

AB&CO BOILERS & HEATERS



Sustainable  
Process Heating

## Thermal Oil Heaters Electrical Heated Unit

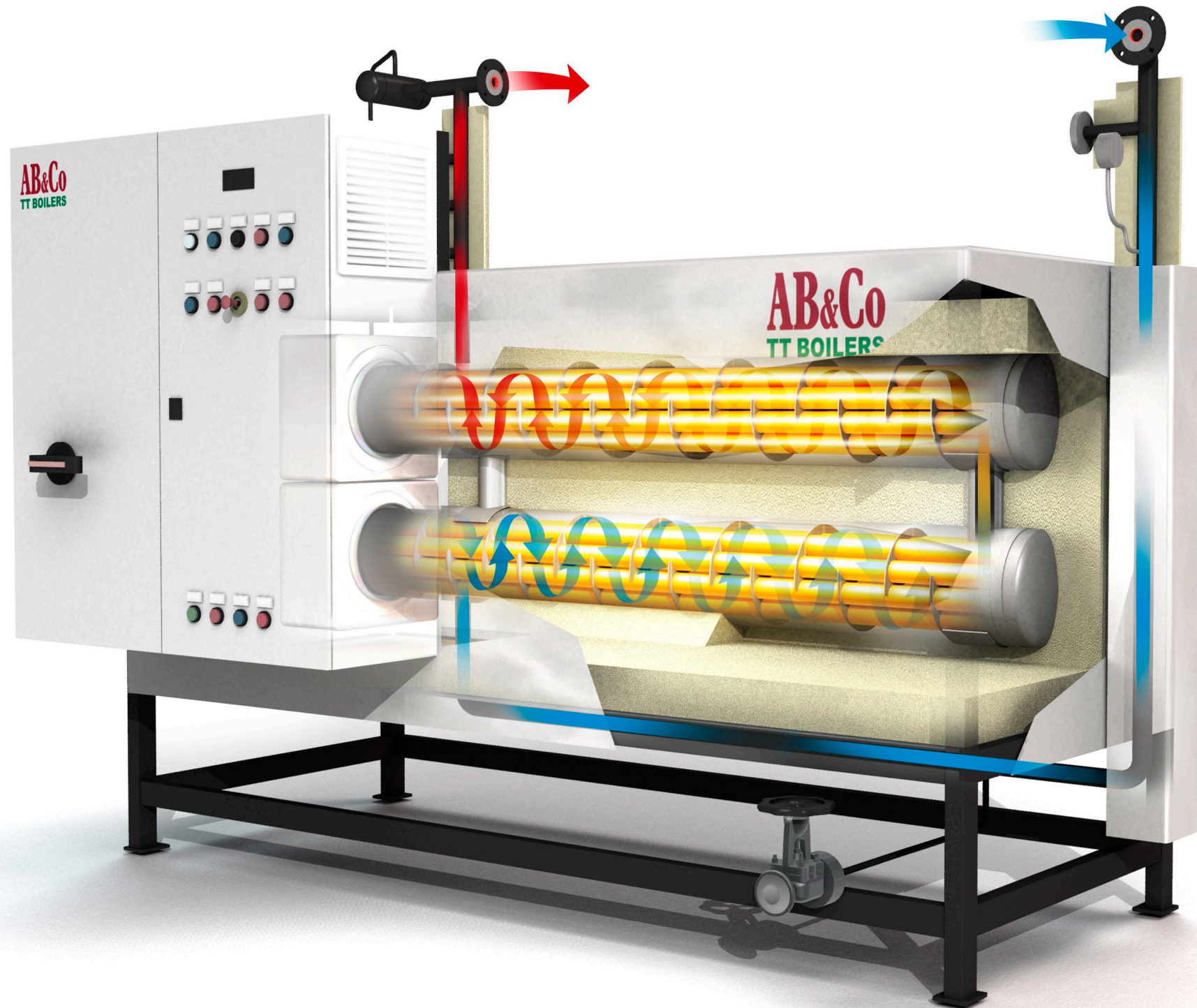


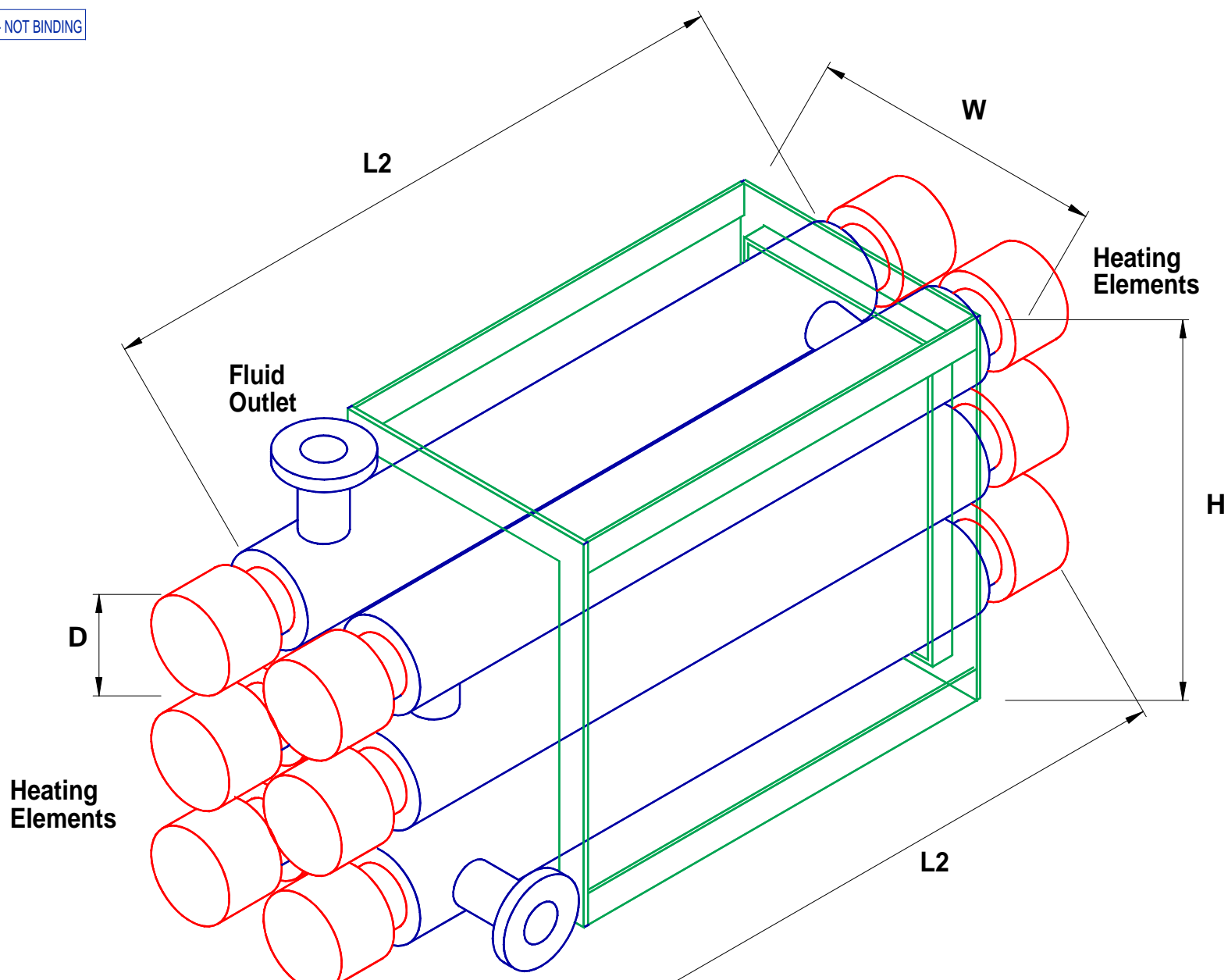
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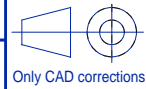




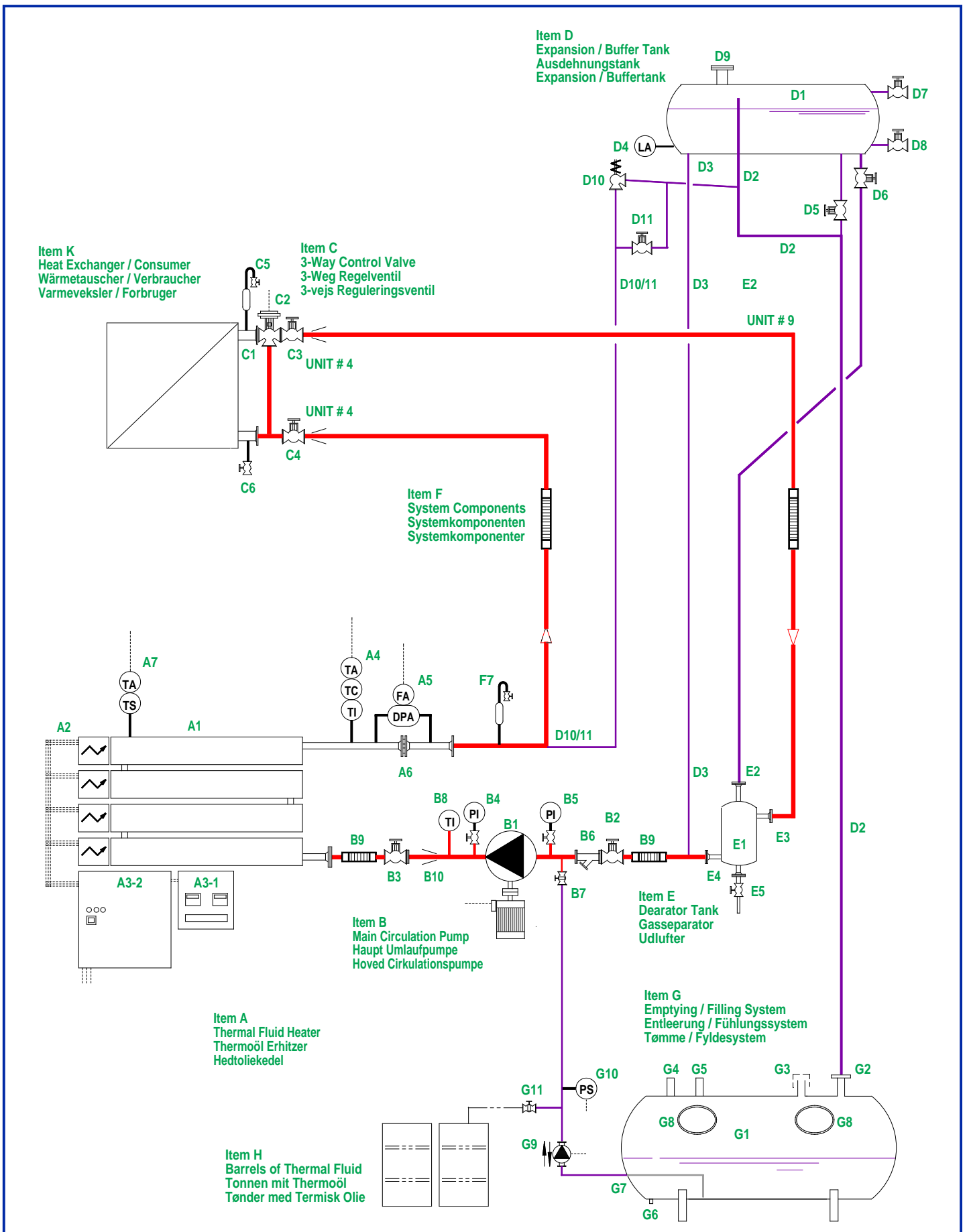


**UNIT DESIGN**  
 The electrical heater can be delivered as a complete heater with pump, armatures, instrumentation and control panel, build on the skidmounted frame.

 AB&CO TT BOILERS Copenhagen • Denmark		SUBJECT/THEMA:	
		GENERAL ARRANGEMENT ELECTRICAL IN-LINE FLUID HEATER	
AB&CO REF. NO.:	DRWG.:	PROJECT/PROJEKT:	
	vtobat6		
DATE/DATO:	SIGN.:	CLIENT/KLIENT:	
20.05.02	ab		



Only CAD corrections



**AB&Co**

AB&CO TT BOILERS  
Copenhagen, Denmark

AB&CO REF.NO.:

DRWG.:

elvtosy2

DATE:

30.05.2005

SIGN.:

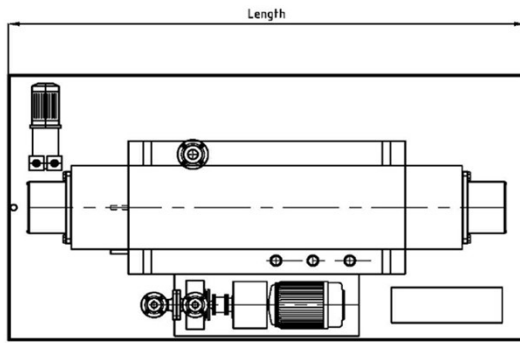
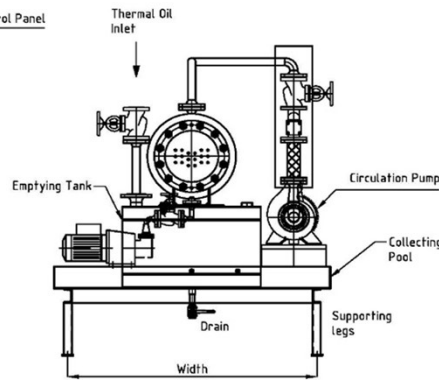
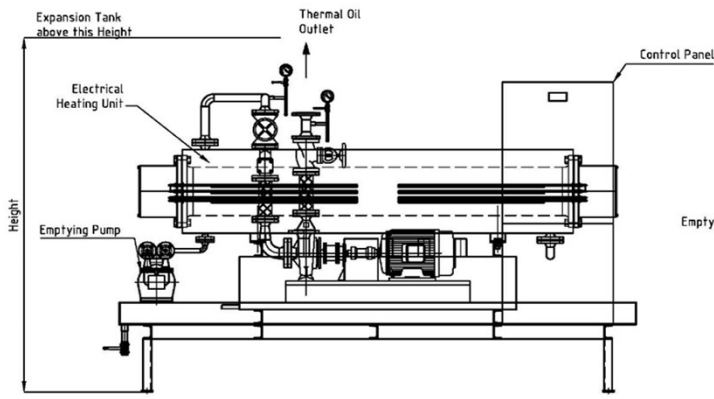
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SUBJECT  
THEMA  
EMNE

TT BOILERS ELECTRIC THERMAL OIL HEATING SYSTEM  
SCOPE ACCORDING TO DIN4754

TT BOILERS ELECTRISCHER THERMOÖL HEIZUNGANLAGE  
UMFANG NACH DIN 4754

TT BOILERS EL-OPVARMET HEDTOLIESYSTEM  
UDFØRELSE IHT. DIN 4754



### Type L-ELVTO - GENERAL MAIN DATA

Heat Capacity / Output	[kW]	10	50	100	150	200	350	500	1.000	1.200	1.400
	[Mcal/h]	9	43	86	129	172	301	430	860	1.032	1.204
FLOW HTF @ Δt=40K	[m³/h]	0,4	2,1	4	6	8	15	21	42	50	58
PUMP HEAD HTF	[bar]	6	6	6	6	6	6	6	6	6	6
PRESSURE DROP HTF HEATER	[bar]	1,5	2	2	2	2	2	2	3	3	3
POWER CONSUMPTION	[kW]	10,1	51	101	152	202	354	505	1.010	1.212	1.414
ABSORBED CURRENT @ 3 X 400 V	[A]	15	73	146	219	292	510	729	1.458	1.750	2.041
INLET / OUTLET - HTF	[DN]	25	25	32	32	40	50	65	80	100	100
LENGTH (TOTAL SKID)	[mm]	2.300	2.500	3.000	3.100	3.500	3.500	3.500	3.500	3.700	3.700
LENGTH HEATER ONLY	[mm]	2.100	2.400	2.800	2.900	3.200	3.200	3.200	3.200	3.400	3.400
WIDTH (TOTAL SKID)	[mm]	700	1.000	1.100	1.100	1.100	1.200	1.700	1.900	2.300	2.500
WIDTH HEATER ONLY	[mm]	300	400	500	600	700	900	1.300	1.500	1.800	1.900
HEIGHT (TOTAL SKID)	[mm]	1.500	1.800	1.900	2.000	2.100	2.300	2.400	2.500	2.600	2.700
HEIGHT HEATER (RACK) ONLY	[mm]	500	700	800	900	1.000	1.200	1.200	1.300	1.300	1.400
WEIGHT - EMPTY (TOTAL SKID)	[kg]	900	1.300	1.600	2.000	2.400	2.900	3.100	3.400	3.800	4.500
DESIGN PRESSURE (TYPICAL)	[bar]	10	10	10	10	10	10	10	10	10	10
VOLUME - TOTAL PRESSURE VESSELS	[litres]	10	50	80	115	150	250	400	500	600	700
TEMPERATURE SET HTF (TYPICAL)	[°C]	280/240	280/240	280/240	280/240	280/240	280/240	280/240	280/240	280/240	280/240
TEMPERATURES HTF (MAX. OPERATION)	[°C]	300	300	300	300	300	300	300	300	300	300
POWER STAGES (TYPICAL)	[ - ]	1	1	2	2	3	3	4	4	5	5
SKID - SCOPE OF SUPPLY	Heater, pump, control panel, deaerator, heat trap, valves and internal piping - as shown on sketch above Exclusive expansion tank and reservoir, which are delivered separately (location to be determined on site)										
THERMAL FLUID	The thermal fluid (heat transfer fluid / HTF) should of sufficient high quality - approved by AB&CO. Recommended is a mineral white fluid (parafine / naphtene) that is high temperature resistant non-fouling, non-toxic fluid type.										
APPROVAL / CERTIFICATE	The heaters design follow DIN 4754 and is thus designed for PED 2014/68/EU. The heaters are approved accordingly with CE-mark and will be delivered with the documentation required by EU regulations.										

*Disclaimer* : The above dimensions are preliminary intended for guidance only without any responsibility to AB&CO. They are subject to changes without any notice and will depend on actually chosen design and specific requirements.



# Z EUS

OPTIONAL EXTRA

ADVANCED SOLUTION FOR CONTINUOUS  
REMOTE PROCESS MONITORING.



## ELECTRICAL CONSUMPTION MONITORING

Particularly suitable for  
monitoring consumption  
during the various process  
phases.



Developed to be perfectly integrated in I4.0 systems, equipped with many advanced functions which, in addition to local and remote process monitoring, can communicate with all the equipment in the field by sending process data via **Modbus TCP / IP** communication protocol, including energy consumption.

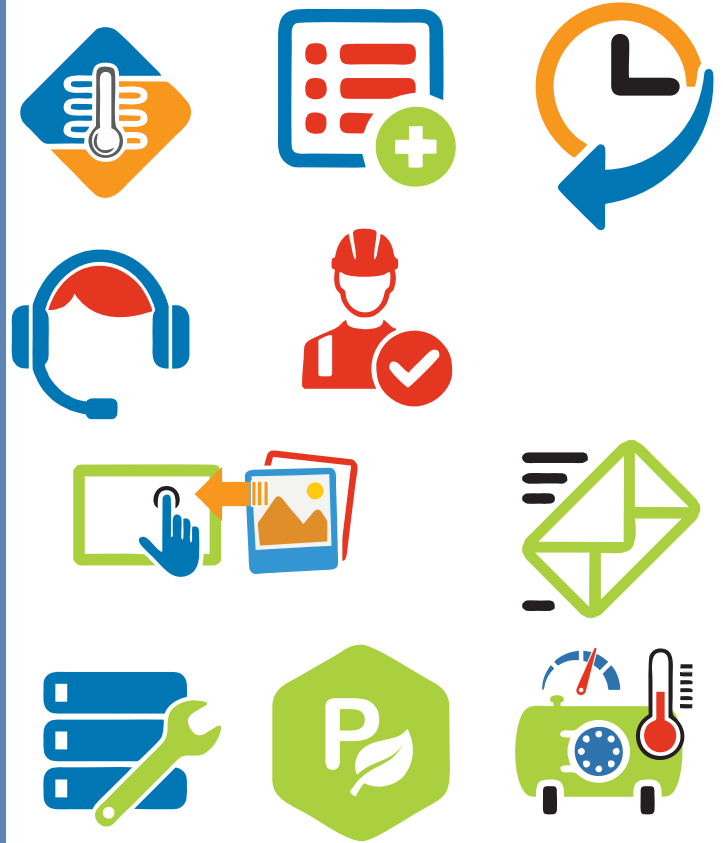
### BENEFITS

- Remote start-up assistance included.
- Very intuitive and immediate man-machine interface layout.
- Remote training of operators in charge of using the equipment.
- Check for monitoring of any anomalies by sending e-mails to the relevant departments prepared for the intervention.
- Panel pages and alarms in many languages
- Possibility of direct remote monitoring by the end user via Web Browser up to a maximum of 3 users per panel.
- Direct support from our specialized technicians through a special APP on the panel.
- Reduction of machine downtime thanks to the immediate identification of any anomalies and wear diagnosis algorithms.



# ADVANCED FUNCTIONS

- Antifreeze system designed to keep the fluid temperature at right value that can be pumped without adding to the pump, particularly suitable for outdoor installations and with low ambient temperatures.
- Advanced weekly daily timer.
- Expansion vessel temperature monitoring
- Component wear monitoring
- Real instantaneous electrical power used in the process
- Possibility to limit the heating power in 1, 2 or 4 steps or totally from 1% to 100%
- Alarm logging
- Direct assistance with our specialized technicians
- Sending of e-mails to report any anomalies
- Customization with customer logo



The man-machine interface is easy and intuitive to use even by inexperienced personnel.

To make the control interface more familiar and accessible to the operator, our software uses the same navigation principle and the same icons, so as to allow immediate use even on very different machines.

# AB&Co

**OPTIONAL EXTRA**