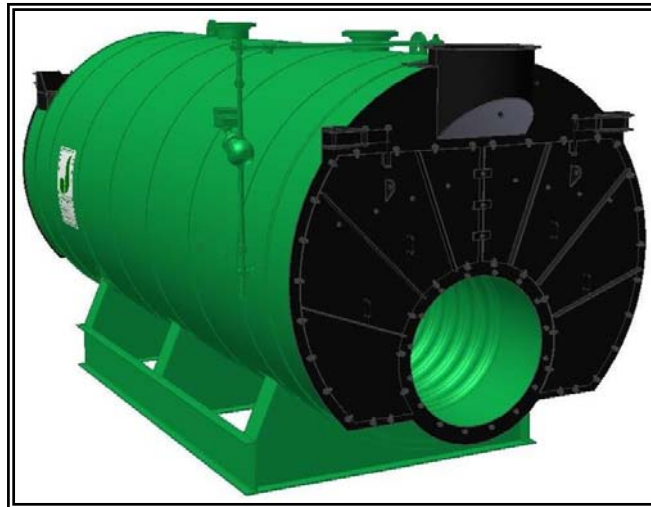




MODEL: PFTX 600-4

4-Pass Hot Water Packaged Firetube Boiler

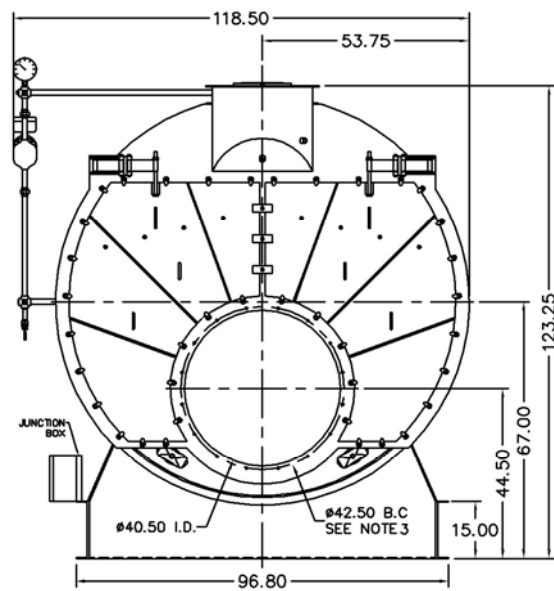


Ratings & Performance Data

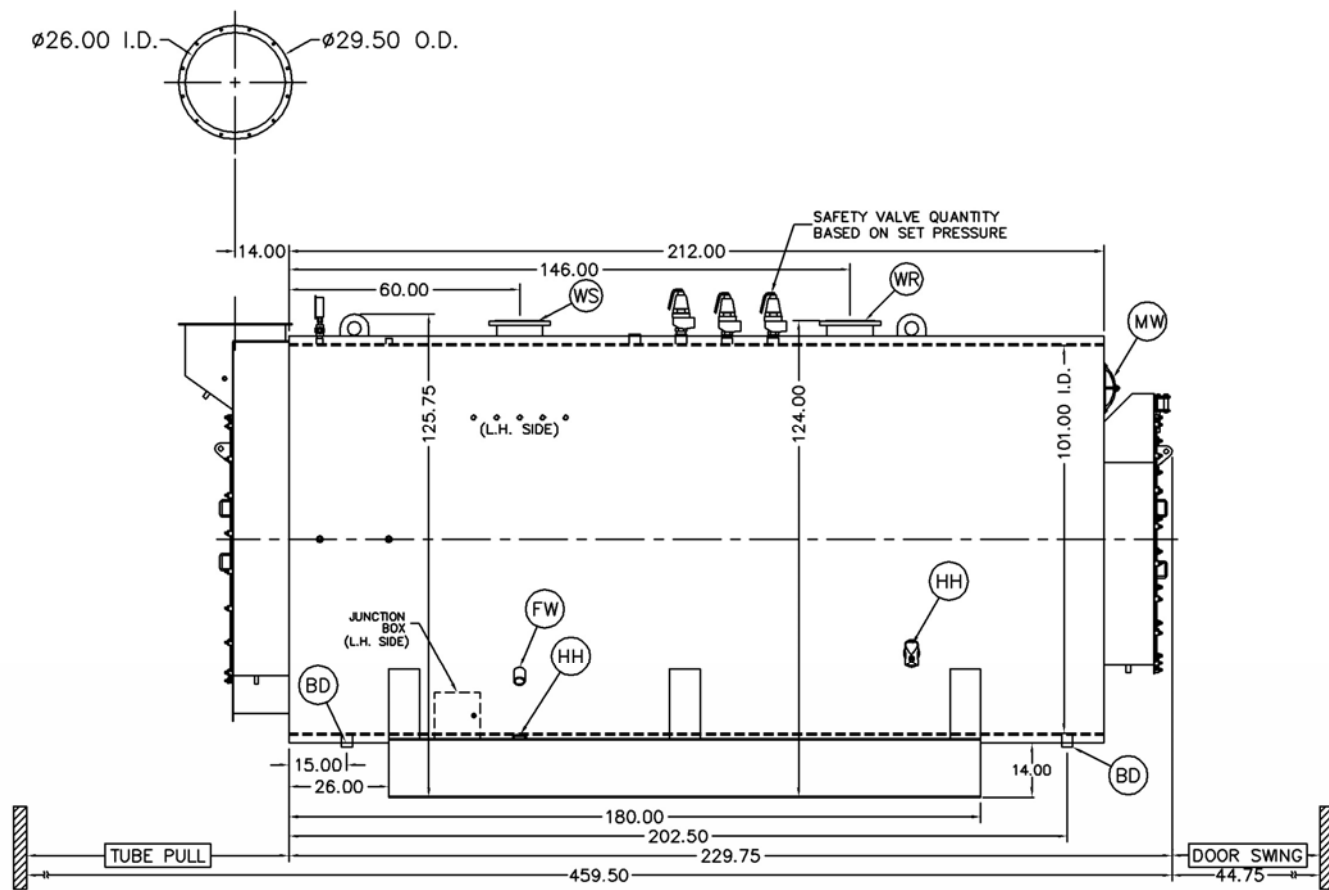
Horsepower 600		Natural Gas Flow, SCFH (1,000 Btu/ft ³)**	23,379			
Total Heating Surface, ft ²	3,094	Combustion Air (15% Excess), SCFM***	4,278			
Furnace Outside Diameter, in	46.0	Flue Gas Flow Rate, lb/hr***	20,388			
Furnace Heat Release Rate, Btu/ft ³ hr**	147,000	Stack Flue Gas Velocity, ft/min***	1,715			
Total Combustion Volume, ft ³	209.8	#2 Oil Flow, gal/hr (140,000 Btu/gal)**	159.7			
Total Heat Release Rate, Btu/ft ³ hr**	111,000	#6 Oil Flow, gal/hr (150,000 Btu/gal)**	149.0			
Water Content Flooded, gal	4,428	Flue Gas Side Pressure Drop, in. H ₂ O	5.9			
Approx. Dry Weight 15#, lb	32,724	Approx. Operating Weight 15#, lb	62,710			
Approx. Dry Weight 150#, lb	34,101	Approx. Operating Weight 150#, lb	64,777			
Approx. Dry Weight 200#, lb	38,251	Approx. Operating Weight 200#, lb	68,830			
Approx. Dry Weight 250#, lb	41,995	Approx. Operating Weight 250#, lb	72,524			
Approx. Dry Weight 300#, lb	45,542	Approx. Operating Weight 300#, lb	76,045			
Performance Data						
Operating Temperature (F)	Natural Gas		#2 Oil		#6 Oil	
	Stack Temp (F)	%Eff	Stack Temp (F)	%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						

Drawings - 4-Pass Hot Water Packaged Firetube Boiler

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			



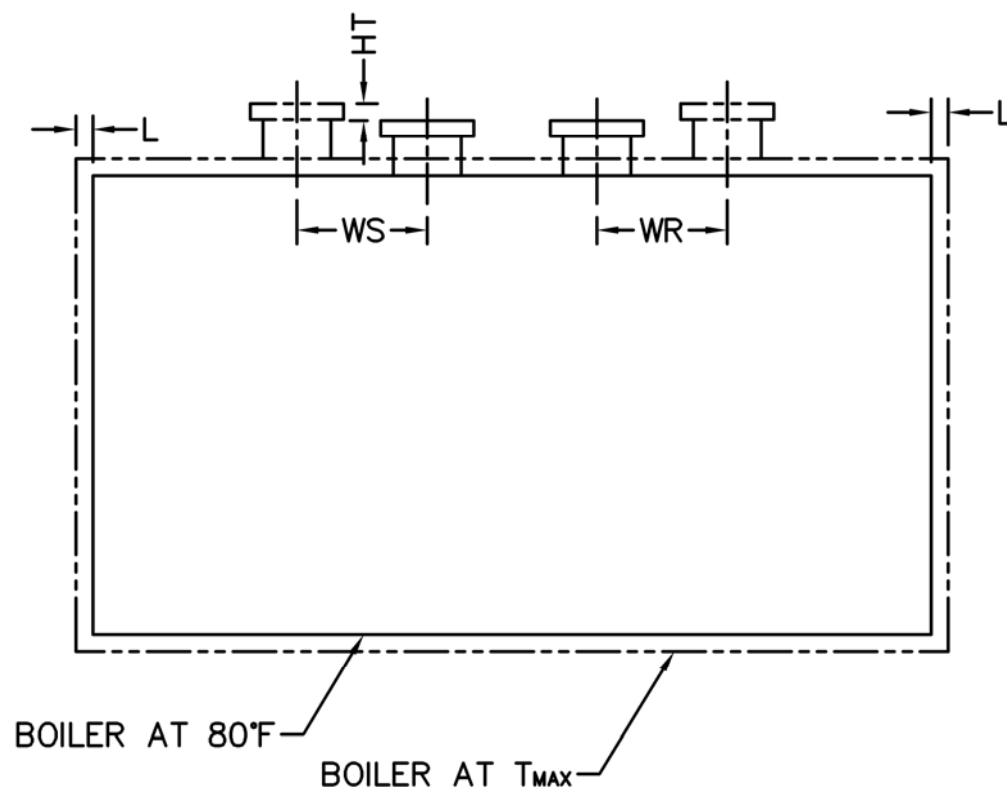
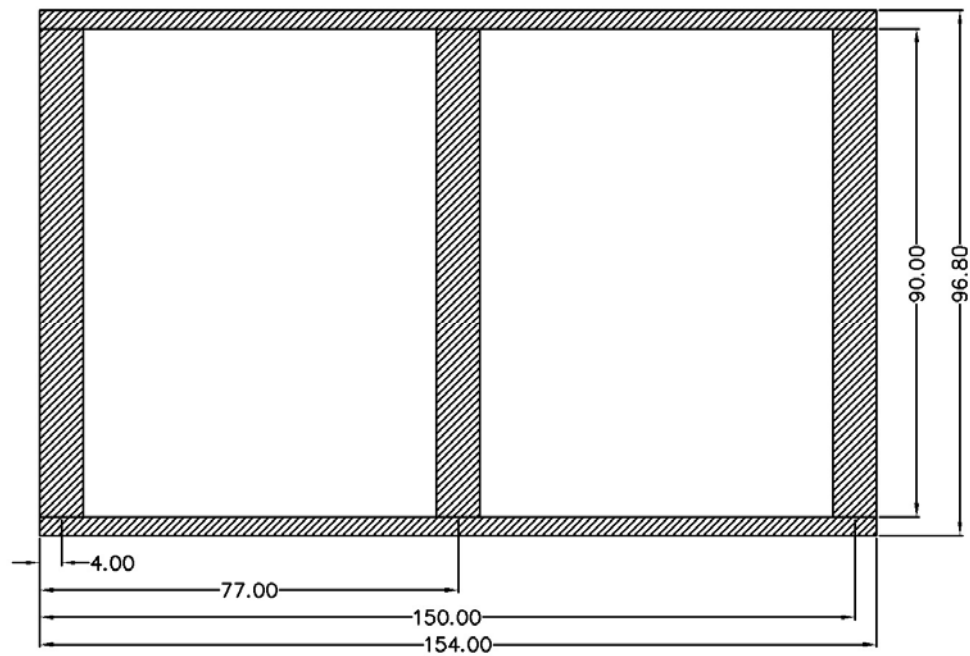
NOTE: (16) 5/8 UNC X 1.500 LONG STUDS EQUALLY SPACED STRADDLE CENTERLINES. STUDS FOR BURNER REFRACTORY (DRY OVEN) MOUNTING. REFRACTORY MUST EXTEND 18.75" MINIMUM PAST MOUNTING FLANGE.



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.

MODEL: PFTX 600-4

Base Diagram

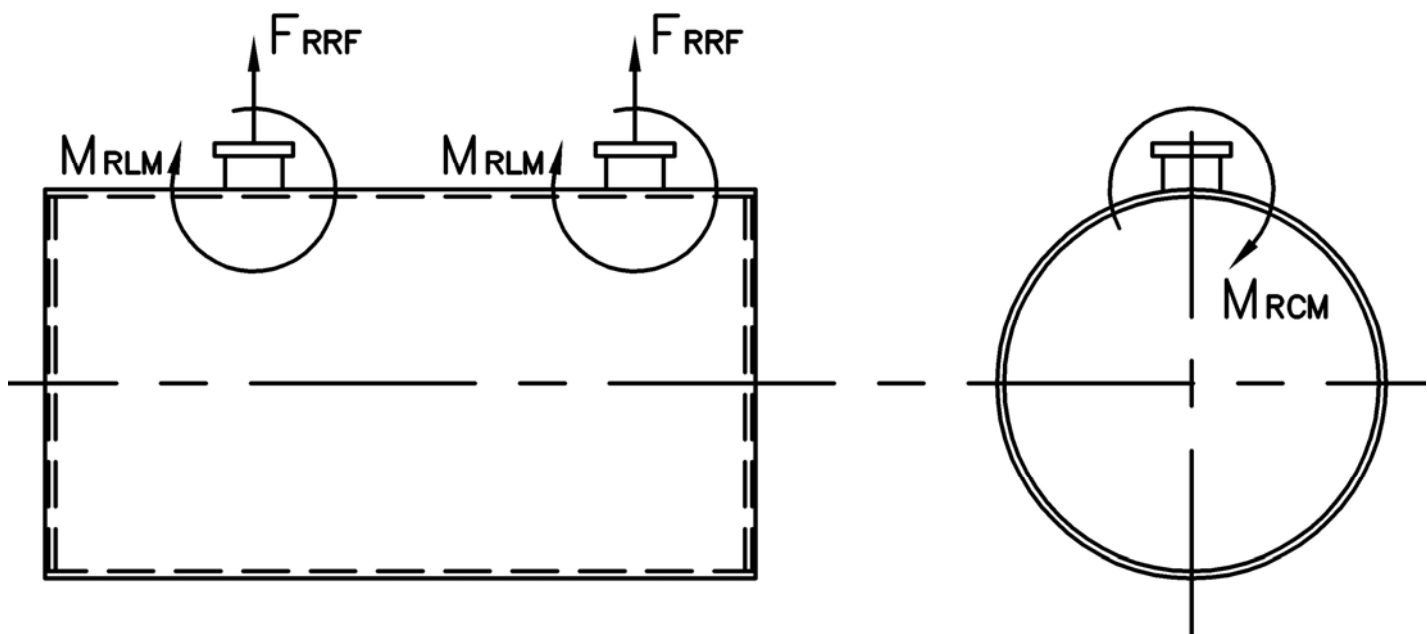


Thermal Expansion				
Metal T_{MAX} (F)	180	200	220	240
L (in)	0.064	0.076	0.089	0.102
WS (in)	0.028	0.033	0.039	0.044
WR (in)	0.024	0.029	0.034	0.038
HT (in)	0.061	0.073	0.085	0.098

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



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