euro heat

PLATE HEAT EXCHANGERS MANUFACTURING

euro heat

HEATING **COOLING** **SANITARY WATER**

EURO HEAT is in business of manufacturing plate heat exchangers since 1995.
We are producing gasket and brazed plate heat exchangers with capacities up to 20 MW, as well as plate and shell type of heat exchangers with capacities up to 100 MW.

Up to date production with strictly defined technological process, usage of top quality materials, constant development, rigorous finish control. All this helped EURO HEAT to become leader in manufacturing plate heat exchangers in southeast Europe.

Company is certified with ISO 9001 , ISO 14001 , ISO 18001 , GostR and CE certificates for its products.

Up until now EURO HEAT has more then 20.000 heat exchangers installed and working all around the world.

Regarding heating, cooling and all other applications EURO HEAT provides help and support to its clients by software solutions that are regularly updated on our web page.

PLATE & SHELL HEAT EXCHANGERS

This type of heat exchangers represents ideal combination of plate heat exchanger and shell&tube heat exchangers, combining the best features of both - efficiency of plate heat exchanger and safety shell&tube heat exchangers.

The inner plate are welded together so, by eliminating gaskets this type of heat exchanger can work with temperatures from -200 ˚C up to 500 ˚C. These heat exchangers are manufactured in capacities up to 100.000 kW and working pressures up to 100 bar, efficiency of these type of heat exchanger is very high (95%).

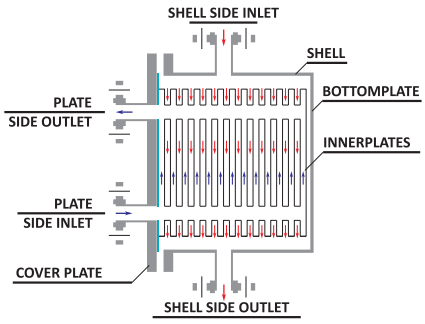
This type of heat exchangers is used in district heating systems (most often as primary heat exchanger), as condensers and evaporators. Plate&shell heat exchangers have also found their place in applications within systems for heating and cooling oil.

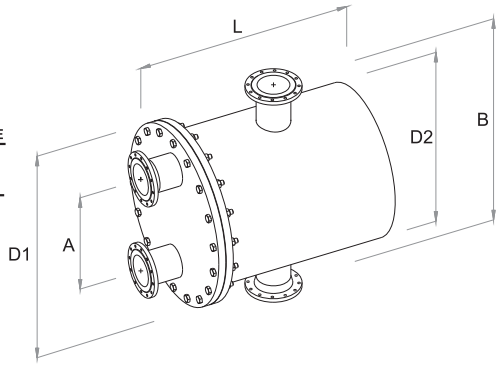
More and more, this type of heat exchanger is used in function of economizers and recuperators for waste heat gases.

This type of exchanger is ideal for systems where there are large and asymmetric flows of working fluids.

Another advantage of this type of heat exchanger is that it is possible to clean one side of exchanger very easy, therefore this type of exchanger is often used as a primary heat exchanger in systems of large boiler plants which serve to protect the boiler from impurities that can reach boiler from the pipelines.

WORKING PRINCIPALS





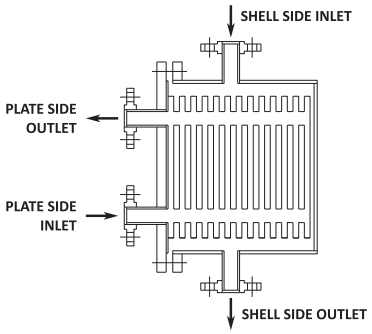
BASIC INFORMATION ABOUT PLATE&SHELL HEAT EXCHANGERS

Type	Inner plate demeter [mm]	Thickness of inner plates [mm]	Area per plate [m²]	Maximal number of inner plates	D1 (mm)	A (mm)	D2 (mm)	B (mm)	L (mm)	Plate side connection [DN]	Shell side connection [DN]
P 100	120	0.6	0.01	100	202	80	139.7	variably	variably	25	25 - 50
P 200	190	0.6	0.027	150	289	130	219.1			25	25 - 80
P 350	320	0.6	0.082	300	450	226	355.6			50	25 - 150
P 500	454	0.6	0.165	500	665	330	508			80	50 - 300
P 660	660	0.7	0.369	600	885	498	711			125	50 - 500
P 1000	940	0.7	0.717	1000	1290	740	1060			200	50 - 700

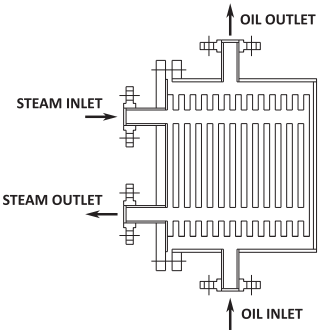
PLATE & SHELL HEAT EXCHANGERS

SCHEME IN THE AREAS OF APPLICATION

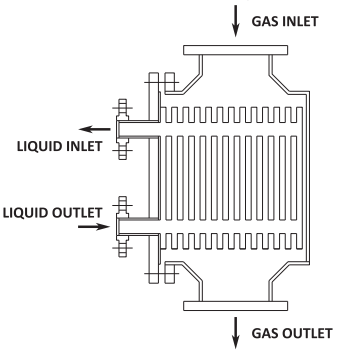
LIQUID / LIQUID



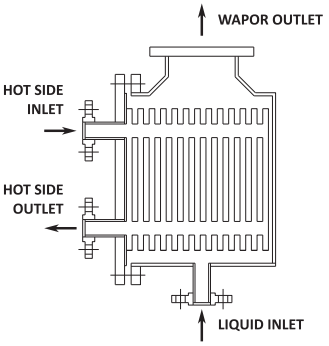
STEAM / OIL



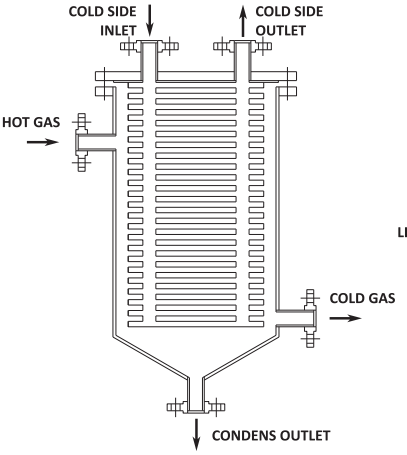
LIQUID / GAS



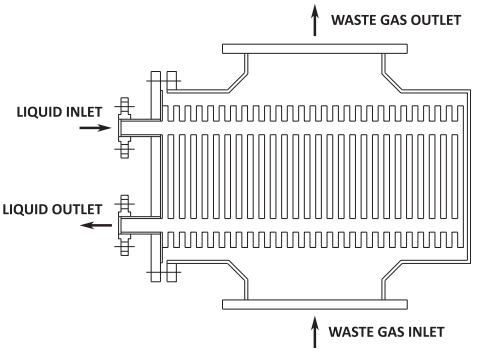
EVAPORATOR



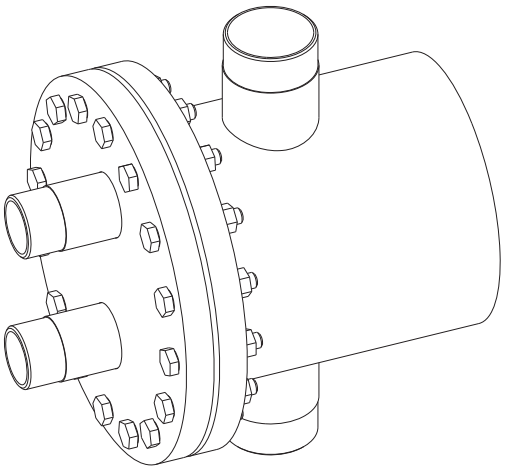
CONDENSER



RECUPERATION OF ENERGY FROM WASTE GASES



COMPARISON OF TYPES OF HEAT EXCHANGER		TYPES OF HEAT EXCHANGER				
		Shell and tube	Plate spiral	Gasket plate	Brazed plate	Plate & shell
Weight	kg	1000	800	500	300	400
Volume	m^3	1.0	0.7	0.4	0.2	0.2
Application areas	/	liquid / liquid gas / liquid gas / gas	liquid / liquid gas / liquid gas / gas	liquid / liquid vapor / liquid	liquid / liquid gas / liquid	liquid / liquid gas / liquid gas / gas
Maximum working temperature	°C	300	300	-10/150	-40/220	-196/400
Maximum working pressures	bar	~200	~ 16	~ 25	~ 40	~100
K coefficient	$W/m^2h°C$	200 - 1500	600 - 2500	max 6000	max 6000	max 6000
Efficiency plates	%	/	100	75	80	100
Maintenance costs	100%	100	60	60	inseparable	40



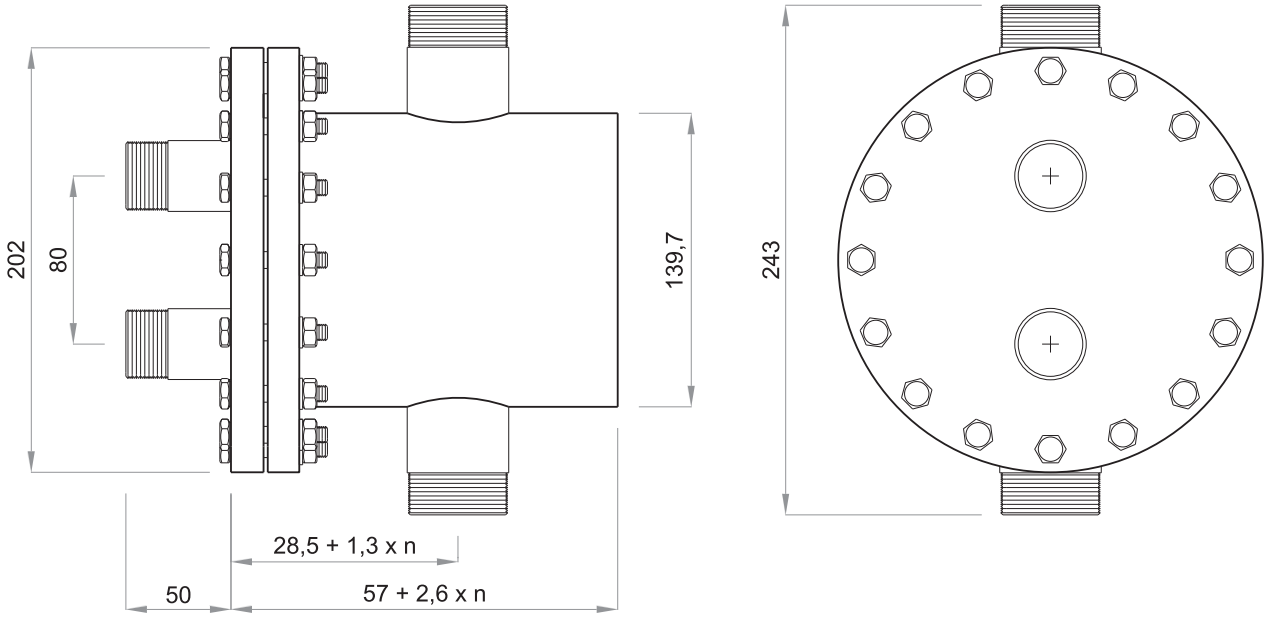
MATERIALS

SHELL AND CONNECTIONS

S235JRG2 (1.0038 , Gr.36 , Ст3пс) - COATED
AISI 304 (X5CrNil8 -10, 1.4301, 08Chl8N10)
AISI 316 (X5CrNiMo 17-12-2, 1.4401, 03Chl7N13M3)
AISI 316L (X2CrNiMo 18-14-3, 1.4435, 03Chl7N14M3)

INNER PLATES

AISI 304 (X5CrNil8-10, 1.4301, 08Chl8N10)
AISI 316 (X5CrNiMo 17-12-2, 1.4401, 03Chl7N13M3)
AISI 316L (X2CrNiMo 18-14-3, 1.4435, 03Chl7N14M3)

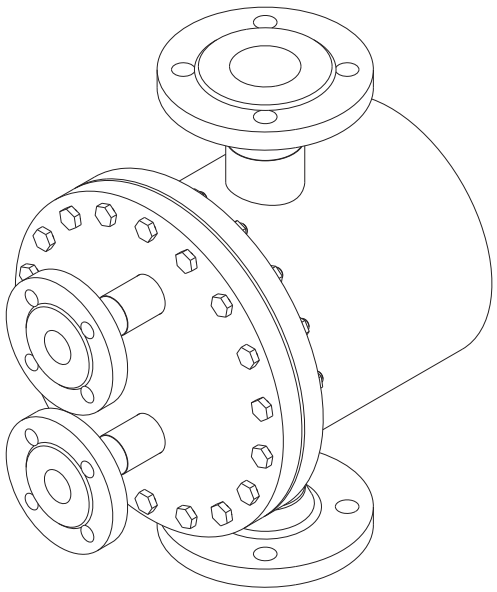


n - number of inner plates

BASIC INFORMATION ABOUT HEAT EXCHANGER – type P 100

PLATE SIDE CONNECTION	DN 25
SHELL SIDE CONNECTION	DN 25 ÷ DN 50
DIMENSIONS – H x W x L [mm]	243 x 200 x 103 + 2.6 x n
HEAT TRANSFER AREA [m²]	0.011 x n
VOLUME OF PLATE / SHELL SIDE [l]	0.023 / 0.11 x channels
WEIGHT OF HEAT EXCHANGER [kg]	10.2 + 0.082 x n
THICKNESS OF INNER PLATES [mm]	0.6
MAXIMAL NUMBER OF INNER PLATES	200
MAXIMAL FLOW [m³/h]	8
MAXIMAL WORKING TEMPERATURE [°C]	+ 400
MINIMAL WORKING TEMPERATURE [°C]	- 200
WORKING PRESSURES	NP6 , NP16 , NP25 , NP32 , NP40
TEST PRESSURE [bar]	60

Material codes: EN 10088-2, ASTM, GOST



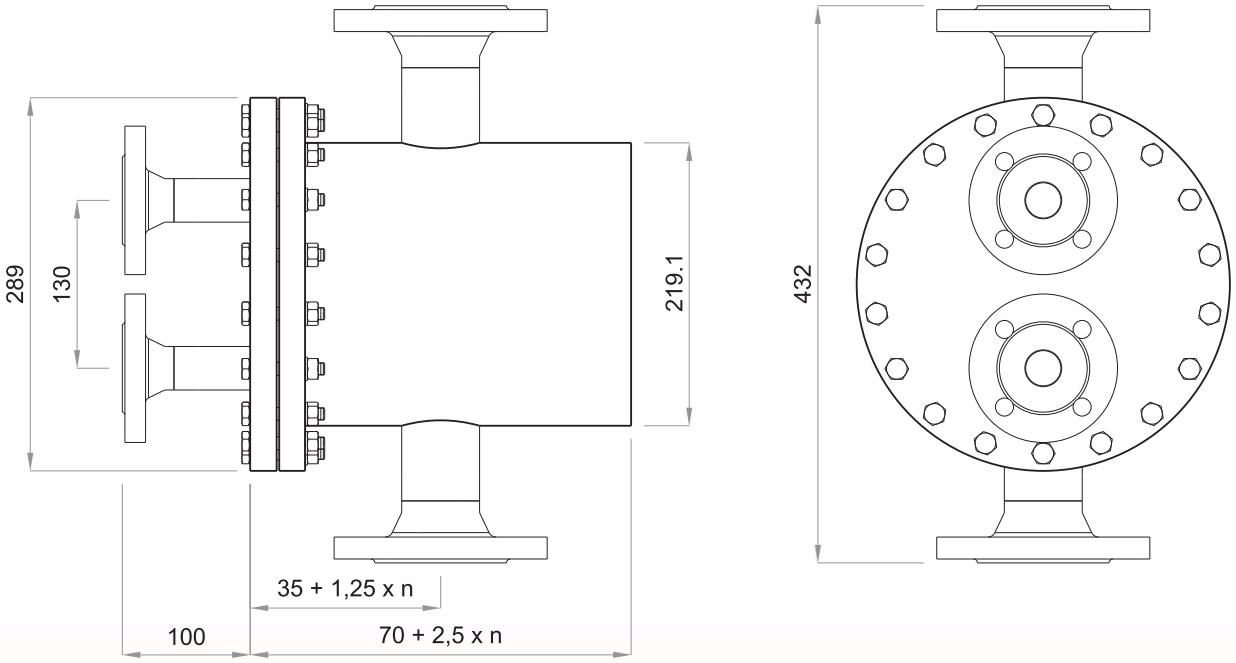
MATERIALS

SHELL AND CONNECTIONS

S235JRG2 (1.0038 , Gr.36 , Ст3пс) - COATED
AISI 304 (X5CrNil8 -10, 1.4301, 08Chl8N10)
AISI 316 (X5CrNiMo 17-12-2, 1.4401, 03Chl7N13M3)
AISI 316L (X2CrNiMo 18-14-3, 1.4435, 03Chl7N14M3)

INNER PLATES

AISI 304 (X5CrNil8-10, 1.4301, 08Chl8N10)
AISI 316 (X5CrNiMo 17-12-2, 1.4401, 03Chl7N13M3)
AISI 316L (X2CrNiMo 18-14-3, 1.4435, 03Chl7N14M3)

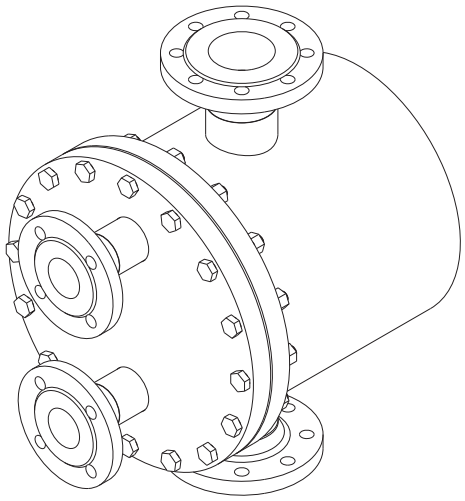


n - number of inner plates

BASIC INFORMATION ABOUT HEAT EXCHANGER – type P 200

PLATE SIDE CONNECTION	DN 25
SHELL SIDE CONNECTION	DN 25 ÷ DN 80
DIMENSIONS – H x W x L [mm]	325 x 290 x 123 + 2.5 x n
HEAT TRANSFER AREA [m²]	0.028 x n
VOLUME OF PLATE / SHELL SIDE [l]	0.036 / 0.173 x channels
WEIGHT OF HEAT EXCHANGER [kg]	35.8 + 0.01 x n
THICKNESS OF INNER PLATES [mm]	0.5
MAXIMAL NUMBER OF INNER PLATES	200
MAXIMAL FLOW [m³/h]	12
MAXIMAL WORKING TEMPERATURE [°C]	+ 400
MINIMAL WORKING TEMPERATURE [°C]	- 200
WORKING PRESSURES	NP6 , NP16 , NP25 , NP32 , NP40
TEST PRESSURE [bar]	60

Material codes: EN 10088-2, ASTM, GOST



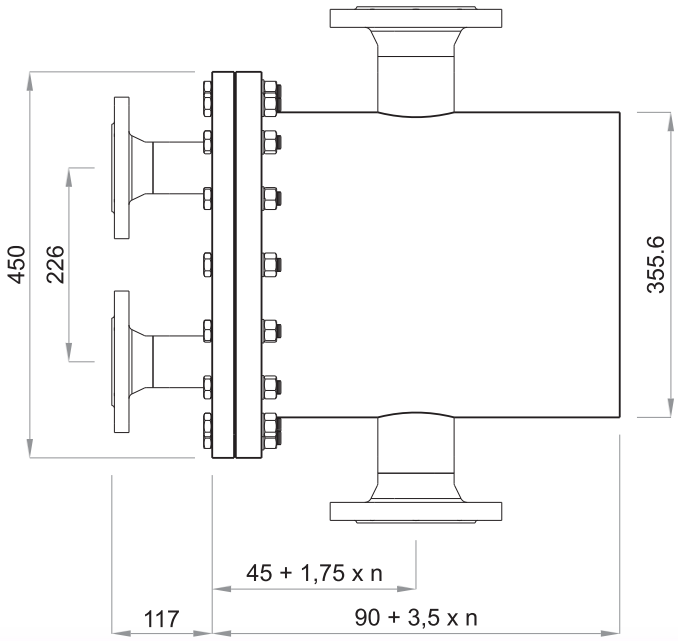
MATERIALS

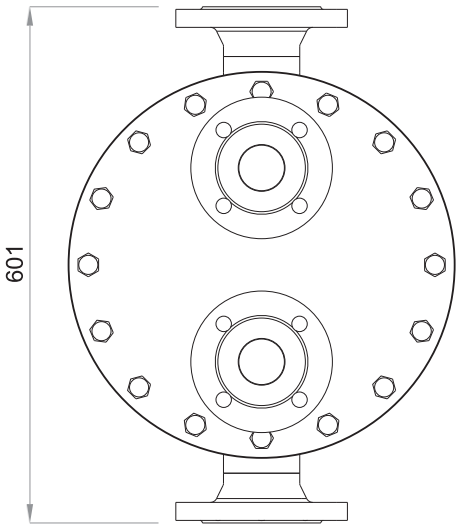
SHELL AND CONNECTIONS

S235JRG2 (1.0038 , Gr.36 , Ст3пс) - COATED
AISI 304 (X5CrNil8 -10, 1.4301, 08Chl8N10)
AISI 316 (X5CrNiMo 17-12-2, 1.4401, 03Chl7N13M3)
AISI 316L (X2CrNiMo 18-14-3, 1.4435, 03Chl7N14M3)

INNER PLATES

AISI 304 (X5CrNil8-10, 1.4301, 08Chl8N10)
AISI 316 (X5CrNiMo 17-12-2, 1.4401, 03Chl7N13M3)
AISI 316L (X2CrNiMo 18-14-3, 1.4435, 03Chl7N14M3)



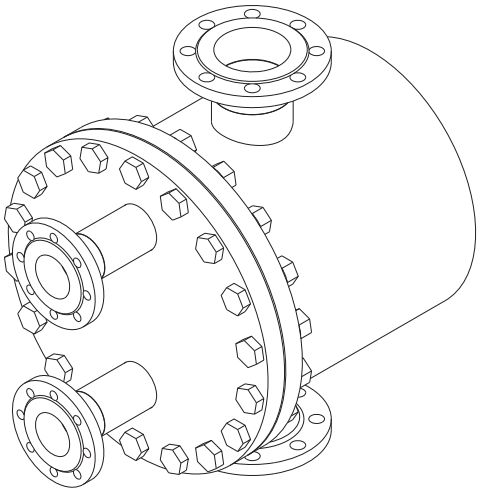


n - number of inner plates

BASIC INFORMATION ABOUT HEAT EXCHANGER – type P 350

PLATE SIDE CONNECTION	DN 50
SHELL SIDE CONNECTION	DN 25 ÷ DN 150
DIMENSIONS – H x W x L [mm]	488 x 425 x 153 + 3.5 x n
HEAT TRANSFER AREA [m²]	0.079 x n
VOLUME OF PLATE / SHELL SIDE [l]	0.06 / 0.29 x channels
WEIGHT OF HEAT EXCHANGER [kg]	105 + 0.595 x n
THICKNESS OF INNER PLATES [mm]	0.5
MAXIMAL NUMBER OF INNER PLATES	300
MAXIMAL FLOW [m³/h]	40
MAXIMAL WORKING TEMPERATURE [°C]	+ 400
MINIMAL WORKING TEMPERATURE [°C]	- 200
WORKING PRESSURES	NP6 , NP16 , NP25 , NP32 , NP40
TEST PRESSURE [bar]	60

Material codes: EN 10088-2, ASTM, GOST



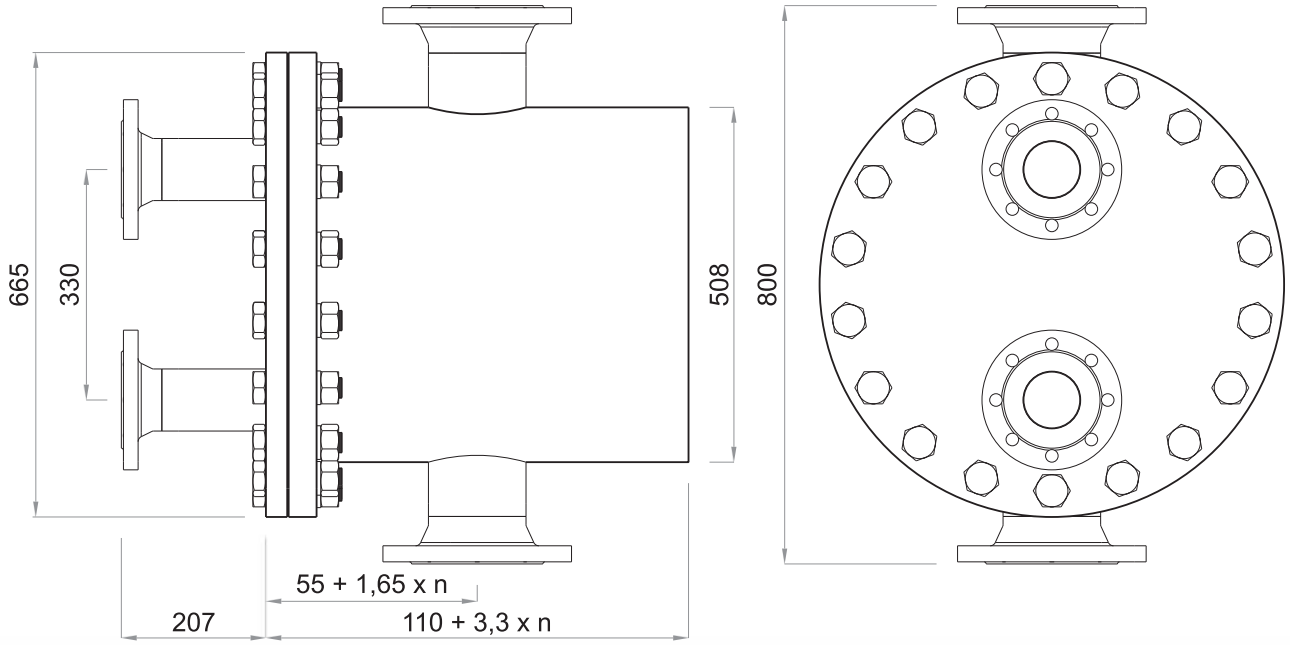
MATERIALS

SHELL AND CONNECTIONS

S235JRG2 (1.0038 , Gr.36 , Ст3пс) - COATED
AISI 304 (X5CrNil8 -10, 1.4301, 08Chl8N10)
AISI 316 (X5CrNiMo 17-12-2, 1.4401, 03Chl7N13M3)
AISI 316L (X2CrNiMo 18-14-3, 1.4435, 03Chl7N14M3)

INNER PLATES

AISI 304 (X5CrNil8-10, 1.4301, 08Chl8N10)
AISI 316 (X5CrNiMo 17-12-2, 1.4401, 03Chl7N13M3)
AISI 316L (X2CrNiMo 18-14-3, 1.4435, 03Chl7N14M3)

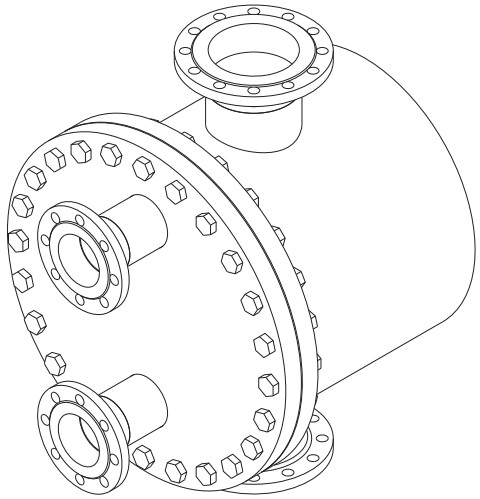


n - number of inner plates

BASIC INFORMATION ABOUT HEAT EXCHANGER – type P 500

PLATE SIDE CONNECTION	DN 80
SHELL SIDE CONNECTION	DN 50 ÷ DN 300
DIMENSIONS – H x W x L [mm]	665 x 628 x 253 + 3.3 x n
HEAT TRANSFER AREA [m²]	0.166 x n
VOLUME OF PLATE / SHELL SIDE [l]	0.08 / 0.41 x channels
WEIGHT OF HEAT EXCHANGER [kg]	0.5
THICKNESS OF INNER PLATES [mm]	278 + 1.16 x n
MAXIMAL NUMBER OF INNER PLATES	500
MAXIMAL FLOW [m³/h]	120
MAXIMAL WORKING TEMPERATURE [°C]	+ 400
MINIMAL WORKING TEMPERATURE [°C]	- 200
WORKING PRESSURES	NP6 , NP16 , NP25 , NP32 , NP40
TEST PRESSURE [bar]	60

Material codes: EN 10088-2, ASTM, GOST



MATERIALS

SHELL AND CONNECTIONS

S235JRG2 (1.0038 , Gr.36 , Ст3пс) - COATED
AISI 304 (X5CrNil8 -10, 1.4301, 08Chl8N10)
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AISI 316L (X2CrNiMo 18-14-3, 1.4435, 03Chl7N14M3)

INNER PLATES

AISI 304 (X5CrNil8-10, 1.4301, 08Chl8N10)
AISI 316 (X5CrNiMo 17-12-2, 1.4401, 03Chl7N13M3)
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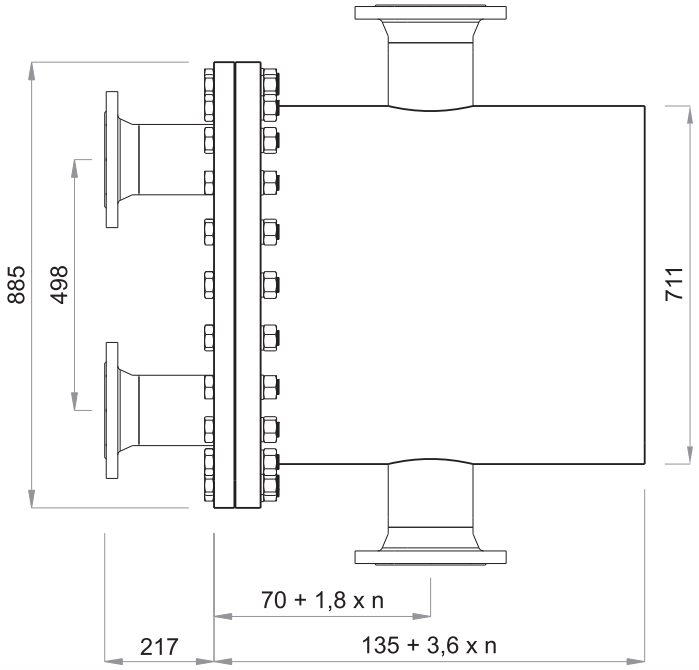
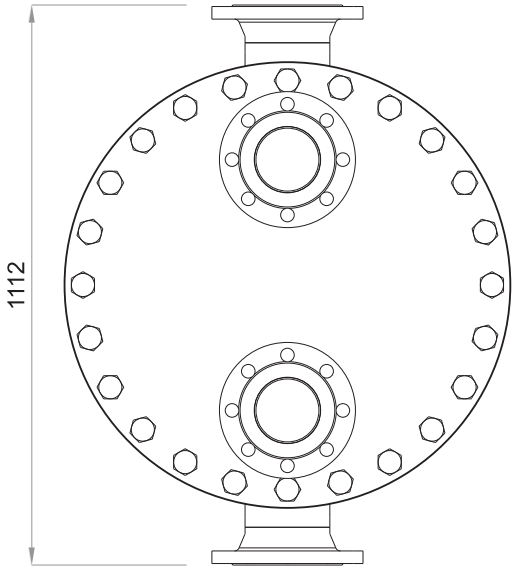


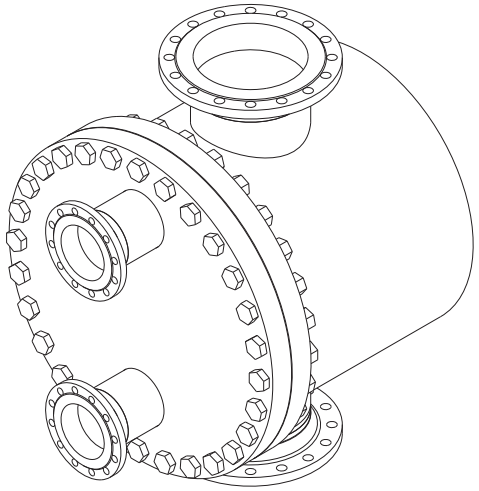


n - number of inner plates

BASIC INFORMATION ABOUT HEAT EXCHANGER - type P 660

PLATE SIDE CONNECTION	DN 125
SHELL SIDE CONNECTION	DN 50 ÷ DN 500
DIMENSIONS – H x W x L [mm]	950 x 891 x 273 + 3.6 x n
HEAT TRANSFER AREA [m²]	0.369 x n
VOLUME OF PLATE / SHELL SIDE [l]	0.12 / 0.59 x channels
WEIGHT OF HEAT EXCHANGER [kg]	598 + 2.3 x n
THICKNESS OF INNER PLATES [mm]	0.5
MAXIMAL NUMBER OF INNER PLATES	600
MAXIMAL FLOW [m³/h]	250
MAXIMAL WORKING TEMPERATURE [°C]	+ 400
MINIMAL WORKING TEMPERATURE [°C]	- 200
WORKING PRESSURES	NP6 , NP16 , NP25 , NP32 , NP40
TEST PRESSURE [bar]	60

Material codes: EN 10088-2, ASTM, GOST



MATERIALS

SHELL AND CONNECTIONS

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INNER PLATES

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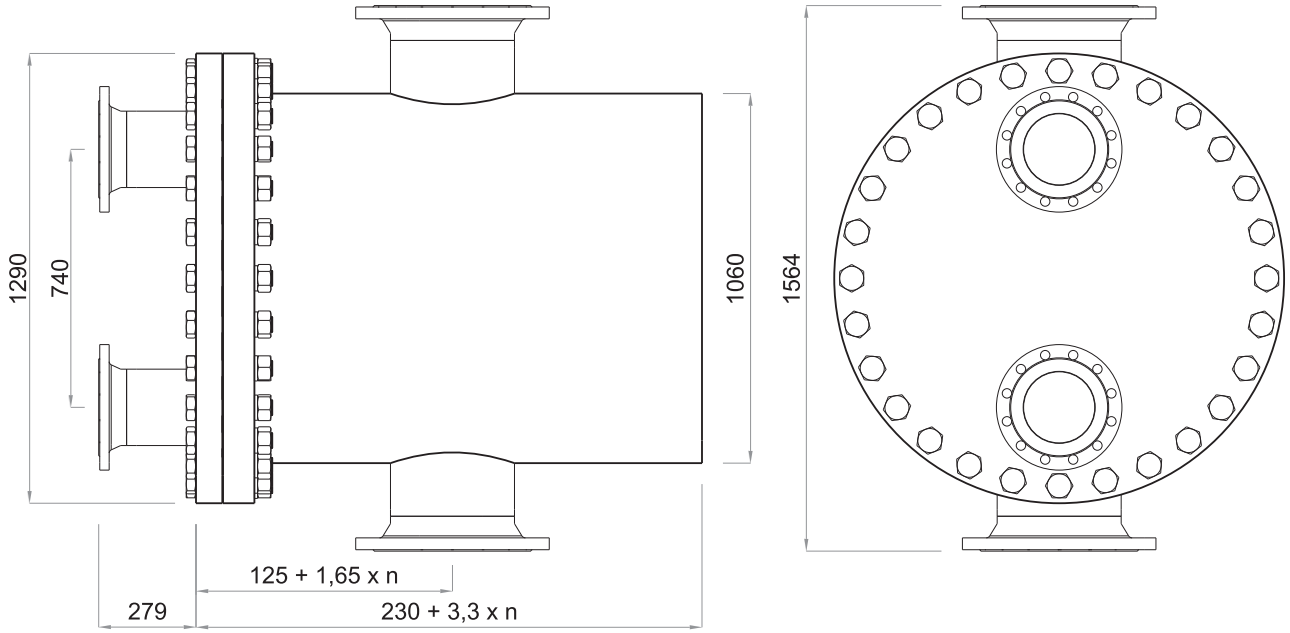
AISI 316L (X2CrNiMo 18-14-3, 1.4435, 03Chl7N14M3)



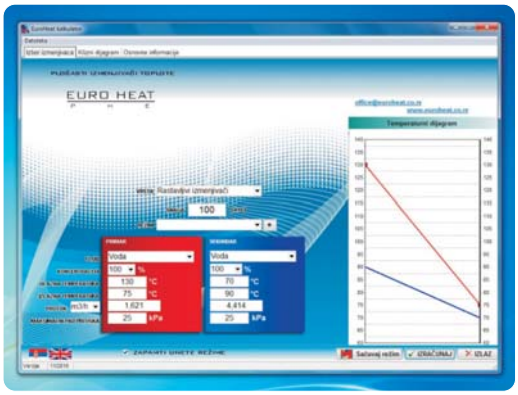
n - number of inner plates

BASIC INFORMATION ABOUT HEAT EXCHANGER – type P 1000

PLATE SIDE CONNECTION	DN 200
SHELL SIDE CONNECTION	DN 50 ÷ DN 700
DIMENSIONS – H x W x L [mm]	1564 x 1060 x 403 + 3.3 x n
HEAT TRANSFER AREA [m²]	0.73 x n
VOLUME OF PLATE / SHELL SIDE [l]	0.17 / 0.83 x channels
WEIGHT OF HEAT EXCHANGER [kg]	2220 + 4.51 x n
THICKNESS OF INNER PLATES [mm]	0.5
MAXIMAL NUMBER OF INNER PLATES	700
MAXIMAL FLOW [m³/h]	700
MAXIMAL WORKING TEMPERATURE [°C]	+ 400
MINIMAL WORKING TEMPERATURE [°C]	- 200
WORKING PRESSURES	NP6 , NP16 , NP25 , NP32 , NP40
TEST PRESSURE [bar]	60

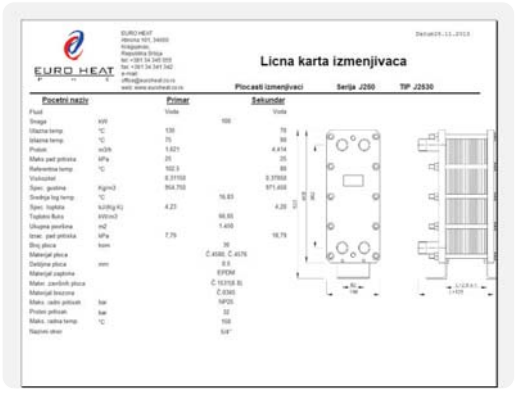
Material codes: EN 10088-2, ASTM, GOST

SOFTWARE SOLUTIONS



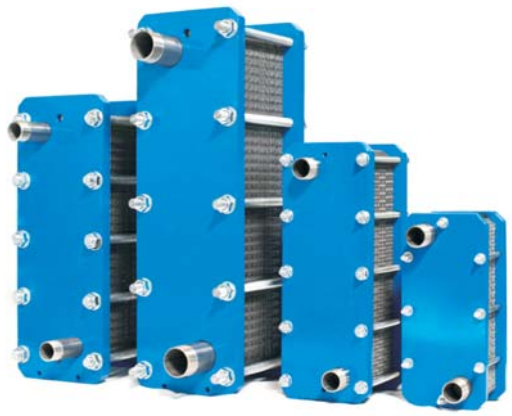
EURO HEAT CALC
is our own software based on calculations and measurements performed in our own laboratory. Software is created so that end user can easy and efficiently calculate necessary heat exchanger by inputting parameters such as heat load, temperature regimes and pressure drops. By inputting required parameters software offers list of heat exchangers that meets users demands.

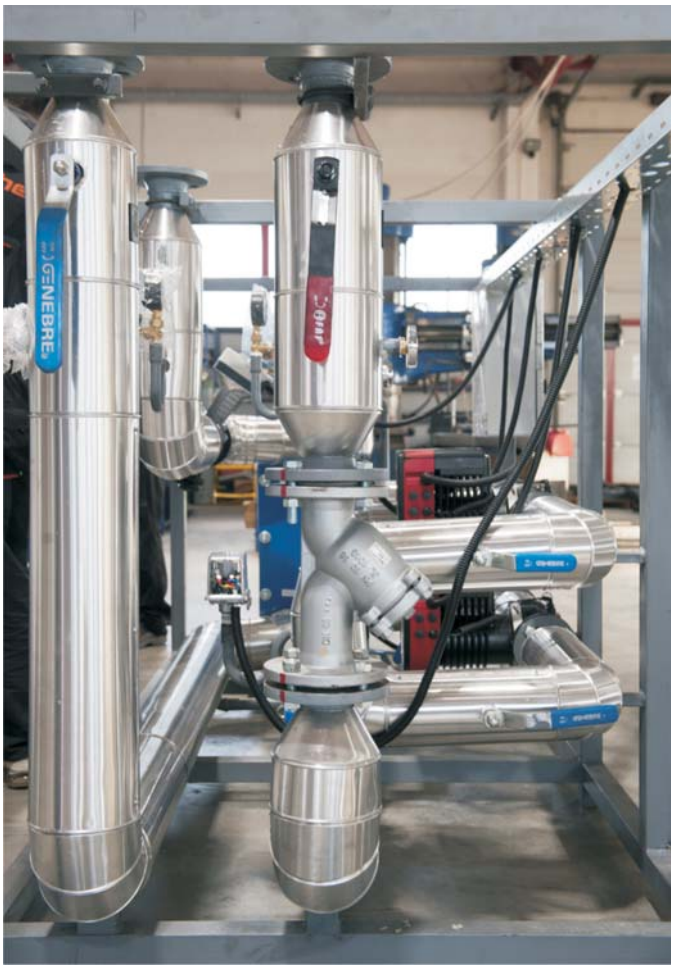
List of heat exchangers contains exchangers which meats requirements with their technical characteristics, structural data, physical properties and technical drawings with the possibility of display all in PDF format.



Data sheet of chosen exchanger you can show on screen, save, print...

It is possible to use our software's on mobile phones.
They are available for the Android and iOS platform.





ISO 9001
ISO 14001
ISO 18001

CE
1837

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Engineering for the World We Live In
member

EURO HEAT

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