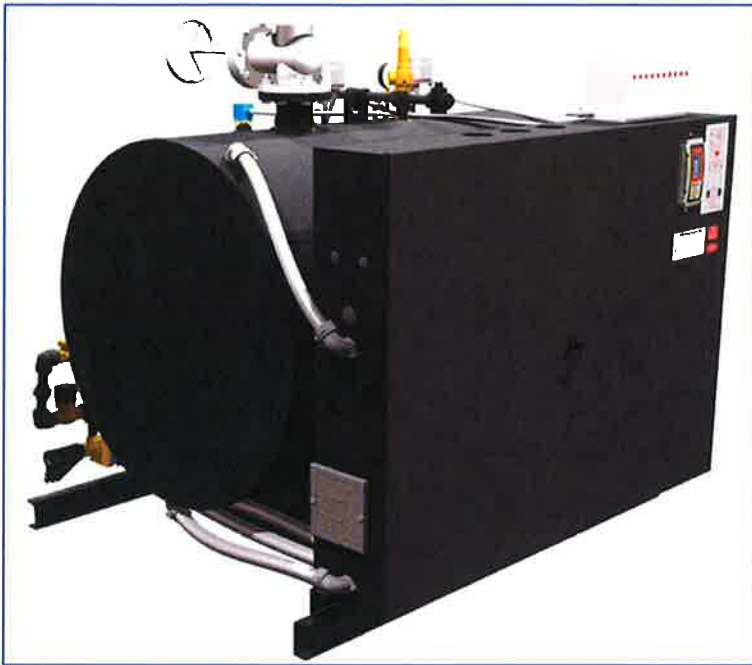


RHP600 – RHP750 Steam Boiler Series



Features

- Maximum safety relief valve setting 150psi
- All boilers are manufactured in accordance with the requirements of the A.S.M.E. Boiler and Pressure Vessel Code and A.S.M.E. CSD-1. Each boiler bears the National Board Stamp "S".
- High quality saturated steam, operating pressure range 0 – 135psig
- Heavy duty carbon steel pressure vessel. Vessel jacket and electrical enclosure made from black painted carbon steel
- Large selection of optional equipment

Standard Equipment of Each Boiler Includes:

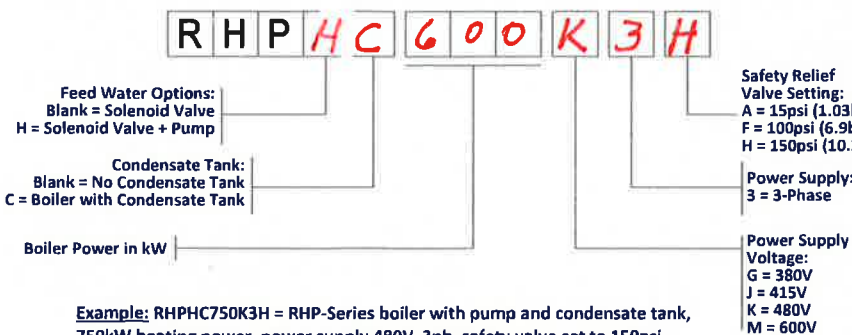
- A.S.M.E. pressure relief valve
- Two (2) boiler bottom blowoff valves (one quick-opening and one slow opening) as per A.S.M.E. Code B31.1
- 4" flanged class 150# carbon steel steam outlet valve
- High pressure feed pump in RHPH- and RHPHC-models
- One (1) primary high pressure cutoff control with automatic reset and one (1) secondary high pressure cutoff control with manual reset
- One (1) primary low water cutoff control with automatic reset and one (1) secondary low water cutoff with manual reset
- PID-step controller with 10 heating stages
- Digital readout of the operating pressure
- Magnetic contactors
- Internal branch circuit fusing
- Main supply power distribution block
- Indicator lights for POWER, REFILLING, HEATING, ALARMS and Automatic Boiler Blowoff Status

Applications

- Dry Cleaning
- Food Service
- Laboratories
- Automotive Industry

HEATING POWER	STEAM CAPACITY	BHP	VOLTAGE ⁽¹⁾	PHASE	NUMBER OF HEATING STAGES	SHIP WT. ⁽²⁾	PRESSURE VESSEL CAPACITY	OPERATING PRESSURE RANGE	Steam Outlet Size
kW	lbs/hr (kg/hr) ⁽³⁾		50/60Hz			lbs (kg)	GAL. (L)	psig (bar)	
600 KW	2049 (928)	60	380/415/480/600	3	10	2,780 (1259)	179 (677)	0-135 (0 – 9.3)	4" FLANGED
750 KW	2561 (1160)	75	380/415/480/600	3	10	2,820 (1278)	179 (677)	0-135 (0 – 9.3)	4" FLANGED

Model Number Key



(1) Each boiler model requires two (2) power supplies: Primary heating power and secondary control voltage. Nominal control voltage is 120V, 50/60Hz. Boiler models rated for 380V and 415V are equipped with control voltage transformers that require 220/240V applied to their primary side in order to provide the 120V AC control voltage to the boiler. As an option, all boiler models can be equipped with control voltage transformers so that only the heating power supply needs to be connected to the boiler.

(2) On boiler equipped with condensate tank, add 250lbs (113kg) to shipping weight

(3) The STEAM CAPACITY listed above is based on the evaporation rate from and at 212°F, at 0 psig. If the boiler feed water temperature is 50°F, then the STEAM CAPACITY for each model listed above is approximately 15% lower.

Electrical Specifications

HEATING POWER kW	VOLTAGE V	PHASE	FREQU.	AMP DRAW A	MIN REQ. N.E.C. SERVICE A	INTERNAL ELEMENT WIRING AWG ₂ (mm ²)	NUMBER & SIZES OF CONTACTORS (RES. LOAD)	NUMBER & SIZE OF ELEMENTS	POWER SUPPLY	
									FIELD TERMINAL MAX. CONDUCTOR SIZE	POWER SUPPLY CONFIG.
600	380	3	50	911.6	1,140.0	8 (8.35)	20 x 75A	20 x 30kW, 380V, 3ph	12 x 350MCM	2
	415	3	50	834.7	1,044.0	8 (8.35)	20 x 50A	20 x 30kW, 415V, 3ph	12 x 300MCM	2
	480	3	60	721.7	902.0	8 (8.35)	20 x 50A	20 x 30kW, 480V, 3ph	12 x 250MCM	2
	600	3	60	577.4	722.0	10 (5.30)	20 x 50A	20 x 30kW, 600V, 3ph	6 x 500MCM	1
750	380	3	50	1139.5	1425.0	8 (8.35)	25 x 75A	25 x 30kW, 380V, 3ph	12 x 500MCM	2
	415	3	50	1043.4	1305.0	8 (8.35)	25 x 50A	25 x 30kW, 415V, 3ph	12 x 500MCM	2
	480	3	60	902.1	1128.0	8 (8.35)	25 x 50A	25 x 30kW, 480V, 3ph	12 x 350MCM	2
	600	3	60	721.7	903.0	10 (5.30)	25 x 50A	25 x 30kW, 600V, 3ph	12 x 250MCM	2

POWER SUPPLY CONFIGURATION 1

POWER SUPPLY CONFIGURATION 2

Construction

STEAM STOP VALVE

10 HEATING STAGES STEP CONTROLLER WITH FIRST ON – FIRST OFF SWITCHING SEQUENCE (FOFO)

PID - OPERATING PRESSURE CONTROLLER HONEYWELL T775U

ELECTRONIC BOILER CONTROLLER:
 - LOW WATER & HIGH PRESSURE LOCKOUT
 - AUTOMATIC REFILL
 - AUTOMATIC FLUSH & DRAIN FUNCTION
 - BOILER MONITORING

SHELL INSULATION: FIBERGLASS, 4" THICK

ELECTRICAL ENCLOSURE, NEMA1, BLACK PAINTED, 12GAGE CARBON STEEL

SAFETY RELIEF VALVE

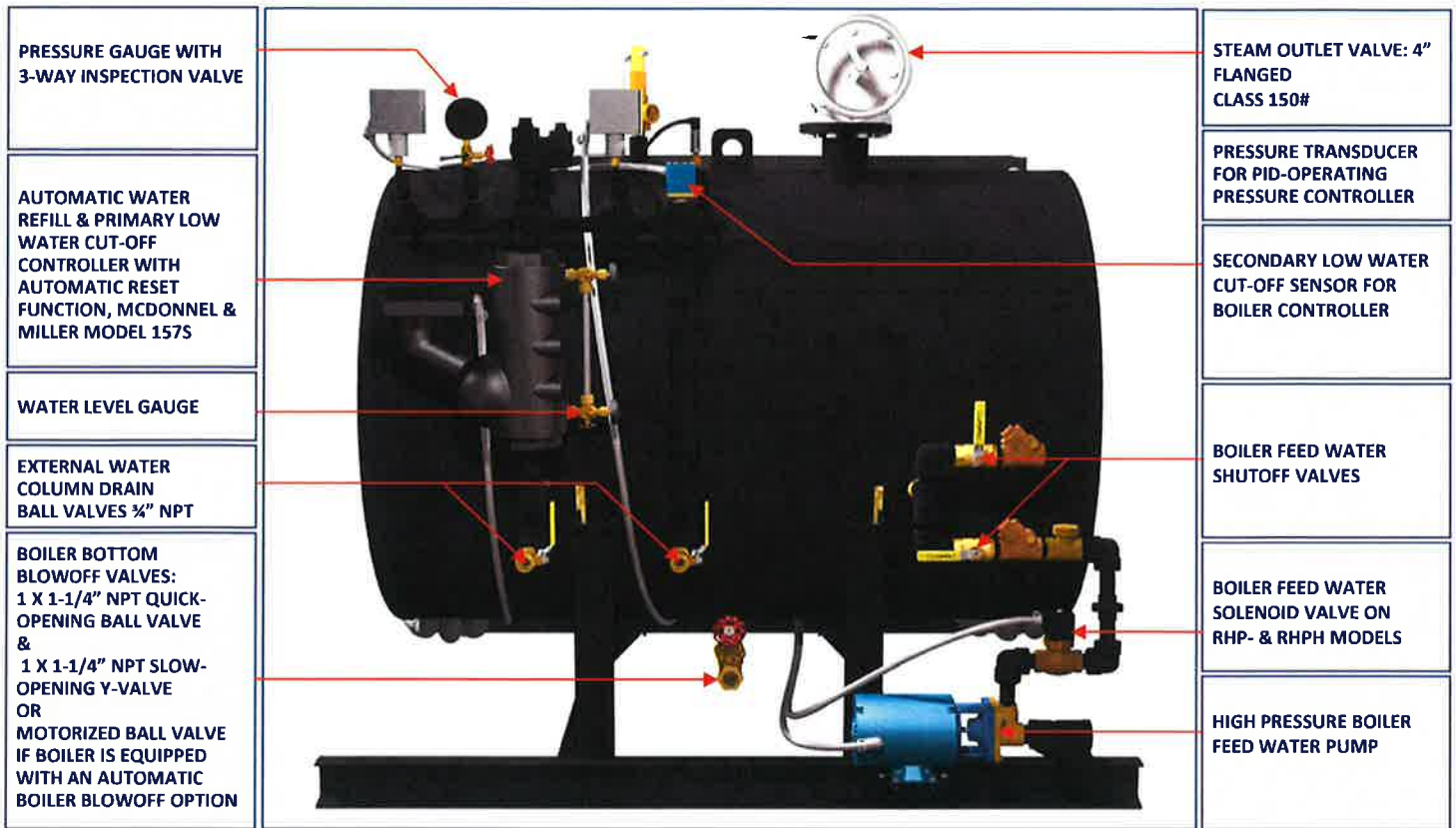
PRIMARY PRESSURE SAFETY LIMIT CONTROL WITH AUTOMATIC RESET FUNCTION

SECONDARY PRESSURE SAFETY LIMIT CONTROL WITH MANUAL RESET FUNCTION

TWO (2) INSPECTION & CLEANOUT OPENINGS 3" NPT AS PER A.S.M.E. CODE

HEATING ELEMENTS, 30kW, 304 STAINLESS STEEL SHEATHING, 2" CARBON STEEL FLANGES CLASS 150#

SHELL WRAPPER, BLACK PAINTED, 16GAGE CARBON STEEL



PRESSURE GAUGE WITH 3-WAY INSPECTION VALVE

AUTOMATIC WATER REFILL & PRIMARY LOW WATER CUT-OFF CONTROLLER WITH AUTOMATIC RESET FUNCTION, MCDONNELL & MILLER MODEL 157S

WATER LEVEL GAUGE

EXTERNAL WATER COLUMN DRAIN BALL VALVES 1/4" NPT

BOILER BOTTOM BLOWOFF VALVES:
1 X 1-1/4" NPT QUICK-OPENING BALL VALVE &
1 X 1-1/4" NPT SLOW-OPENING Y-VALVE OR
MOTORIZED BALL VALVE IF BOILER IS EQUIPPED WITH AN AUTOMATIC BOILER BLOWOFF OPTION

STEAM OUTLET VALVE: 4" FLANGED CLASS 150#

PRESSURE TRANSDUCER FOR PID-OPERATING PRESSURE CONTROLLER

SECONDARY LOW WATER CUT-OFF SENSOR FOR BOILER CONTROLLER

BOILER FEED WATER SHUTOFF VALVES

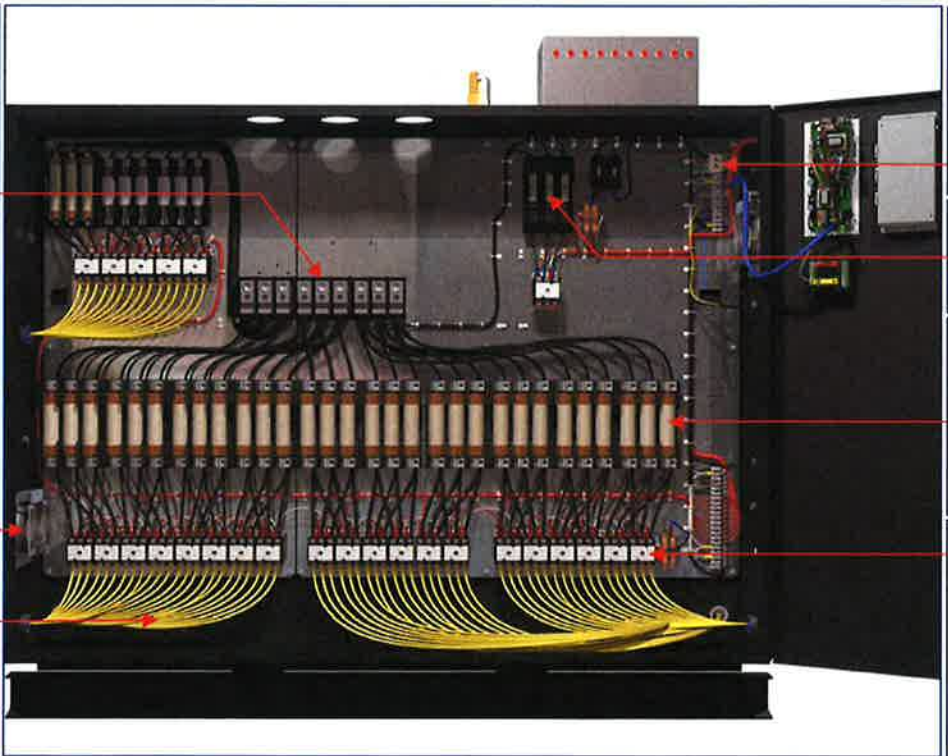
BOILER FEED WATER SOLENOID VALVE ON RHP- & RHPH MODELS

HIGH PRESSURE BOILER FEED WATER PUMP

FIELD TERMINALS FOR POWER CIRCUITS; NUMBER AND SIZE OF TERMINALS PROVIDED PER CIRCUIT AND PHASE DEPENDS ON BOILER MODEL (REFER TO ELECTRICAL SPECIFICATION TABLE ON PAGE 2)

ELECTRICAL ENCL. COOLING FAN

HEATING ELEMENT WIRING, RATED 125°C MINIMUM



FIELD TERMINAL FOR CONTROL VOLTAGE HOOKUP; NOT NEEDED WHEN A CONTROL VOLTAGE TRANSFORMER (OPT1011)

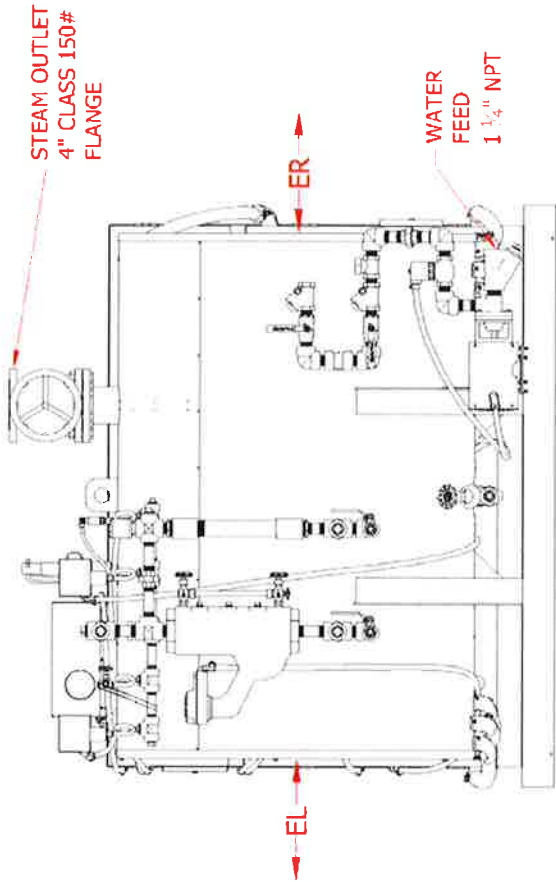
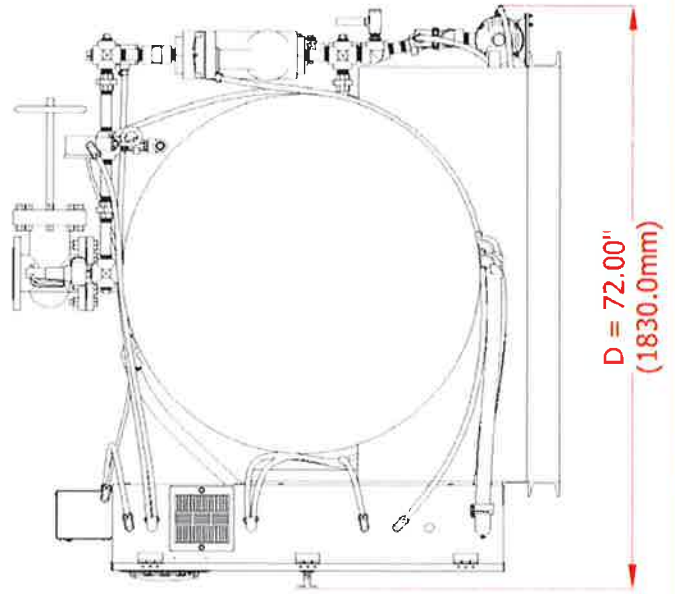
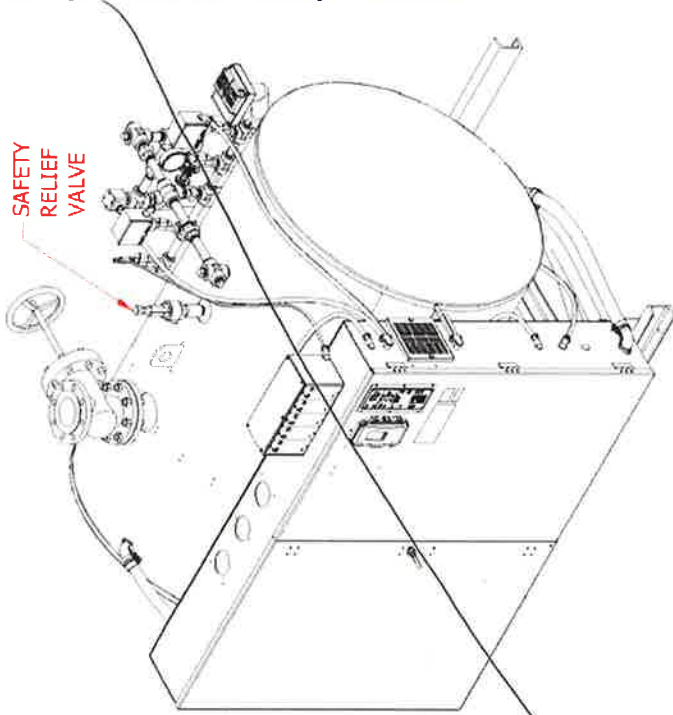
BOILER FEED WATER PUMP FUSING; UL CLASS RK5

HEATING ELEMENT CIRCUIT FUSING; UL CLASS K STANDARD OR UL CLASS J OPTIONAL

HEATING ELEMENT CIRCUIT CONTACTORS, RATED MIN. 250,000 CYCLES AT FULL RATED ELECTRICAL LOAD

Dimensional Drawings (approximate)

RHP/RHPH600 – RHP/RHPH750



**REQUIRED CLEARANCE FOR ELEMENT REMOVAL (EL & ER)
RHP/RHPH600 - RHP/RHPH750: EL = ER = 36" (915.0mm)**

