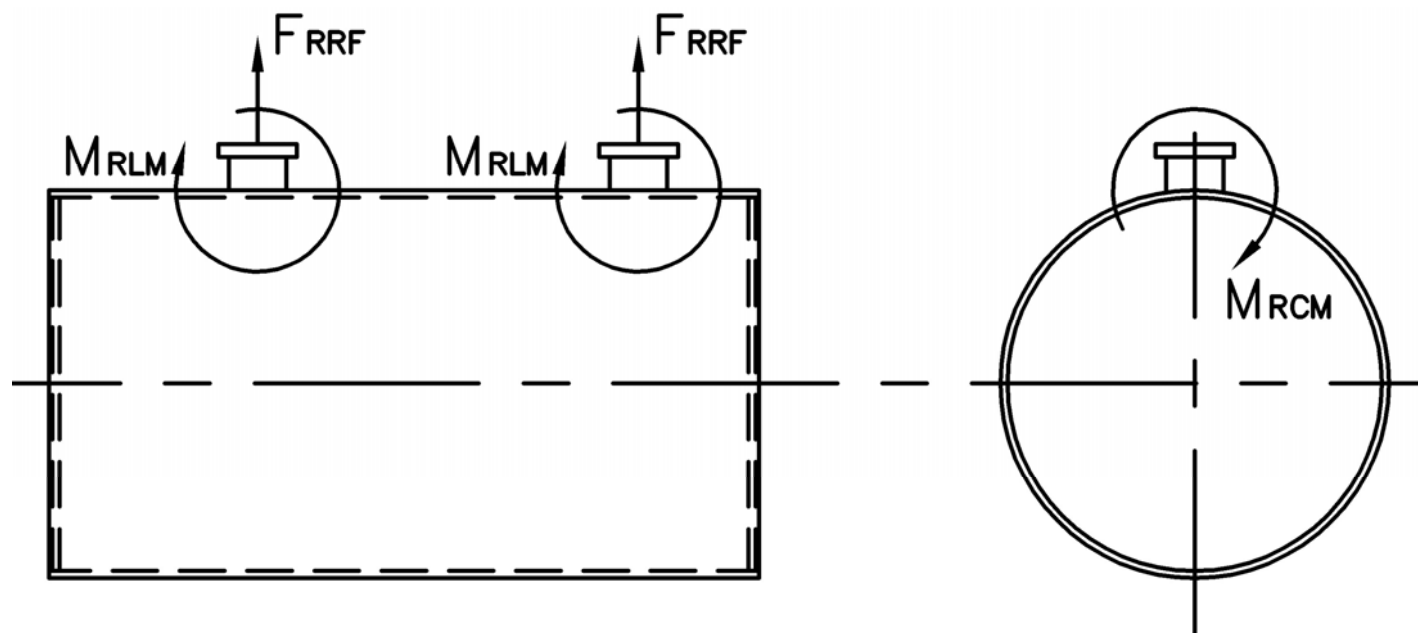


# MODEL: PFTX 600-4

## Nozzle Loadings

Maximum Allowable Load on Outlet & Return Nozzles				
	30# Design	60# Design	125# Design	160# Design
$F_{RRF}$ , lb	5,508	4,390	4,934	7,675
$M_{RCM}$ , in-lb	40,850	40,850	64,050	113,824
$M_{RLM}$ , in-lb	59,211	47,225	49,729	79,761



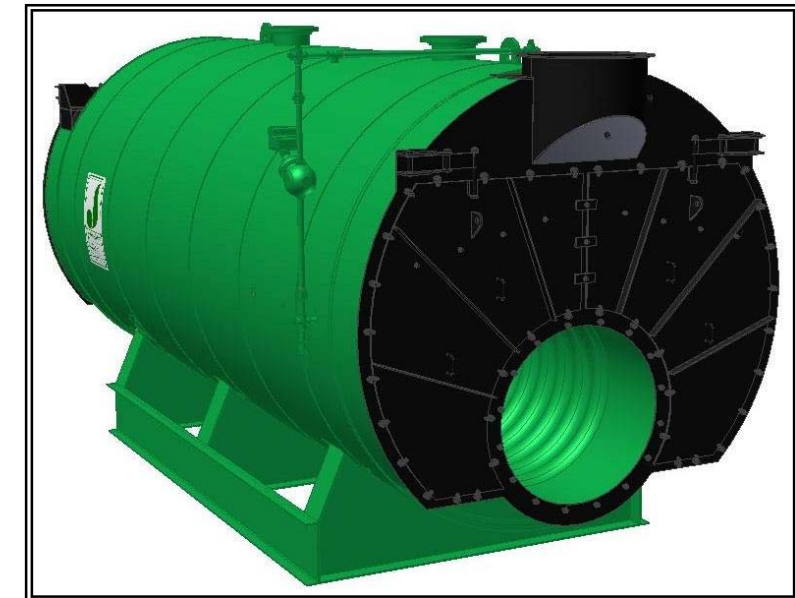
Distributed By:



300 Pine Street  
P.O. Box 300  
Ferrysburg, MI 49409-0300  
Telephone: (616) 842-5050  
Net: www.johnstonboiler.com

# MODEL: PFTX 600-4

## 4-Pass Hot Water Packaged Firetube Boiler



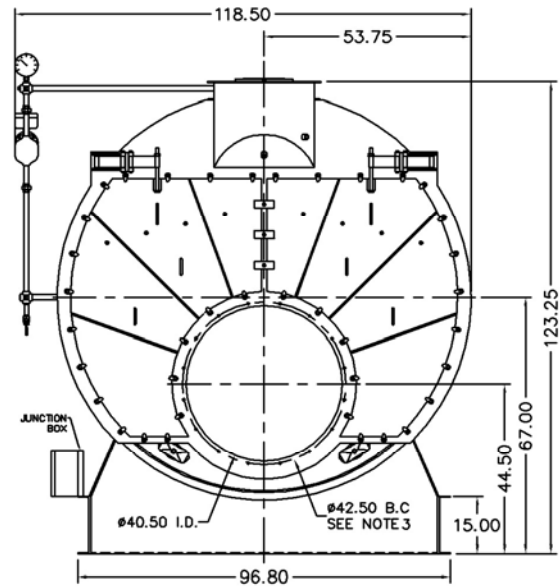
## Ratings & Performance Data

Horsepower 600		Natural Gas Flow, SCFH (1,000 Btu/ft <sup>3</sup> )**	23,247
Total Heating Surface, ft <sup>2</sup>	3,094	Combustion Air (15% Excess), SCFM***	4,254
Furnace Outside Diameter, in	46.0	Flue Gas Flow Rate, lb/hr***	20,272
Furnace Heat Release Rate, Btu/ft <sup>3</sup> hr**	146,000	Stack Flue Gas Velocity, ft/min***	1,658
Total Combustion Volume, ft <sup>3</sup>	209.8	#2 Oil Flow, gal/hr (140,000 Btu/gal)**	160.2
Total Heat Release Rate, Btu/ft <sup>3</sup> hr**	111,000	#6 Oil Flow, gal/hr (150,000 Btu/gal)**	148.2
Water Content Flooded, gal	4,428	Flue Gas Side Pressure Drop, in. H <sub>2</sub> O	5.9
Approx. Dry Weight 30#, lb	41,500	Approx. Operating Weight 30#, lb	76,500
Approx. Dry Weight 60#, lb	41,700	Approx. Operating Weight 60#, lb	76,700
Approx. Dry Weight 125#, lb	42,700	Approx. Operating Weight 125#, lb	77,700

Operating Temperature (F)	Natural Gas		#2 Oil		#6 Oil	
	Stack Temp (F)	%Eff	Stack Temp	%Eff	Stack Temp (F)	%Eff
180	219	86.9	227	90.1	232	90.8
200	238	86.4	247	89.6	252	90.3
220	258	85.9	267	89.1	272	89.8
240	278	85.4	286	88.6	291	89.3

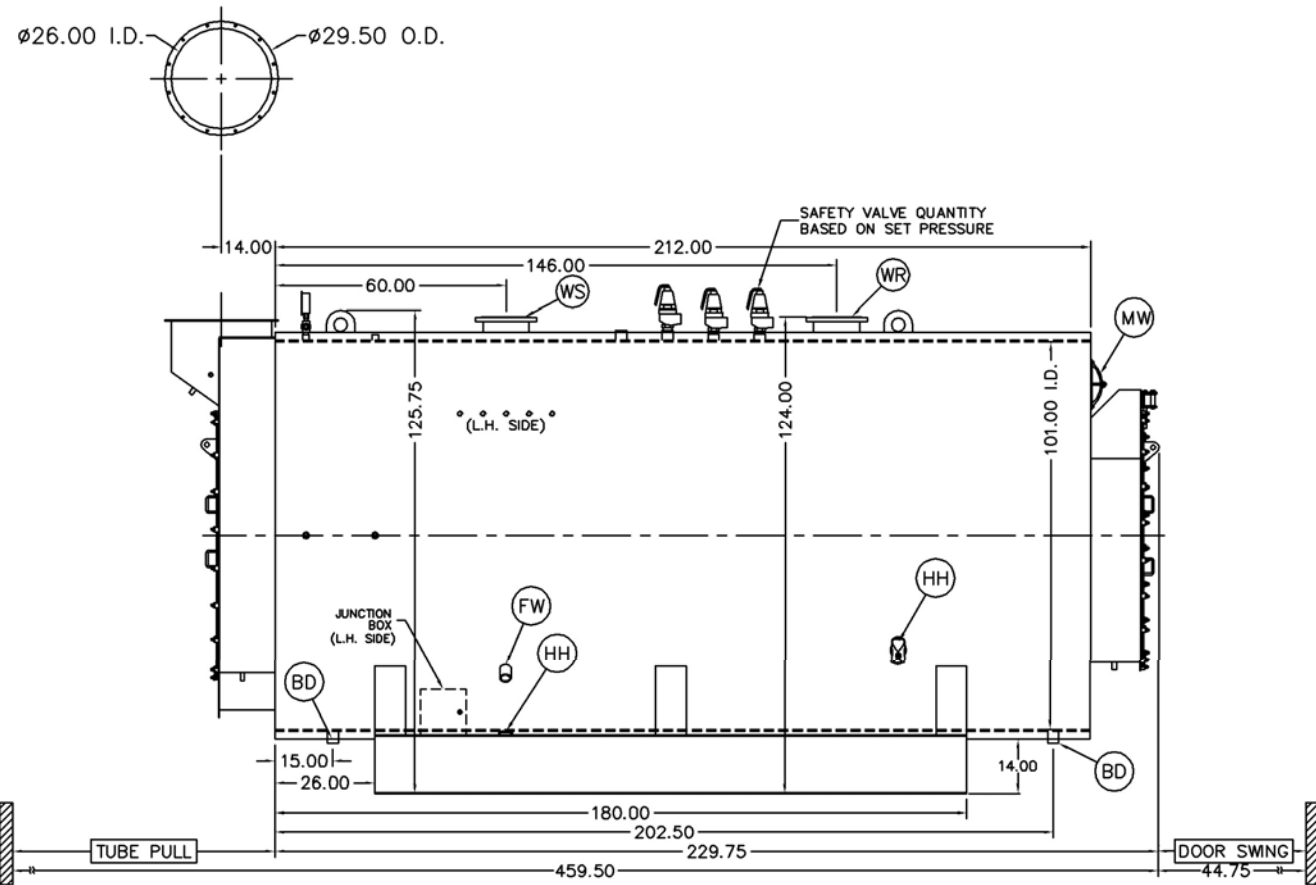
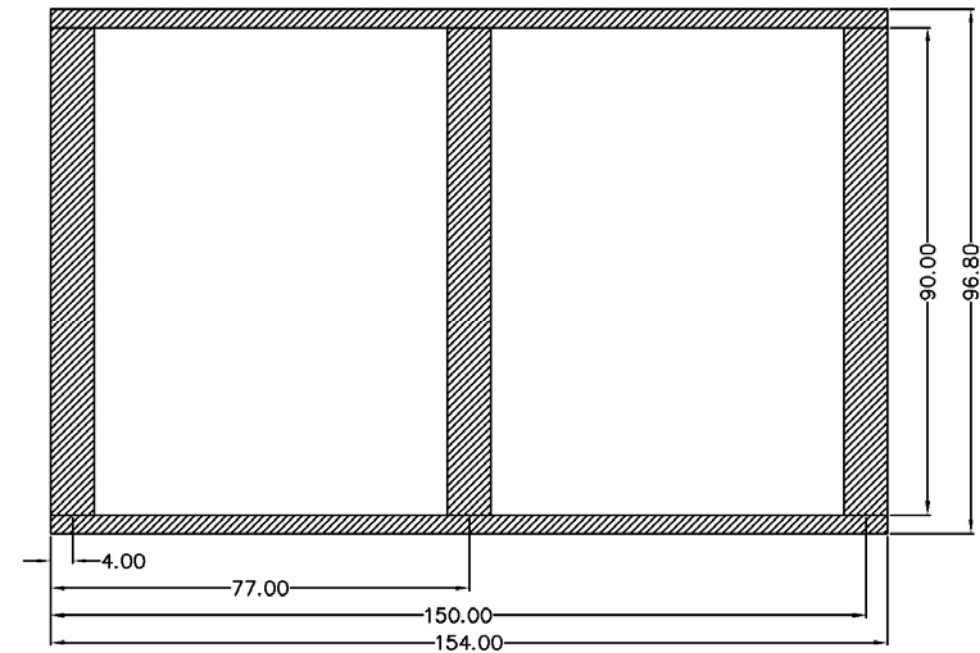
\*Based on 20°F difference in supply/return, \*\* Values calculated at 200°F operating temperature, \*\*\*Calculated Firing Natural Gas

Connection & Opening Schedule			
Conn.	Description	Type	Qty
FW	Feedwater Inlet	2.00 FNPT	2
WS	Water Supply	10.00 150#RF	1
WR	Water Return	10.00 150#RF	1
DO	Drain Outlet	2.00 FNPT	2
MW	Manway	12 X 16	1
HH	Hand Hole	4 X 6	7
Supply and return outlets ASME flanged drilling			

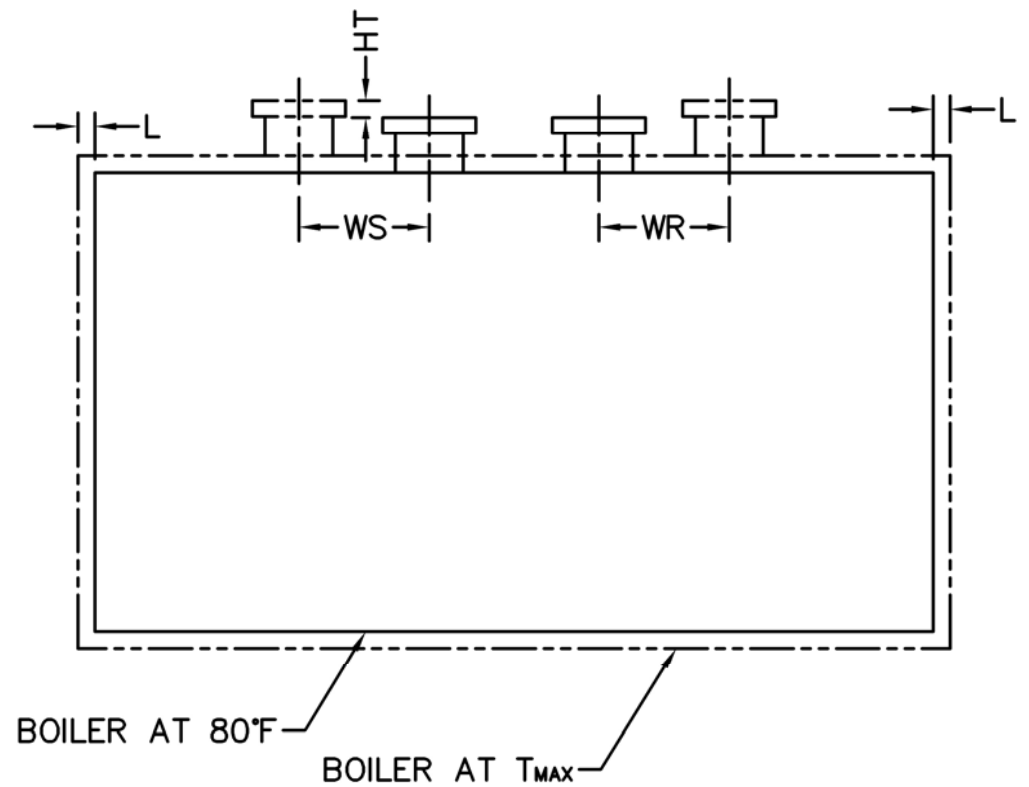


NOTE: (16) 5/8 UNC X 1.500 LONG STUDS EQUALLY SPACED STRADDLE CENTERLINES. STUDS FOR BURNER REFRACTORY (DRY OVEN) MOUNTING. REFRACTORY MUST EXTEND 18.75" MINIMUM PAST MOUNTING FLANGE.

Base Diagram



Notes:  
 30# Hot Water design shown, all dimensions given in inches.  
 Fuel piping and/or optional boiler trim may increase overall width.  
 Specifications subject to change to incorporate engineering advances.



Thermal Expansion				
Metal T <sub>MAX</sub> (F)	180	200	220	240
L (in)	0.064	0.076	0.089	0.102
WS (in)	0.028	0.033	0.039	0.044
WR (in)	0.024	0.029	0.034	0.038
HT (in)	0.061	0.073	0.085	0.098