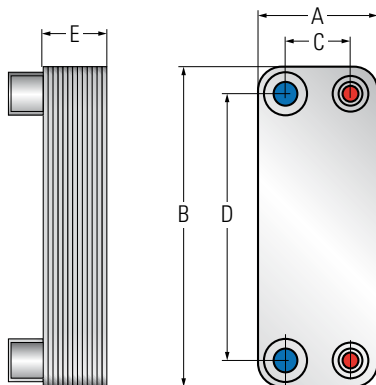
- AISI 316 L Stainless steel brazed plate, braze-welded with 99,99% pure copper.

Working condition

- Max pressure: 30bar
- Max. Temperature: 190°C
- For temperature above 110°C see page 102.



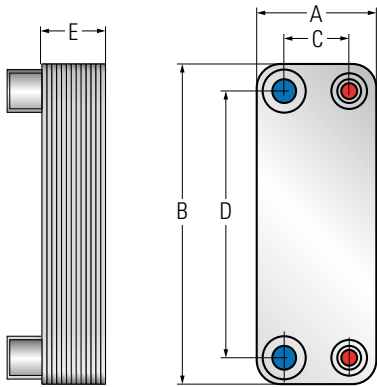
BRAZED EXCHANGER SLB20



CONNECTIONS 3/4" M		Max. Flow Rate
	[mm]	[m3/h]
A	76	3,6
B	310	
C	42	
D	282	

N° PLATES	NOT INSULATED VERSION	INSULATED VERSION	E	Weight
	ART. NR.	ART. NR.	[mm]	[Kg]
12	5250410010001	5250410011001	37	1,10
16	5250410010002	5250410011002	46	1,13
20	5250410010003	5250410011003	55	1,16
24	5250410010004	5250410011004	64	1,19
30	5250410010005	5250410011005	78	1,24
34	5250410010006	5250410011006	87	1,27
40	5250410010007	5250410011007	101	1,32

BRAZED EXCHANGER SLB30

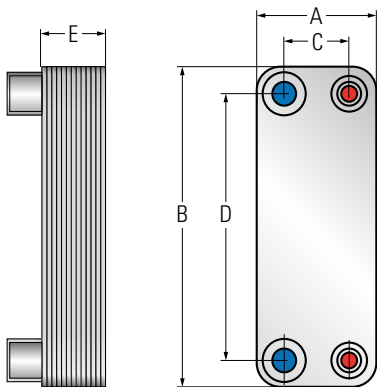


CONNECTIONS 1" M		Max. Flow Rate
	[mm]	[m3/h]
A	111	8,1
B	310	
C	50	
D	250	

CALORIFIERS

N° PLATES	NOT INSULATED VERSION	INSULATED VERSION	E	Weight
	ART. NR.	ART. NR.	[mm]	[Kg]
14	5250410010101	5250410011101	43	2,98
20	5250410010102	5250410011102	57	3,70
30	5250410010103	5250410011103	81	4,90
40	5250410010104	5250410011104	104	6,10
50	5250410010105	5250410011105	128	7,30

BRAZED EXCHANGER SLB40



CONNECTIONS 1" M		Max. Flow Rate
	[mm]	[m3/h]
A	111	12,7
B	525	
C	50	
D	466	

N° PLATES	NOT INSULATED VERSION	INSULATED VERSION	E	Weight
	ART. NR.	ART. NR.	[mm]	[Kg]
30	5250410010201	5250410011201	81	8,30
40	5250410010202	5250410011202	104	10,20
50	5250410010203	5250410011203	128	12,10
60	5250410010204	5250410011204	151	14