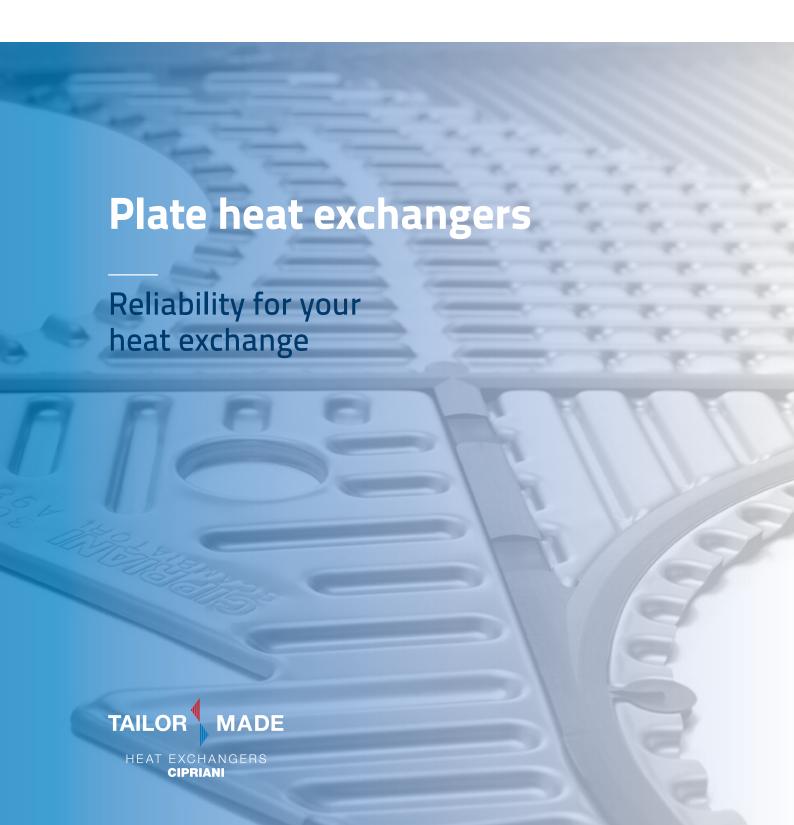
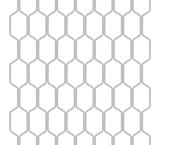




# Exchange for good

— MADE IN ITALY —





## Do you need to heat, cool, or recover energy?



Exchange for good



### HVAC



- Production of domestic hot water
- Hydronic systems for air conditioning/refrigeration
- District heating/district cooling
- Pool heating



### MARINE

- Centralized engines' cooling
- Transmission oil cooling
- On board HVAC systems

### ം CHEMICAL

- Acid cooling
- Alkaline solutions' cooling
- Technical water cooling



### **FOOD & DAIRY**

- Thermal treatments for sugar industry
- Oils&beverage thermal treatments





### Cooling



### **Energy Recovery**



## STEEL MILLS

- Continuous cooling systems
- Hydraulic oil cooling
- Molds/emulsions cooling



### **SURFACING CHEMICAL TREATMENTS**

- Galvanic bathes cooling
- Paint heating
- Acid bath thermal regulation



### **MECHANICAL**

**AUTOMOTIVE** 

Hydraulic oil cooling

Phosphate solutions' cooling

Paint treatment

- Cooling skids
- Fluids & utilities' heating
- Thermal regulation and recovering



### IT SECTOR

- Data centers coolings and heating recovery
- Thermal treatments for semiconductor production



### **TEXTILE**

- Detergents' heating recoveries
- Coloring heating

### **COMPANY - 360° Quality and Efficiency**

**Cipriani PHE** is a leading company in the **production of plate heat exchangers** for the HVAC sector and for industry. **Since 1987**, we have continued to invest all our expertise to ensure superior quality, competitive, and tailor-made services and products.



### **PRODUCT - Plate Heat Exchangers for Every Need**

**High thermal capacity** and low pressure drops for a consistently well-balanced and high-performing configuration.

### **OUR STRENGTHS:**

- Top-tier quality
- Dedicated engineering
- Fast deliveries









## Exchange for good

## CIPRIANI PHE'S GLOBAL SERVICES

Cipriani PHE constantly develops new methodologies and services with the aim of simplifying, all the phases related to the selection, purchase, and after-sales of plate heat exchangers.





### PHE MANAGER

The online software for reliable configuration

PHE Manager is the software designed for professionals who want to configure their plate heat exchanger, taking care of every single aspect. In just a few clicks, you can achieve your customized design through an intuitive, versatile, and comprehensive configurator.



### **MYPHE**

Immediate assistance and genuine spare parts

Thanks to a **team of experts**, Cipriani PHE stays close to its customers with specialized technical support service. MyPHE is the **web app** to know in detail the configuration of your plate heat exchanger and to be able to request original spare parts quickly and accurately.





### **PHEXPRESS**

New e-shop

Purchase your plate heat exchanger and spare parts online, with 24-hours shipping!

PHExpress is the new e-commerce for selling plate heat exchangers and spare parts. Every purchased product will be shipped within 24 hours of the order, with the option to track the shipment. An online tool that simplifies and speeds up the purchasing experience for users.

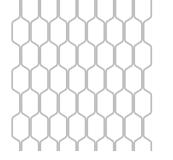












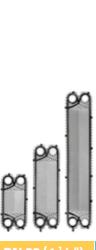
### **Gasketed Plate Heat Exchangers**

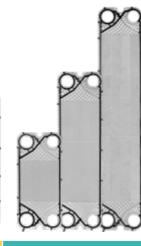
Our excellent geometries: high efficiency and reduced pressure drop for every need of heat exchange





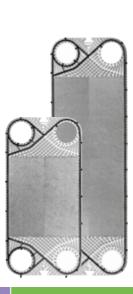




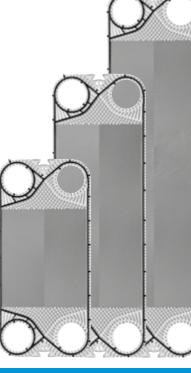


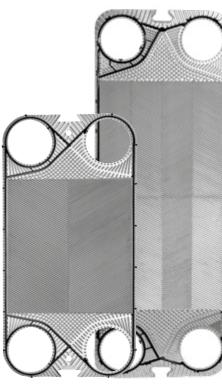












			-	-																
MODEL	c	DN	32 (1		[	ON 50 (2'	<b>'</b> )	DN	l 65 (2 ¹/	<sub>2</sub> ")	DN 80 (3")		DN 1	00 (4")			DN 150 (6"	)	DN 20	00 (8")
MODEL	.5	5020+	S040+	5080+	S070+	S160+	S260+	S110+	S210+	S410+	S270+	5300+	S450+	S455+	S705+	S400+	S600+	S900+	S650+	S990+
Water flow rate max	m³/h		19			63			80		110		2	40			380		800	730
Heat transfer surface max	m²	1,6	3,1	8,2	11,8	41,2	63,8	17,8	31,7	99,1	68,5	108	193	188	276	215	355	631	334	534
Plate corrugation angle	A/B		А			A/B			A/B		A/B		Д	/B			A/B		A/B	A/B
Tightening quote	mm		2,9 x np	p		2,9 x np			3 x np		3 x np	3,1	x np	2,7	x np		3,1 x np		3,3 x np	3,1 x np
Height	mm	320	470	755	678 - 720	1008 - 1050	1353 -1395	584	848	1375	1071	1124	1569	1569	2034	1372	1819	2272 - 2317	1657 - 1707	2190 - 2206
Wide	mm		200			310			320		320		5	30			609		810	790

<sup>\*</sup> standard AISI316L 0,5mm

### **Construction Details**

The company's know-how is also reflected in the attention to every functional detail

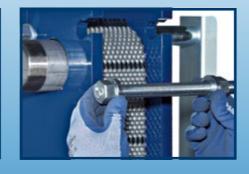
Carrying bar with stainless steel contact



Easy positioning of plates and optimized footprint



Easy assembly and disassembly



TYPE PB

Insulation case

### **Thermal Insulations**

TYPE TF

F TYPE FL

Insulation shell Insulation jacket

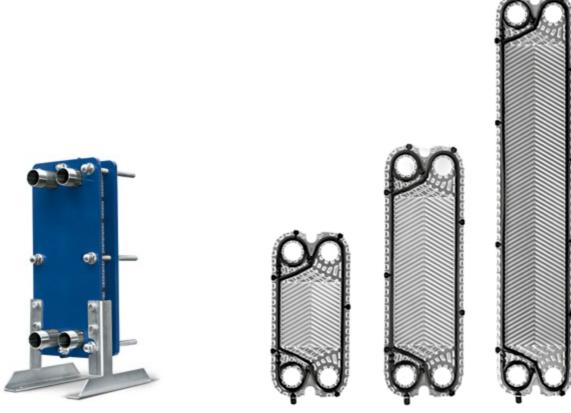






# CIPRIANI

# **DN32**



F	P020-		F	040-		F	P080-	-
	0,021			0,041			0,081	
				145	145			
	305			455 740				
		DN32 1"1/4						
	0,063			0,103			0,181	
				2,9				
	0,18			0,274			0,452	
				А				
				19				
10	16	25	10	16	25	10	16	25
		0,021 305 0,063 0,18	305 0,063 0,18	0,021 305 DN 0,063	0,021 0,041 145 305 455 DN32 1"1 0,063 0,103 2,9 0,18 0,274 A 19	0,021 0,041 145 305 455 DN32 1"1/4 0,063 0,103 2,9 0,18 0,274 A 19	0,021 0,041  145  305 455  DN32 1"1/4  0,063 0,103  2,9  0,18 0,274  A  19	0,021 0,041 0,081  145  305 455 740  DN32 1"1/4  0,063 0,103 0,181  2,9  0,18 0,274 0,452  A  19

<sup>\*</sup> standard AISI316L 0,5mm



DN32	DN50	DN65	DN80	DN100	DN150	DN200	
------	------	------	------	-------	-------	-------	--

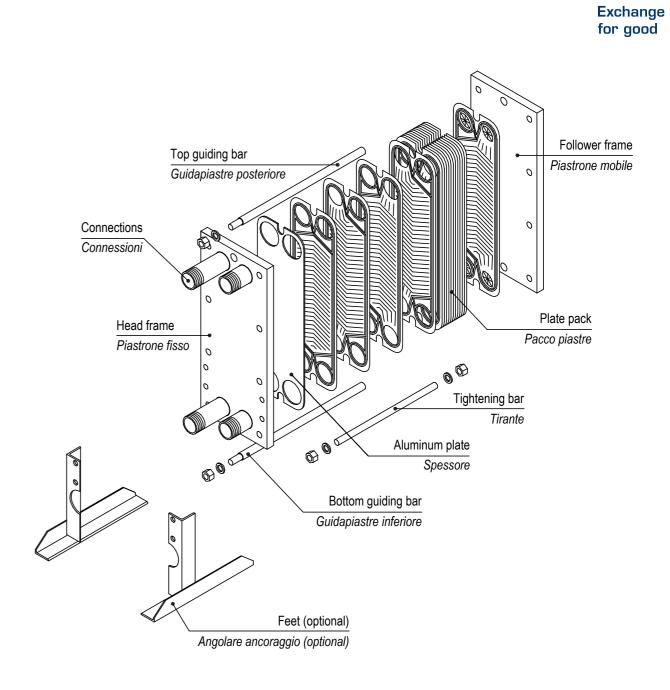
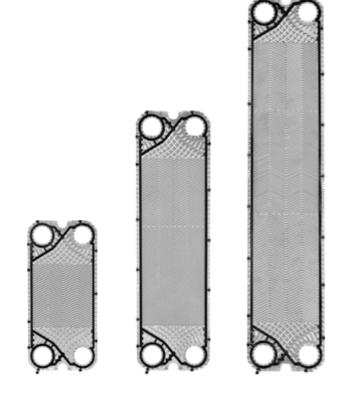


Plate Heat Exchanger		S020+			S040+		S080+				
Height		320			470			7!	55		
Width		200			200			20	00		
Vertical connection pitch		230			380		665				
Horizontal connection pitch		68		68			68				
Max. number of plates	29	49	75	29	49	75	29	49	75	101	
Depth	185	285	485	185	285	485	185	285	485	605	
Connection diameter (DN)				D	N32 1"1/	4					

# CIPRIANI

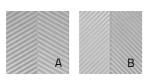
# **DN50**





Product Range		P070	+	ı	P160	+	F	260	+	
Exchange area [m²]		0,078			0,164					
Width [mm]					245					
Height [mm]		527			857					
Connections diameter				I	DN50 2	II .				
Channel capacity [I]		0,217			0,383			0,555		
Tightening quote [mm] *					2,9					
Plate weight (with gasket) [Kg] *		0,517			0,856			1,213		
Corrugation angle				A/B						
Max. water flowrate [m³/h]				63						
PS=> Max working pressure [bar]	10	16	25	10	16	25	5 10 16			

<sup>\*</sup> standard AISI316L 0,5mm



Plates are available in two thermal lengths (A/B)

DN32	DN50	DN65	DN80	DN100	DN150	DN200
------	------	------	------	-------	-------	-------

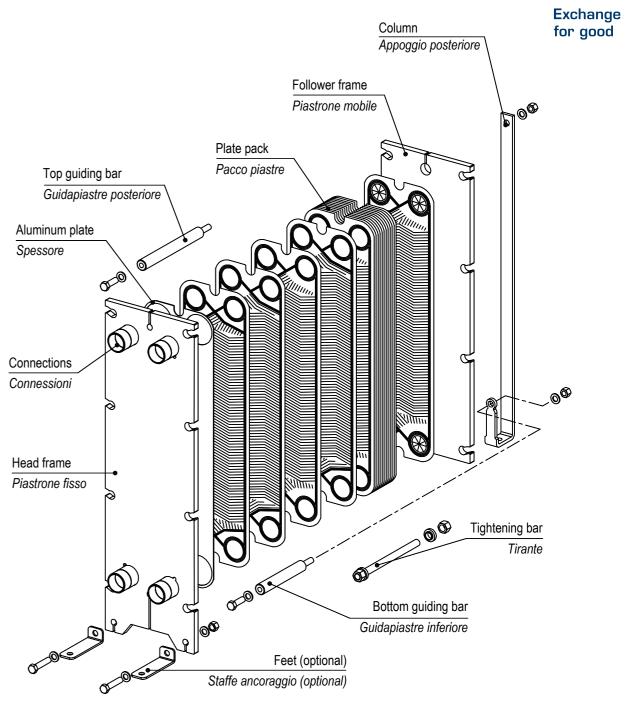
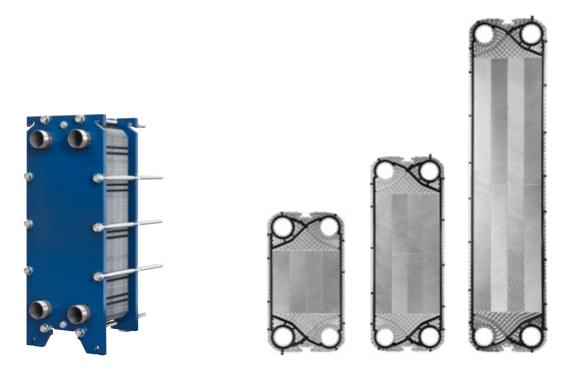


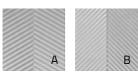
Plate Heat Exchanger		S070+			S	160	+		S260+					
Height		678 / 720				100	08 / 10	050		1353 / 1395				
Width		310			310					310				
Vertical connection pitch		420				750			1095					
Horizontal connection pitch		14	40		140					140				
Max. number of plates	41	71	101	151	41	71	101	151	251	41	71	101	151	251
Depth	330	470	610	840	330	470	610	840	1300	330	470	610	840	1300
Connection diameter (DN)				DN50 2"										

# **DN65**



Product Range	ı	2110	+	F	210	+	F	410	+
Exchange area [m²]		0,118			0,21			0,395	
Width [mm]					320				
Height [mm]		584			848			1375	
Connections diameter				DN	l65 2"′	1/2			
Channel capacity [I]		0,335			0,52			0,891	
Tightening quote [mm] *					3				
Plate weight (with gasket) [Kg] *		0,722			1,058			1,738	
Corrugation angle					A/B				
Max. water flowrate [m³/h]					80				
PS=> Max working pressure [bar]	10	16	25	10	16	25	10	16	25

<sup>\*</sup> standard AISI316L 0,5mm



Plates are available in two thermal lengths (A/B)

DN32 D	DN65	DN80	DN100	DN150	DN200
--------	------	------	-------	-------	-------

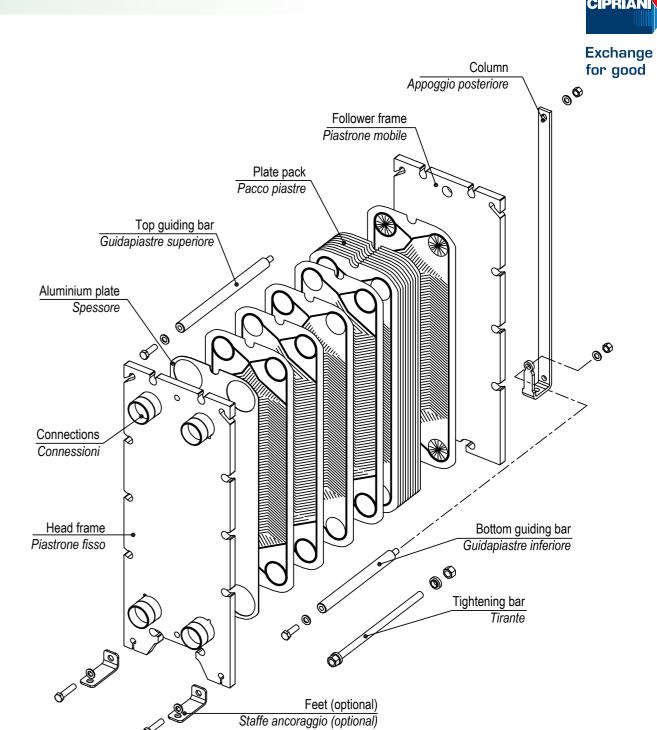


Plate Heat Exchanger		S1°	10+			S2	10+			S410+				
Height		729	760			992 /	1024				1551			
Width		385 / 400			385 / 400				400					
Vertical connection pitch		456		720				1247						
Horizontal connection pitch		19	92			19	92				192			
Max. number of plates	41	71	101	151	41	71	101	151	41	71	101	151	251	
Depth	355	355 495 635 865		355 495 635 865		865	485	485	625	855	1315			
Connection diameter (DN)				DN65 2"1/2										

Feet (optional)

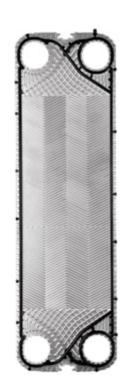
Staffe ancoraggio (optional)

# CIPRIANI

for good

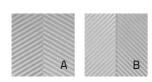
# **DN80**





Product Range	P270+
Exchange area [m²]	0,273
Width [mm]	320
Height [mm]	1071
Connections diameter	DN80 3"
Channel capacity [I]	0,68
Tightening quote [mm] *	3
Plate weight (with gasket) [Kg] *	1,321
Corrugation angle	А/В
Max. water flowrate [m³/h]	110
PS=> Max working pressure [bar]	10 16 25

<sup>\*</sup> standard AISI316L 0,5mm



Plates are available in two thermal lengths (A/B)

DN32	DN50	DN65	DN80	DN100	DN150	DN200
------	------	------	------	-------	-------	-------

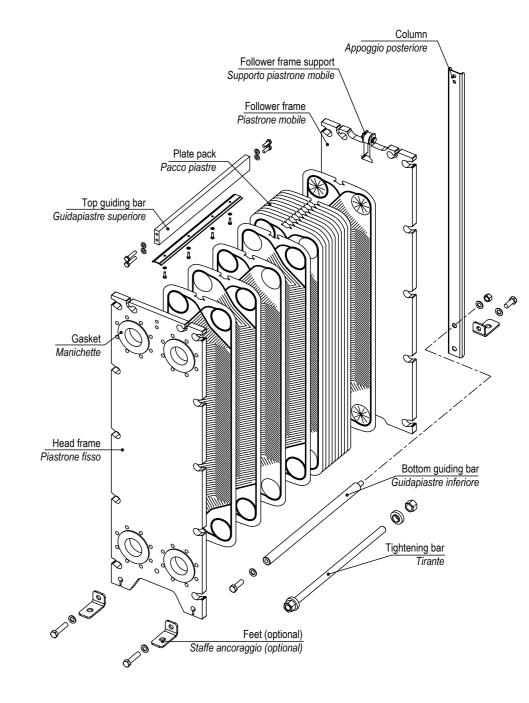
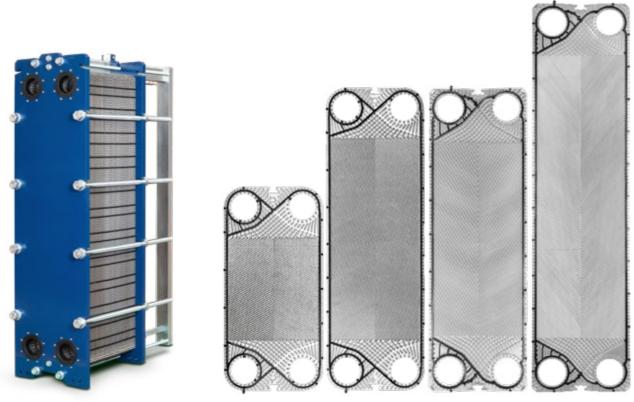


Plate Heat Exchanger	S270+					
Height	1270					
Width	400					
Vertical connection pitch	927					
Horizontal connection pitch	201					
Max. number of plates	41	71	101	151	251	
Depth	485	485	625	855	1315	
Connection diameter (DN)	DN80 3"					

# CIPRIANI Exchange for good

# **DN100**



Product Range	F	P300+			P450+			P455+			P705+		
Exchange area [m²]		0,268			0,482			0,47			0,688		
Width [mm]			4	25					42	27			
Height [mm]		877			1322			1325			1770		
Connections diameter				DN1			00 4"						
Channel capacity [I]		0,766		1,217			1,033				1,413		
Tightening quote [mm] *			3	3,1					2,	2,7			
Plate weight (with gasket) [Kg] *		1,417		2,207			2,074			2,832			
Corrugation angle				A			A/B						
Max. water flowrate [m³/h]						24	<u>+</u> 0						
PS=> Max working pressure [bar]	10	16	25	10	16	25	10	16	25	10	16	25	

<sup>\*</sup> standard AISI316L 0,5mm

**DN50** 

**DN32** 

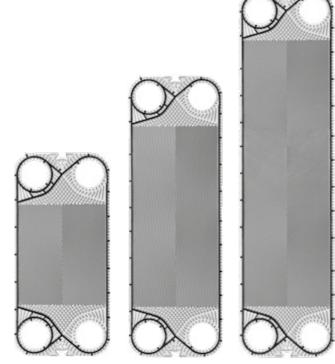


Pressure plate						
Piastrone mobile			33		(°)	
Intermediate plate			9.	To.	1	Colum
Piastrone mobile		//.j	2	To Berger		Appoggi
Carrying and guiding bar kit	_//	, i				postano
Kit guidapiastre posteriore	. 1.	i				
Initial plate	i	O	ก			
Piastra iniziale	( ) ( )					
		70		4		
	m 1				,	00
8						90
Frame plate	o d			Z Z		
Piastrone fisso				588		
	C C			<		Final pla Plastra fina
				· ·		
3				00	Complete t	tightening boits
Liner Manichette		9		90		Kit tirar
	.00		#//			
6. B		8				
8	, 4	0				
Feet for ground anchoring						
Staffe ancoraggio	_					

Plate Heat Exchanger	S300+			S450+			S455+				S705+					
Height		11	24		1569			1569				2034				
Width		509 / 530			530			530				530				
Vertical connection pitch	705			1150			1150				1595					
Horizontal connection pitch		25	50		250			250				250				
Max. number of plates	101	201	301	401	101	201	301	401	101	201	301	401	101	201	301	401
Depth	790	1290	1790	2290	800	1300	1800	2300	800	1300	1800	2300	800	1300	1800	2300
Connection diameter (DN)								DN10	00 4"							

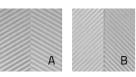
## **DN150**





<b>600+</b> 0,645 500 1503	0	<b>00+</b> ,9			
500		,9			
	10				
1503	10				
	15	951			
DN150 6"					
1,122 1,659					
3,1					
2,858	3,7	786			
A/B					
380					
16	10	16			
	N150 6" 1,659 3,1 2,858 A/B 380	N150 6"  1,659 2,1  3,1  2,858 3,7  A/B  380			

<sup>\*</sup> standard AISI316L 0,5mm





Plates are available in two thermal lengths (A/B)

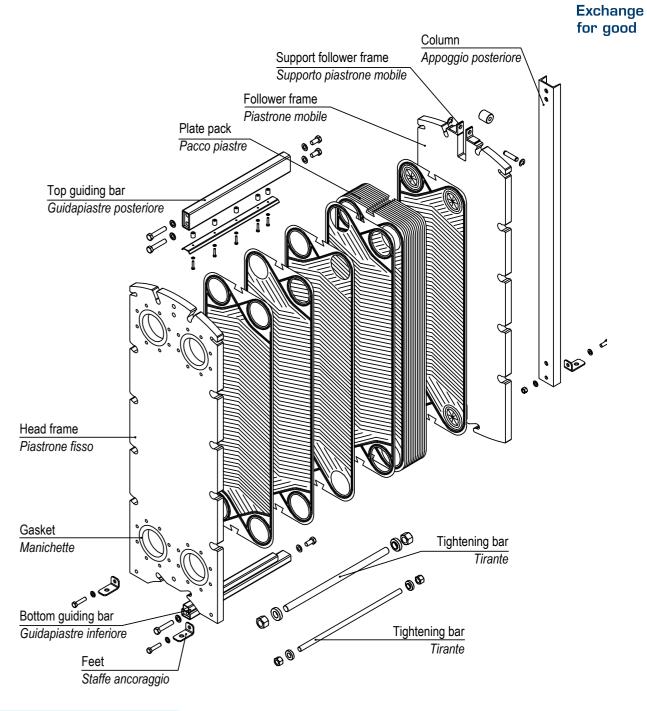
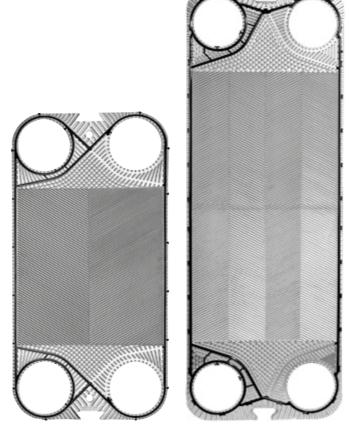


Plate Heat Exchanger	S400+					S600+				S900+						
Height		1371					1819				2272 / 2317					
Width		609					609				609					
Vertical connection pitch	840					1288				1736						
Horizontal connection pitch			287			287					287					
Max. number of plates	101	201	301	401	551	101	201	301	401	551	101	201	301	401	551	701
Depth	800	1300	1800	2300	3100	800	1300	1800	2300	3100	800	1300	1800	2300	3110	3930
Connection diameter (DN)						DN150 6"										



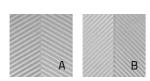
**DN200** 





Product Range	P6	50+	P990+		
Exchange area [m²]	0,6	506	0,9	172	
Width [mm]	6	78	66	58	
Height [mm]	13	340	18	25	
Connections diameter		DN2	00 8"		
Channel capacity [I]	2,7	109	2,399		
Tightening quote [mm] *	3	,3	3	,1	
Plate weight (with gasket) [Kg] *	3,	179	4,5		
Corrugation angle		A	A/B		
Max. water flowrate [m³/h]	8	00	730		
PS=> Max working pressure [bar]	10	16	10 16		

<sup>\*</sup> standard AISI316L 0,5mm



Plates are available in two thermal lengths (A/B)

DN32 DN50 DN65	DN80 DN100	DN150	DN200	
----------------	------------	-------	-------	--

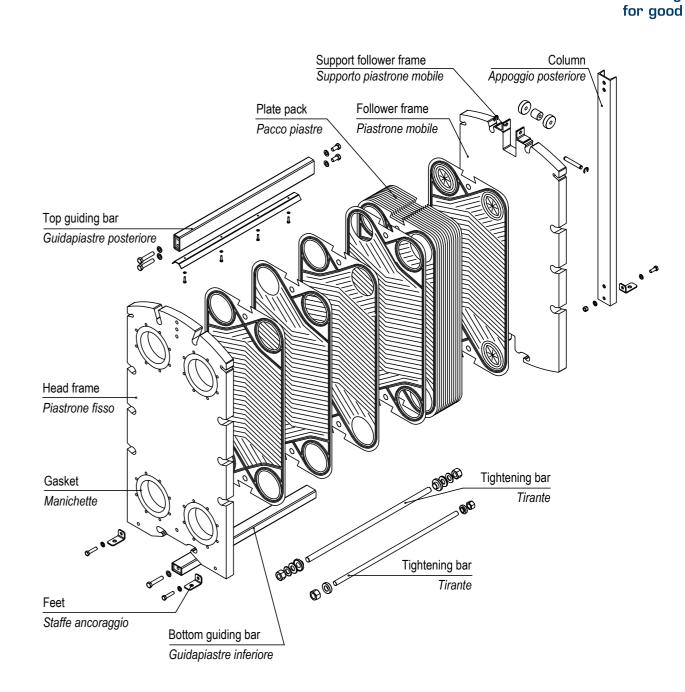
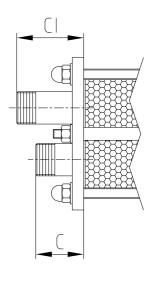
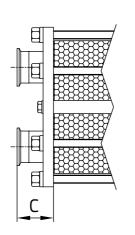


Plate Heat Exchanger		S6!	50+		S990+					
Height		1657	/ 1707		2190 / 2206					
Width		8	10		790					
Vertical connection pitch		10	)55		1536					
Horizontal connection pitch		39	91		396					
Max. number of plates	151	251	351	551	151	251	351	551		
Depth	1220	1820	2220	3130	130 1220 1820 2220					
Connection diameter (DN)				DN2	N200 8"					

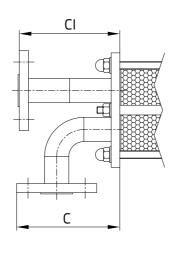
J/M/W

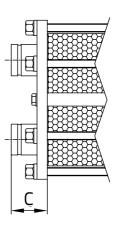


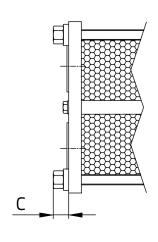




**ISO 2852 CLAMP CONNECTIONS** 







**GAS MALE THREADED CONNECTIONS** 

R



**ISO STUDDED PORTS** 

**GROOVED PIPE CONNECTIONS** 

Υ

ISO STUDDED PORTS



**ANSI STUDDED PORTS** 

C/E/V

		Connections	dimensi	ons (se	e drawii	ngs C - CI, all dimensi	ons are in mm)			
	DN32	DN50		DN65		DN80	DN100	DN150	DN:	200
	(CI - C)	DINOU	S110+	S210+	S410+	DINOU	DIVIOU	טכו ווע	S650+	S990+
J-J	63 - 88	88	88	88	-	-	-	-	-	
M-M	73	84	93	93	-	-	-	-	-	
J-M	59 - 73	84	93	93	-	-	-	-	-	-
R-R	63 - 88	88	88	88	-	-	-	-	-	
J-R	88 - 63	88	88	88	-	-	-	-	-	-
Y-Y	63 - 118	88	88	88	-	-	-	-	-	
W-W	63 - 88	88	-	-	-	-	-	-	-	
X-X	180 - 176	-		-		-	-	-	-	
A-A B-B U-U	-	-	36	36	36	36	48	48	63	48
C-C E-E V-V	-	-	36	36	36	36	48	48	63	48



for good

### **Frames**

- In carbon steel, standard or special painting
  In stainless steel AISI 304 (EN 1.4301)

### Connections

- Stainless steel/Titanium/Moplen threaded
- Flanged EN/ASMEDin 11851 and Triclamp

### Plates from 0,4 to 0,7 mm

- Stainless steel AISI 304 (EN 1.4301)
- Stainless steel AISI 316L (EN 1.4404)
- Titanium (Grade 1)
- SMO 254 (EN 1.4547)
- DOUBLE WALL (models 040+ / 080+ / 160+) •

### Gaskets - Plug-In® design

■ NBR, EPDM prx, FPM A/GF, HNBR

### **Double Wall**



### Gaskets

Materials	Minimum and maxi	imum temperatures
NBR	-10 °C	110 °C
EPDM Prx.	-10 °C	150 °C
FPM A	o ° C	140 °C
FPM GF	0 °C	160 °C
HNBR	o °C	135 °C

The temperatures must be considered not applicable in all working conditions.

			DN32			DN50		DN65		DN80	DN100			DN150			DN200			
		S020+	S040+	S080+	S070+	S160+	S260+	S110+	S210+	S410+	S270+	S300+	S450+	S455+	S705+	S400+	S600+	S900+	S650+	S990+
	AISI 304	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Plates	AISI 316L				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	254 SMO	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•		
	Titanium				•	•	•	•	•	•	•	•	•	•	•	•	•			•
	NBR	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•
Caskata	EPDM Prx.				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Gaskets	FPM A - FPM GF	•	•	•	•	•	•	•	•	•	•	•	•			•	•	•	•	
	HNBR				•	•	•	•	•	•	•	•	•			•	•	•	•	
F	Carbon steel	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Frames * *	Stainless steel		•		•	•			•			•	•							
	J (AISI316)	•	•	•	•	•	•	•	•											
	M (PP)	•	•	•	•	•	•	•	•											
	W (Titanium)	•	•	•	•	•	•													
	R (Clamp)	•	•	•	•	•	•	•	•											
Connections **	Y (Victaulic)	•	•	•	•	•	•	•	•											
	X (AISI304)	•	•	•																
	A / C (Rubber lined)							•	•	•	•	•	•	•	•	•	•	•	•	•
	B / E (AISI316L lined)							•	•	•	•	•	•	•	•	•	•	•	•	•
	U / V (Unlined)							•	•	•	•	•	•	•	•	•	•	•	•	•

### Thermal Insulations

3 type of insulation, depending on dimensions and uses

### Thermal Insulation PB

DN 65, DN 80, DN 100, DN 150 and DN 200

PB is the insulation specifically designed for HVAC applications of our plate heat exchangers.

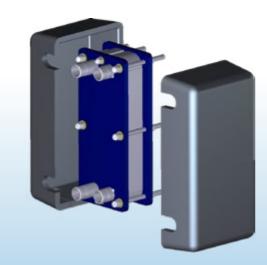
It is a self-supporting modular structure made of insulated panels (45 mm thickness) anchored together using closure hooks and coupled in such a way as to minimize thermal bridges.



## Thermal Insulation TF DN 32, DN 50 and DN 65

TF is a prefabricated, flexible, and semi-rigid insulation, easy to install and adapt to any product configuration and specific customer needs.

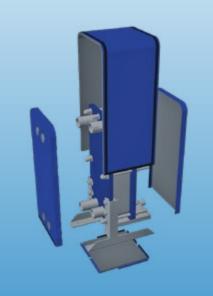
Thanks to its special "double-layer" structure, composed of two different closed-cell expanded elastomers (total thickness up to 30 mm), it is suitable for both heating and cooling applications.



## Thermal Insulation FL DN 32, DN 50 and DN 65

FL is the insulation designed to combine thermal insulation performance, compactness, and versatility in heating and cooling applications of our plate heat exchangers up to size DN65-2"1/2.

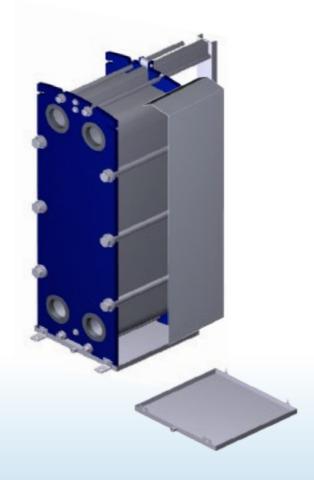
Made of closed-cell expanded elastomer with an external protective PVC coating, it is highly flexible and soft to the touch.



### **Other Accessories**

Plate pack protection and Drip Tray





### **Plate Pack Protection**

All models

The Plate Pack Protection is a safety device specifically designed to protect personnel in case of unexpected fluid leaks from the heat exchanger. Highly recommended for hazardous applications, it should always be used when temperatures exceed 60°C, even for non-critical fluids.

The Plate Pack Protection consists of two or more shaped plates that cover the plate pack, adapting perfectly to the shapes of each heat exchanger model.

### **Drip Tray** All models

The Drip Tray is a protective device specifically designed to collect water or other fluids in case of unexpected leaks or when the heat exchangers are open for maintenance.

Recommended for hazardous substances and when additional protection for the external environment is needed, it is also used in cooling applications to collect condensation that may form outside the heat exchanger.

## Certified quality and reliability

Cipriani PHE is able to find the best solution for every compatible application.

plate heat exchangers that are certified, reliable and designed to offer you the best performance according to the project's needs.



### **Products always guaranteed**

**Guaranteed traceability** of all

Pressures (g) up to: 25 bar Temperatures up to: 160°C

materials and components

**Accurate inspection** of the finished product

> **100%** of the heat exchangers are factory tested





for good



### **Our Certifications**



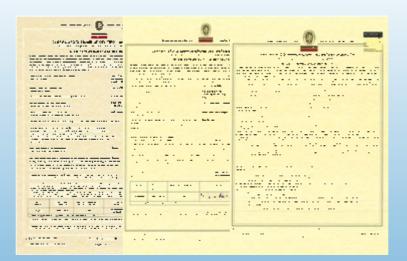








- ISO 14001 Environmental Management



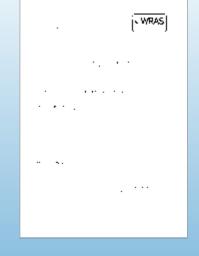


■ PED 2014/68/UE **Pressure Equipment** Directive Module B,D1 & D



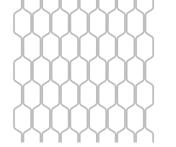


- ACS Conformité Sanitaire





WRAS compound approved



## **Brazed plate heat exchangers**

The completion of our plate heat exchanger offering



### The optimum solution for any application:

- Heat Pumps
  Solar Technology
  Energy Recovery
  District Heating
  Domestic Water Heating

### Materials of contruction

- Plates: Stainless Steel AISI 316L
- Connections: Stainless Steel AISI 304
- Brazing material: Copper (99.9 % pure)

### **Operating data**

- Maximum operating temperature (TS): +200°C
   Standard operating pressure (PS at 200°C): 16 bar
   Testing pressure (PT): 19,2 bar

### **Standard product configuration**

Single-pass, counter-current and parallel flows with four connections on front plate











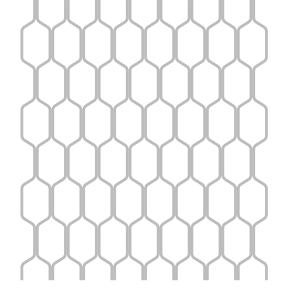


MODELS		SSA 07 8	SSA 09 8	SSA 62 8	SSA 82 8	SSA 82 6	SSA X2 6		
Connections		G 3/4"	G 3/4"	G 1"	G 1" 1/4	G 1" 1/4	G 2"		
Theta	Pattern	Н	Н	Н	Н	M	М		
Height	H/mm	216	327	378	529	529	527		
Ŧ.	h/mm	182	289	320	469	469	442		
Width	B/mm	77	79	122	121	121	244		
Wic	b/mm	41	41	64	62	62	160		
A/mm		20	20	27	27	27	38		
L/mm		10,0+Np*2,30	10,0+Np*2,30	12,0+Np*2,15	11,0+Np*2,15	11,0+Np*2,15	12,0+Np*2,35		
Weight [kg]		0,05+Np*0,06	1,1+Np*0,08	2,0+Np*0,12	2,0+Np*0,17	2,0+Np*0,17	10,0+Np*0,4		











# Exchange for good

- MADE IN ITALY -



Via Nassar, 46 37026 Pescantina, Verona (VR)

Ph. +39.045.6750065 Fax +39.045.6750118 info@cipriani-phe.com

cipriani-phe.com



### Scan the QR Code

consult and download all the technical data sheets of the products and accessories.