

## RX36 – RX120 Steam Boiler Series



### Features

- Miniature boiler max. vessel volume 5ft<sup>3</sup>
- Maximum safety valve setting 100psi
- 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 "M".
- High quality saturated steam, operating pressure range 0 – 85psig
- Heavy duty carbon steel pressure vessel. Vessel jacket and electrical enclosure 304 stainless steel
- Large selection of optional equipment

### Applications

- Process steam
- Autoclaves
- Air humidification
- Dry cleaning
- Food service
- Laboratories

**Standard equipment of each boiler includes:** Low water cutoff control with manual reset, high pressure cutoff control with manual reset, one (1) operating pressure control for all models equipped with two heating elements, two (2) staged operating pressure controls for all models equipped with three or four heating elements, high water cut-off control with automatic or manual reset.

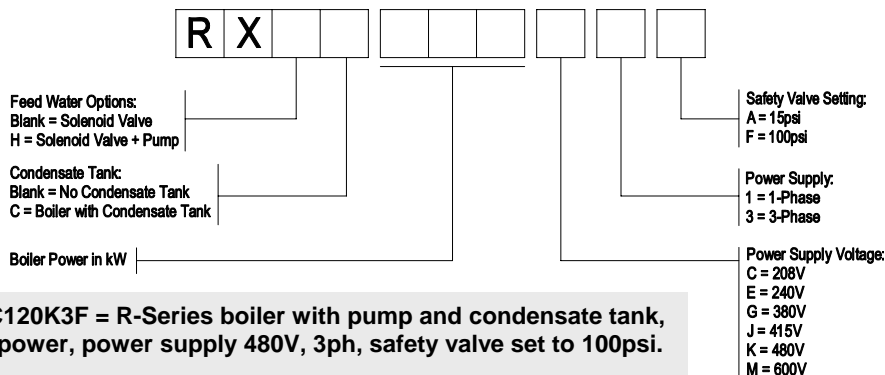
HEATING POWER kW	STEAM CAPACITY lbs/hr (kg/hr)	BHP	VOLTAGE <sup>(1)</sup>	PHASE	SHIP WT. <sup>(3)</sup> Lbs (kg)	OP. PRESS. RANGE psig (bar)	Steam Outlet (NPT)	
							LP	HP
36 KW	125	3.6	208/240/480/600	3 <sup>(2)</sup>	442 (200.5)	0-85 (0 – 5.86)	1	3/4
40 KW	139	4.0	208/240/380/415/480/600	3 <sup>(2)</sup>	442 (200.5)	0-85 (0 – 5.86)	1	3/4
45KW	156.2	4.5	208/240/380/415/480/600	3	474 (214.7)	0-85 (0 – 5.86)	1-1/4	3/4
54 KW	187	5.4	208/240/480/600	3	474 (214.7)	0-85 (0 – 5.86)	1-1/4	3/4
60 KW	208	6.0	208/240/380/415/480/600	3	474 (214.7)	0-85 (0 – 5.86)	1-1/4	1
72 KW	250	7.2	208/240/480/600	3	489 (221.5)	0-85 (0 – 5.86)	1-1/4	1
80 KW	278	8.0	208/240/380/415/480/600	3	489 (221.5)	0-85 (0 – 5.86)	1-1/4	1
100 KW	348	10.0	208/240/380/415/480/600	3	784 (355.2)	0-85 (0 – 5.86)	2	1-1/4
120 KW	417	12.0	208/240/380/415/480/600	3	784 (355.2)	0-85 (0 – 5.86)	2	1-1/4

<sup>(1)</sup> Each boiler model requires two (2) power supplies: Primary heating power and secondary control voltage. Nominal control voltage is 120V, 50/60Hz. When boiler is equipped with transformer option only heating power supply is required.

<sup>(2)</sup> Also available in 240V 1PH

<sup>(3)</sup> On boiler equipped with condensate tank, add 70lbs (31.kg) to shipping weight

### Model Number Key

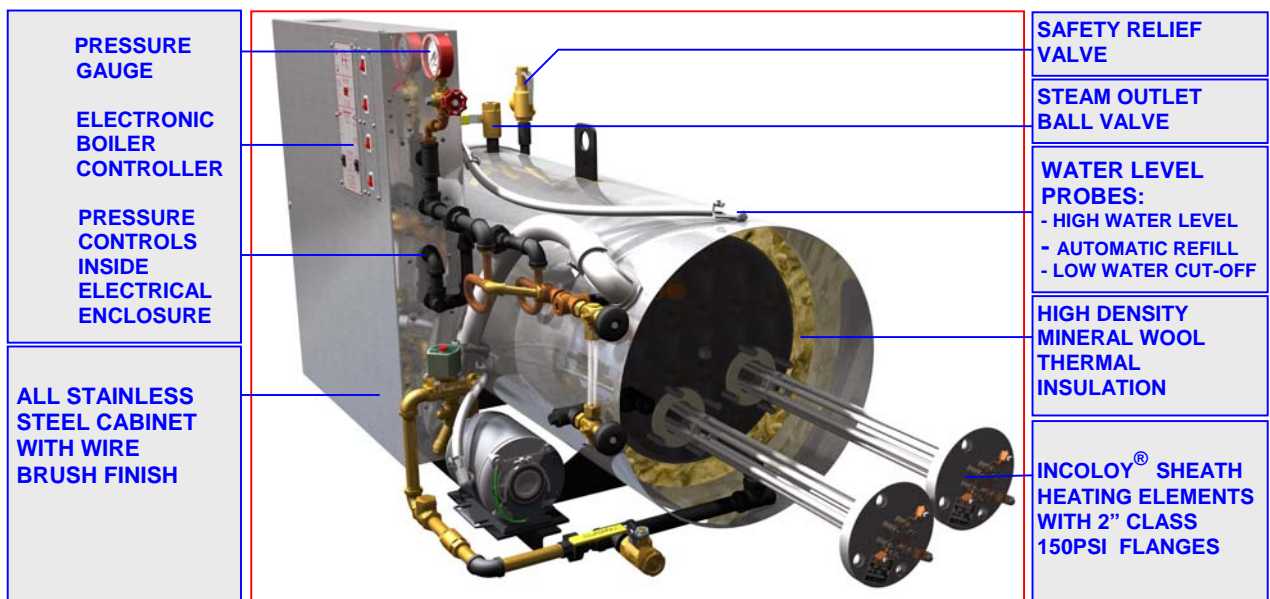


**Example:** RXHC120K3F = R-Series boiler with pump and condensate tank, 120kW heating power, power supply 480V, 3ph, safety valve set to 100psi.

# Electrical Specifications

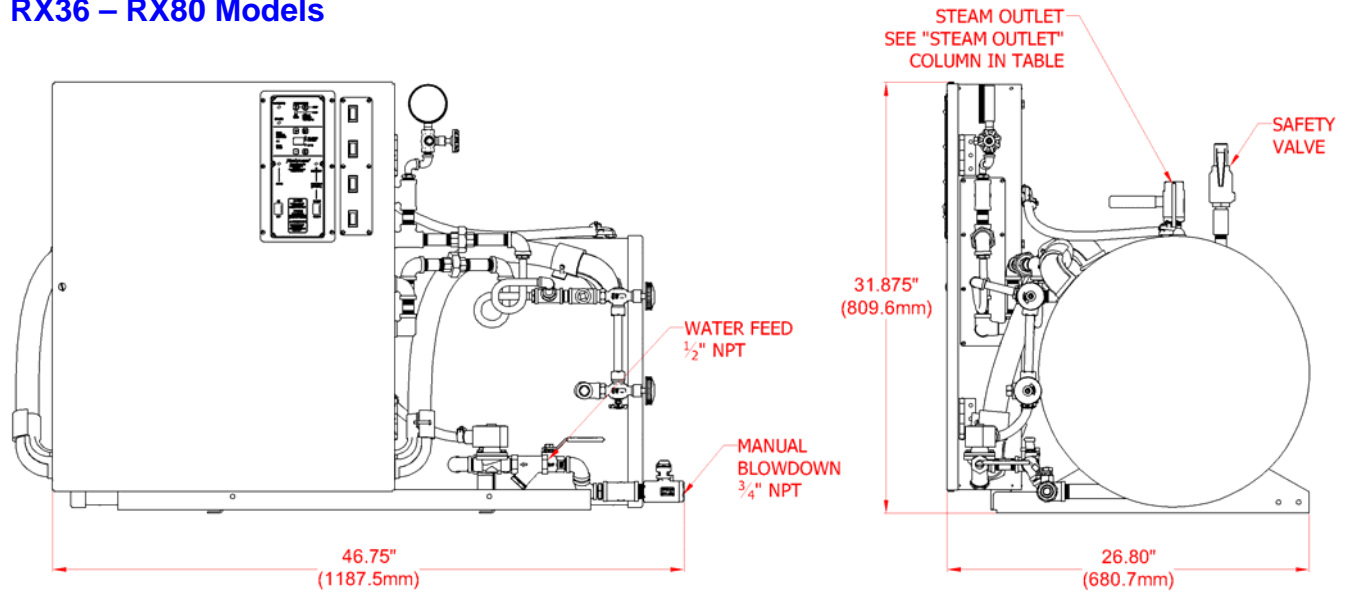
HEATING POWER	VOLTAGE	PHASE	AMP DRAW	MIN REQUIRED N.E.C. SERVICE	INTERNAL POWER FUSING	INTERNAL POWER WIRING	NUMBER & SIZES OF CONTACTORS	NUMBER & SIZE OF ELEMENTS	GAGE OF POWER ENTRY WIRE (75°C)	POWER ENTRY CONDUIT SIZE
kW	V		A	A		AWG (mm <sup>2</sup> )			AWG/MCM (mm <sup>2</sup> )	IN
36	208	3	100.0	125.0	6 x 60A, 250V	8 (8.35)	2 x 75A res.	2 x 18kW, 208V, 3ph	3 x 1 (42.2)	1-1/4
	240	3	86.6	108.0	6 x 60A, 250V	8 (8.35)	2 x 50A res.	2 x 18kW, 240V, 3ph	3 x 2 (33.6)	1-1/4
	240	1	150.0	188	6 x 60A, 250V	8 (8.35)	2 x 75A res.	2 x 18kW, 240V, 1ph	3 x 3/0 (85.0)	2
	480	3	43.3	55.0	6 x 30A, 600V	10 (5.27)	2 x 50A res.	2 x 18kW, 480V, 3ph	3 x 6 (13.3)	3/4
	600	3	34.6	44.0	6 x 30A, 600V	10 (5.27)	2 x 50A res.	2 x 18kW, 600V, 3ph	3 x 8 (8.35)	3/4
40	208	3	111.0	140.0	6 x 70A, 250V	8 (8.35)	2 x 75A res.	2 x 20kW, 208V, 3ph	3 x 1/0 (53.4)	1-1/2
	240	3	96.2	121.0	6 x 60A, 250V	8 (8.35)	2 x 75A res.	2 x 20kW, 240V, 3ph	3 x 1 (42.2)	1-1/4
	240	1	166.7	210.0	12 x 40A, 250V	10 (5.27)	4 x 50A res.	2 x 20kW, 240V, 1ph	3 x 4/0 (107.2)	2
	380	3	60.8	76.0	6 x 40A, 600V	8 (8.35)	2 x 50A res.	2 x 20kW, 380V, 3ph	3 x 4 (21.2)	1
	415	3	55.6	70.0	6 x 40A, 600V	10 (5.27)	2 x 50A res.	2 x 20kW, 415V, 3ph	3 x 4 (21.2)	1
	480	3	48.1	60.0	6 x 30A, 600V	10 (5.27)	2 x 50A res.	2 x 20kW, 480V, 3ph	3 x 6 (13.3)	3/4
	600	3	38.5	48.0	6 x 30A, 600V	10 (5.27)	2 x 50A res.	2 x 20kW, 600V, 3ph	3 x 8 (8.35)	3/4
45	208	3	124.9	156.0	9 x 50A, 250V	8 (8.35)	3 x 50A res.	3 x 15kW, 208V, 3ph	3 x 2/0 (67.5)	1-1/2
	240	3	108.3	136.0	9 x 50A, 250V	8 (8.35)	3 x 50A res.	3 x 15kW, 240V, 3ph	3 x 1/0 (53.4)	1-1/2
	380	3	68.4	86.0	9 x 30A, 600V	10 (5.27)	3 x 50A res.	3 x 15kW, 380V, 3ph	3 x 3 (26.7)	1
	415	3	62.6	79.0	9 x 30A, 600V	10 (5.27)	3 x 50A res.	3 x 15kW, 415V, 3ph	3 x 4 (21.2)	1
	480	3	54.1	68.0	9 x 30A, 600V	10 (5.27)	3 x 50A res.	3 x 15kW, 480V, 3ph	3 x 4 (21.2)	1
	600	3	43.3	55.0	9 x 30A, 600V	10 (5.27)	3 x 50A res.	3 x 15kW, 600V, 3ph	3 x 6 (13.3)	3/4
54	208	3	149.9	188.0	9 x 60A, 250V	8 (8.35)	3 x 75A res.	3 x 18kW, 208V, 3ph	3 x 3/0 (85.0)	2
	240	3	129.9	163.0	9 x 60A, 250V	8 (8.35)	3 x 50A res.	3 x 18kW, 240V, 3ph	3 x 2/0 (67.5)	1-1/2
	480	3	65.0	82.0	9 x 30A, 600V	10 (5.27)	3 x 50A res.	3 x 18kW, 480V, 3ph	3 x 4 (21.2)	1
	600	3	52.0	65.0	9 x 30A, 600V	10 (5.27)	3 x 50A res.	3 x 18kW, 600V, 3ph	3 x 4 (21.2)	1
60	208	3	166.5	208.0	9 x 70A, 250V	8 (8.35)	3 x 75A res.	3 x 20kW, 208V, 3ph	3 x 4/0 (107.2)	2
	240	3	144.3	181.0	9 x 60A, 250V	8 (8.35)	3 x 75A res.	3 x 20kW, 240V, 3ph	3 x 3/0 (85.0)	2
	380	3	91.2	114.0	9 x 40A, 600V	8 (8.35)	3 x 50A res.	3 x 20kW, 380V, 3ph	3 x 1 (42.2)	1-1/4
	415	3	83.5	105.0	9 x 40A, 600V	10 (5.27)	3 x 50A res.	3 x 20kW, 415V, 3ph	3 x 2 (33.6)	1-1/4
	480	3	72.2	90.0	9 x 30A, 250V	10 (5.27)	3 x 50A res.	3 x 20kW, 480V, 3ph	3 x 3 (26.7)	1
	600	3	57.7	72.0	9 x 30A, 250V	10 (5.27)	3 x 50A res.	3 x 20kW, 600V, 3ph	3 x 4 (21.2)	1
72	208	3	199.9	250.0	12 x 60A, 250V	8 (8.35)	4 x 75A res.	4 x 18kW, 208V, 3ph	3 x 250 (127.0)	2
	240	3	173.2	217.0	12 x 60A, 250V	8 (8.35)	4 x 50A res.	4 x 18kW, 240V, 3ph	3 x 4/0 (107.2)	2
	480	3	86.6	108.0	12 x 30A, 600V	10 (5.27)	4 x 50A res.	4 x 18kW, 480V, 3ph	3 x 2 (33.6)	1-1/4
	600	3	69.3	87.0	12 x 30A, 600V	10 (5.27)	4 x 50A res.	4 x 18kW, 600V, 3ph	3 x 3 (26.7)	1
80	208	3	222.1	278.0	12 x 70A, 250V	8 (8.35)	4 x 75A res.	4 x 20kW, 208V, 3ph	3 x 350 (177.0)	2-1/2
	240	3	192.5	241.0	12 x 60A, 250V	8 (8.35)	4 x 75A res.	4 x 20kW, 240V, 3ph	3 x 250 (127.0)	2
	380	3	121.5	152.0	12 x 40A, 600V	8 (8.35)	4 x 50A res.	4 x 20kW, 380V, 3ph	3 x 2/0 (67.5)	1-1/2
	415	3	111.3	140.0	12 x 40A, 600V	10 (5.27)	4 x 50A res.	4 x 20kW, 415V, 3ph	3 x 1/0 (53.4)	1-1/2
	480	3	96.2	120.0	12 x 30A, 250V	10 (5.27)	4 x 50A res.	4 x 20kW, 480V, 3ph	3 x 1 (42.2)	1-1/4
	600	3	77.0	96.0	12 x 30A, 250V	10 (5.27)	4 x 50A res.	4 x 20kW, 600V, 3ph	3 x 3 (26.7)	1
90.1	208	3	250.2	313.0	12 x 80A, 250V	6 (13.3)	4 x 75A res.	4 x 30kW, 240V, 3ph	3 x 400 (203.0)	2-1/2
100	240	3	240.6	300.0	12 x 80A, 250V	8 (8.35)	4 x 75A res.	4 x 25kW, 240V, 3ph	3 x 350 (177.0)	2-1/2
	380	3	151.9	190.0	12 x 50A, 600V	8 (8.35)	4 x 50A res.	4 x 25kW, 380V, 3ph	3 x 3/0 (85.0)	2
	415	3	139.1	174.0	12 x 50A, 600V	8 (8.35)	4 x 50A res.	4 x 25kW, 415V, 3ph	3 x 2/0 (67.5)	1-1/2
	480	3	120.3	150.0	12 x 40A, 600V	10 (5.27)	4 x 50A res.	4 x 25kW, 480V, 3ph	3 x 2/0 (67.5)	1-1/2
	600	3	96.2	120.0	12 x 30A, 600V	10 (5.27)	4 x 50A res.	4 x 25kW, 600V, 3ph	3 x 1 (42.2)	1-1/4
120	208	3	333.1	417.0	12 x 100A, 600V	6 (13.3)	4 x 93A res.	4 x 30kW, 208V, 3ph	6 x 4/0 (107.2)	2-1/2
	240	3	288.7	360.0	12 x 90A, 600V	6 (13.3)	4 x 75A res.	4 x 30kW, 240V, 3ph	3 x 500 (253.0)	2-1/2
	380	3	182.3	228.0	12 x 60A, 600V	8 (8.35)	4 x 50A res.	4 x 30kW, 380V, 3ph	3 x 4/0 (107.2)	2
	415	3	166.9	209.0	12 x 60A, 600V	8 (8.35)	4 x 50A res.	4 x 30kW, 415V, 3ph	3 x 4/0 (107.2)	2
	480	3	144.3	180.0	12 x 50A, 600V	8 (8.35)	4 x 50A res.	4 x 30kW, 480V, 3ph	3 x 3/0 (85.0)	2
	600	3	115.5	145.0	12 x 40A, 600V	10 (5.27)	4 x 50A res.	4 x 30kW, 600V, 3ph	3 x 1/0 (53.4)	1-1/2

## Construction

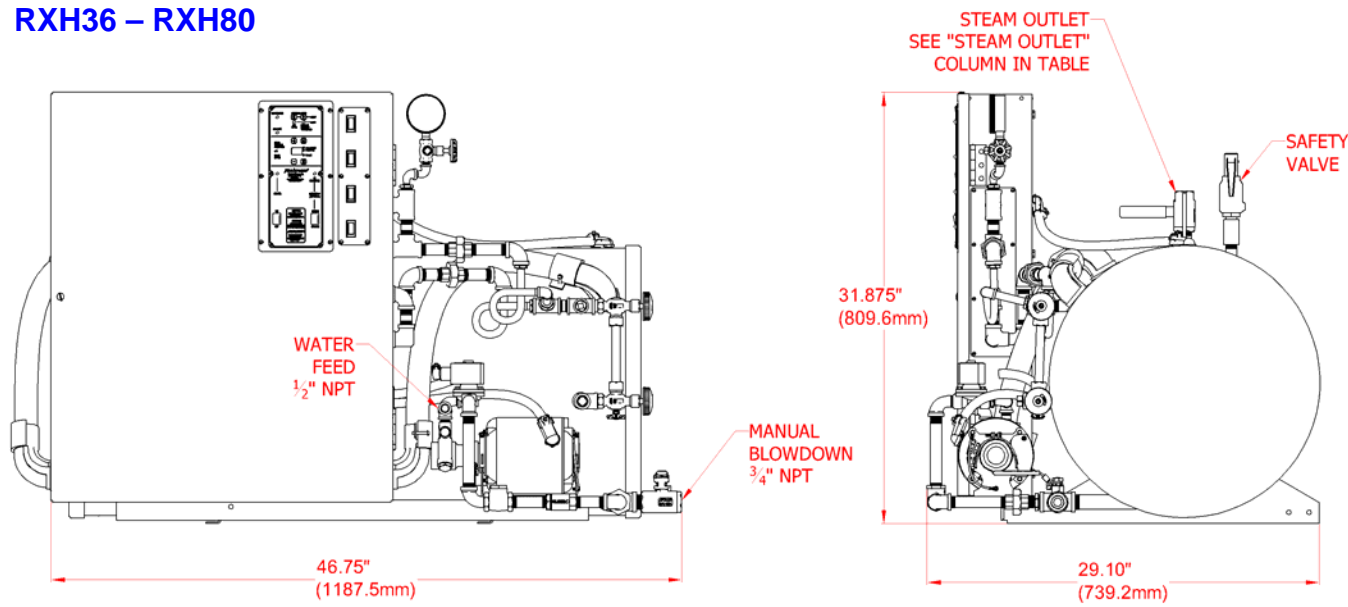


# Dimensional Drawings

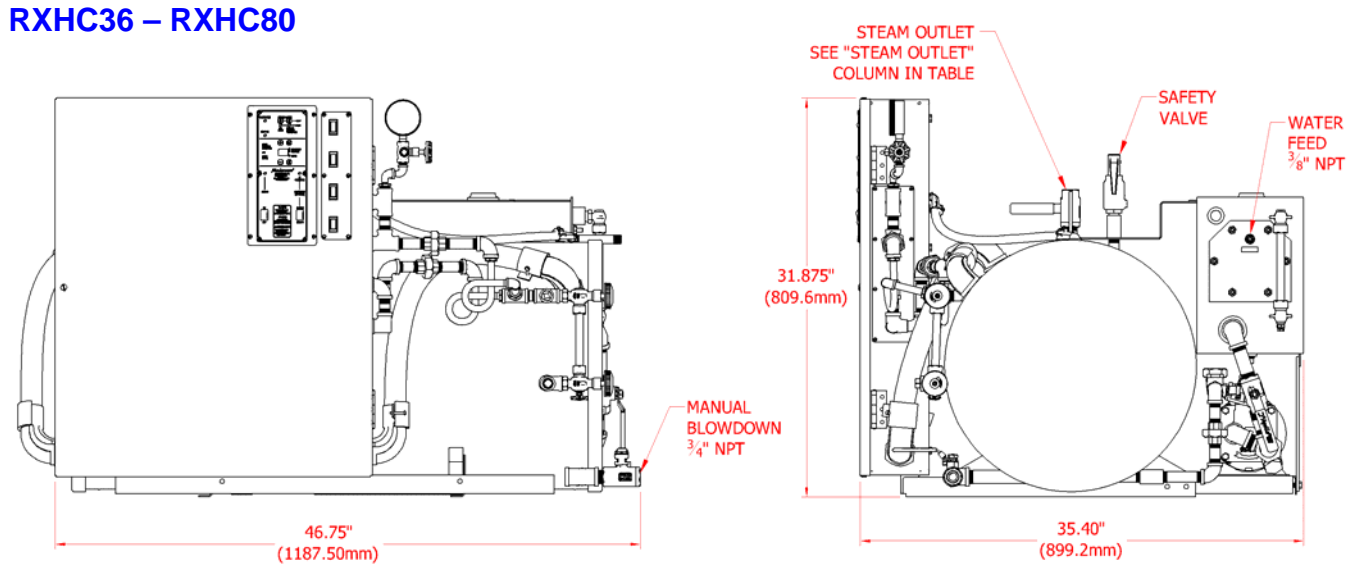
## RX36 – RX80 Models



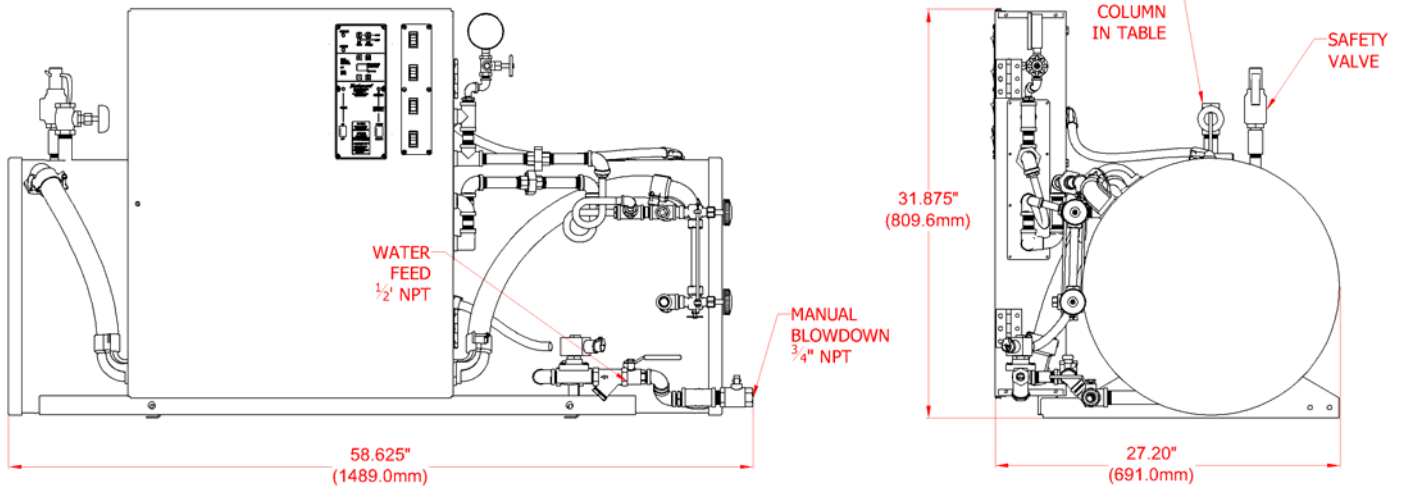
## RXH36 – RXH80



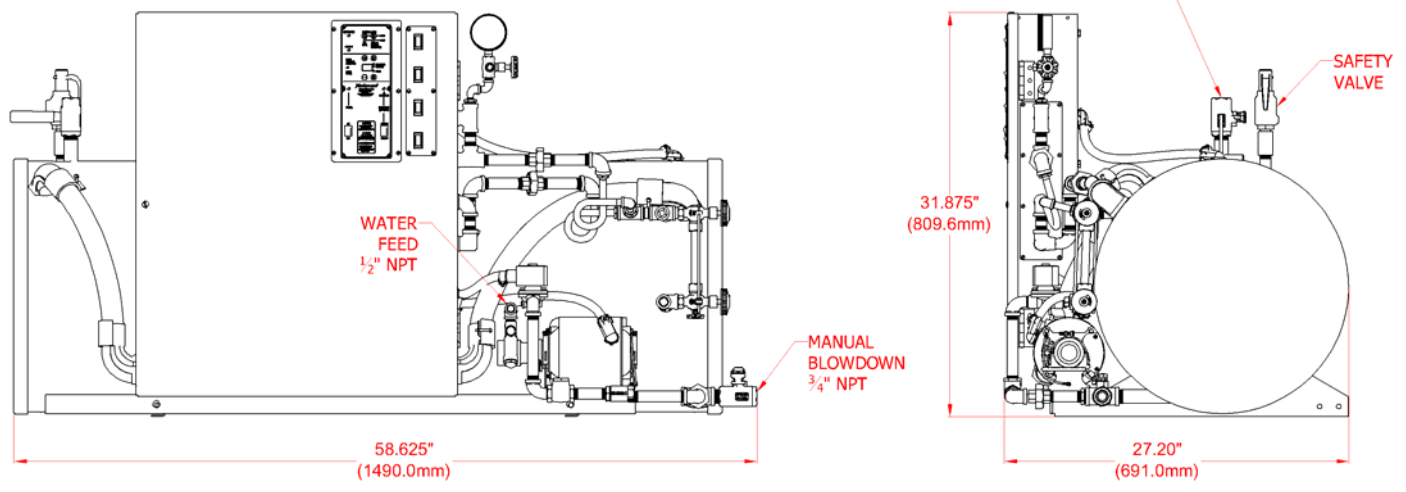
## RXHC36 – RXHC80



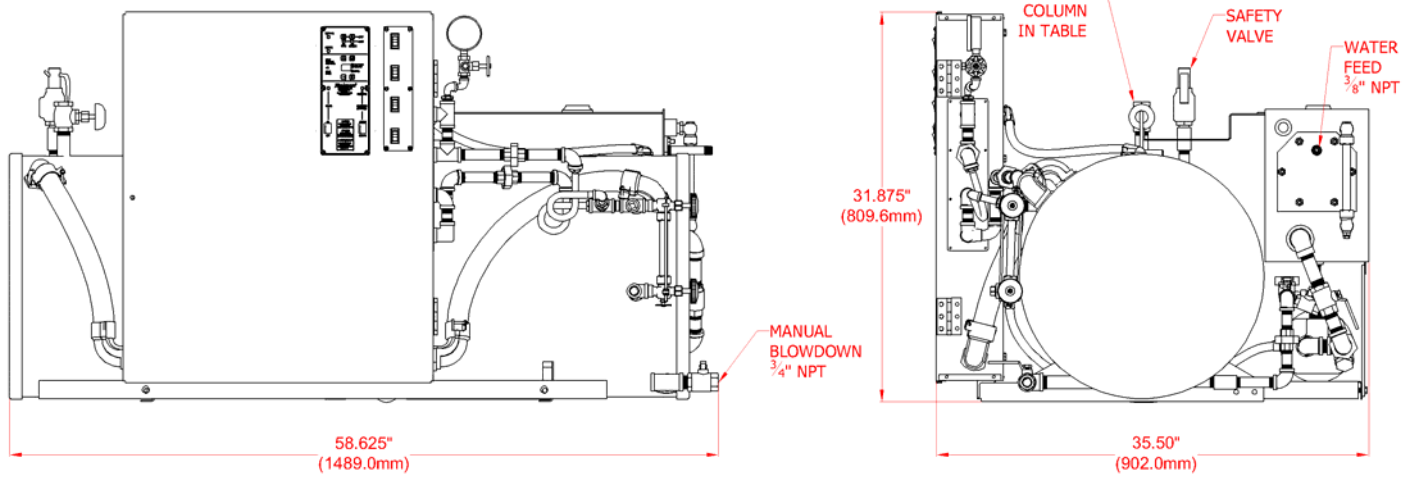
### RX100 – RX120



### RXH100 – RXH120

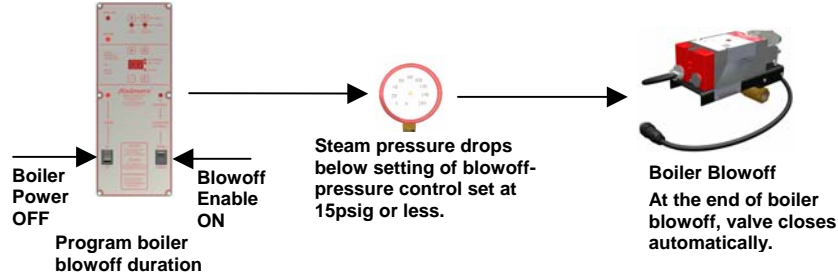


### RXHC100 – RXHC120

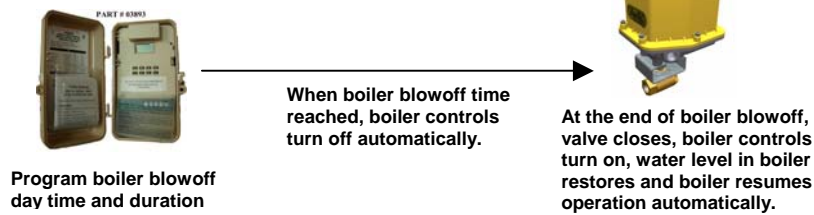


# Optional Equipment

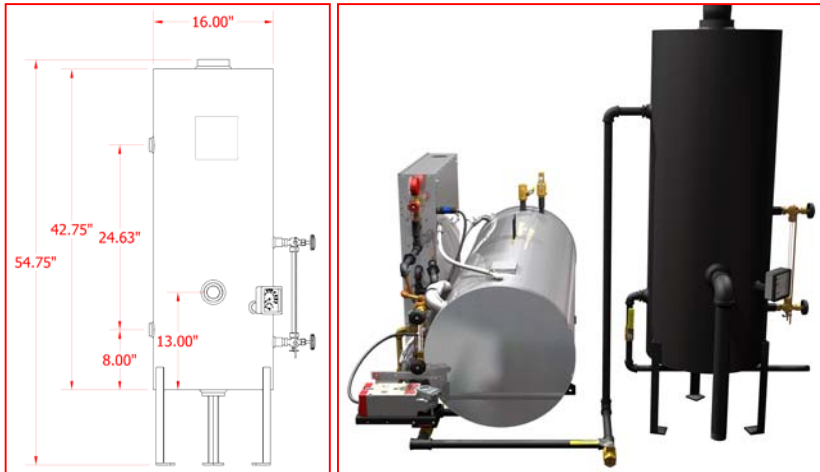
## 1. Pressure Controlled Boiler Blowoff System Automatic Flush & Drain (Not suitable for 24/7 operation), #OPT1016



## 2. Timer Controlled Boiler Blowoff System, (Suitable for 24/7 operation), #OPT1001



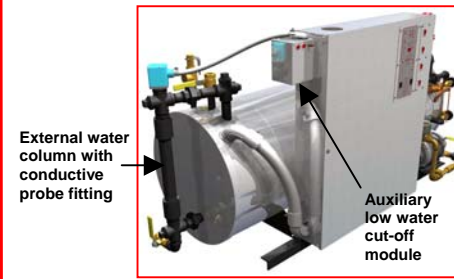
## 3. Boiler Blowoff Tank, #BTANK-16



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

Boiler Voltage	Transformer Option Part Number	
	Boiler Model	
	R-	RH- and RHC-
208V	OPT1010 - 208R	OPT1011 - 208RH
240V	OPT1010 - 240R	OPT1011 - 240RH
380V	OPT1010 - 380	OPT1011 - 380RH
415V	OPT1010 - 380	OPT1011 - 380RH
480V	OPT1010 - 480R	OPT1011 - 480RH
600V	OPT1010 - 600R	OPT1011 - 600RH

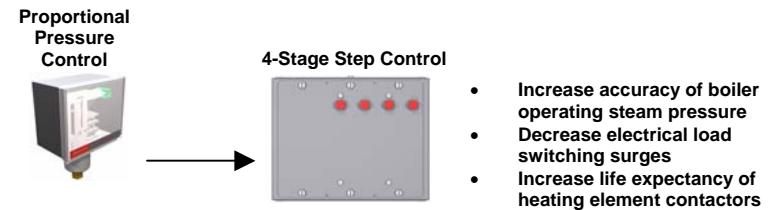
## 5. Auxiliary Low Water Cut-Off: #OPT1012



## #OPTMM150



## 6. Proportional Step Control, #20802



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



## 8. Boiler Stacking:



Boiler Model	Stacking Frame
RX, RXH, RXHC36-54	20292-4
RX, RXH, RXHC60-72	20292-13
RX, RXH, RXHC100-120	20293-3

Operate two boilers in parallel for higher steam loads and save floor space.

