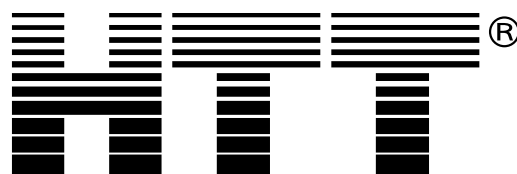


energy
sheet



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Technical data

Electric heaters

wte 09 bis 13



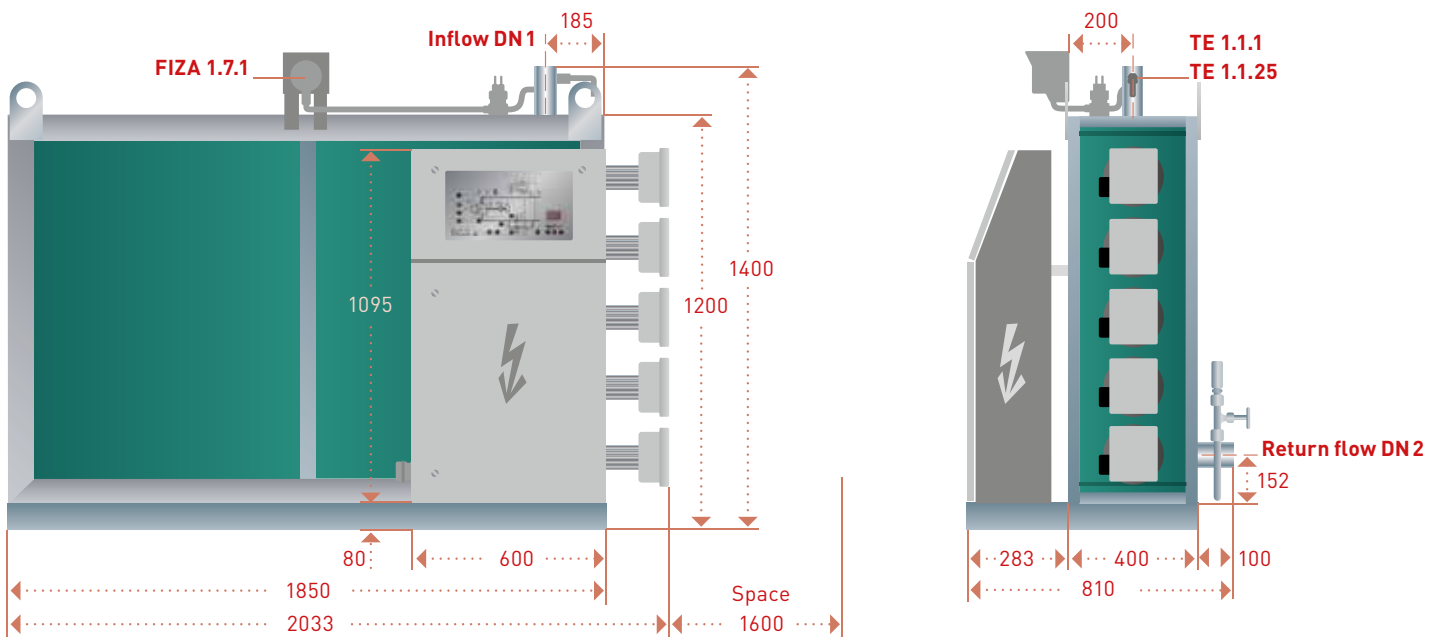
CHR. MØLLER A/s

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DK 5800 Nyborg
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www.chrmoeller.dk

Dimension sheet electric heaters

wte 09-5-200-1

wte 09-5-200-1 with control box 600 mm



Type	Power	Solid state relais/ start power	Main switch (at 400V)	Flow rate	Temp. difference	Pressure drop HT medium	Content		Weight		Switchboard (power only)	Weight switch- board
							wte heater	pump	wte heater	pumpe		
wte	[kW]	[kW]	[A]	V _N [m ³ /h]	Δθ [K]	ΔpN [mFIS]	[ltr.]	[ltr.]	[kg]	[kg]	W x D x H [m]	[kg]
09-3-80-1	80	40/30	60	20	7	3	20	20	325	250	1.2 x 0.4 x 1.1 ¹⁾	95
09-3-120-1	120	80/60	250	20	11	4	20	20	340	250	1.2 x 0.4 x 1.1 ¹⁾	100
09-5-160-1	160	80/60	250	20	14	5	30	20	370	250	1.6 x 0.4 x 1.1 ¹⁾	130
09-5-200-1	200	120/90	250	20	18	6	25	20	385	250	1.6 x 0.4 x 1.1 ¹⁾	135

Connection wte 09

Flow: 65 DN

Return flow: 65 DN

1) switchboard mounted at heater / Subject to change. / **Caution: Dimensions may deviate in case of order.**

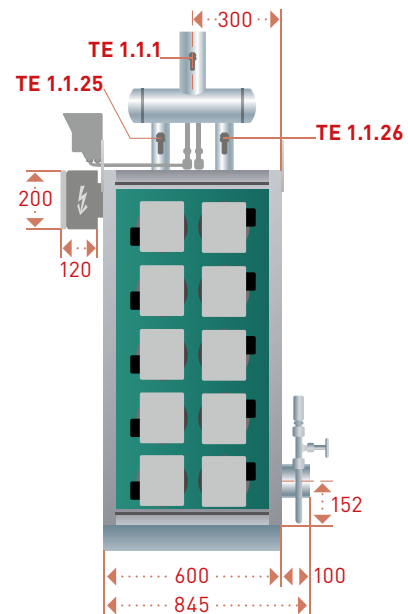
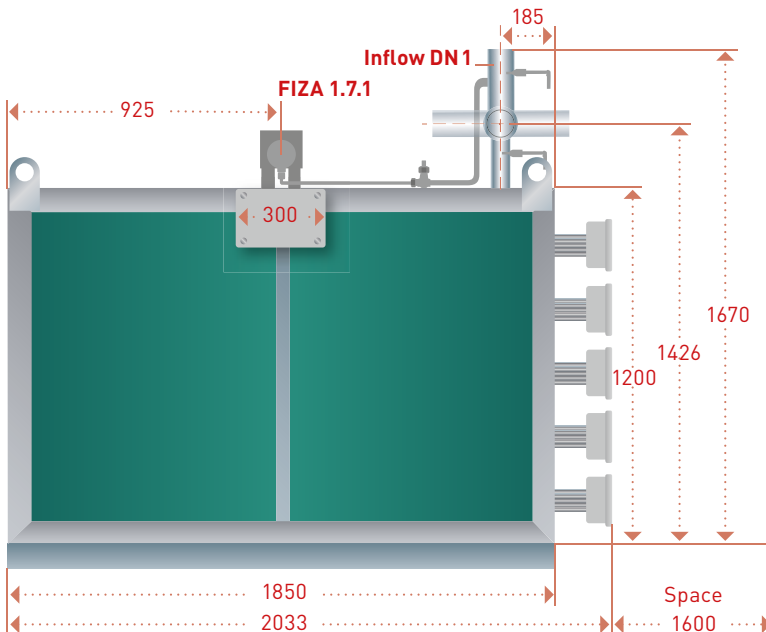
Dimension sheet electric heaters

wte 10-10-400-1



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wte 10-10-400-1 with connection box



Type	Power	Solid state relais/ start power	Main switch (at 400V)	Flow rate	Temp. difference	Pressure drop HT medium	Content		Weight		Switchboard (power only)	Weight switch- board
wte	[kW]	[kW]	[A]	V_N [m³/h]	$\Delta\vartheta$ [K]	Δp_N [mFIS]	wte heater [ltr.]	pump [ltr.]	wte heater [kg]	pumpe [kg]	W x D x H [m]	[kg]
10-6-240-1	240	120/90	630	40	11	5	40	25	510	300	1.2x0.6x2.2	250
10-10-280-1	280	160/120	630	40	13	6	70	25	555	300	1.2x0.6x2.2	255
10-10-320-1	320	160/120	630	40	14	6	65	25	575	300	1.6x0.6x2.2	340
10-10-360-1	360	200/150	630	40	16	7	65	25	590	300	1.8x0.6x2.2	390
10-10-400-1	400	200/150	630	40	18	7	60	25	610	300	1.8x0.6x2.2	395

Connection wte 10

Flow: 80 DN

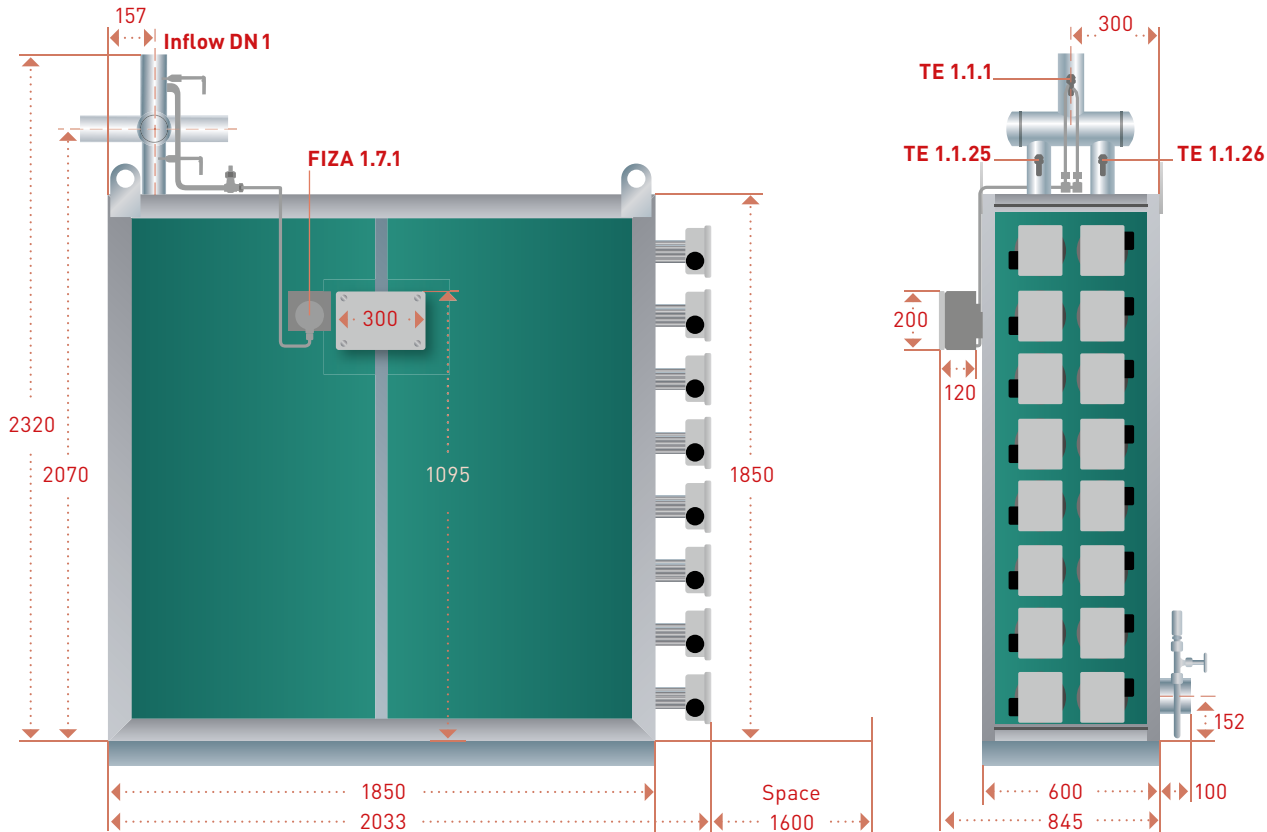
Return flow: 80 DN

Subject to change. / Caution: Dimensions may deviate in case of order.

Dimension sheet electric heaters

wte 11-16-640-1

wte 11-16-640-1 with connection box



Type	Power	Solid state relays/ start power	Main switch (at 400V)	Flow rate	Temp. difference	Pressure drop HT medium	Content		Weight		Switchboard (power only)	Weight switch-board
wte	[kW]	[kW]	[A]	V _N [m ³ /h]	Δθ [K]	Δp _N [mFIS]	wte heater [ltr.]	pump [ltr.]	wte heater [kg]	pumpe [kg]	W x D x H [m]	[kg]
11-12-440-1	440	240/180	1000	40	20	8	70	30	795	325	2.4 x 0.6 x 2.2	490
11-12-480-1	480	240/180	1000	40	21	8	70	30	815	325	2.4 x 0.6 x 2.2	495
11-16-520-1	520	280/210	1000	40	23	9	95	30	860	325	2.4 x 0.6 x 2.2	500
11-16-560-1	560	280/210	1000	40	25	9	93	30	875	325	2.4 x 0.6 x 2.2	505
11-16-600-1	600	320/240	1000	40	27	10	90	30	895	325	3.0 x 0.6 x 2.2	615
11-16-640-1	640	320/240	1000	40	29	10	90	30	910	325	3.0 x 0.6 x 2.2	620

Connection wte 11

Flow: 80 DN

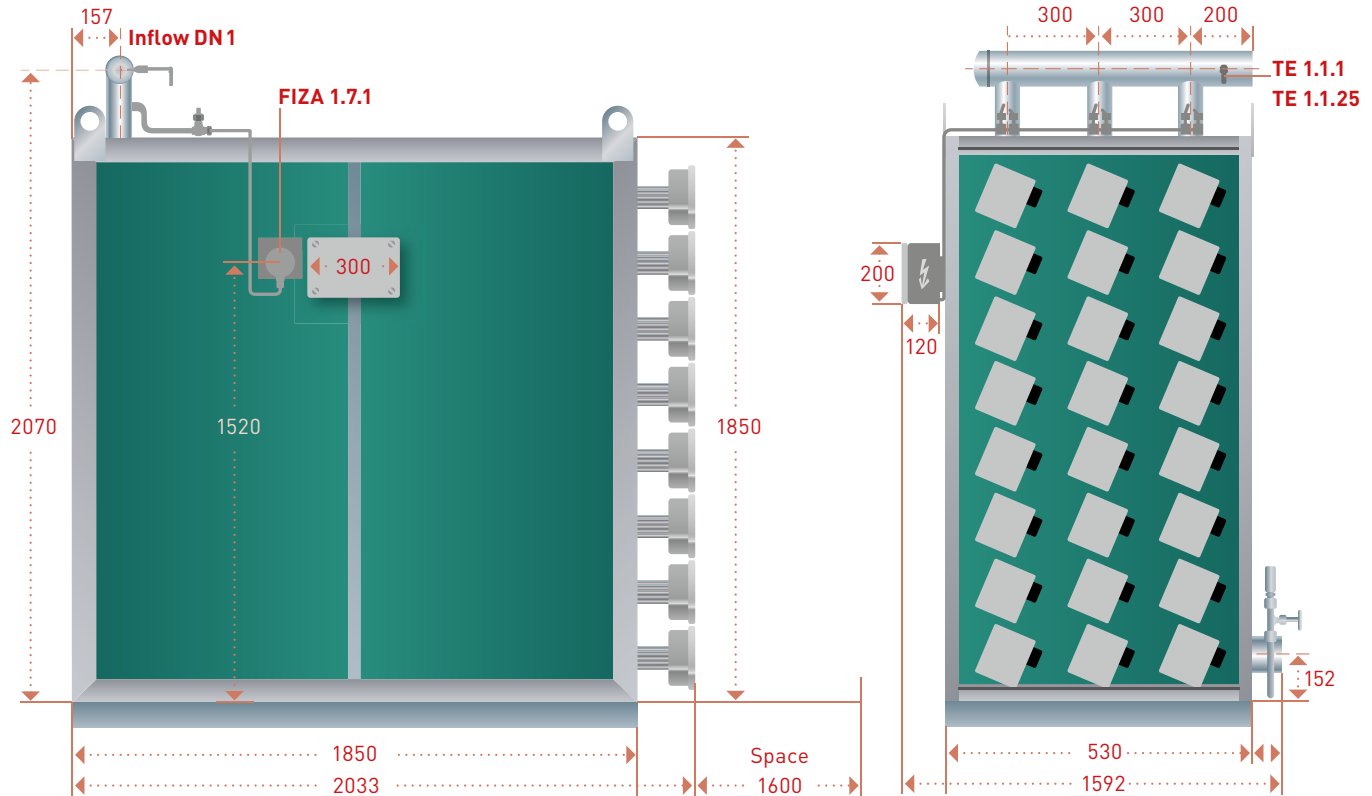
Return flow: 80 DN

Subject to change. / Caution: Dimensions may deviate in case of order.

Dimension sheet electric heaters

wte 12-24-960-1

wte 12-24-960-1 with connection box



Type	Power	Solid state relays/ start power	Main switch (at 400 V)	Flow rate	Temp. difference	Pressure drop HT medium	Content		Weight		Switchboard (power only)	Weight switch-board
wte	[kW]	[kW]	[A]	V_N [m ³ /h]	$\Delta\vartheta$ [K]	Δp_N [mFIS]	wte heater	pump	wte heater	pumpe	W x D x H [m]	[kg]
12-18-680-1	680	360/270	1250	60	20	9	110	50	1160	435	3.6x0.6x2.2	715
12-18-720-1	720	360/270	1250	60	21	9	105	50	1175	435	3.6x0.6x2.2	720
12-24-760-1	760	400/300	1250	60	23	11	145	50	1235	435	3.6x0.6x2.2	725
12-24-800-1	800	400/300	1250	60	24	11	145	50	1255	435	3.6x0.6x2.2	730
12-24-840-1	840	440/330	1600	60	25	11	140	50	1270	435	3.6x0.6x2.2	735
12-24-880-1	880	440/330	1600	60	26	11	140	50	1285	435	4.2x0.6x2.2	845
12-24-920-1	920	480/360	1600	60	27	11	135	50	1305	435	4.2x0.6x2.2	850
12-24-960-1	960	480/360	1600	60	29	11	135	50	1320	435	4.2x0.6x2.2	855

Connection wte 12

Flow: 100 DN

Return flow: 100 DN

Subject to change. / Caution: Dimensions may deviate in case of order.

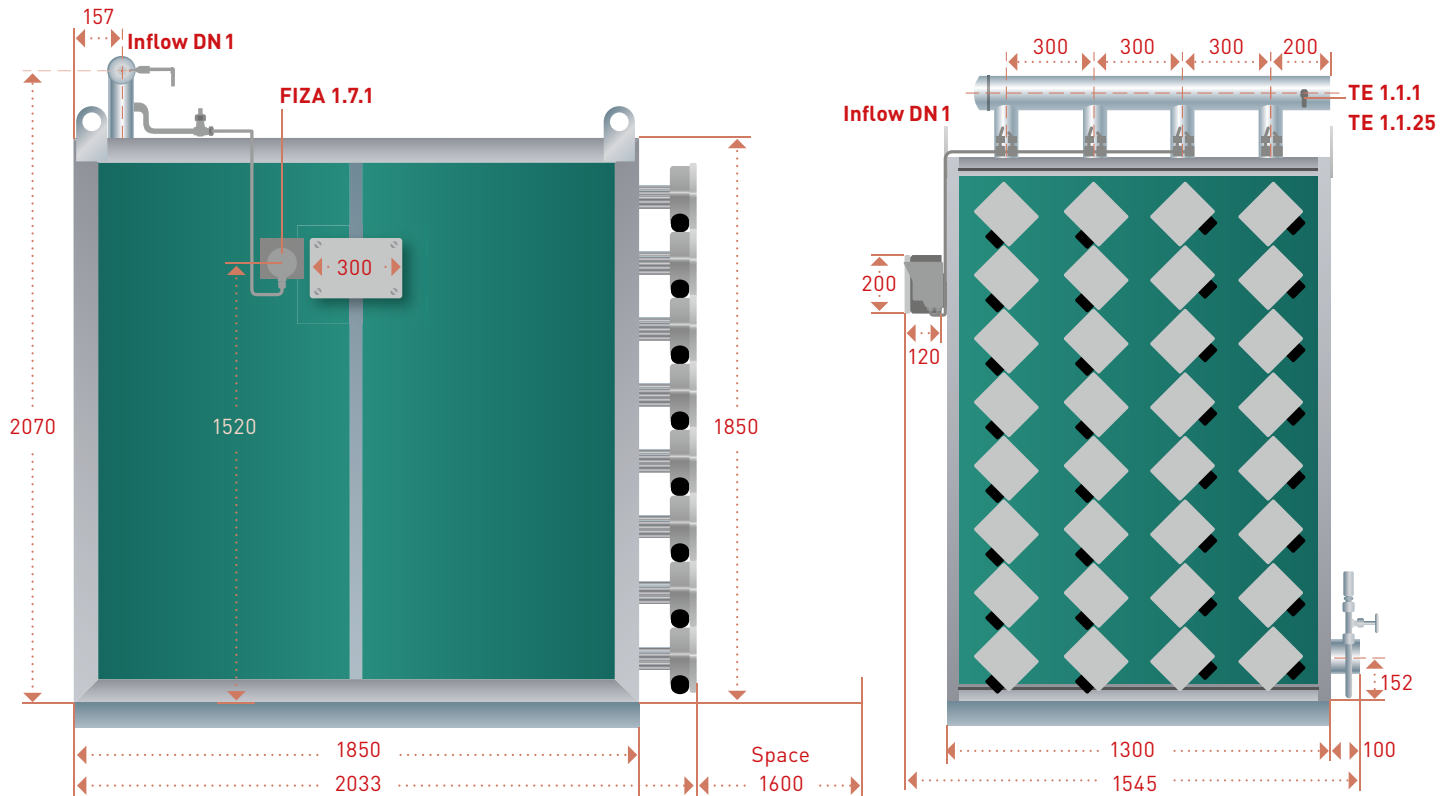
Dimension sheet electric heaters

wte 13-32-1280-1



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wte 13-32-1280-1 with connection box



Type	Power	Solid state relays/ start power	Main switch (at 400V)	Flow rate	Temp. difference	Pressure drop HT medium	Content		Weight		Switchboard (power only)	Weight switch-board
wte	[kW]	[kW]	[A]	V_N [m³/h]	$\Delta\vartheta$ [K]	Δp_N [mFIS]	wte heater	pump	wte heater	pumpe	W x D x H [m]	[kg]
13-32-1000-1	1000	520/390	1600	80	22	13	185	50	1590	455	4.8x0.6x2.2	955
13-32-1040-1	1040	520/390	1600	80	23	13	180	50	1610	455	4.8x0.6x2.2	960
13-32-1080-1	1080	560/420	1600	80	24	13	180	50	1625	455	4.8x0.6x2.2	965
13-32-1120-1	1120	560/420	2000	80	25	13	175	50	1640	455	6.0x0.6x2.2	1190
13-32-1160-1	1160	600/450	2000	80	26	14	175	50	1660	455	6.0x0.6x2.2	1195
13-32-1200-1	1200	600/450	2000	80	27	14	170	50	1675	455	6.0x0.6x2.2	1200
13-32-1240-1	1240	600/480	2000	80	28	14	170	50	1695	455	6.0x0.6x2.2	1205
13-32-1280-1	1280	600/480	2000	80	29	14	165	50	1710	455	6.0x0.6x2.2	1210

Connection wte 13

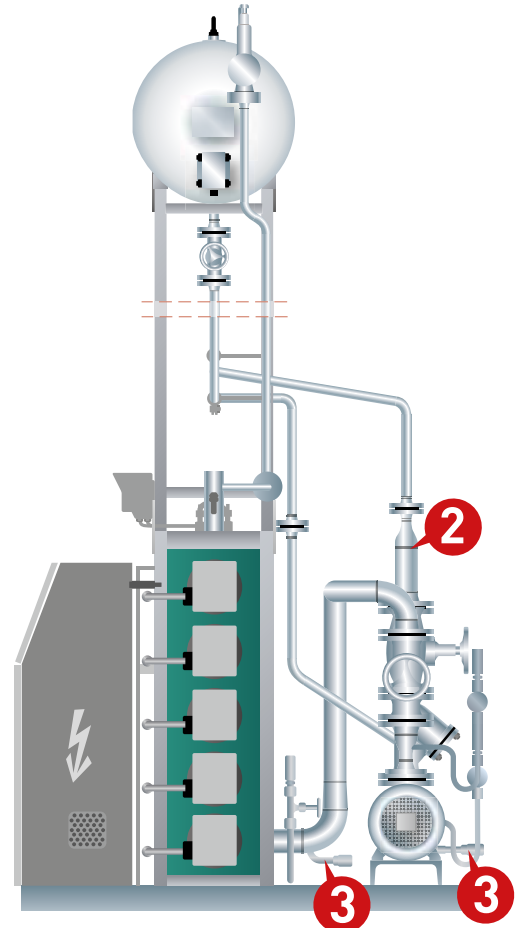
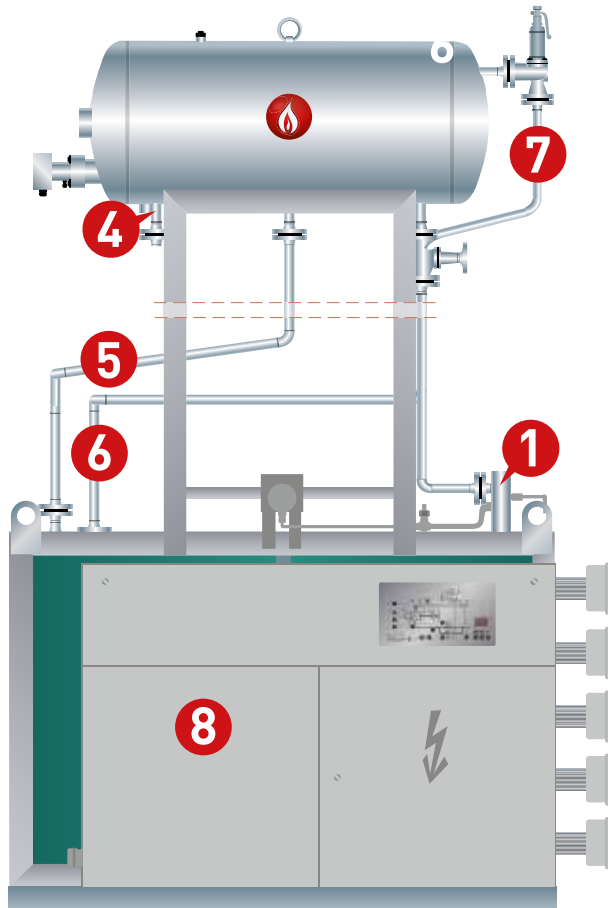
Flow: 100 DN

Return flow: 100 DN

Subject to change. / Caution: Dimensions may deviate in case of order.



wte 09-5-200-1 with switchboard, pump compact design and expansion tank



- 1** Heater flow
- 2** Heater return flow
- 3** Emptying connection hose
- 4** Overflow pipe (with drain tank):
Overflow pipe to the drain tank
has to be layed with incline
- 5** Expansion pipe:
Expansion pipe to the expansion
vessel has to be layed with
steady rise of >3 %
- 6** Start-up boil out pipe
- 7** Pipe to the safety valve
- 8** Switchboard

Heat carrier: HT 300

$T_L = 300\text{ °C}$
 $\nu_N = 0,57\text{ mm}^2/\text{s}$
 $(\rho \cdot c_p) = 2003\text{ kJ}/(\text{m}^3 \cdot \text{K})$

Pressure drop

$$\Delta p_{v,x} = \Delta p_N \cdot \left(\frac{\nu_x}{\nu_N} \right)^{1,8}$$

$$\Delta p_{v,x} = \Delta p_N \cdot \left(\frac{\nu_x}{\nu_N} \right)^{0,2}$$

Inclusive orifice plate [mFIS]

$$\Delta p_{ges} = \Delta p_{...,x} + 3,6$$

Dimension sheet electric heaters
wte 09-5-200-1 bis 13-32-1280-1



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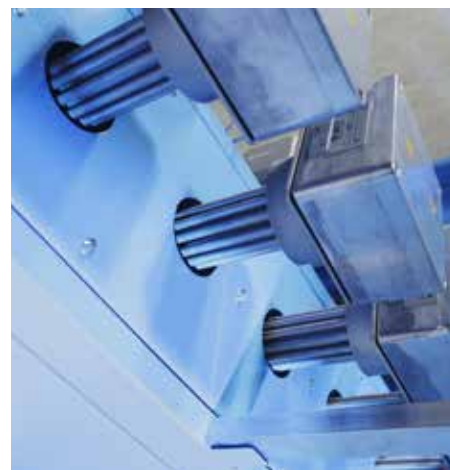


Dimension sheet electric heaters
wte 09-5-200-1 bis 13-32-1280-1



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