



DTH

ELECTRIC BOILER

Specifications

The electric boiler must be a DTH from THERMO 2000 Inc. ,model DTH -VOLTAGE - POWER having 36usgal/ 136liters water content. The net power of the boiler must be _____ kW at a voltage of 240Vac/1ph (___) or 480V /3ph (___) or 600V/3ph (___) at a frequency of 60 hertz with an efficiency of 100%. The tank must be manufactured in steel according to the CSA B-51-03 standard and bear a Canadian registration number CRN and the "H" stamp certifying that its pressure vessel is built in conformity with the standards of section IV of the "ASME Boiler and Pressure Vessel Code". The tank must have a maximum operating pressure of 30psi / 207kPa (___) or 60psi / 414kPa (___). It must undergo respectively a 60psi / 414kPa or 90psi / 620kPa hydrostatic test as per the ASME code. The boiler must be equipped with a steel injector, located at the bottom of the tank, to act as a boiler water inlet diffuser, and with a steel collector, located at the top of the tank, to act as a boiler water collector and outlet. The tank must be equipped with a ¾" ball valve for drainage and wrapped in a 3 in. / 75mm thick fibreglass insulation. The outer jacket must be made of 20-gauge thick steel covered with baked epoxy paint. The boiler must be shipped from the plant equipped with a pressure relief valve as per the ASME code, set at a 30psi / 207kPa or 60psi / 414kPa corresponding to the selected maximum operating pressure, a 3in./ 75mm dia. temperature and pressure indicator and a kit of floor supports. Electrical connections must be made with a 2 conductor cable on 240 Vac models and with a three conductor cable on models 480Vac & 600Vac. The immersion heating elements must be individually mounted on square flanges. They must be of a low-density type with high temperature nickel-steel-chrome "incoloy" tubing. Each element must be individually replaceable. The boiler must allow multi-stage capacity modulation with a pilot light on each stage. On the 240Vac models, each heating element in the boiler must be controlled by an individual thermostat (aquastat) adjustable from 50F to 190F /10C to 90C closing the circuit at 9F / 5C below the set point and opens the circuit at the selected set point. On the 480Vac or 600Vac models, each thermostat (aquastat) must control a secondary contactor rated for 50A resistive loads / 120Vac coils and able to perform 250,000 operations under full load and powering 3 heating elements. The boiler must be equipped of one or more power contactor having a capacity of 50A resistive with 120Vac coil able to perform 250,000 operations under full load; these being used to turn OFF all power to the element under high limit temperature or low water conditions (if used). The high temperature limit protection circuit of the boiler must include two high limit thermostats having a fixed setting of 210F / 90C with automatic reset. The electric circuits of the boiler must be equipped with protection fuses on the High and Low voltage circuits. An automatic reset low water cut off will stop the boiler under low water conditions (**standard** on models from 120kW to 144kW and in **option** on models 45 to 108kW (___)). The pressure vessel of the boiler will be protected by a limited 15-year warranty and the components by a 2 year warranty The boiler shall be tested, certified and bear the CSA stamp under CSA standard C22.2 No.165-92.

Thermo 2000 reserves the right to modify at any time and without notice colors, components, materials, specifications or models described or shown in this document

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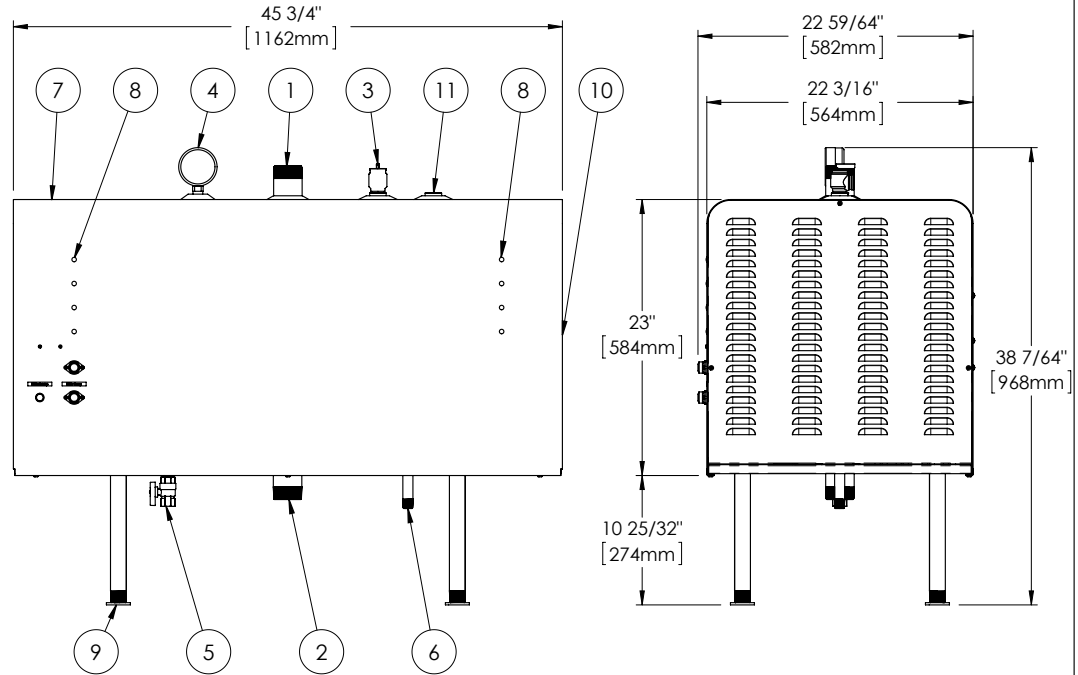
Specifications (August 2014)



LEGEND	
1	Heating supply (2"NPT male)
2	Heating return (2"NPT male)
3	Pressure relief valve (3/4"NPT fem)
4	Temperature and pressure indicator (1/2" NPT)
5	Drain valve (3/4"NPT)
6	Cold water supply
7	Electrical supply
8	Indicating lamp
9	Floor support
10	Electric compartment
11	Additional opening (3/4"NPT fem)
12	Low water cut-off (Optional on model 42 to 108)

MIN. CLEARANCE FOR SERVICE	
Left side	36cm / 14 inches
Right side	36cm / 14 in. (78 to 144kw 480 & 600v) (54 to 96kw x 240v) 0cm / 0in. Other models
Top & bottom	20 cm / 8 inches
Front side	61 cm / 24 inches

BOILER INFORMATIONS	
Weight	180 Kg / 395 lbs
Water content	136 liters / 36 Gal US.
Temp. range	10-90°C / 50-190°F
Max. pressure	See table below



ELECTRICAL SPECIFICATIONS 480 & 600Vac / 3PH							
MODEL	P Kw	PRESSURE MAX KPa/lbs.po2	Amp 480V/3PH	Amp 600V3PH	ELEMENTS 277V (480) or 347V (600)	STAGES FIXED	LOW WATER CUT-OFF
DTH 45	45	207 / 30*	54	43	9 X 5 KW	3 X 15 KW	Optional
DTH 54	54	207 / 30*	65	52	9 X 6 KW	3 X 18 KW	Optional
DTH 60	60	207 / 30*	72	58	12 X 5 KW	4 X 15 KW	Optional
DTH 72	72	207 / 30*	87	69	12 X 6KW	4 X 18 KW	Optional
DTH 78	78	414 / 60	94	75	12 X 5 KW 3 X 6 KW	4 X 15 KW 1 X 18 KW	Optional
DTH 90	90	414 / 60	108	87	15 X 6 KW	5 X 18 KW	Optional
DTH 99	99	414 / 60	119	95	9 X 5 KW 9 X 6 KW	3 X 15 KW 3 X 18 KW	Optional
DTH 102	102	414 / 60	123	98	12 X 6 KW 6 X 5 KW	2 X 15 KW 4 X 18 KW	Optional
DTH 108	108	414 / 60	130	104	18 X 6 KW	6 X 18 KW	Optional
DTH 120	120	414 / 60	144	115	24 X 5 KW	8 X 15 KW	Standard
DTH 132	132	414 / 60	159	127	12 X 5 KW 12 X 6 KW	4 X 15 KW 4 X 18 KW	Standard
DTH 144	144	414 / 60	173	139	24 X 6 KW	8 X 18 KW	Standard

ELECTRICAL SPECIFICATIONS 240 Vac / 1 PH						
MODEL	P Kw	PRESSURE MAX KPa/lbs.po2	Amp 240V/1PH	ELEMENTS 240V/1PH	STAGES FIXED	LOW WATER CUT-OFF
DTH 42	42	207 / 30*	175	7 X 6 KW	7 X 6 KW	Optional
DTH 48	48	207 / 30*	200	8 X 6 KW	8 X 6 KW	Optional
DTH 54	54	207 / 30*	225	9 X 6 KW	9 X 6 KW	Optional
DTH 60	60	207 / 30*	250	10 X 6 KW	10 X 6 KW	Optional
DTH 66	66	207 / 30*	275	11 X 6 KW	11 X 6 KW	Optional
DTH 72	72	207 / 30*	300	12 X 6 KW	12 X 6 KW	Optional
DTH 78	78	414 / 60	325	13 X 6 KW	13 X 6 KW	Optional
DTH 84	84	414 / 60	350	14 X 6 KW	14 X 6 KW	Optional
DTH 90	90	414 / 60	375	15 X 6 KW	15 X 6 KW	Optional
DTH 96	96	414 / 60	400	16 X 6 KW	16 X 6 KW	Optional

* Available in option at 414 KPa / 60 psi