

## RHP360 – RHP510 Steam Boiler Series



### Features

- Maximum safety 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".
- Dry saturated steam, operating pressure range 0 – 135psi
- Heavy duty carbon steel pressure vessel. Vessel jacket and electrical enclosure made from black painted carbon steel
- Large selection of optional equipment

### Applications

- Process steam
- Industrial Autoclaves
- Air humidification
- Dry cleaning
- Food service
- Laboratories
- Automotive Industry

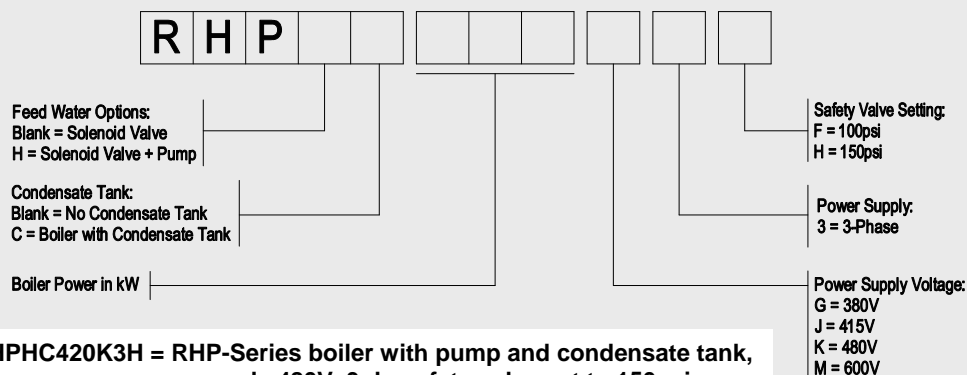
**Standard equipment of each boiler includes:** Primary low water cutoff control with automatic reset, secondary low water cut off with manual reset, safety relief valve, pressure gauge, one (1) primary high pressure cutoff control with automatic reset, one (1) secondary high pressure control with manual reset and PID-step control with number of heating stages depending on boiler size.

RHP SERIES LOW & HIGH PRESSURE STEAM BOILERS									
KW	STEAM LB/HR	BHP	VOLTAGE*	PHASE	NUMBER OF HEATING STAGES	SHIP WT. ** LB	OP. PRESS. RANGE	BTU/HR	Steam Outlet (NPT)
360 KW	1,252	36	380/415/480/600	3	6	2,460	0-135 PSIG	1,228,320	2"
420 KW	1,461	42	380/415/480/600	3	7	2,460	0-135 PSIG	1,433,040	2"
510 KW	1,774	51	380/415/480/600	3	8	2,640	0-135 PSIG	1,740,120	2"

\* Each boiler model requires two (2) power supplies: Primary heating power and secondary control voltage. Nominal control voltage is 120V, 50/60Hz. When boiler equipped with transformer option, only heating power supply required.

\*\* Shipping weight for models with feed water solenoid. For models with feed water solenoid + pump and pump + condensate tank, see page 5.

### Model Number Key



**Example:** RHPHC420K3H = RHP-Series boiler with pump and condensate tank, 420kW heating power, power supply 480V, 3ph, safety valve set to 150psi.

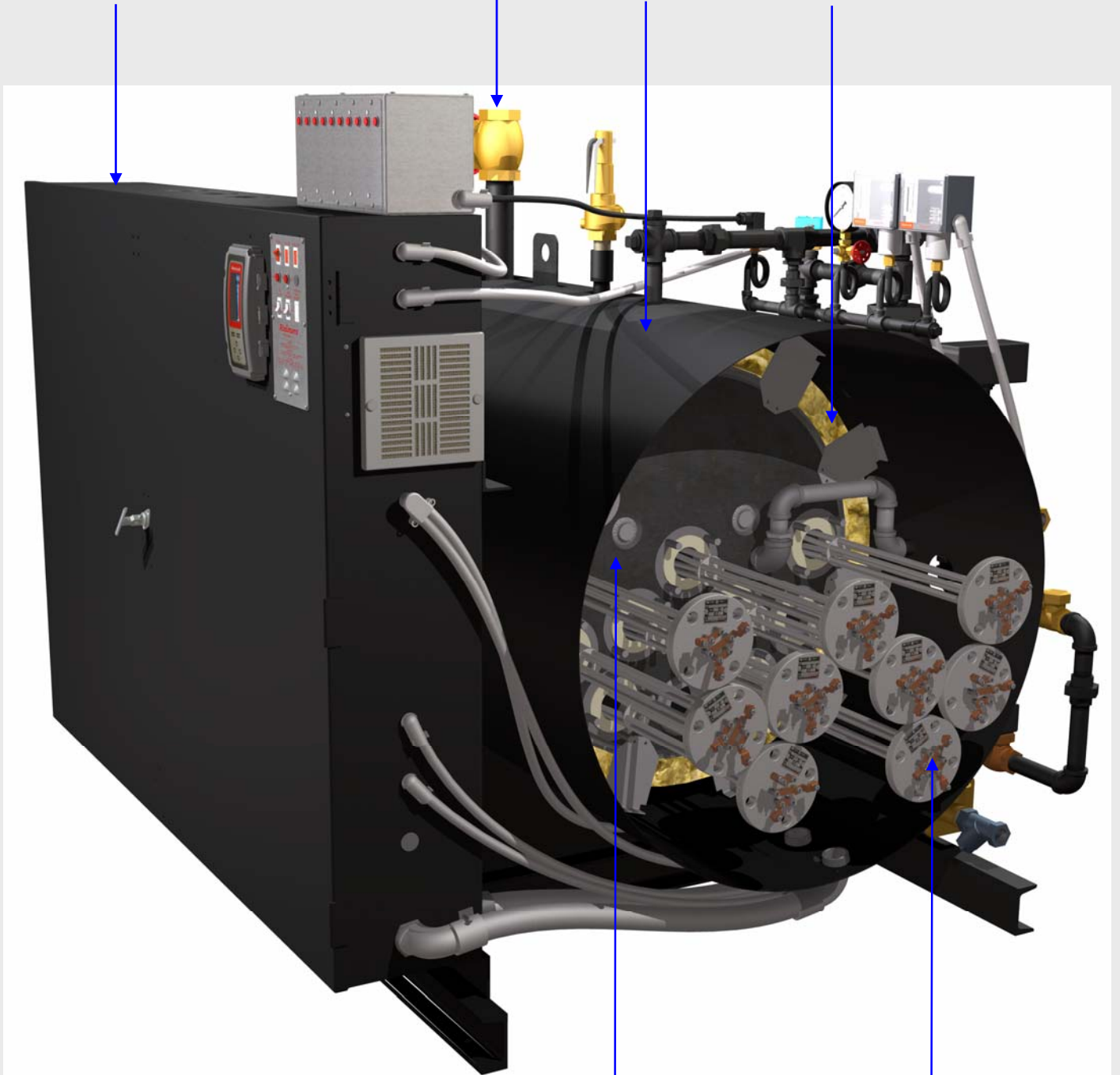
## Construction

Electrical Enclosure:  
black painted 12gauge  
carbon steel

Steam Outlet:  
2" NPT

Shell Wrapper:  
16gauge carbon  
steel black painted

Shell Insulation:  
Mineral wool  
minimum 4" thick

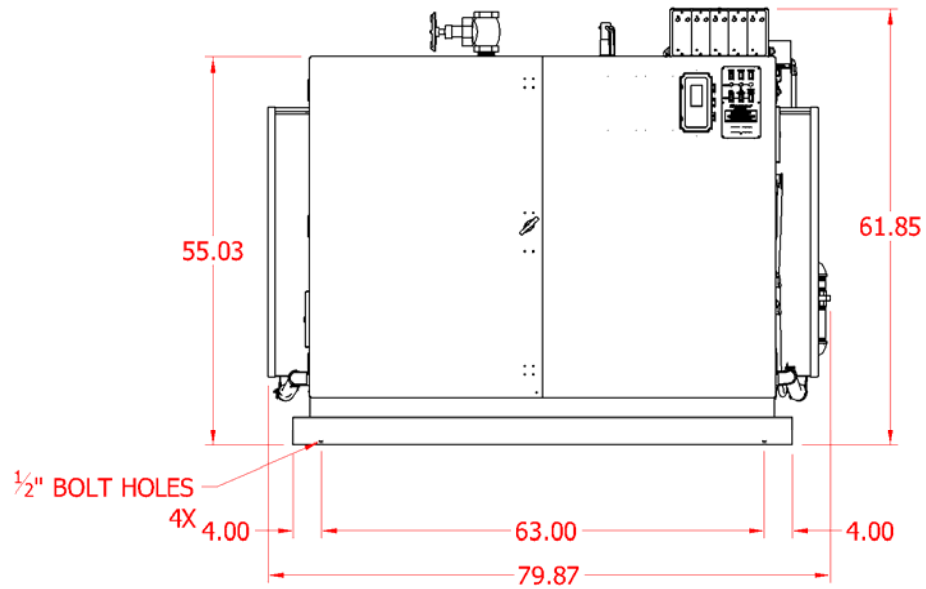
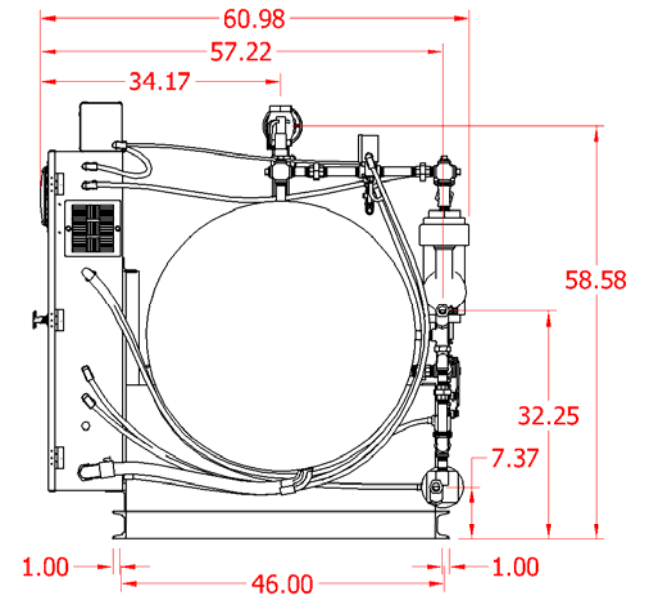
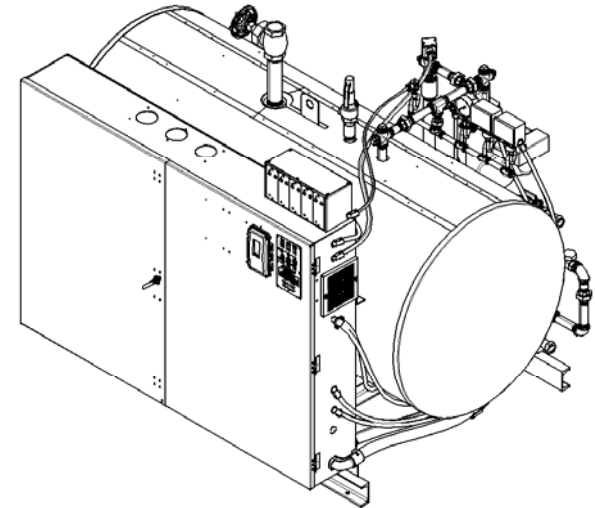
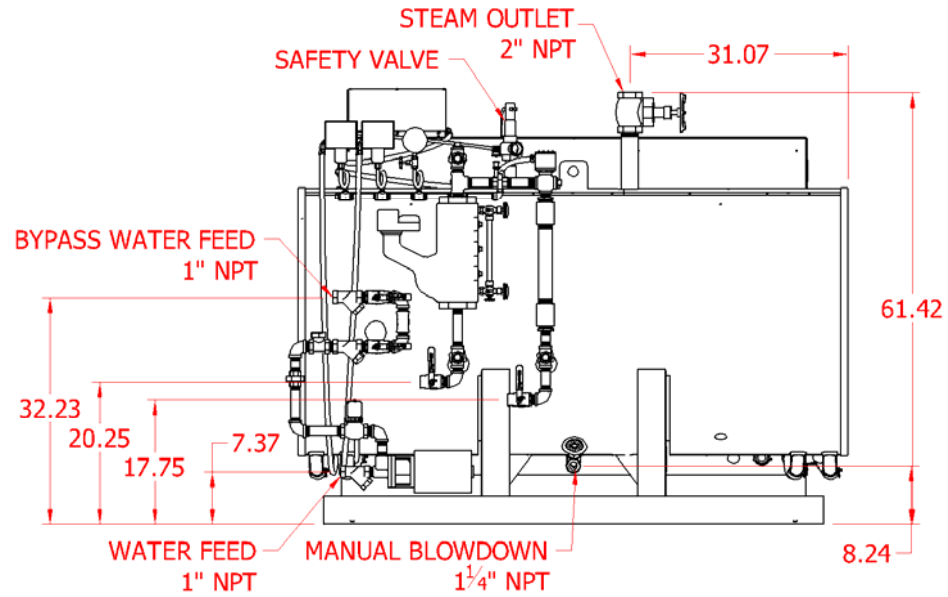


Pressure Vessel:  
Manufactured from low carbon  
steel to comply under the "S"  
symbol of the A.S.M.E. Code and  
are individually inspected.

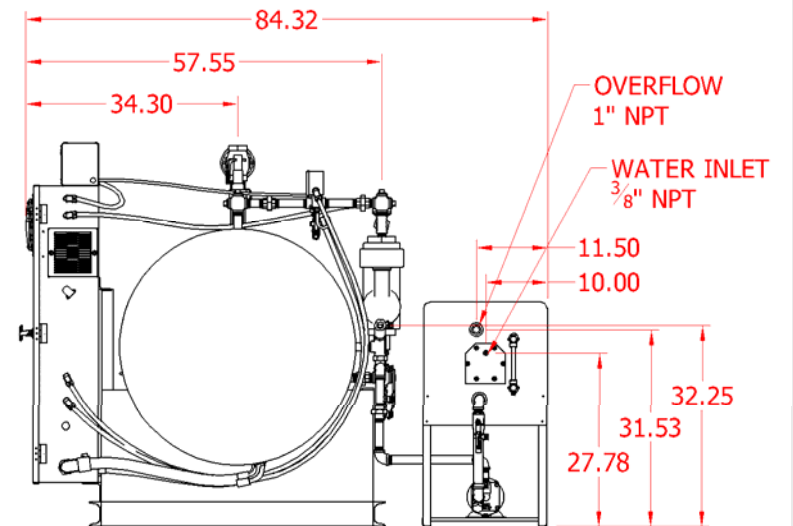
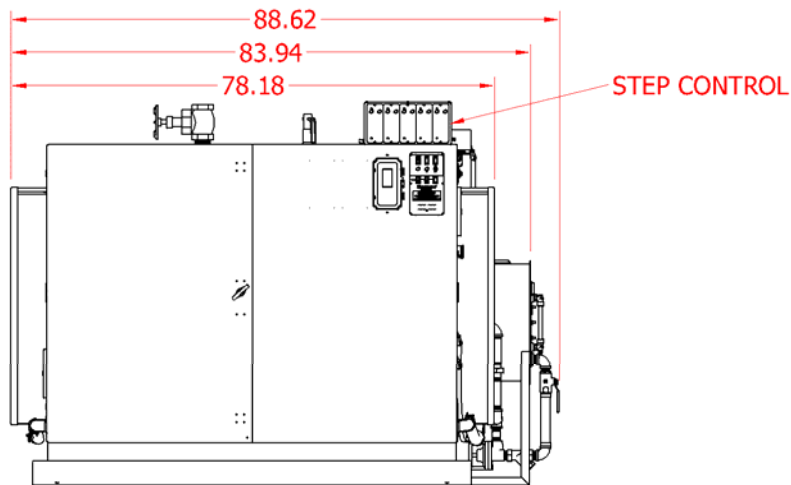
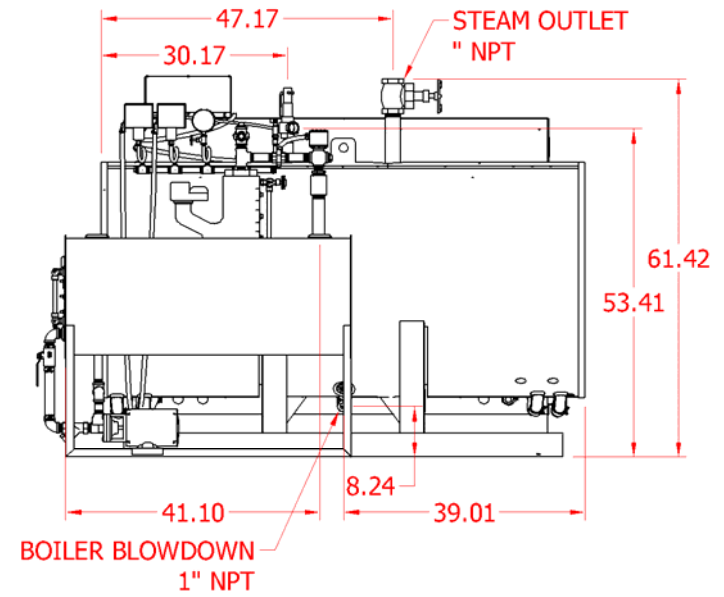
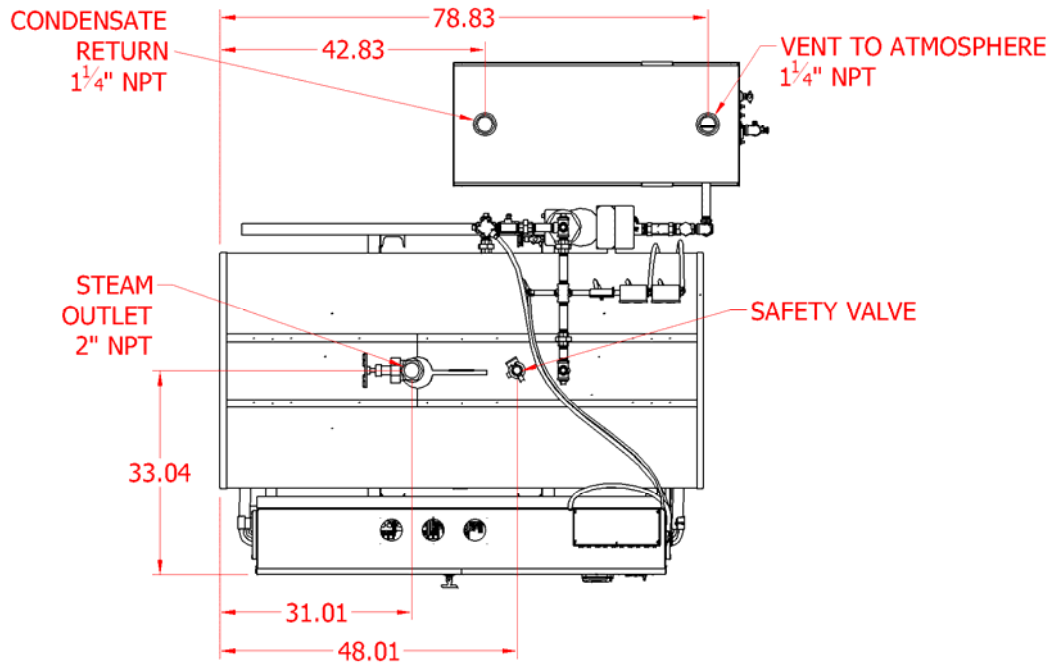
Heating Elements:  
Manufactured from  
Incoloy for high  
corrosion protection

# Overall Dimensions

## RHP-Series with Feed Water Solenoid or Feed Water Solenoid + Pump



# RHP-Series with Feed Water Pump + Condensate Tank



## Optional Equipment

### 1. Timer Controlled Boiler Blowoff System, #OPT1001:



Program boiler blowoff day time and duration

When boiler blowoff time reached, boiler controls turn off automatically.

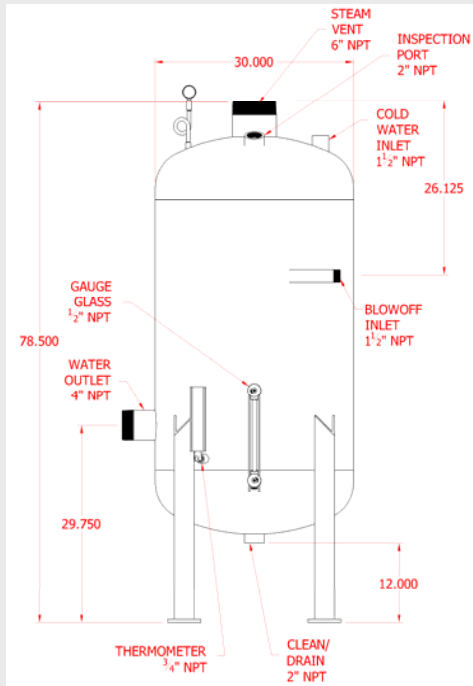
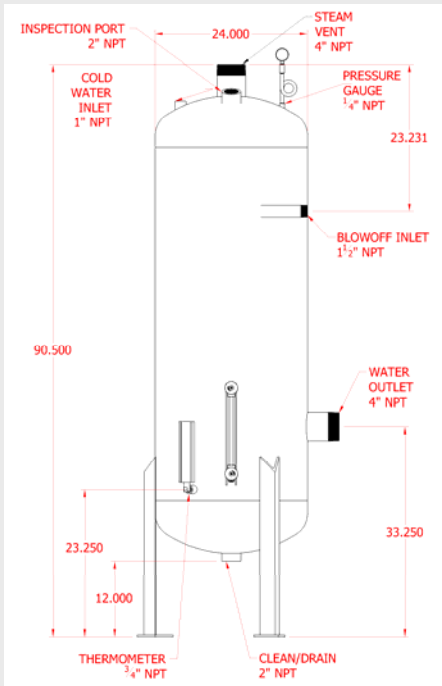


At the end of boiler blowoff, valve closes, boiler controls turn on, water level in boiler restores and boiler resumes operation automatically.

### 2. Blowoff Tanks:

#BTANK-750-USA for all countries except Canada

#BTANK-750-CRN for Canada



### 3. Control Voltage Transformer. When using this option, only main power supply required to operate boiler.

Boiler Voltage	Transformer Option Part Number
380V	OPT1011 – 380RHP
415V	OPT1011 – 380RHP
480V	OPT1011 – 480RHP
600V	OPT1011 – 600RHP

### 4. Timer Controlled Boiler On/Off, #OPT1017



Program timer to turn boiler on/off automatically

## Mechanical Specifications

Model	Output Capacity	Steam Outlet Size	Operating Steam Pressure Range	Steam Capacity	Dimensions	Approx. Shipping Weight
	BTU/H (kW)		psig (bar)	lbs (kg)	L x H x W in (mm)	lbs (kg)
RHP-360 RHPH-360 RHPHC-360	1,228,320	2"	0-135 (0 – 9.3)	1,252 (567)	80.0 x 61.9 x 61.0 (2032 x 1572 x 1550) 80.0 x 61.9 x 61.0 (2032 x 1572 x 1550) 88.6 x 61.9 x 84.3 (2250 x 1572 x 2141)	2,460 (1114) 2,520 (1142) 2,760 (1250)
RHP-420 RHPH-420 RHPHC-420	1,433,040	2"	0-135 (0 – 9.3)	1,461 (662)	80.0 x 61.9 x 61.0 (2032 x 1572 x 1550) 80.0 x 61.9 x 61.0 (2032 x 1572 x 1550) 88.6 x 61.9 x 84.3 (2250 x 1572 x 2141)	2,460 (1114) 2,520 (1142) 2,760 (1250)
RHP-510 RHPH-510 RHPHC-510	1,740,120	2"	0-135 (0 – 9.3)	1,774 (803)	80.0 x 61.9 x 61.0 (2032 x 1572 x 1550) 80.0 x 61.9 x 61.0 (2032 x 1572 x 1550) 88.6 x 61.9 x 84.3 (2250 x 1572 x 2141)	2,640 (1196) 2,700 (1223) 2,940 (1332)

## Electrical Specifications

Model	Boiler Models Equipped with 100W/in <sup>2</sup> Watt Density Heating Elements											
	Voltage		Amps	No. and Size of Elements	No. and Sizes of Contactors	No. and Sizes of Fuses	Gage of Power Entry Wires	No. and Size of Power Entry Wire Conduits				
	Volts	Phase	A				AWG/MCM					
RHP-360	380	3	547.0	12 x 30kW	12 x 75A	36 x 60A, 600V	6 x 500MCM	2 x 3"				
	415	3	500.8						12 x 50A	18 x 100A, 600V	6 x 400MCM	2 x 3"
	480	3	433.0						12 x 50A	18 x 90A, 600V	6 x 300MCM	1 x 3"
	600	3	346.4						12 x 50A	18 x 70A, 600V	6 x 4/0AWG	1 x 3"
RHP-420	380	3	638.1	14 x 30kW	14 x 75A	42 x 60A, 600V	6 x 500MCM	2 x 3"				
	415	3	584.3						14 x 50A	21 x 100A, 600V	6 x 500MCM	2 x 3"
	480	3	505.2						14 x 50A	21 x 90A, 600V	6 x 400MCM	2 x 3"
	600	3	404.1						14 x 50A	21 x 70A, 600V	6 x 250MCM	1 x 3"
RHP-510	380	3	774.9	17 x 30kW	17 x 75A	36 x 60A, 600V	9 x 400MCM	3 x 3"				
	415	3	709.5						17 x 50A	24 x 100A, 600V + 3 x 50A, 600V	9 x 350MCM	3 x 2-1/2"
	480	3	613.4						17 x 50A	24 x 90A, 600V + 3 x 50A, 600V	9 x 300MCM	3 x 2-1/2"
	600	3	490.7						17 x 50A	24 x 70A, 600V + 3 x 40A, 600V	6 x 350MCM	1 x 3"