



Rentals • Sales • Service
24/7 • (800) 227-1966
www.nationwideboiler.com

125 HP FIRETUBE BOILER

Maximum BTU/hr Input (ie: Rated Input @ High Fire / 100% Input Rating)	$125 \times 42,000 = 5,250,000 \text{ BTU}$
Cubic Feet of Natural Gas Required	$5,250,000 \div 1,000 = 5,250 \text{ Cu Ft}$
Cubic Feet of Vaporized Propane Required	$5,250,000 \div 2,500 = 2,100 \text{ Cu Ft}$
Gallons of Liquid Propane Required	$5,250,000 \div 91,600 = 57.31 \text{ Gallons}$
Gallons of #2 Diesel Oil Required	$5,250,000 \div 140,000 = 37.5 \text{ Gallons}$
Minimum BTU/hr Input at a 4:1 Turndown Ratio (Low Fire)	$5,250,000 \div 4 = 1,312,500 \text{ BTU}$
Cubic Feet of Natural Gas Required	$1,312,500 \div 1,000 = 1,312.5 \text{ Cu Ft}$
Cubic Feet of Vaporized Propane Required	$1,312,500 \div 2,500 = 525 \text{ Cu Ft}$
Gallons of Liquid Propane Required	$1,312,500 \div 91,600 = 14.3 \text{ Gallons}$
Gallons of #2 Diesel Oil Required	$1,312,500 \div 140,000 = 9.4 \text{ Gallons}$
Maximum Steam Production in lbs/hr (High Fire)	$125 \times 34.5 = 4,312.5 \text{ lbs/hr}$
Maximum Water Evaporation Rate	$125 \times .069 = 8.625 \text{ GPM}$
Minimum Feedwater Pump Flow (on / off pump strategy)	$8.625 \times 2 = 17.25 \text{ GPM}$
Minimum Feedwater Pump Flow (modulating pump strategy)	$8.625 \times 1.5 = 12.94 \text{ GPM}$
Minimum Feedwater Tank Storage Requirement	85 Gallons
Steam Temperature at <u>50 psi</u> Saturated	297.97 °F
BTU/hr Output, Based on 80% Efficiency at High Fire	$5,250,000 \times .80 = 4,200,000 \text{ BTU}$
BTU/hr Output, Based on 80% Efficiency at Low Fire	$1,312,500 \times .80 = 1,050,000 \text{ BTU}$
Square Feet Heating Surface (sq. ft. HS) at 5 sq. ft. per HP	$125 \times 5 = 625 \text{ Sq Ft}$
Minimum Steam Safety Relief Valve Capacity at Boiler Design	$4,312.5 \times 1.10 = 4,743.75 \text{ lbs/hr}$
Minimum Water Softener Flow Capacity at High Fire (always based upon 100% input)	$8.625 \times 2 = 17.25 \text{ GPM}$

HQ - Fremont, CA (510) 490-7100 - Visalia, CA (559) 623-9318
Washougal, WA (360) 335-1443 / Alvin, TX (800) 227-1966
True Nationwide Coverage & Beyond. Representatives Located Worldwide.