

## EXCHANGERS

### INT LINE

### HEAT EXCHANGER



#### Special Models for:

- Applications thermal oil-steam,
- Thermal oil- hot water,
- Thermal oil-air,
- Thermal oil-vegetable oil,
- Steam-hot water,
- Another primary and secondary fluids,
- Another materials,
- Another design pressures.

#### Characteristics

- Design codes: AD-MERKBLÄTTER, TEMA.
- Marked CE.
- Primary and secondary circuit
- Cover: steel plate. UNE-36011.
- Flanges: PN16 y PN25.
- Torispherical bottoms under UNE-9201.
- Galvanized under UNE-37501.
- Coils by expanded tube.
- Made under 97/23/CE directive.

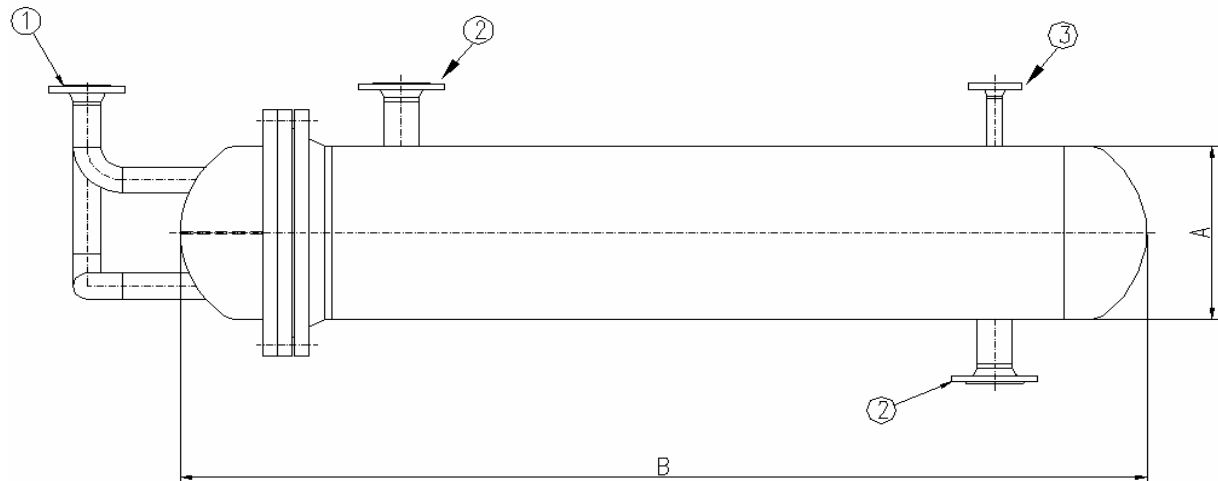
**Exchanger scheme**



	Enclosure I	Enclosure II
<b>Denomination</b>	Bundle	Shell
<b>Fluid content</b>	Thermal Fluid	Fluid (*)
<b>Design pressure (bar)</b>	6	6
<b>Tested pressure (bar)</b>	9	9
<b>Design temperature (°C)</b>	300	300

(\*) In the shell, the contained fluid will vary according to the application to which the heat exchanger is destined, and it can be water or vegetable oil.

## Exchanger general scheme



IRON EXCHANGER MODEL	Dimensions (mm)		Connections			Exchange Surface (m <sup>2</sup> )
	A	B	1	2	3	
INT-004-10-F	273 – DN250	1700	DN25	DN25	DN20	4
INT-008-10-F	273 – DN250	3000	DN32	DN40	DN20	8
INT-012-12-F	323.9 – DN300	3100	DN40	DN50	DN20	12
INT-016-14-F	355.6 – DN350	3100	DN50	DN50	DN20	16
INT-019-16-F	406.4 – DN400	3200	DN50	DN65	DN25	19
INT-024-16-F	406.4 – DN400	3300	DN65	DN65	DN25	24
INT-024-20-F	508 – DN500	3300	DN65	DN65	DN25	24
INT-036-20-F	508 – DN500	3300	DN65	DN80	DN32	36
INT-038-20-F	508 – DN500	3300	DN80	DN80	DN32	38
STAINLESS STEEL EXCHANGER MODEL.	Dimensions (mm)		Connections			Exchange Surface (m <sup>2</sup> )
	A	B	1	2	3	
INT-009-12-I	323.9 - DN300	3200	DN65	DN65	DN25	9
INT-013-14-I	355.6 – DN350	3200	DN80	DN80	DN25	13
INT-016-20-I	508 – DN500	1100	DN100	DN100	DN25	16
INT-029-20-I	508 – DN500	3300	DN100	DN100	DN40	29
INT-038-30-I	508 – DN500	3400	DN100	DN100	DN40	38

The manufacturer has the right to include changes in order to improve the equipments.

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## EXCHANGERS

INA LINE

CALORIFIER



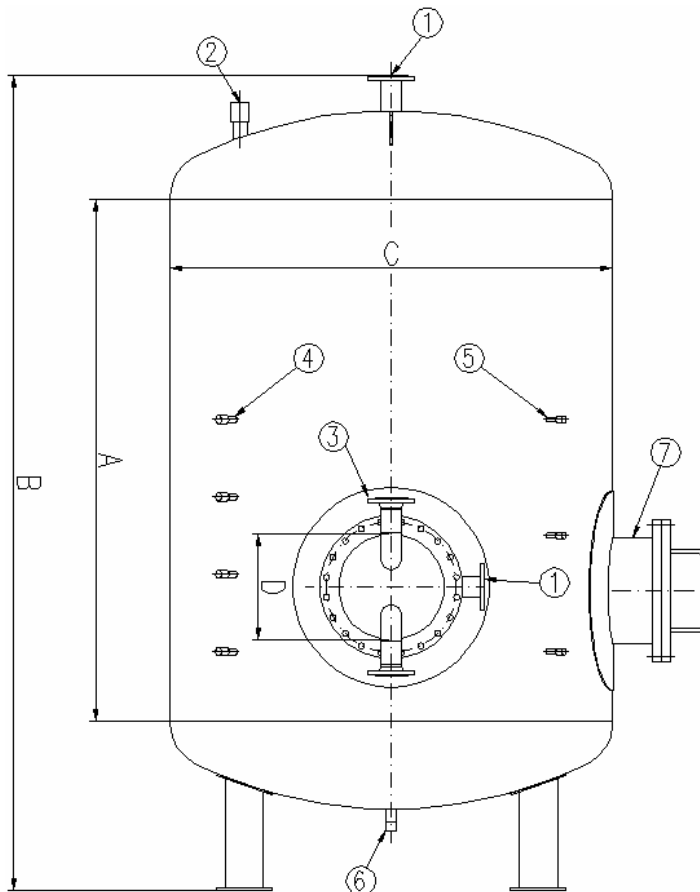
### Special Models for:

- Another productions.
- Another design pressures.

### Characteristics

- Design codes: AD-MERKBLÄTTER.
- Marked CE
- Tested pressure: 8,6 bar.
- Design pressure: 6 bar.
- Pressure engines regulation.
- Prevention and control of legionnaire's disease regulation.
- Made under 97/23/CE regulation, relative to pressure engines.

## Calorifier general scheme.



**Legend:**

- 1.- Water connection;
- 2.- Security valve;
- 3.- Thermal oil connection;
- 4.- Cathodic protection intakes (  $\frac{3}{4}$ " );
- 5.- Intakes P-Ta (  $\frac{1}{2}$ " );
- 6.- Drained (1  $\frac{1}{2}$ " );
- 7.- Man passage (only in case of A.C.S.) (DN450).

	Enclosure I	Enclosure II
<b>Denomination</b>	Tank	Bundle
<b>Content fluid</b>	Water	Thermal fluid
<b>Design pressure (bar)</b>	6	6
<b>Test pressure (bar)</b>	8.6	8.6
<b>Design temperature (°C)</b>	100	300

## Main dimensions

NOMENCLATURE			
INA	XXXX	D	L
Hot water Calorifier	(Production in l/h)	Thermal fluid direct feeding ( $T_{oil}^a=220^{\circ}C$ )	Hot water laundry ( $T_{water}^a=85^{\circ}C$ )
		S	S
		Feeding by secondary ( $T_{oil}^a=130^{\circ}C$ )	Sanitary hot water ( $T_{water}^a=60^{\circ}C$ )

### CALORIFIER RANGE D.S.

CALORIFIER MODEL	Dimensions (mm)				Connections		
	A	B	C	D	1	2	3
INA-1000-D-S	1000	2000	1000	273 – DN250	DN32	1"	DN25
INA-2000-D-S	1500	2600	1250	273 – DN250	DN40	1 ½"	DN32
INA-3000-D-S	1500	2700	1450	323.9 – DN300	DN50	1 ½"	DN40
INA-4000-D-S	2000	3200	1450	323.9 – DN300	DN65	1 ½"	DN50
INA-5000-D-S	2000	3300	1600	323.9 – DN300	DN65	2"	DN50
INA-6000-D-S	2000	3300	1800	355.6 – DN350	DN80	2"	DN65
INA-1000-D-L	1000	2000	1000	273 – DN250	DN32	1"	DN32
INA-2000-D-L	1500	2600	1250	323.9 – DN300	DN40	1 ½"	DN40
INA-3000-D-L	1500	2700	1450	323.9 – DN300	DN50	1 ½"	DN50
INA-4000-D-L	2000	3200	1450	355.6 – DN350	DN65	1 ½"	DN65
INA-5000-D-L	2000	3300	1600	406.4 – DN400	DN65	2"	DN65
INA-6000-D-L	2000	3300	1800	406.4 – DN400	DN80	2"	DN80

The manufacturer reserves the right to modify the characteristics with the objective to improve the equipment.

## Main dimensions

### CALORIFIER RANGE S.S.

CALORIFIER MODEL	Dimensions (mm)				Connections		
	A	B	C	D	1	2	3
INA-1000-S-S	1000	2000	1000	273 – DN250	DN32	1"	DN25
INA-2000-S-S	1500	2600	1250	323.9 – DN300	DN40	1 ½"	DN40
INA-3000-S-S	1500	2700	1450	355.6 – DN350	DN50	1 ½"	DN50
INA-4000-S-S	2000	3200	1450	406.4 – DN400	DN65	1 ½"	DN50
INA-5000-S-S	2000	3300	1600	406.4 – DN400	DN65	2"	DN65
INA-6000-S-S	2000	3300	1800	457.2 – DN450	DN80	2"	DN65
INA-1000-S-L	1000	2000	1000	323.9 – DN300	DN32	1"	DN32
INA-2000-S-L	1500	2600	1250	406.4 – DN400	DN40	1 ½"	DN50
INA-3000-S-L	1500	2700	1450	457.2 – DN450	DN50	1 ½"	DN65
INA-4000-S-L	2000	3200	1450	508 – DN500	DN65	1 ½"	DN65
INA-5000-S-L	2000	3300	1600	508 – DN500	DN65	2"	DN80
INA-6000-S-L	2000	3300	1800	508 – DN500	DN80	2"	DN80

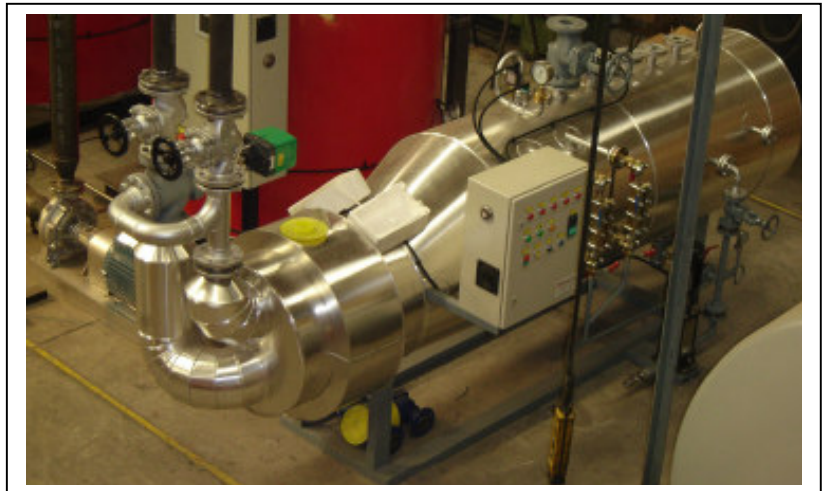
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## EXCHANGERS

### VAPORIZER

### GV LINE



#### Special models for:

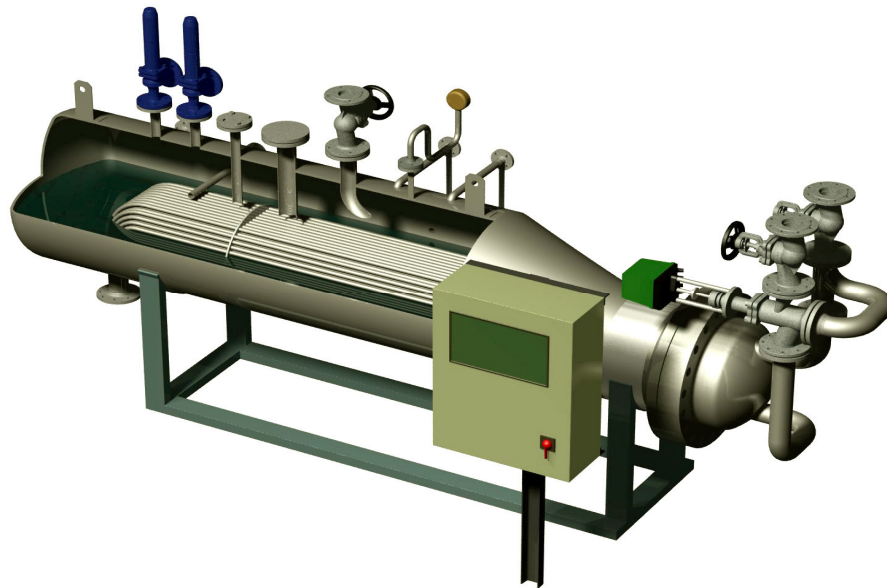
- Different steam productions,
- Totally execution in stainless steel,
- Another design pressures,
- Salts purge,
- Muds purge.

#### Characteristics

- Power range from 100 to 2000 kg/h of steam.
- Design codes: AD-MERKBLÄTTER, TEMA.
- Marked CE.
- Primary and secondary circuits
- Cover: steel plate UNE-36011.
- Connection flanges: PN16 and PN25.
- Torispherical bottoms under UNE-9201.
- Galvanized under UNE-37501.
- Coils by expanded tube.
- Made under 97/23/CE Regulation.
- Design pressure: 6 bar.

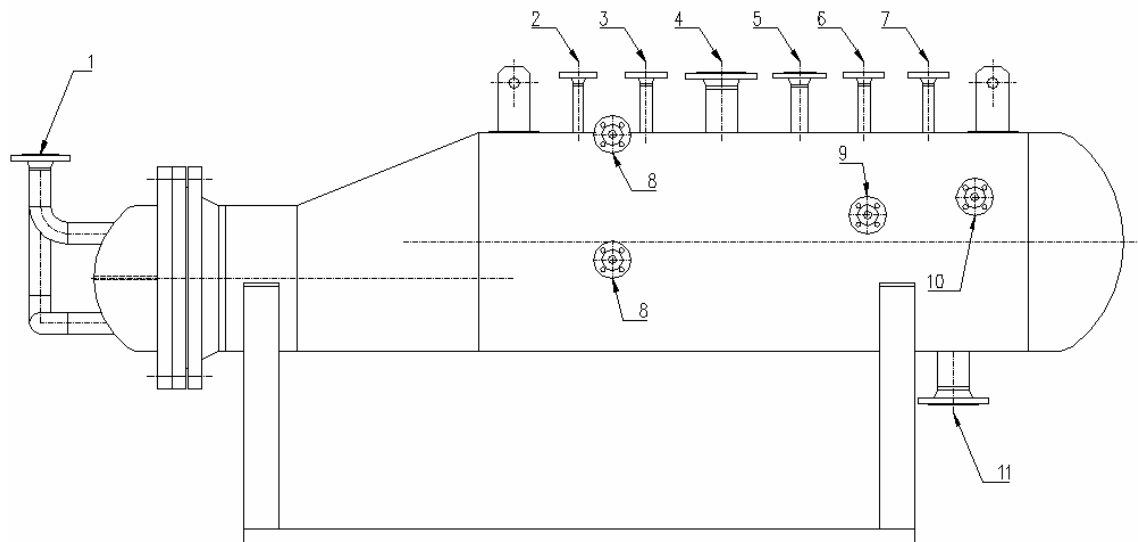


## Vaporizer scheme



	Enclosure I	Enclosure II
Denomination	Bundle	Shell
Content fluid	Thermal Fluid	Water
Design pressure (bar)	6	6
Tested pressure (bar)	9	9
Design temperature (°C)	300	300

## Vaporizer general scheme

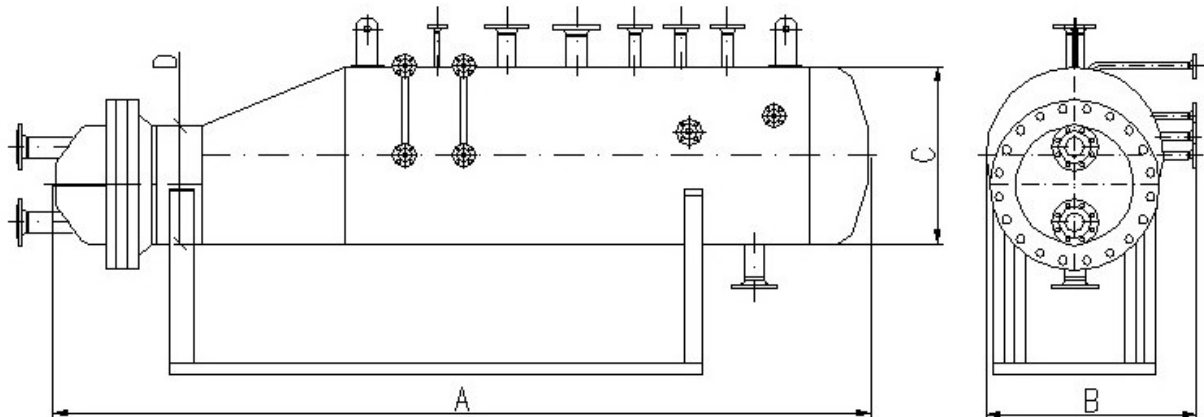


### Legend:

- 1.- Thermal oil circuit connection
- 2.- Securities / air outlet
- 3.- Steam outlet
- 4.- Working levels / security
- 5.- Security level
- 6.- Security valve
- 7.- Security valve
- 8.- Visual level
- 9.- Water inlet
- 10.- Purge of salts
- 11.- Purge of bottoms / drained

The manufacturer reserves the right to modify the characteristics with the objective to improve the equipment.

## Main dimensions



CHARACTERISTICS		VAPORIZER MODEL		
		GV-100	GV-300	GV-1000
Dimensions ( in mm )	A	2610	2883	3519
	B	662	728	907
	C	20"	24"	30"
	D	12"	16"	20"
Volume (l)	Shell	374	610	1200
	Bundle	25	30	95
Volume at mean level (in l)		281	510	970
Exchange surface (m <sup>2</sup> )		4,4	10,9	35,7

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