

IRON FIREMAN®

WhirlPower™ Packaged Boilers

Model 36 Series, 15 PSIG Steam or 30 PSIG Water #2 Thru #6 Oil, Gas or Gas/Oil

Features

The 36 Series 3-pass packaged boiler is designed to produce 80% plus firing efficiency. Overall economy is assured by sealed tight combustion equipment with every low off period standby loss.

Only a vent or stub stack is necessary since the boiler is "pressurized" so that no flue gases can leak into the room - all joints are welded or gasketed.

The large furnace provides sufficient volume for efficient combustion and a large amount of primary heating surface. Moderate firing provides reliable operation with minimum maintenance.

Electrical horsepower and combustion blower noise level are minimized by the generous construction and consequent low draft loss through the boiler.

Compact design permits installations in restricted areas. Low water level eliminates necessity for high ceilings.

Installation is simplified by the standard complete packaging. The boiler can be supplied in assemblies to fit any field installation conditions.

The ASME Seal of the American Society of Mechanical Engineers on the boiler and the Underwriters' Laboratories, Inc. label on the burner are assurance of the highest standards of quality in design, materials and workmanship.

Each Boiler is designed for 15 psi steam or 30 psi water; hydrostatically tested at 60 psi.

11.8 thru 529.0 Horsepower

Compare these design features:

- 80% Plus Combustion Efficiency
- Low Electrical Requirements
- Compactness of Package
- No Refractory Baffles
- Easy Access For Maintenance
- Only A Stub Stack Needed

Ratings & Capacities*

PACKAGED BOILER MODEL NO. 36-40	63	78	92	107	127	154	180	209	240	277	311	345
Certified Gross Rating..... Horsepower	14.8	18.2	21.5	25.2	30.0	36.2	42.0	48.5	56.0	64.2	72.2	80.0
Steam (from & at 212° F)..... Lbs./Hr.	511	628	742	869	1,035	1,249	1,449	1,673	1,932	2,215	2,491	2,760
Steam or Water..... MBh	495	609	720	844	1,004	1,212	1,406	1,623	1,875	2,149	2,417	2,678
Gross Rating, Steam (240 Btu)..... Sq. Ft.	2,062	2,537	3,000	3,517	4,183	5,050	5,858	6,762	7,812	8,954	10,071	11,158
Firing Rate, Gas..... MBh	618	770	910	1,064	1,260	1,526	1,764	2,044	2,352	2,702	3,038	3,360
No. 2 Oil (140,000 Btu/Gal.)..... Gph	4.4	5.5	6.5	7.6	9.0	10.9	12.6	14.6	16.8	19.3	21.7	24.0
No. 4 Oil (144,000 Btu/Gal.)..... Gph	—	—	—	—	—	—	12.3	14.2	16.3	18.8	21.1	23.3
No. 6 Oil (150,000 Btu/Gal.)..... Gph	—	—	—	—	—	—	—	15.7	18.0	20.2	22.4	24.4
Heating Surface Fireside..... Sq. Ft.	59	73	86	101	120	145	168	194	224	257	289	320
Waterside..... Sq. Ft.	63	78	92	107	127	154	180	209	240	277	311	345
Total Furnace Volume..... Cu. Ft.	8.8	10.7	12.6	14.6	18.3	21.9	25.3	29.1	34.7	39.7	44.4	49.1
Heat Release Rate..... MBh/Cu. Ft./Hr.	70.2	71.9	72.2	72.8	68.8	69.7	69.7	70.2	67.8	68.0	68.4	68.4
Water Content, Steam Boiler..... Gal.	65	81	94	110	133	145	172	198	214	245	274	302
Water Boiler..... Gal.	90	112	132	153	188	196	232	268	288	329	369	408
Approx. Weight-Filled to NWL-Steam..... Lbs.	2,450	2,750	3,100	3,500	3,800	4,300	4,700	5,300	6,000	6,600	7,600	8,100
Approx. Weight-Filled-Hot Water..... Lbs.	2,650	3,000	3,300	3,900	4,100	4,700	5,250	5,750	6,600	7,200	8,400	9,000
Approx. Shipping Weight..... Lbs.	1,900	2,050	2,200	2,600	2,700	3,100	3,300	3,650	4,200	4,450	5,300	5,600

PACKAGED BOILER MODEL NO. 36-40	360A	450A	563A	675A
Certified Gross Rating..... Horsepower	90.0	112.5	140.7	168.7
Steam (from & at 212° F)..... Lbs./Hr.	3,105	3,881	4,854	5,820
Steam or Water..... MBh	3,013	3,766	4,710	5,647
Gross Rating, Steam (240 Btu)..... Sq. Ft.	12,554	15,692	19,625	23,529
Firing Rate, Gas..... MBh	3,780	4,732	5,908	7,084
No. 2 Oil (140,000 Btu/Gal.)..... Gph	27.0	33.8	42.2	50.6
No. 4 Oil (144,000 Btu/Gal.)..... Gph	26.2	32.9	41.0	49.2
No. 6 Oil (150,000 Btu/Gal.)..... Gph	25.2	31.5	39.4	47.2
Heating Surface Fireside..... Sq. Ft.	360	450	563	675
Waterside..... Sq. Ft.	398	497	622	746
Total Furnace Volume..... Cu. Ft.	58.9	68.0	89.3	104.7
Heat Release Rate..... MBh/Cu. Ft./Hr.	64.2	69.6	66.2	67.7
Water Content, Steam Boiler..... Gal.	470	537	663	778
Water Boiler..... Gal.	569	666	801	951
Approx. Weight-Filled to NWL-Steam..... Lbs.	10,600	13,300	15,000	17,000
Approx. Weight-Filled-Hot Water..... Lbs.	11,500	14,500	16,000	18,400
Approx. Shipping Weight..... Lbs.	6,700	8,700	9,300	10,800

APPROVALS

BURNERS



**UNDERWRITERS
LABORATORIES**
INC.®

LISTED

BOILERS

A.S.M.E.

* Capacities are based on fireside heating surface as recognized by ASME.

(Continued on next page)



IRON FIREMAN®

WhirlPower™ Model 36 Series, 15 PSIG Steam or 30 PSIG Water, #2 Thru #6 Oil, Gas or Gas/Oil

Standard Equipment . . . All Models

<ul style="list-style-type: none"> 3-Pass forced draft boiler ASME constructed firebox boiler Burner w/manual On-Off switch Seal welded skid type base Refractory lined firebox floor Horizontal smoke outlet w/cleanout (size 360A & up) Top Smoke Outlet (Size 63 thru 345) Pressure tight front flue door Jacket with insulation Painted finish Supply and Return connections Washout tappings w/plugs. 2" boiler tubes - 63 thru 675A 3" boiler tubes - 360A-3 thru 2645 	<p>Signal Lights: For ignition, main fuel(s) and Lockout</p>	<p>Lifting Lugs on 127 and larger boilers Access plate to firebox area in 360 and larger boilers</p>
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STEAM TRIM inc:
 MM#157 LWCO & Pump Control
 MM#750 - MT AUX & LWCO
 ASME safety valve(s)
 Compound steam gauge
 Water gauge glass
 Drain Valve on Water Column
 Limit control
 Operating control

WATER TRIM inc:
 MM#750 - MT LWCO
 ASME relief valve(s)
 Press.- Temp. gauge
 Limit Aquastat
 Operating Aquastat

Ratings & Capacities*

PACKAGED BOILER MODEL NO. 36-45	63	78	92	107	127	154	180	209	240	277	311	345
Certified Gross Rating..... Horsepower	13.1	16.2	19.1	22.4	26.7	32.2	37.3	43.1	49.8	57.1	64.2	71.1
Steam (from & at 212°F)..... Lbs./Hr.	452	559	659	773	921	1,111	1,287	1,487	1,718	1,970	2,215	2,453
Steam or Water..... MBh	439	542	639	750	894	1,078	1,249	1,443	1,667	1,911	2,149	2,380
Gross Rating, Steam (240 Btu)..... Sq. Ft.	1,829	2,258	2,663	3,125	3,725	4,492	5,204	6,013	6,946	7,963	8,954	9,917
Firing Rate, Gas..... MBh	546	686	798	938	1,120	1,358	1,568	1,806	2,086	2,394	2,702	2,982
No. 2 Oil (140,000 Btu/Gal.)..... Gph	3.9	4.9	5.7	6.7	8.0	9.7	11.2	12.9	14.9	17.1	19.3	21.3
No. 4 Oil (144,000 Btu/Gal.)..... Gph	—	—	—	—	—	—	10.9	12.5	14.5	16.6	18.8	20.7
No. 6 Oil (150,000 Btu/Gal.)..... Gph	—	—	—	—	—	—	—	—	13.9	16.0	18.0	19.9
Heating Surface Fireside..... Sq. Ft.	59	73	86	101	120	145	168	194	224	257	289	320
Waterside..... Sq. Ft.	63	78	92	107	127	154	180	209	240	277	311	345
Total Furnace Volume..... Cu. Ft.	8.8	10.7	12.6	14.6	18.3	21.9	25.3	29.1	34.7	39.7	44.4	49.1
Heat Release Rate..... MBh/Cu. Ft./Hr.	62.0	64.1	63.3	64.2	61.2	62.0	61.9	62.1	60.1	60.3	60.9	60.7
Water Content, Steam Boiler..... Gal.	65	81	94	110	133	145	172	198	214	245	274	302
Water Boiler..... Gal.	90	112	132	153	168	196	232	268	288	329	369	408
Approx. Weight-Filled to NWL-Steam..... Lbs.	2,450	2,750	3,100	3,500	3,800	4,300	4,700	5,300	6,000	6,600	7,600	8,100
Approx. Weight-Filled-Hot Water..... Lbs.	2,650	3,000	3,300	3,900	4,100	4,700	5,250	5,750	6,600	7,200	8,400	9,000
Approx. Shipping Weight..... Lbs.	1,900	2,050	2,200	2,600	2,700	3,100	3,300	3,650	4,200	4,450	5,300	5,600

PACKAGED BOILER MODEL NO. 36-45	360A	450A	563A	675A	827	993	1157	1323	1654	1985
Certified Gross Rating..... Horsepower	80.0	100.0	125.1	150.0	183.8	220.7	257.1	294.0	367.6	441.1
Steam (from & at 212°F)..... Lbs./Hr.	2,760	3,450	4,316	5,175	6,341	7,614	8,870	10,143	12,682	15,218
Steam or Water..... MBh	2,678	3,347	4,188	5,021	6,153	7,388	8,606	9,842	12,306	14,766
Gross Rating, Steam (240 Btu)..... Sq. Ft.	11,158	13,946	17,450	20,921	25,638	30,783	35,858	41,008	51,275	61,525
Firing Rate, Gas..... MBh	3,360	4,200	5,250	6,300	7,714	9,268	10,794	12,348	15,442	18,522
No. 2 Oil (140,000 Btu/Gal.)..... Gph	24.0	30.0	37.5	45.0	55.1	66.2	77.1	88.2	110.3	132.3
No. 4 Oil (144,000 Btu/Gal.)..... Gph	23.4	29.2	36.4	43.7	53.6	64.4	75.0	85.7	107.2	128.6
No. 6 Oil (150,000 Btu/Gal.)..... Gph	22.4	28.0	35.0	42.0	51.4	61.8	72.0	82.3	103.0	123.5
Heating Surface Fireside..... Sq. Ft.	360	450	563	675	827	993	1,157	1,323	1,654	1,985
Waterside..... Sq. Ft.	398	497	622	746	893	1,072	1,250	1,429	1,786	2,143
Total Furnace Volume..... Cu. Ft.	58.9	68.0	89.3	104.7	115.6	139.2	160.7	186.5	234.0	301.6
Heat Release Rate..... MBh/Cu. Ft./Hr.	57.0	61.8	58.8	60.2	66.7	66.6	67.2	66.2	66.0	61.4
Water Content, Steam Boiler..... Gal.	470	537	663	788	951	1,003	1,220	1,330	1,554	1,826
Water Boiler..... Gal.	569	666	801	951	1,003	1,220	1,330	1,554	1,826	2,147
Approx. Weight-Filled to NWL-Steam..... Lbs.	10,600	13,300	15,000	17,000	19,700	23,500	28,300	30,700	36,500	43,800
Approx. Weight-Filled-Hot Water..... Lbs.	11,500	14,500	16,000	18,400	21,700	26,000	30,600	33,400	39,700	47,400
Approx. Shipping Weight..... Lbs.	6,700	8,700	9,300	10,800	13,400	15,800	19,550	20,450	24,500	29,500

PACKAGED BOILER MODEL NO. 36-50	63	78	92	107	127	154	180	209	240	277	311	345
Certified Gross Rating..... Horsepower	11.8	14.6	17.2	20.2	24.0	29.0	33.6	38.8	44.8	51.4	57.8	64.0
Steam (from & at 212°F)..... Lbs./Hr.	407	504	593	697	828	1,001	1,159	1,339	1,546	1,773	1,994	2,208
Steam or Water..... MBh	395	489	576	676	803	971	1,125	1,299	1,500	1,721	1,935	2,142
Gross Rating, Steam (240 Btu)..... Sq. Ft.	1,646	2,037	2,400	2,817	3,346	4,046	4,687	5,412	6,250	7,171	8,062	8,925
Firing Rate, Gas..... MBh	490	616	728	854	1,008	1,218	1,414	1,624	1,876	2,156	2,422	2,688
No. 2 Oil (140,000 Btu/Gal.)..... Gph	3.5	4.4	5.2	6.1	7.2	8.7	10.1	11.6	13.4	15.4	17.3	19.2
No. 4 Oil (144,000 Btu/Gal.)..... Gph	—	—	—	—	—	—	—	—	11.3	13.0	15.0	16.8
No. 6 Oil (150,000 Btu/Gal.)..... Gph	—	—	—	—	—	—	—	—	—	14.4	16.1	17.9
Heating Surface Fireside..... Sq. Ft.	59	73	86	101	120	145	168	194	224	257	289	320
Waterside..... Sq. Ft.	63	78	92	107	127	154	180	209	240	277	311	345
Total Furnace Volume..... Cu. Ft.	8.8	10.7	12.6	14.6	18.3	21.9	25.3	29.1	34.7	39.7	44.4	49.1
Heat Release Rate..... MBh/Cu. Ft./Hr.	55.7	57.6	57.8	58.5	55.1	55.6	55.9	55.8	54.1	54.3	54.5	54.7
Water Content, Steam Boiler..... Gal.	65	81	94	110	133	145	172	198	214	245	274	302
Water Boiler..... Gal.	90	112	132	153	168	196	232	268	288	329	369	408
Approx. Weight-Filled to NWL-Steam..... Lbs.	2,450	2,750	3,100	3,500	3,800	4,300	4,700	5,300	6,000	6,600	7,600	8,100
Approx. Weight-Filled-Hot Water..... Lbs.	2,650	3,000	3,300	3,900	4,100	4,700	5,250	5,750	6,600	7,200	8,400	9,000
Approx. Shipping Weight..... Lbs.	1,900	2,050	2,200	2,600	2,700	3,100	3,300	3,650	4,200	4,450	5,300	5,600

* Capacities are based on fireside heating surface as recognized by ASME.

Ratings & Capacities* (cont.)

PACKAGED BOILER MODEL NO. 36-50	360A	450A	563A	675A	827	993	1157	1323	1654	1985	2315	2645
Certified Gross Rating..... Horsepower	72.0	90.0	112.6	135.0	165.4	198.6	231.4	264.6	330.8	397.0	463.0	529.0
Steam (from & at 212°F)..... Lbs./Hr.	2,484	3,105	3,885	4,658	5,706	6,852	7,983	9,129	11,413	13,696	15,947	18,251
Steam or Water..... MBh	2,410	3,013	3,769	4,519	5,537	6,648	7,746	8,858	11,074	13,290	15,499	17,708
Gross Rating, Steam (240 Btu)..... Sq. Ft.	10,042	12,554	15,704	18,829	23,070	27,700	32,274	36,908	46,141	55,374	64,578	73,782
Firing Rate, Gas..... MBh	3,024	3,780	4,732	5,670	6,944	8,344	9,716	11,116	13,888	16,674	19,446	22,218
No. 2 Oil (140,000 Btu/Gal.)..... Gph	21.6	27.0	33.8	40.5	49.6	59.6	69.4	79.4	99.2	119.1	138.9	158.7
No. 4 Oil (144,000 Btu/Gal.)..... Gph	21.0	26.2	32.9	39.4	48.2	57.9	67.5	77.2	96.4	115.8	135.0	154.3
No. 6 Oil (150,000 Btu/Gal.)..... Gph	20.2	25.2	31.5	37.8	46.3	55.6	64.8	74.1	92.6	111.2	129.6	148.1
Heating Surface Fireside..... Sq. Ft.	360	450	563	675	827	993	1,157	1,323	1,654	1,985	2,315	2,645
Waterside..... Sq. Ft.	398	497	622	746	893	1,072	1,250	1,429	1,786	2,143	2,500	2,857
Total Furnace Volume..... Cu. Ft.	58.9	68.0	89.3	104.7	115.6	139.2	160.7	186.5	234.0	301.6	348.6	383.8
Heat Release Rate..... MBh/Cu. Ft./Hr.	51.3	55.6	53.0	54.2	60.1	60.0	60.5	59.6	59.4	55.3	55.8	57.9
Water Content, Steam Boiler..... Gal.	470	537	663	788	761	925	1,050	1,227	1,443	1,720	1,979	2,173
Water Boiler..... Gal.	569	666	801	951	1,003	1,220	1,330	1,554	1,826	2,147	2,473	2,718
Approx. Weight-Filled to NWL- Steam..... Lbs.	10,600	13,300	15,000	17,000	19,700	23,500	28,300	30,700	36,500	43,800	52,500	57,400
Approx. Weight-Filled-Hot Water..... Lbs.	11,500	14,500	16,000	18,400	21,700	26,000	30,600	33,400	39,700	47,400	56,600	61,950
Approx. Shipping Weight..... Lbs.	6,700	8,700	9,300	10,800	13,400	15,800	19,550	20,450	24,500	29,500	36,000	39,300

* Capacities are based on fireside heating surface as recognized by ASME.

Suggested Specifications

Furnish and install as shown on plans _____ Iron Fireman Packaged _____ horsepower boiler(s), Model Number _____ designed for (15 PSIG steam pressure) (30 PSIG water pressure - 250 Deg. F Max.) Each boiler shall have a minimum of _____ sq. ft. of Fireside heating surface per horsepower and the heat release shall not exceed _____, 000 BTU per cu. ft. of furnace volume. Boilers to be certified by the manufacturer to produce 80 percent efficiency and be of the three-pass horizontal firetube type, including two passes of boiler tubes and be completely assembled, ready for attachment of supply, return feedwater, smoke vent, fuel, and electrical connections.

The vessel to be ASME stamped and subjected to shop inspection and approval by a leading Boiler Inspection and Insurance Company. The crown sheet to be of arched, upright design to shed sledge or scale and allow thorough mixing of fuel and air. Boiler tubes to be rolled and flared to tube sheets.

Boiler to be provided with smooth factory finished heat resisting enamel on sectional steel jacket on all four sides and top over 1" of fiberglass insulation. Front access door to be flanged with 1-1/2" insulation. The vessel to be seal welded to 3-1/2" platform base, insulated with a minimum of 3" refractory insulation.

Fuel burning equipment shall be listed with Underwriter's laboratories and be forced draft type factory assembled, wired, firetested, and mounted. Equipment to include direct driven blower, totally enclosed electrical control panel, containing electronic combustion safeguard control system with prepurge, motor starter or relay, control circuit transformer, manual on-off switch, terminal strips, and wiring. Upon interruption of electrical power, the burner shall recycle before fuel valve opens; and upon flame failure, the electronic control shall lockout and require manual reset. Burner motor shall not run during "lockout" condition.

STEAM BOILERS shall include steam gauge, water gauge glass, try cocks, ASME pop safety valve(s), operating control, limit control, M&M #157 pump control-LWCO, MM#750 - MT AUX. LWCO.

WATER BOILERS shall include theraltimeter, ASME relief valve(s), operating control, limit control, and M&M #750-MT low water cutoff.

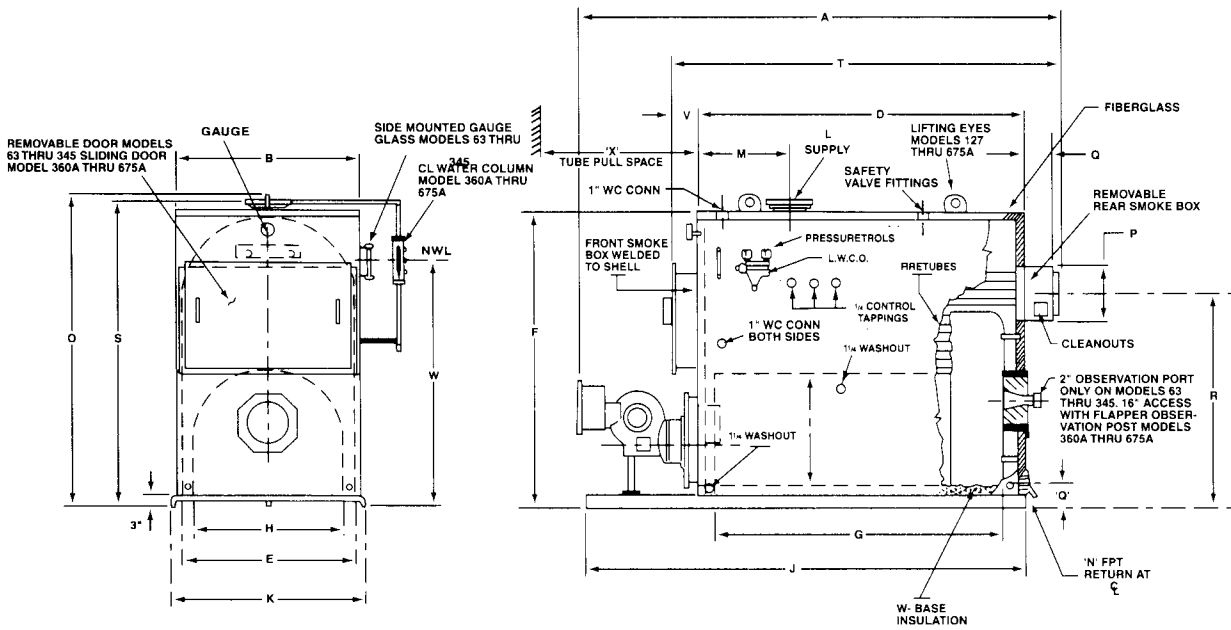
GAS BURNING EQUIPMENT shall include ignition transformer, manual main and pilot shut off valve, main and pilot gas pressure regulators, (2) main and (1) pilot automatic gas valves, and air proving interlock. Burner shall be capable of burning _____ CFH of _____ 1000 BTU/Cu.Ft. (Natural) (LP) (Manufactured) gas at a specific gravity of _____ with minimum gas supply pressure of _____ inches water column and maximum of _____ inches at inlet to burner's gas piping group.

OIL BURNING EQUIPMENT shall be capable of burning No. _____ fuel oil. The burner shall include ignition transformer and automatic oil valve.

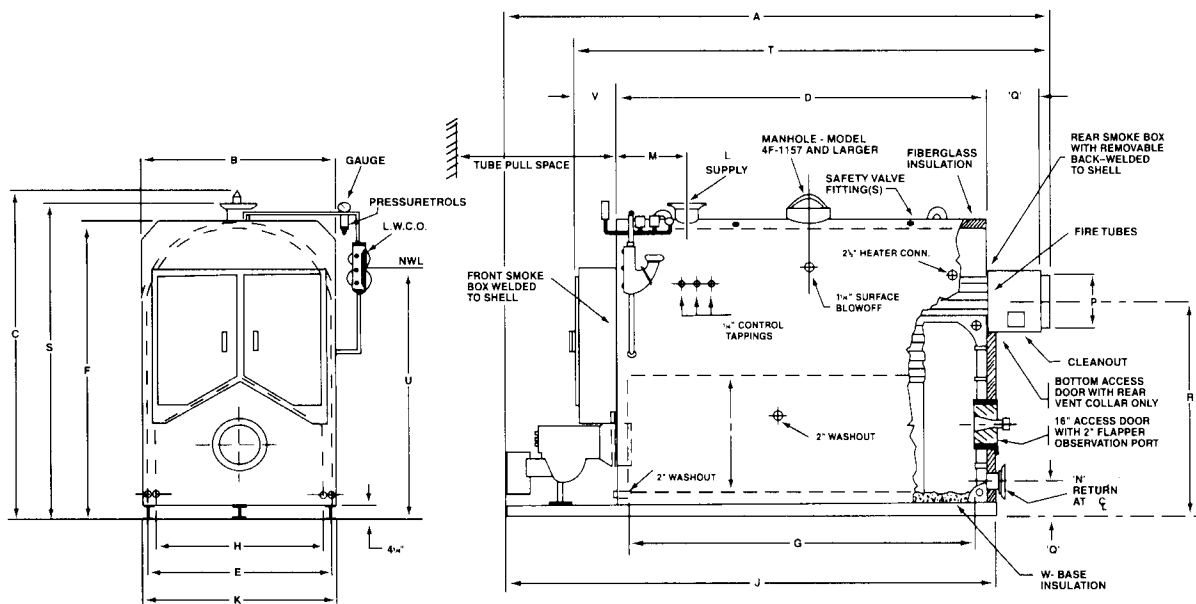
COMBINATION OIL-GAS BURNING EQUIPMENT to include manual switch for changing operation from one fuel to the other. The switch action must retune the ignition cycle of the combustion control to provide proper ignition timing of fuel being burned. No other changes required.

ELECTRICAL CURRENT will be available in the boiler room at _____ volts, _____ cycles, _____ phase. Control circuit shall be 115 volt, 60 cycle, 1 phase with reducing transformer supplied in control panel. Signal lights provided for ignition, main fuel(s), and lockout.

Dimensions



Boiler Models 63 Thru 675A



Boiler Models 827 Thru 2645

Dimensions

BOILER MODEL 36-40		63	78	92	107	127	154	180	209	240	277	311	345	360A	450A	563A	675A	
A	Overall Length - WP	62	69	75-1/2	82-1/2	75-1/2	85	93	102	90	99-1/2	107	114-1/2	115-1/4	127-3/4	—	—	
A	Overall Length - HP	—	—	—	—	—	—	—	—	106-1/2	115-1/2	103-1/2	111-1/2	119	126-1/2	127-1/4	—	
A	Overall Length - AO & PAO	—	—	—	—	—	—	—	—	93-1/2	101-1/2	109	116-1/2	117-1/4	146-1/4	157-1/2	175-1/4	
B	Boiler Width	31	31	31	31	36-3/8	36-3/8	36-3/8	36-3/8	45-1/8	45-1/8	45-1/8	52-1/4	52-1/4	56-1/8	56-1/8	—	
C	Overall Height	61	61	61-1/2	61-1/2	70	70	70	77	77	77	77	77	87	87	89	89	—
D	Boiler Length	32	39	45-1/2	52-1/2	44-1/2	53	61	70	57	65	72-1/2	80	80-3/4	93-1/4	104-3/8	122-1/4	
E	Shell Width Inside	27	27	27	27	32-1/2	32-1/2	32-1/2	41	41	41	41	41	48	48	52	52	
F	Shell Height	55-1/4	55-1/4	55-1/4	55-1/4	63-5/8	63-5/8	63-5/8	70-5/8	70-5/8	70-5/8	70-5/8	70-5/8	82-3/8	82-3/8	85-1/8	85-1/8	
G	Firebox Length	25-1/4	32-1/4	38-3/4	45-3/4	37-1/4	45-5/8	54-5/8	62-5/8	49-3/4	57-3/4	65-1/4	72-1/4	70-5/8	83-1/8	94-1/4	112-1/4	
H	Firebox Width	23	23	23	23	28-3/8	28-3/8	28-3/8	37-1/8	37-1/8	37-1/8	37-1/8	42-1/8	42-1/8	46	46	—	
I	Firebox Height	20-3/4	20-3/4	20-3/4	20-3/4	26	26	26	26	30-1/2	30-1/2	30-1/2	31	31	34	34	—	
J	Base Length	47-1/2	54-1/2	65	72	64	72-1/2	80-1/2	92-1/2	79-1/2	87-1/2	95	102-1/2	107-1/2	124	135-1/8	153	
K	Base Width	33-1/4	33-1/4	33-1/4	33-1/4	38-5/8	38-5/8	38-5/8	47-3/8	47-3/8	47-3/8	47-3/8	53-1/8	53-1/8	57	57	—	
L	Supply Size	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	6"F	6"F	6"F	6"F	8"F	8"F	8"F	
M	Supply Location	13	13	13	13	16	16	16	16	19	19	19	19	26	26	26	—	
N	Return Size (Steam)	3"S	3"S	3"S	3"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	
N	Return Size (Water)	3"S	3"S	3"S	3"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	
O	Return Location	6-1/2	6-1/2	6-1/2	6-1/2	7	7	7	7	7	7	7	7	7-1/4	7-1/4	7-3/8	7-3/8	
P	Smoke Outlet Dia	7	7	7	7	10	10	10	10	12	12	12	12	14	14	16	16	
Q	Rear Smoke Box Depth	6	6	6	6	7	7	7	7	8	8	8	8	8	8	8	—	
R	Smoke Outlet Height	37-3/8	37-3/8	37-3/8	37-3/8	45	45	45	45	49	49	49	49	49	58-7/8	58-7/8	59-5/8	
S	Supply Height	57-1/4	57-1/4	57-1/4	57-1/4	65-5/8	65-5/8	65-5/8	74-1/8	74-1/8	74-1/8	74-1/8	74-1/8	85-5/8	85-5/8	88-5/8	88-5/8	
T	Boiler Length	43-1/2	50-1/2	57	64	58	66-1/2	74-1/2	83-1/2	72-1/2	80-1/2	88	95-1/2	95-1/4	107-3/4	119-7/8	137-3/4	
U	Normal Waterline	43-3/4	43-3/4	43-3/4	43-3/4	51-1/2	51-1/2	51-1/2	51-1/2	58	58	58	58	69-1/4	69-1/4	72	72	
V	Front Smoke Box Depth	5-1/2	5-1/2	5-1/2	5-1/2	6-1/2	6-1/2	6-1/2	6-1/2	7-1/2	7-1/2	7-1/2	7-1/2	6-1/2	6-1/2	7-1/2	7-1/2	
W	Base Insulation	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	—	
X	Tube Pull Space	32	39	45-1/2	52-1/2	44-1/2	53	61	70	57	65	72-1/2	80	81	94	105	123	

BOILER MODEL 36-45		63	78	92	107	127	154	180	209	240	277	311	345	360A	450A	563A	675A	827	993	1157	1323	1654	1985	
A	Overall Length - WP	62	69	75-1/2	82-1/2	75-1/2	85	93	102	90	99-1/2	107	114-1/2	115-1/4	127-3/4	139	—	—	—	—	—	—	—	—
A	Overall Length - HP	—	—	—	—	—	—	—	—	106-1/2	115-1/2	103-1/2	111-1/2	119	126-1/2	127-1/4	139-3/4	—	—	—	—	—	—	—
A	Overall Length - AO & PAO	—	—	—	—	—	—	—	—	93-1/2	101-1/2	109	116-1/2	117-1/4	130-1/4	157-1/2	175-1/4	170-3/4	193-1/2	181	200-1/2	197	196-1/2	—
B	Boiler Width	31	31	31	31	36-3/8	36-3/8	36-3/8	36-3/8	45-1/8	45-1/8	45-1/8	52-1/4	52-1/4	56-1/8	56-1/8	64	64	70	70	76	82	82	—
C	Overall Height	61	61	61-1/2	61-1/2	70	70	70	77	77	77	77	77	87	87	89	89	103-1/4	103-1/4	114-3/4	114-3/4	130-3/8	147-3/8	147-3/8
D	Boiler Length	32	39	45-1/2	52-1/2	44-1/2	53	61	70	57	65	72-1/2	80	80-3/4	93-1/4	104-3/8	122-1/4	106-1/4	129	116-1/2	136	130-1/2	128	—
E	Shell Width Inside	27	27	27	27	32-1/2	32-1/2	32-1/2	41	41	41	41	41	48	48	52	52	60	60	66	66	72	78	—
F	Shell Height	55-1/4	55-1/4	55-1/4	55-1/4	63-5/8	63-5/8	63-5/8	70-5/8	70-5/8	70-5/8	70-5/8	70-5/8	82-3/8	82-3/8	85-1/8	85-1/8	95-1/4	95-1/4	106-3/4	106-3/4	122-3/8	142-3/8	—
G	Firebox Length	25-1/4	32-1/4	38-3/4	45-3/4	37-1/4	45-5/8	54-5/8	62-5/8	49-3/4	57-3/4	65-1/4	72-1/4	70-5/8	83-1/8	94-1/4	112-1/4	100-1/4	123	109-1/2	129	122-1/2	118	—
H	Firebox Width	23	23	23	23	28-3/8	28-3/8	28-3/8	37-1/8	37-1/8	37-1/8	37-1/8	42-1/8	42-1/8	46	46	54	54	60	60	66	72	—	—
I	Firebox Height	20-3/4	20-3/4	20-3/4	20-3/4	26	26	26	26	30-1/2	30-1/2	30-1/2	31	31	34	34	36-1/4	36-1/4	42	42	50-1/2	62	—	—
J	Base Length	47-1/2	54-1/2	65	72	64	72-1/2	80-1/2	92-1/2	79-1/2	87-1/2	95	102-1/2	107-1/2	124	135-1/8	153	138-1/4	161	158-1/2	178	172-1/2	170	—
K	Base Width	33-1/4	33-1/4	33-1/4	33-1/4	38-5/8	38-5/8	38-5/8	47-3/8	47-3/8	47-3/8	47-3/8	53-1/8	53-1/8	57	57	64	64	70	70	76	82	—	—
L	Supply Size	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	6"F	6"F	6"F	6"F	8"F	8"F	8"F	8"F	8"F	8"F	8"F	8"F	10"F	12"F
M	Supply Location	13	13	13	13	16	16	16	16	19	19	19	19	26	26	26	26	26	26	22	22	22	22	22
N	Return Size (Steam)	3"S	3"S	3"S	3"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	6"F	6"F
N	Return Size (Water)	3"S	3"S	3"S	3"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	4"S	6"F	6"F
O	Return Location	6-1/2	6-1/2	6-1/2	6-1/2	7	7	7	7	7	7	7	7	7-1/4	7-1/4	7-3/8	7-3/8	10-1/4	10-1/4	11-1/8	11-1/8	11-1/8	11-1/8	11-1/8
P	Smoke Outlet Dia	7	7	7	7	10	10	10	10	12	12	12	12	14	14	18	18	20	20	22	22	24	24	28
Q	Rear Smoke Box Depth	6	6	6	6	7	7	7	7	8	8	8	8	8	8	8	8	19-3/8	19-3/8	19-3/8	19-3/8	21-3/8	23-3/8	23-3/8
R	Smoke Outlet Height	37-3/8	37-3/8	37-3/8	37-3/8	45	45	45	45	49	49	49	49	49	58-7/8	58-7/8	59-5/8	66-1/4	66-1/4	76-3/4	76-3/4	90-3/4	106-1/4	106-1/4
S	Supply Height	57-1/4	57-1/4	57-1/4	57-1/4	65-5/8	65-5/8	65-5/8	74-1/8	74-1/8	74-1/8	74-1/8	74-1/8	85-5/8	85-5/8	88-5/8	88-5/8	98-3/4	98-3/4	110-1/4	110-1/4	125-7/8	145-7/8	145-7/8
T	Boiler Length	43-1/2	50-1/2	57	64	58	66-1/2	74-1/2	83-1/2	72-1/2	80-1/2	88	95-1/2	95-1/4	107-3/4	119-7/8	137-3/4	138-3/8	161-1/8	149-5/8	169-1/8	166-5/8	167-1/8	—
U	Normal Waterline	43-3/4	43-3/4	43-3/4	43-3/4	51-1/2	51-1/2	51-1/2	51-1/2	58	58	58	58	69-1/4	69-1/4	72	72	78-1/4	78-1/4	89-3/4	89-3/4	104-1/2	119-3/4	—
V	Front Smoke Box Depth	5-1/2	5-1/2	5-1/2	5-1/2	6-1/2	6-1/2	6-1/2	6-1/2	7-1/2	7-1/2	7-1/2	7-1/2	6-1/2	6-1/2	7-1/2	7-1/2	12-3/4	12-3/4	13-3/4	13-3/4	14-3/4	15-3/4	—
W	Base Insulation	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	—
X	Tube Pull Space	32	39	45-1/2	52-1/2	44-1/2	53	61	70	57	65	72-1/2	80	81	94	105	123	108	131	118-1/2	138	132-1/2	130	—

BOILER MODEL 36-50		63	78	92	107	127	154	180	209	240	277	311	345	360A	450A	563A	675A	827	993	1157	1323	1654	1985	2315	2645
A	Overall Length - WP	62	69	75-1/2	82-1/2	75-1/2	84	93	102	90	98	107	114-1/2	115-1/4	127-3/4	139	—	—							

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