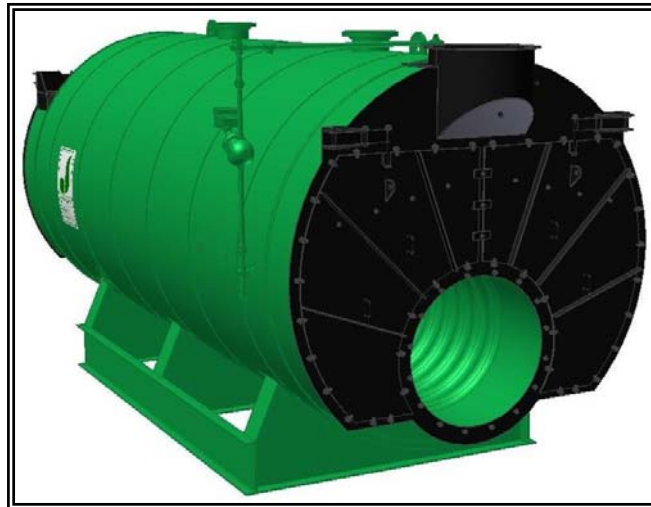


MODEL: PFTX 150-4

4-Pass Hot Water Packaged Firetube Boiler

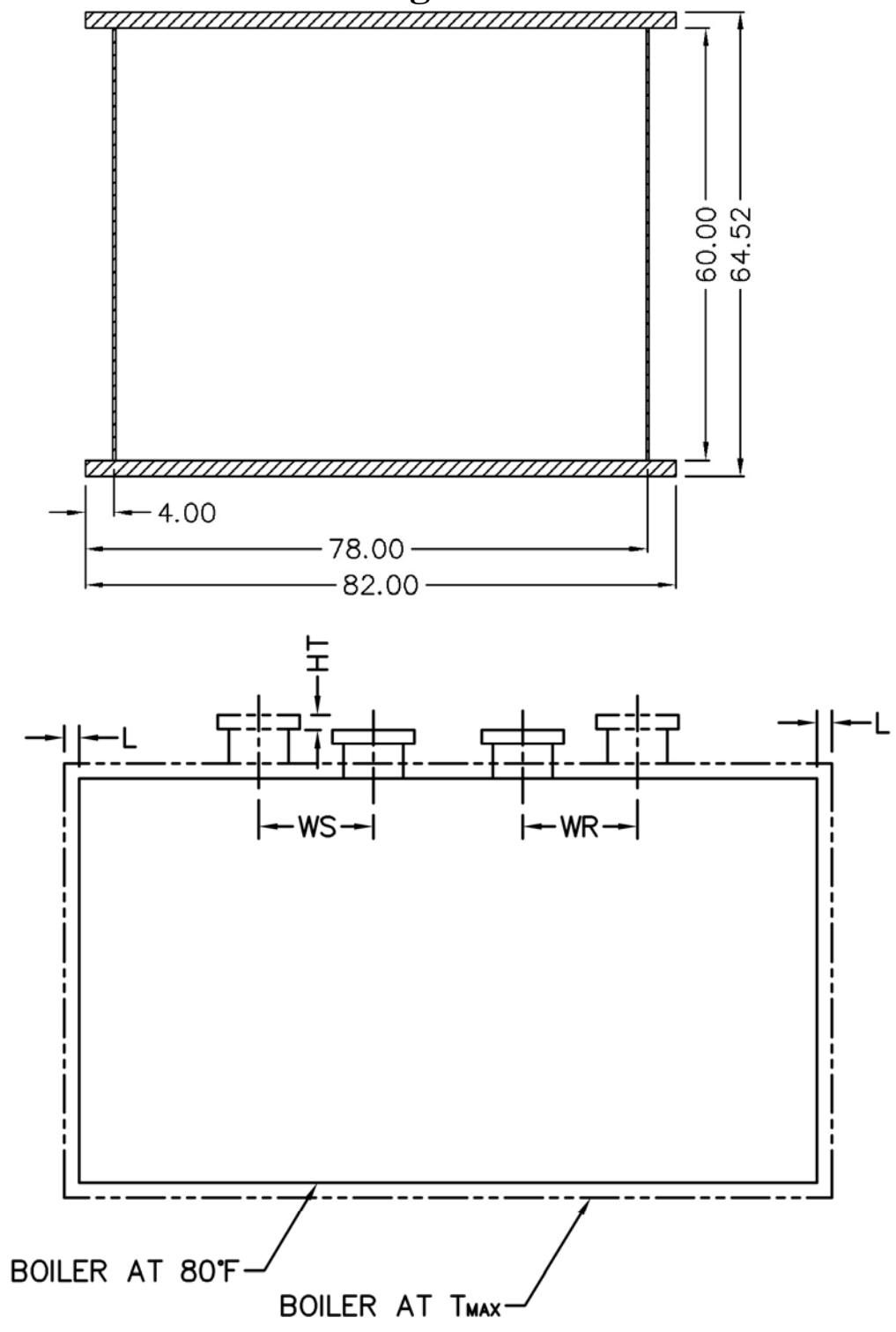


Ratings & Performance Data

Horsepower 150		Natural Gas Flow, SCFH (1,000 Btu/ft ³)**		5,864		
Total Heating Surface, ft ²	778	Combustion Air (15% Excess), SCFM***		1,073		
Furnace Outside Diameter, in	31.5	Flue Gas Flow Rate, lb/hr***		5,114		
Furnace Heat Release Rate, Btu/ft ³ hr**	155,000	Stack Flue Gas Velocity, ft/min***		1,498		
Total Combustion Volume, ft ³	59.9	#2 Oil Flow, gal/hr (140,000 Btu/gal)**		40.4		
Total Heat Release Rate, Btu/ft ³ hr**	98,000	#6 Oil Flow, gal/hr (150,000 Btu/gal)**		37.3		
Water Content Flooded, gal	3.2	Flue Gas Side Pressure Drop, in. H ₂ O		1,330		
Approx. Dry Weight 30#, lb	14,500	Approx. Operating Weight 30#, lb		25,600		
Approx. Dry Weight 60#, lb	14,700	Approx. Operating Weight 60#, lb		25,800		
Approx. Dry Weight 125#, lb	15,000	Approx. Operating Weight 125#, lb		26,100		
Performance Data						
Operating Temperature (F)	Natural Gas		#2 Oil		#6 Oil	
	Stack Temp (F)	%Eff	Stack Temp	%Eff	Stack Temp (F)	%Eff
180	245	86.1	257	89.2	255	90.2
200	265	85.6	276	88.7	274	89.7
220	284	85.1	295	88.2	294	89.2
240	303	84.6	314	87.7	314	88.7
*Based on 20°F difference in supply/return, ** Values calculated at 200°F operating temperature, ***Calculated Firing Natural Gas						

MODEL: PFTX 150-4

Base Diagram

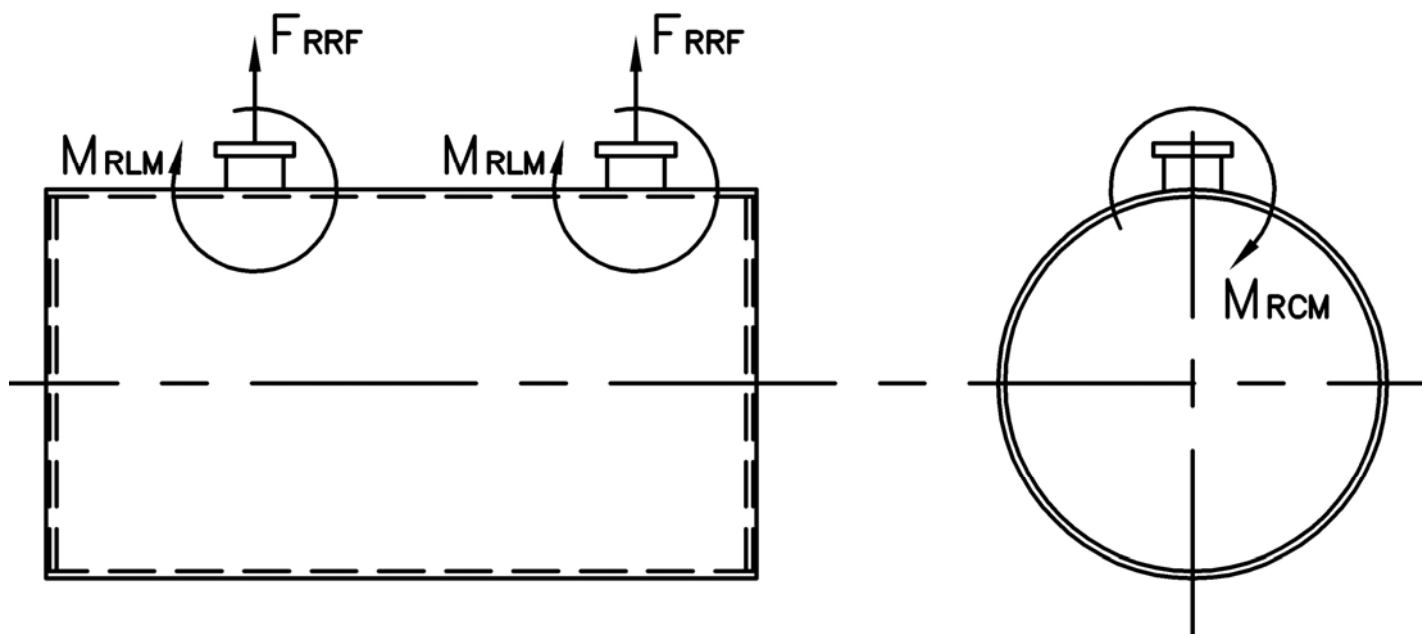


Thermal Expansion				
Metal T_{MAX} (F)	180	200	220	240
L (in)	0.036	0.043	0.050	0.057
WS (in)	0.014	0.017	0.020	0.023
WR (in)	0.018	0.022	0.026	0.029
HT (in)	0.043	0.052	0.060	0.069

MODEL: PFTX 150-4

Nozzle Loadings

Maximum Allowable Load on Outlet & Return Nozzles				
	30# Design	60# Design	125# Design	160# Design
F_{RRF} , lb	2,605	2,440	3,010	2,855
M_{RCM} , in-lb	12,830	13,750	24,145	24,145
M_{RLM} , in-lb	18,505	16,675	20,475	19,430



Distributed By:



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

Printed Feb. 2008