



ULTRA PhD – PRECISION HYDRONIC DATA

Condensing High Efficiency Gas Boiler
80,000 Btu thru 310,000 Btu Models

92-98%
Efficiency

Features:

- Factory tested
- Limited 15 year heat exchanger warranty
- Ultra homeowner protection plan with 5 years parts and labor
- Cast aluminum heat exchanger
- Direct spark ignition
- 30 PSI ASME relief valve
- Stainless steel burner
- Variable speed blower assembly
- Gas/air ratio venturi with air silencer
- Negative pressure regulation gas valve
- Combination T&P gauge
- Outlet water temperature sensor
- Return water temperature sensor
- Flue gas temperature sensor
- Outdoor temperature sensor
- 12 AMP 110V circ relay (310 only)
- Ultra control module with
 - Digital display and data port
 - Ignition control
 - High limit and modulating temperature control
 - Low water protection
 - Outdoor reset
 - DHW priority
 - Two pump controls (heating and DHW)
- Taco 0011 boiler circulator
- Sidewall vent/air termination kit
- Condensate trap with drain tee assembly
- Propane conversion orifice (all except model 80)
- Category IV (PVC) Venting
- Sidewall vent/air termination kit



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Condensing High Efficiency Gas Boiler
80,000 Btu thru 310,000 Btu Models

BOILERS

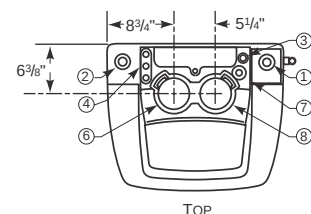
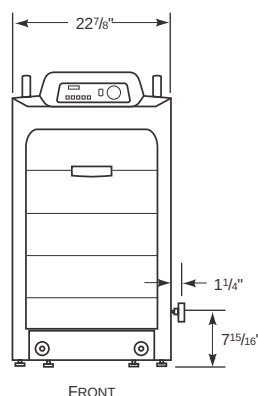
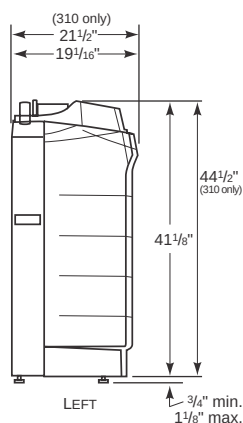
RESIDENTIAL

ULTRA PhD						
		Ultra 80	Ultra 105	Ultra 155	Ultra 230	Ultra 310
Part	Natural Gas	383-500-400	383-500-402	383-500-403	383-500-404	383-500-405
Number	Propane Gas**	383-500-401	N/A	N/A	N/A	N/A
Taco Pump		007		0011		
Optional Equipment	Wall Mounting Kit	389-900-180				N/A
	Alarm Control Kit	383-500-080				
	Indirect-Fired Water Heaters	Matching Ultra Plus 40, 60 and 80 Water Heaters Available				
Ratings	CSA Input (maximum)	80 MBH	105 MBH	155 MBH	230 MBH	310 MBH
	CSA Input (minimum)	16 MBH	21 MBH	31 MBH	46 MBH	62 MBH
	DOE Heating Capacity	71 MBH	94 MBH	139 MBH	207 MBH	289 MBH*
	Net I=B=R	62 MBH	81 MBH	123 MBH	183 MBH	252 MBH
	DOE AFUE	93.00%	92.00%	93.00%	92.80%	93.3%*
	Weil-McLain Low Temp	98.10%		98.00%		95.60%
	Seasonal Efficiency	Boiler return water temp=90 deg F and boiler outlet water temp=110 deg F				
Data	Vent Size/Material	3" PVC/ABS			3" or 4" PVC/ABS	4" PVC/ABS
	Combustion Air Size	3 inches			3" or 4"	4"
	Approx Shipping Weight	149 lbs.	154 lbs.	193 lbs.	204 lbs.	254 lbs.
Dimensions	Supply Tapping	1"				1-1/4"
	Return Tapping	1"				1-1/4"
	Gas Connection Size	1/2"				3/4"

* 310 ratings are gross output and combustion efficiency

**Natural gas field convertible to LP as standard equipment except Ultra 80

Model Number	Price
Ultra 80	Call for Pricing
Ultra 105	\$6,398.00
Ultra 155	\$7,178.00
Ultra 230	\$8,118.00
Ultra 310	\$11,240.00



- TOP
- ① Supply Connection
 - ② Return Connection
 - ③ Low Voltage Wire Opening
 - ④ Electrical Entrance Openings
 - ⑤ Vent Connection
 - ⑥ Air Connection
 - ⑦ Gas Connection



CGa

Gas Boiler for Natural Draft Venting
52,000 Btu thru 245,000 Btu Models

**81-84%
Efficiency**

Features:

- Factory tested
- Insulated extended steel jacket
- Cast iron sections with built-in air separator
- Vertical draft hood
- Automatic vent damper
- Combination gas valve for 24 volt
- Wiring harness
- Non-linting pilot burner
- Stainless steel burners
- Electrical junction box
- Rollout thermal fuse element
- High-limit temperature control circulator (when ordered)
- Spill switch
- 30 PSI ASME relief valve and combination pressure-temperature gauge

High Efficiency Model - SPD:

- Constant burning, thermally-supervised pilot system
- Thermocouple
- Combination relay receptacle and 40VA transformer
- Plug-in circulator relay

Highest Efficiency Model - PID:

- Integrated boiler control module with intermittent electronic ignition system and indicator/diagnostic lights

CGa RATINGS

Boiler Model	Input MBH	DOE Heating Capacity MBH	Net I=B=R Water Ratings MBH	DOE Seasonal Efficiency Percent (AFUE)		Approx. Shipping Weight (lbs)	Chimney Size
				SPDN	PIDN		
CGa-25	52	44	38	81.5	84.0	200	4" I.D. x 20'
CGa-3	70	59	51	81.6	84.0	200	4" I.D. x 20'
CGa-4	105	88	77	81.7	84.0	240	5" I.D. x 20'
CGa-5	140	117	102	81.8	83.5	280	6" I.D. x 20'
CGa-6	175	146	127	81.9	83.2	325	6" I.D. x 20'
CGa-7	210	175	152	82.0	83.0	370	7" I.D. x 20'
CGa-8	245	204	177	82.1	82.7	425	7" I.D. x 20'

Note: CGa boilers are C.S.A. design certified for installation on combustible flooring. Tested for 50 psi working pressure

CGa

Gas Boiler for Natural Draft Venting
52,000 Btu thru 245,000 Btu Models

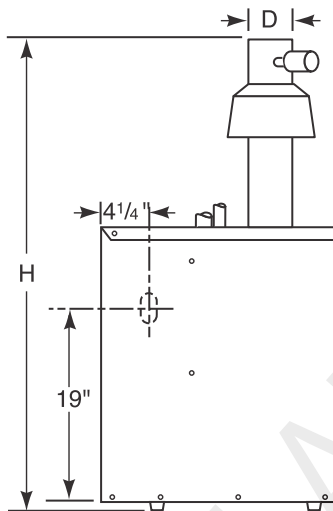
CGa DIMENSIONS

Boiler Model	Dimensions (inches)				Supply Piping (inches)	Return Piping (inches)	Nat or LP Gas Connection Size (inches)
	A	D	W	H			
CGa-25	5	4	10	45 ³ / ₈	³ / ₄	³ / ₄	¹ / ₂
CGa-3	5	4	10	52 ³ / ₈	1	1	¹ / ₂
CGa-4	6 ¹ / ₂	5	13	54 ³ / ₈	1	1	¹ / ₂
CGa-5	8	6	16	57 ⁷ / ₈	1	1	¹ / ₂
CGa-6	9 ¹ / ₂	6	19	60 ⁷ / ₈	1 ¹ / ₄	1 ¹ / ₄	¹ / ₂
CGa-7	11	7	22	62 ¹ / ₈	1 ¹ / ₄	1 ¹ / ₄	³ / ₄
CGa-8	12 ¹ / ₂	7	25	64 ⁷ / ₈	1 ¹ / ₂	1 ¹ / ₂	³ / ₄

PRICE

Model	Standing Pilot	Spark Ignition
CGa-25	\$1,954.00	\$2,324.00
CGa-3	\$2,230.00	\$2,614.00
CGa-4	\$2,456.00	\$2,870.00
CGa-5	\$2,820.00	\$3,240.00
CGa-6	\$3,306.00	\$3,738.00
CGa-7	\$3,732.00	\$4,224.00
CGa-8	\$3,792.00	\$4,626.00

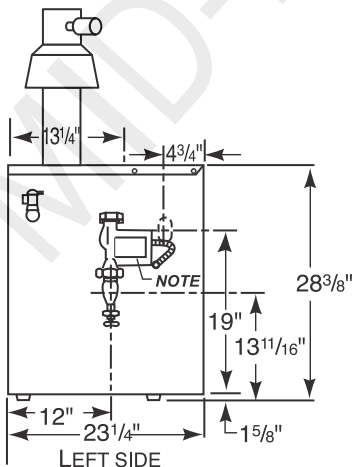
Note: Circulator flange supplied with boiler is same size as recommended pipe size.



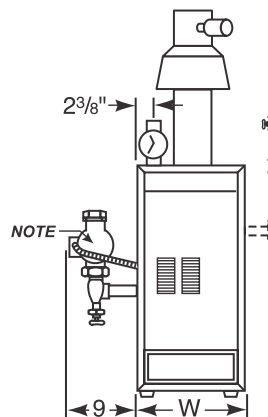
RIGHT SIDE

NOTE:

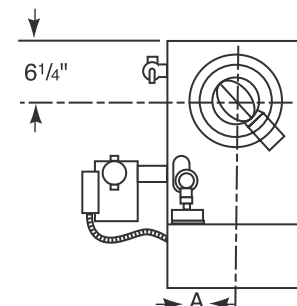
Boiler circulator is shipped loose. Circulator may be mounted on either boiler supply or return piping. See dimension chart for pipe size of circulator flange provided.



LEFT SIDE



FRONT



TOP VIEW



CGi

Gas Boiler for Direct Exhaust (Induced Draft)
50,000 Btu thru 233,000 Btu Models

Features:

- Up to 84% efficiency
- Factory tested
- Insulated extended steel jacket
- Cast iron sections with built-in air separator
- Integrated boiler control module with intermittent electronic ignition system and indicator/diagnostic lights
- Inducer assembly
- Wiring harness
- Air pressure switch
- Non-linting pilot burner
- High-grade stainless steel burners
- Rollout thermal fuse element
- High-limit temperature control
- 30 PSI ASME relief valve (boiler sections tested for 50 PSI working pressure)
- Combination pressure-temperature gauge
- Category I or III venting (chimney or direct venting)

Up to 84%
Efficiency

CGi RATINGS

Boiler Model	Input MBH	DOE Heating Capacity MBH	Net I=B+R Water Ratings MBH	DOE Seasonal Efficiency Percent (AFUE)	Approx. Shipping Weight (lbs)	Minimum Vent Connector Diameter
CGi-25	50	42	37	84.0	200	4" I.D.
CGi-3	67	57	50	84.3	200	4" I.D.
CGi-4	100	85	74	84.0	240	5" I.D.
CGi-5	133	112	97	83.7	280	5" I.D.
CGi-6	167	140	122	83.3	325	5" I.D.
CGi-7	200	167	145	83.0	370	5" I.D.
CGi-8	233	194	169	82.7	425	5" I.D.

Notes: Refer to National Fuel Gas Code, ANSI Z223.1-latest edition for chimney sizing and vent connector legnths. CGi boilers are C.S.A. design certified for installation on combustible flooring. Tested for 50psi working pressure.

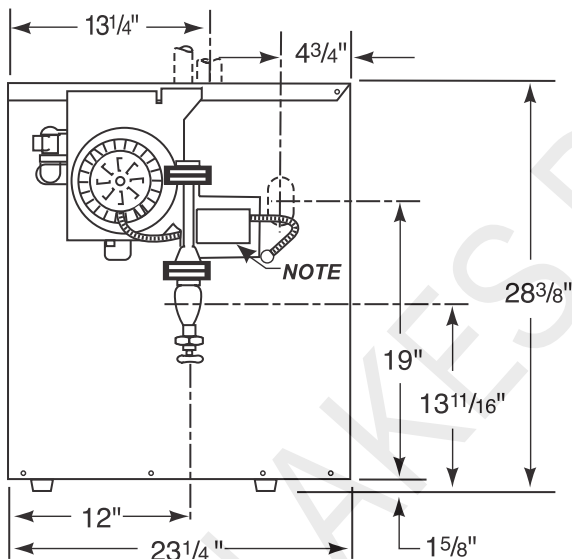
CGi

Gas Boiler for Direct Exhaust (Induced Draft) 50,000 Btu thru 233,000 Btu Models

CGi DIMENSIONS				
Boiler Model	Dimensions Inches W	Supply Piping Inches	Return Piping Inches	Nat or PL Gas Connection Size Inches
CGi-25	10	3/4	3/4	1/2
CGi-3	10	1	1	1/2
CGi-4	13	1	1	1/2
CGi-5	16	1	1	1/2
CGi-6	19	1 1/4	1 1/4	1/2
CGi-7	22	1 1/4	1 1/4	3/4
CGi-8	25	1 1/2	1 1/2	3/4

PRICE	
Model	Spark Ignition
CGi-25	\$2,324.00
CGi-3	\$2,614.00
CGi-4	\$2,870.00
CGi-5	\$3,240.00
CGi-6	\$3,738.00
CGi-7	\$4,222.00
CGi-8	\$4,628.00

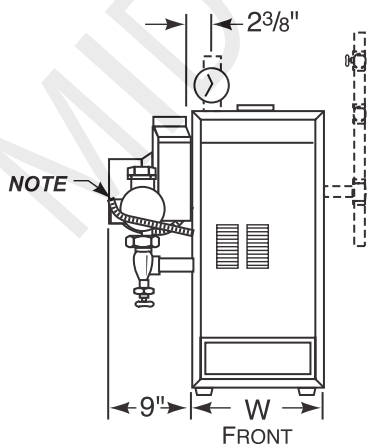
Notes: Circulator flange supplied with boiler is same size as recommended pipe size. For supply and return boiler tapping size, see installation manual.



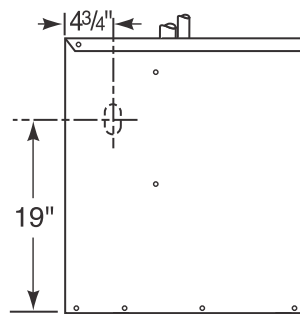
LEFT SIDE

NOTE:

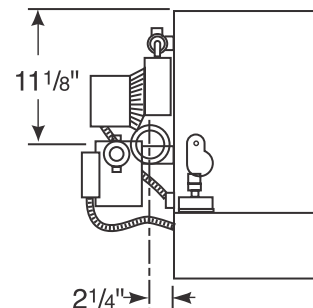
Boiler circulator is shipped loose. Circulator may be mounted on either boiler supply or return piping. See dimension chart for pipe size of circulator flange provided.



FRONT



RIGHT SIDE



TOP VIEW



EG

High Efficiency Gas Boiler for Water or Steam
75,000 Btu thru 300,000 Btu Models

Features:

- Factory assembled section block
- Insulated extended jacket
- Horizontal to vertical draft hood with built-in diverter
- Automatic vent damper (additional for EG-75)
- Non-linting pilot burner
- Aluminized steel burners
- Electrical junction box
- Spill switch
- Rollout thermal fuse element
- Limited lifetime warranty on water boiler sections; 10 years on steam boiler sections
- Category I Venting

WATER BOILERS ONLY

- Built-in air separator
- 30 PSI ASME relief valve (boiler sections tested for 50 PSI water working pressure)
- Combination pressure-temperature gauge
- High-limit control

STEAM BOILERS ONLY

- 15 PSI ASME relief valve (boiler sections tested for 15 PSI steam working pressure)
- High limit pressure control
- Low water cut-off – electrode type
- Steam pressure gauge
- Syphon
- Gauge cocks and galss

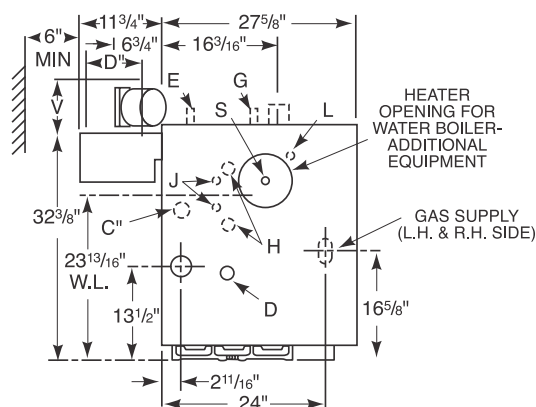
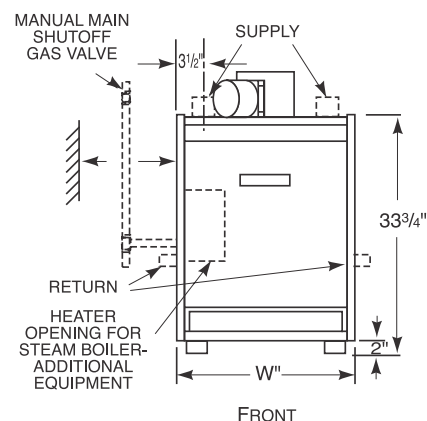
HIGH EFFICIENCY MODEL – SPD

- Constant burning, thermally supervised pilot system

HIGHEST EFFICIENCY MODEL – PID

- Intermittent electronic ignition system with Weil-McLain UCM universal ignition control module

PRICE				
Model	Steam		Water	
	Standing Pilot	Spark Ignition	Standing Pilot	Spark Ignition
EG-30	\$2,964.00	\$2,564.00	\$2,664.00	\$2,272.00
EG-35	\$3,208.00	\$2,808.00	\$2,906.00	\$2,516.00
EG-40	\$3,646.00	\$3,246.00	\$3,346.00	\$2,954.00
EG-45	\$3,924.00	\$3,524.00	\$3,622.00	\$3,232.00
EG-50	\$4,212.00	\$3,812.00	\$3,910.00	\$3,520.00
EG-55	\$4,552.00	\$4,316.00	\$4,252.00	\$4,024.00
EG-65	\$5,256.00	\$4,776.00	\$4,956.00	\$4,484.00
EG-75	\$5,066.00	\$4,778.00	\$4,766.00	\$4,506.00





High Efficiency Gas Boiler for Water or Steam 75,000 Btu thru 300,000 Btu Models

EG ENGINEERING DATA

Boiler Number	Number & Size of		Dimensions - Inches			Gas Connection Size Natural Gas*	Minimum Recommended Pipe Sizes			Approx. Shipping Weight (lbs.)
	Supply (NPT)	Return (NPT)	D	V	W		Forced Water Supply and Return	Steam Riser and Header	Steam Equalizer	
EG-30	2 - 3"	2 - 2 1/2"	5"	6"	17"	1/2"	1"	2"	1 1/2"	380
EG-35	2 - 3"	2 - 2 1/2"	5"	6"	17"	1/2"	1"	2"	1 1/2"	380
EG-40	2 - 3"	2 - 2 1/2"	6"	6 1/2"	21 1/4"	1/2"	1 1/4"	2 1/2"	1 1/2"	465
EG-45	2 - 3"	2 - 2 1/2"	6"	6 1/2"	21 1/4"	1/2"	1 1/4"	2 1/2"	1 1/2"	465
EG-50	2 - 3"	2 - 2 1/2"	7"	9"	25 1/2"	1/2"	1 1/4"	2 1/2"	1 1/2"	545
EG-55	2 - 3"	2 - 2 1/2"	7"	9"	25 1/2"	1/2"	1 1/2"	3"	1 1/2"	545
EG-65	2 - 3"	2 - 2 1/2"	8"	9 1/2"	29 3/4"	3/4"	1 1/2"	3"	1 1/2"	630
EG-75	2 - 3"	2 - 2 1/2"	8"	9 1/2"	34"	3/4"	2"	3"	1 1/2"	695

*Sizes shown are gas connection sizes. Gas piping from meter to boiler to be sized according to local utility requirements.

EG RATINGS

EG RATINGS										
Boiler Number			Net I-B-R Ratings			DOE Seasonal Efficiency Percent (AFUE)				Chimney Size
	A.G.A. Input BTU/Hr	DOE Heating Capacity	Sq. Ft. Steam	Steam BTU/HR	Water BTU/HR	Water		Steam		
						SPDN	PIDN	SPDN	PIDN	
EG-30	75,000	61,000	192	46,000	53,000	80.7	83.4	79.5	81.6	5" I.D. x 20'
EG-35	100,000	81,000	254	61,000	70,000	80.3	82.2	79.1	82.0	5" I.D. x 20'
EG-40	125,000	101,000	317	76,000	88,000	80.8	82.8	79.8	81.3	6" I.D. x 20'
EG-45	150,000	122,000	383	92,000	106,000	80.6	82.2	79.2	81.4	6" I.D. x 20'
EG-50	175,000	142,000	446	107,000	123,000	81.0	82.2	80.1	81.1	7" I.D. x 20'
EG-55	200,000	163,000	508	122,000	142,000	80.8	82.3	79.3	80.9	7" I.D. x 20'
EG-65	250,000	203,000	633	152,000	177,000	81.0	82.3	79.4	80.4	8" I.D. x 20'
EG-75	300,000	240,000	750	180,000	209,000					8" I.D. x 20'

EG CONTROL TAPPINGS

Location	Size	Steam	Water
C	3/4"	Electrode-type low-water cutoff	Plugged
D	3/4"	Drain	Drain
E	3/4"	Safety Valve	Safety relief valve
G	3/4"	Plugged	Piping to compression tank or auto air vent
H	1/2"	Gauge glass and/or low-water cutoff	Plugged
J	3/8"	Try cock tappings	
L	1/4"	Syphon, pressure gauge, high-limit control	Combination pressure-temperature gauge
S	1 1/2" (steam)	Skim tapping	
	3/4" (water)		Limit control



GWA

Gas-Fired Water Boilers

52,000 Btu thru 245,000 Btu Models

Features:

- Factory-packaged and tested
- 52,000 to 245,000 Btuh input natural gas
- Atmospheric (chimney) venting
- Cast iron sections with built-in air separator
- Vertical draft hood
- Electrical junction box
- Stainless steel burners
- High temperature limit control
- Automatic vent damper
- 30 PSIG ASME relief valve
- Combination pressure/temperature gauge
- Standing pilot models - constant-burning pilot system, thermally supervised
- Intermittent pilot models - spark-ignited (intermittent) pilot system
- Limited lifetime warranty on heat exchanger
- Category I Venting

GWA BOILER RATINGS

Boiler Model Number	Input Btuh	Output (DOE Heating Capacity) Btuh	Net I=B=R Ratings Btuh	DOE Seasonal Efficiency % A.F.U.E.		Chimney/Breeching Size x 20' High	Circulator Flange Size (Recommended Supply & Return Pipe Size, NPT)
				N-S	N-I		
GWA-052	52,000	41,600	37,000	80.2	83.0	4 I.D. "	3/4"
GWA-070	70,000	56,400	50,000	80.1	82.2	4 I.D. "	1 "
GWA-105	105,000	84,000	77,000	80.4	82.9	5 I.D. "	1 "
GWA-140	140,000	112,800	102,000	80.4	82.5	6 I.D. "	1 "
GWA-175	175,000	140,000	126,000	80.5	82.2	6 I.D. "	1 1/4"
GWA-210	210,000	168,000	151,000	80.5	81.8	7 I.D. "	1 1/4"
GWA-245	245,000	196,000	176,000	80.5	81.4	7 I.D. "	1 1/2"

GWA

Gas-Fired Water Boilers 52,000 Btu thru 245,000 Btu Models

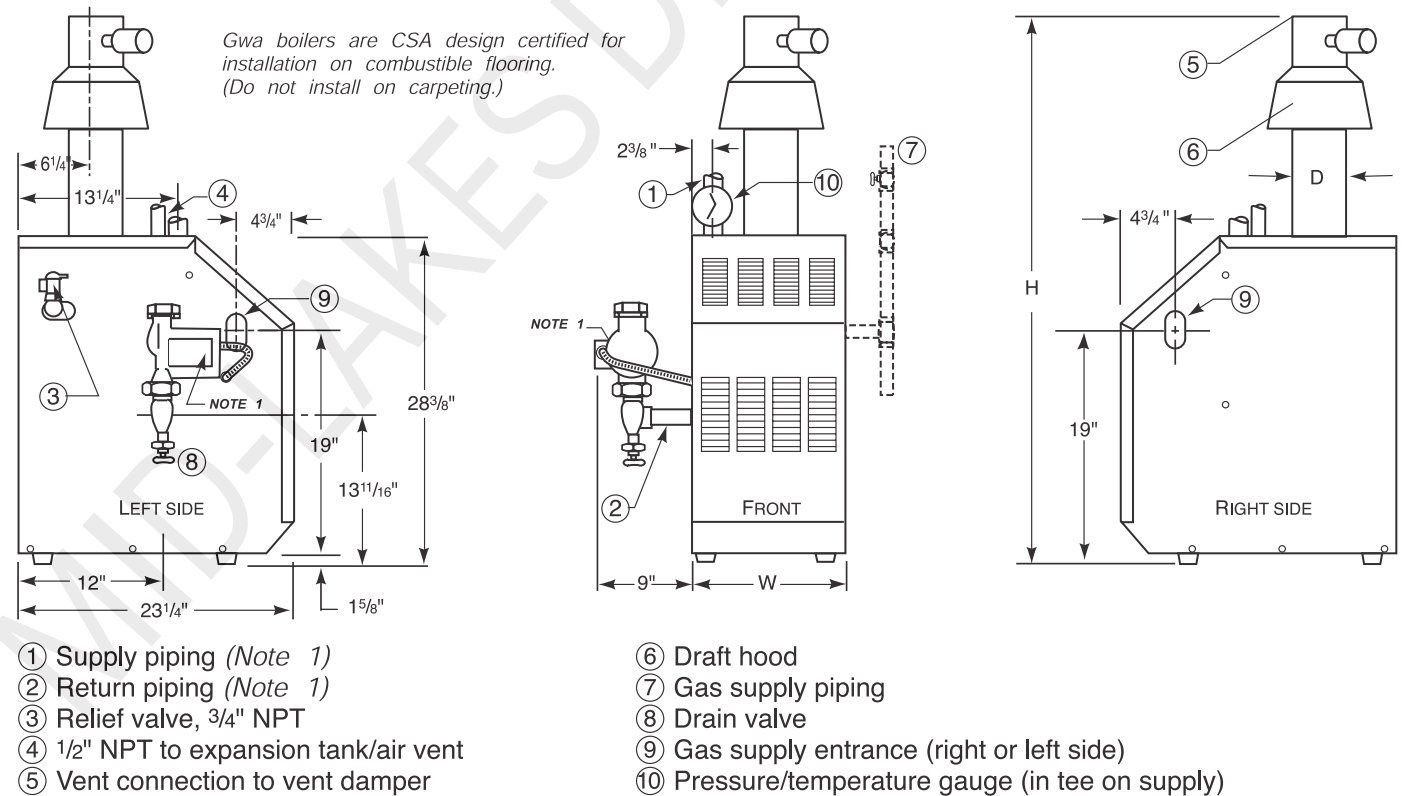
GWA BOILER DIMENSIONS

	Dimensions (inches)		
	W	H	D
Boiler Model	width	height over vent damper	flue diameter
GWA-052	10	45 ³ / ₈	4
GWA-070	10	52 ³ / ₈	4
GWA-105	13	54 ³ / ₈	5
GWA-140	16	57 ⁷ / ₈	6
GWA-175	19	60 ⁷ / ₈	6
GWA-210	22	62 ¹ / ₈	7
GWA-245	25	64 ⁷ / ₈	7

PRICE

Model	Standing Pilot	Spark Ignition
GWA-052	\$1,478.00	\$1,816.00
GWA-070	\$1,628.00	\$1,984.00
GWA-105	\$1,830.00	\$2,208.00
GWA-140	\$2,076.00	\$2,482.00
GWA-175	\$2,374.00	\$2,814.00
GWA-210	\$2,646.00	\$2,646.00
GWA-245	\$2,936.00	\$3,438.00

Note 1: Boiler supply and return tapings are 1 1/2" NPT. Circulator flanges shipped with boiler are sized to recommended pipe size listed in the ratings table. Boiler circulator is shipped loose. Circulator may be mounted on either boiler supply or return piping.





GSA

Gas-Fired Packaged Steam Boilers
75,000 Btu thru 250,000 Btu Models

Features:

- Factory packaged and tested
- 75,000 to 250,000 Btuh input
- Atmospheric (chimney) venting
- Factory assembled cast iron section assembled
- Integral horizontal draft diverter
- Gauge glass, pressure gauge and siphon assembly
- Pressure limit control
- Probe low water cutoff
- High temp limit control
- Automatic vent damper
- 15 PSIG ASME relief valve
- Constant- burning pilot system, thermally supervised
- 10 year limited warranty on boiler sections
- Category I Venting

GSA RATINGS

Boiler Number	0-2,000 Feet Altitude		Net I=B=R Ratings		Boiler Water Content (to water line)	DOE Seasonal Efficiency		Chimney and Breeching Size
	Input Btuh	Output Btuh (DOE Heating Capacity)	Square Feet	Btuh	Gallons	Natural	Propane	(x 20' high)
GSA-075	75,000	61,000	192	46,000	8.4	79.5	79.5	5" I.D.
GSA-100	100,000	81,000	254	61,000	8.4	79.1	79.7	5" I.D.
GSA-125	125,000	101,000	317	76,000	9.8	79.8	80.3	6" I.D.
GSA-150	150,000	122,000	383	92,000	9.8	79.2	80.3	6" I.D.
GSA-175	175,000	142,000	446	107,000	11.2	80.1	81.1	7" I.D.
GSA-200	200,000	163,000	508	122,000	11.2	79.3	81.0	7" I.D.
GSA-250	250,000	203,000	633	152,000	12.6	79.4	81.6	8" I.D.



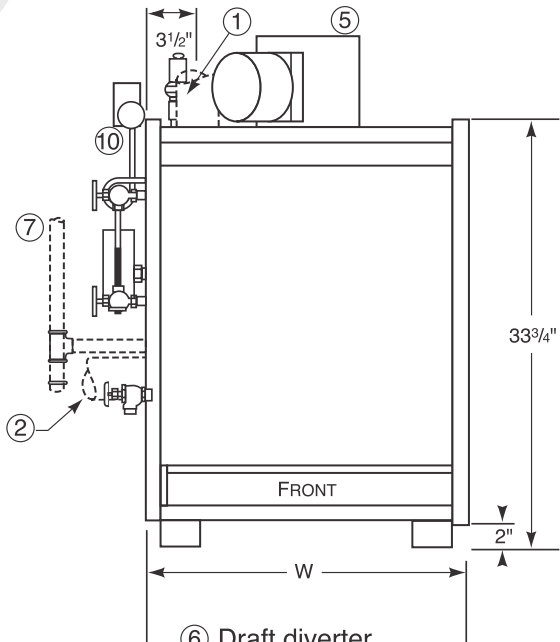
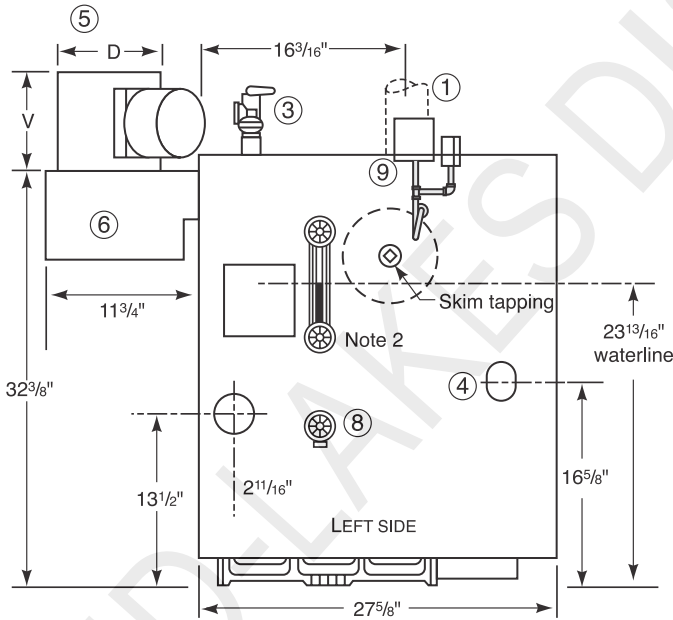
GSA

Gas-Fired Packaged Steam Boilers
75,000 Btu thru 250,000 Btu Models

GSA BOILER DIMENSIONS			
	V	D	W
Boiler Number	Damper Height	Vent Diameter	Jacket Width
GSA-075	6	5	17
GSA-100	6	5	17
GSA-125	6 1/2	6	21 1/4
GSA-150	6 1/2	6	21 1/4
GSA-175	9	7	25 1/2
GSA-200	9	7	25 1/2
GSA-250	9 1/2	8	29 3/4

Model Number	Price
GSA-075	Call for Pricing
GSA-100	\$2,248.00
GSA-125	\$2,556.00
GSA-150	\$2,792.00
GSA-175	\$3,138.00
GSA-200	\$3,414.00
GSA-250	\$3,816.00

Boiler supply and return tappings can be found in the information at left. See boiler manual for recommended system supply and return piping sizes.



- ① Supply piping to boiler 3" NPT tapping (Note 1)
- ② Return piping to boiler 2 1/2" tapping (Note 1)
- ③ Relief valve 3/4" NPT
- ④ Gas supply entrance (right or left side)
- ⑤ Vent connection to vent damper

- ⑥ Draft diverter
- ⑦ Gas supply piping
- ⑧ Drain valve
- ⑨ Pressure limit control
- ⑩ Pressure gauge





MINI-THERM – JVS/JVT

Gas-Fired Residential Hydronic Boilers
50,000 Btu thru 225,00 Btu Models

Standard Equipment

- Standing pilot (JVT) or intermittent spark ignition (JVS)
- Up to 84.4% AFUE
- Compact design/small footprint
- Copper-finned tube heat exchanger with cast iron “wet walls”
- On-off firing 50 & 75 MBTU models
- 2 stage firing 100 MBTU to 225 MBTU
- Sleek jacket removes easily for quicker service
- Category I Venting

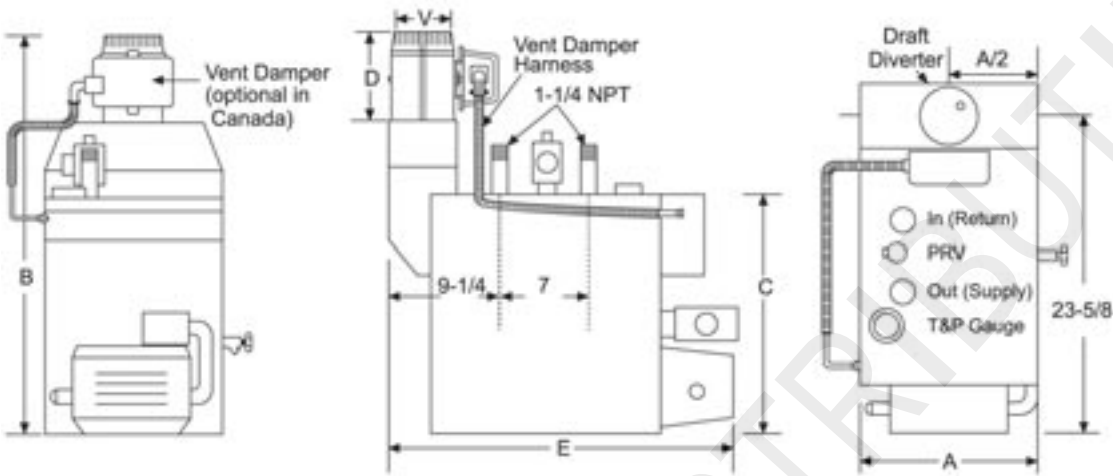
Model	Price
JVS 50	\$1,604.00
JVS 75	\$1,724.00
JVS 100	\$1,914.00
JVS 125	\$1,992.00
JVS 160	\$2,132.00
JVS 225	\$2,614.00

MINI-THERM SPECIFICATIONS							
Size	Input	JVT Firing Mode	JVS Firing Mode	Heat Capacity	Net IBR	JVT AFUE %	JVS AFUE %
	BTU/h x 1000			BTU/h x 1000	BTU/h x 1000		
50	50	On/Off	On/Off	42	36.5	80.2	84.4
75	75	On/Off	On/Off	63	54.8	80.5	84.0
100	100	On/Off	2-Stage	84	73.0	80.7	82.0
125	125	On/Off	2-Stage	105	91.3	80.7	81.9
160	160	On/Off	2-Stage	134	116.9	81.0	80.2
225	225	On/Off	2-Stage	189	164.3	81.5	81.8



MINI-THERM – JVS/JVT

Gas-Fired Residential Hydronic Boilers
50,000 Btu thru 225,00 Btu Models



MINI-THERM DIMENSIONS

JVT & JVS Size	Dimensions in inches							Water Conn. (in)	Gas Conn. (in)	Approx. Weight (lbs)
	A	B	C	D	E	F	V			
50	13 3/8	27 3/4	23 5/8	21 3/4	26 1/2	18	4	1 1/4	1/2	120
75	13 3/8	27 3/4	24 1/8	21 3/4	27 1/2	18	5	1 1/4	1/2	126
100	16 7/8	28 3/4	24 1/8	22 3/4	27 1/2	18	5	1 1/4	1/2	134
125	16 7/8	28 3/4	23 5/8	22 3/4	27 1/2	18	6	1 1/4	1/2	138
160	20 3/8	28 3/4	23 5/8	22 3/4	27 1/2	18	6	1 1/4	1/2	164
225	25 5/8	31 1/2	23 1/4	24 3/4	27 1/2	20	7	1 1/4	1/2	181





Ti

Ultra Efficient Hydronic Boiler (2 Pipe)
150,000 Btu thru 399,00 Btu Models

Product Features:

- Fully packaged and wired
- Available in both natural gas and propane versions with a modulation system that eliminates additional models
- Up to 92% efficiency
- Integrated outdoor reset control
- State-of-the-art sealed modulation combustion system with hot surface ignition
- Patented 316L stainless condensing heat exchanger provides ultimate efficiencies
- All connections are conveniently located for ease of installation
- Wall mount configuration saves valuable floor space
- Vents easily with conventional PVC plastic piping
- The Trinity is certified, designed and rated to strict CSA, AGA, ASME and CSAus codes
- Designed for primary/secondary pumping (2 pumps)
- Category IV Venting

Ultra Efficient Hydronic Boiler (2 Pipe)
150,000 Btu thru 399,00 Btu Models

Ti GENERAL SPECIFICATIONS

	Ti 150	Ti 200	Ti 400
Size (D x W x L)	14" x 15.5" x 22"	17" x 15.5" x 22"	22" x 30" x 46"
Weight	80 lbs	110 lbs	230 lbs
Max Pressure	30 PSI	30 PSI	30 PSI
Gas Type	Natural & Propane	Natural & Propane	Natural & Propane
Max Vent	105' equivalent	105' equivalent	80'-4", 100'-6"
Gas Line Size	1/2" NPT	1/2" NPT	1" NPT
Max Supply Water	200°F	200°F	200°F
Min Return Water	30°F	30°F	30°F
Oxygen Tube Barrier	Required	Required	Required
Certification	CSA, AGA, CSAus	CSA, AGA, CSAus, ASME	CSA, AGA, CSAus, ASME

Ti HEATING SPECIFICATIONS

	Ti 150	Ti 200	Ti 400
BTU Input x 1000	34 - 150	25 - 200	25 - 399
BTU Output x 1000	31.2 - 138	22.7 - 187	22.7 - 363
S.S. Efficiency	98%	97%	96%
AFUE	92%	91%	91%
Pressure Drop @ GPM	12' @ 8	13' @ 10	13' @ 20
Supply - Return	3/4" NPT	1" NPT	1" NPT*
Boiler Modulation Ratio	4.4:1	8:1	16:1
Flow & Level Switch	Optional	Optional	Installed

Model Number	Price
Ti 150	\$4,296.00
Ti 200	\$5,810.00
Ti 400	\$12,600.00

*Note: Ti400 comes standard with built-in primary loop. Connection indicated is for secondary loop connection.



PFG

Hot Water Gas Boiler

244,000 Btu thru 427,000 Btu Models

Features:

- Factory fire tested
- Automatic vent damper (standard with PFG-5, additional for PFG-6, 7 and 8)
- Built-in air separator
- Vertical draft hood (packaged separately)
- Combination gas valve for 24 volt
- Constant burning, thermally supervised pilot system and thermocouple (PFG-6 and 7 only)
- Intermittent electronic ignition pilot system (PFG-5 and 8 only)
- Aluminized steel burners
- Rollout thermal fuse element (PFG-5 only)
- High-limit temperature control
- 30 PSI ASME relief valve (boiler sections tested for 50 PSI working pressure) packed separately
- Combination pressure-temperature gauge (packed separately)
- Boiler drain valve (packaged separately)
- Two or more PFG boilers can be used in place of one large capacity boiler to meet the space heating requirements of larger buildings

Optional Equipment:

- Intermittent electronic ignition pilot system for PFG-6 and 7 (standard for PFG-5 and 8)
- Automatic vent damper for PFG-6 through 8 (standard for PFG-5)

PFG RATINGS					
Water Boiler Number	Input BTU/Hr.	Gross Output BTU/Hr.	Net I-B-R Ratings BTU/Hr.	Boiler H.P.	Chimney Size
PFG-5-PIDN	244,000	199,000	173,000	5.9	7" I.D. x 20'
PFG-6-*	305,000	247,000	215,000	7.4	8" I.D. x 20'
PFG-7-*	366,000	296,000	257,000	8.8	9" I.D. x 20'
PFG-8-PIN	427,000	346,000	301,000	10.3	9" I.D. x 20'

* Add "-SPN-" for standing pilot or "PIN" for intermittent ignition. Note: Boilers are tested for 50 PSI working pressure

PFG

Hot Water Gas Boiler
244,000 Btu thru 427,000 Btu Models

PFG ENGINEERING DATA

Water Boiler Number	No. and Size of		Gas Connection Size Natural and Propane	Draft Hood Outlet Size	Dimensions of Crate (outside dimensions)			Approximate Shipping Weight (lbs)
	Supply	Return			Length	Width	Height	
PFG-5-PIDN	1 - 2"	1 - 2"	3/4"	7"	38 3/8"	25"	33 1/2"	500
PFG-6-*	1 - 2"	1 - 2"	3/4"	8"	38 3/8"	25"	33 1/2"	575
PFG-7-*	1 - 2"	1 - 2"	3/4"	9"	38 3/8"	31"	33 1/2"	635
PFG-8-PIN	1 - 2"	1 - 2"	1"	9"	38 3/8"	31"	33 1/2"	695

* Add "-SPN-" for standing pilot or "PIN" for intermittent ignition. Note: Boilers are tested for 50 PSI working pressure

BOILERS

COMMERCIAL

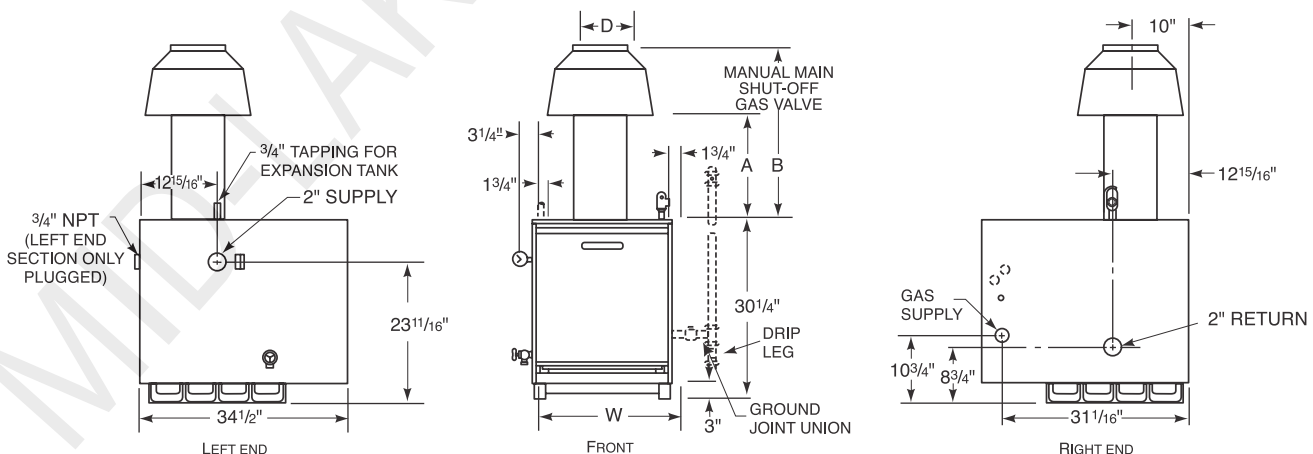
PFG RECOMMENDED PIPING CONNECTIONS

Boiler Size	Minimum Pipe Size (inches)	
	Supply (A)	Return (B)
PFG-5	1 1/2	1 1/2
PFG-6	2	2
PFG-7	2	2
PFG-8	2	2

PFG DIMENSIONS

Water Boiler Number	Dimensions in Inches			
	A	B	D	W
PFG-5	15	23 3/4	7	17 11/16
PFG-6	17 1/4	27 1/16	8	20 11/16
PFG-7	19 1/2	30 3/8	9	23 11/16
PFG-8	25	35 7/8	9	26 11/16

Model	Price
PFG-5-PIN	\$3,862.00
PFG-6-PIN	\$4,278.00
PFG-7-PIN	\$5,166.00
PFG-8-PIN	\$6,018.00



EGH

Commercial Gas Boiler

349,000 Btu thru 550,000 Btu Models

Features:

- Factory assembled section block
- Horizontal to vertical draft hood
- Aluminized steel burners
- Combination gas valve for 24 volt
- Wiring harness designed to assure correct wiring
- Steel jacket

Highest Efficiency Model – PI w/ Damper

- Intermittent electronic ignition system and automatic vent damper

High-Efficiency Model – PI

- Intermittent electronic ignition system

Standard Efficiency Model (EGH-85 and 95 only)

- Constant burning, thermally supervised pilot system and thermocouple

For Water Boilers

- Built in air separator
- 30 PSI ASME relief valve
- Combination pressure-temperature gauge
- High limit control (dual limit control for standard-efficiency models)

For Steam Boilers

- 15 PSI ASME relief valve
- Steam pressure gauge
- High limit pressure control (two limit controls for standard efficiency models)
- Syphon
- Low-water cutoff – electrode type
- Gauge cocks and glass





EGH

Commercial Gas Boiler

349,000 Btu thru 550,000 Btu Models

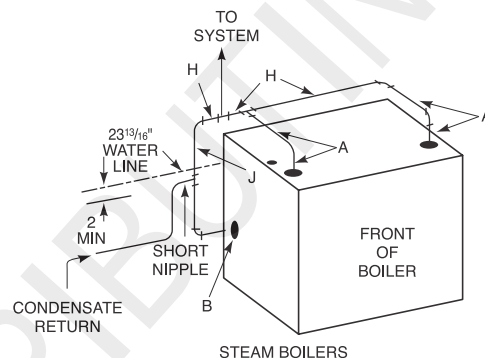
PRICE

Model	Steam		Water	
	Standing Pilot	Spark Ignition	Standing Pilot	Spark Ignition
EGH-85	\$5,818.00	\$6,084.00	\$5,364.00	\$5,640.00
EGH-95	\$6,350.00	\$6,616.00	\$5,898.00	\$7,612.00
EGH-105	N/A	\$7,034.00	N/A	\$7,476.00
EGH-115	N/A	\$7,514.00	N/A	\$7,958.00
EGH-125	N/A	\$8,068.00	N/A	\$8,512.00

RECOMMENDED PIPING CONNECTIONS

Water Boiler Size	Pipe Size			
	Supply	Return		
EGH-85 and EGH-95	2"	2"		
EGH-105 through EGH-125	2 1/2"	2 1/2"		
Steam Boiler Size	Riser Pipe Size		Header*	Equalizer
	A	B	H	J
EGH-85 and EGH-95	(2) 2"	2"	3"	1 1/2"
EGH-105	(2) 2 1/2"	2 1/2"	3"	1 1/2"
EGH-115 and EGH-125	(2) 2 1/2"	2 1/2"	4"	1 1/2"

*24 minimum from waterline to header



BOILERS

COMMERCIAL

EGH RATINGS

Boiler Number*	Input MBH+	Gross Output MBH+	Net I-B-R Ratings			Net Sq. Ft. Water	Boiler HP	Supply Tappings No. & Size	Return Tappings No. & Size	Dimensions in Inches		Gas Connection Size		Draft Hood Outlets No. & Size	I-B-R Chimney Size***	Approx Shipping Weight Lbs.
			Sq. Ft. Steam	Steam MBH+	Water MBH+					D	W	Natural	Propane			
EGH-85-	349	280	875	210	243	1620	8.4	2-3"	2 - 2 1/2"	9	38 1/4	3/4"	3/4"	1-9"	9" I.D. x 20'	845
EGH-95-	400	320	1000	240	278	1855	9.6	2-3"	2 - 2 1/2"	10	42 1/2	3/4"	3/4"	1-10"	10" I.D. x 20'	880
EGH-105-	450	360	1125	270	313	2085	10.8	2-3"	2 - 2 1/2"	10	46 3/4	1"	1"	1-10"	10" I.D. x 20'	975
EGH-115-	500	400	1250	300	348	2320	11.9	2-3"	2 - 2 1/2"	12	51	1"	1"	1-12"	12" I.D. x 20'	1065
EGH-125-	550	440	1375	330	383	2550	13.1	2-3"	2 - 2 1/2"	12	55 1/4	1"	1"	1-12"	12" I.D. x 20'	1145

*Add to boiler number "W" for water and "S" for steam. Add "PI" to designator for intermittent electronic ignition system (standard for EGH-105 through 125). Add "PI w/Damper" to designator for intermittent electronic ignition system with automatic vent damper. NOTE: Boiler is A.G.A. design certified for installation on noncombustible flooring only. Water boilers tested for 50 PSI working pressure.

EGH

Commercial Gas Boiler

349,000 Btu thru 550,000 Btu Models

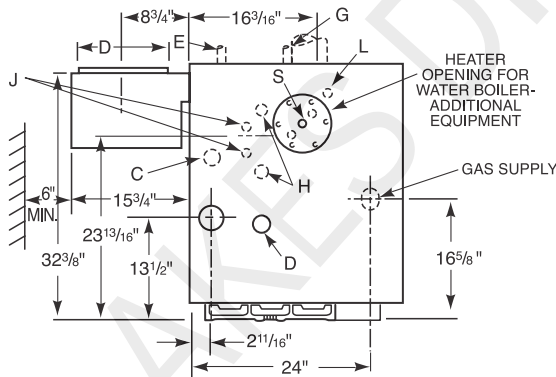
BOILERS

COMMERCIAL

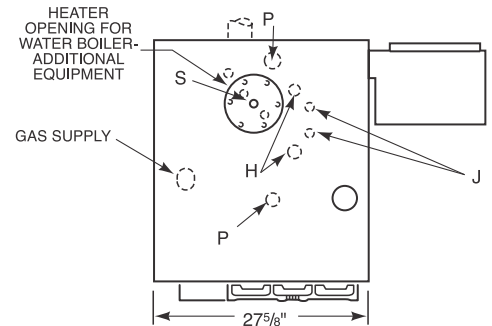
EGH CONTROL TAPPINGS

Location	Size	Steam	Water
C	3/4"	Probe type low water cut off	Probe type low water cut off (when used)
D	3/4"	Drain	Drain
E	3/4"	Safety valve	Safety relief valve
G	3/4"	Plugged	Piping to compression tank or auto air vent
H	1/2"	Gauge glass and/or optional low water cutoff	Combination pressure-temperature gauge
J*	3/8"	Try cock tapings	
L	1/4"	Plugged	Combination pressure-temperature gauge
P	1"	Float type low water cut off, pressure limit control and pressure gauge; or low water cut off and feeder combination; or low water cut off and pump control	Float-type low water cut off; or low water cut off and feeder combination; or low water cut off and pump control
S	1 1/2" (steam)	Skim tapping	Limit control
	3/4" (water)		Limit control

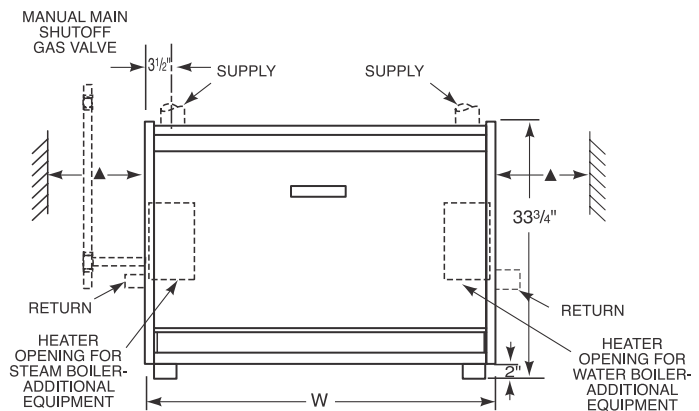
Note: Limit control and supply piping must be on the same end of the boiler



LEFT SIDE



RIGHT SIDE



FRONT

**LGB****Gas Boiler for Natural Draft Venting
400,000 Btu thru 2,860,000 Btu Models****Applications:**

- Commercial
- Residential
- Multiple boilers
- Schools and other institutions
- Indirect fired water heating
- Radiant heating

Features:

- Insulated extended jacket
- Cast iron sections
- Aluminized steel collector hood(s) and draft hood(s)
- Control transformer (120/24V)
- Factory assembled gas train
- Factory assembled burner and base unit(s):
 - One piece aluminized steel burners
 - Gas manifold
 - Aluminized steel base panels
 - High temperature insulation board
- Wiring harness: junction box and pre-wired flexible conduit
- 10 year limited warranty – covers cast iron sections

LGB-4 and 5

- Intermittent electronic ignition system:
 - Intermittent ignition control module
 - Electronically supervised pilot burner with ignition electrode and flame rod
 - Wire harness

LGB-6 through 23

- Flame guardian panel with flame rectification electronic control system for each base assembly:
 - Pre-wired control panel
 - Terminal block
 - Two ignition control modules having integral spark generators
- Intermittent electronic ignition pilot system
- Electronically supervised pilot burner with ignition electrode and flame rod
- Main flame sensor rod

Water Boilers

- Combination operating and high limit temperature control (LGB-4 through 20 only)
- Operating temperature control (LGB-21 through 23 only)
- High limit temperature control (LGB-21 through 23 only)
- Combination pressure temperature gauge
- 30 PSI ASME relief valve – side outlet
- Built-in air eliminator in end sections

Steam Boilers

- Operating pressure control
- High limit pressure control
- Compound pressure vacuum gauge
- Gauge cocks, glass and guards
- 15 PSI ASME relief valve – side outlet
- Float-type low water cutoff, MM No. 61 LWCO

Boiler Optional Equipment:

- Factory assembled sections (LGB-4 through 14 only)
- Fire tested packaged unit (LGB-4 through 14 only)
- 1 1/2" inspection tappings with brass plugs – two for each section
- 80 PSI working pressure test of sections
- Water level controls and low water cutoffs
- Low-high-low firing (LGB-6 through 12 only)
- Stage firing (LGB-13 through 23 only)
- Energy management control systems (EMCS)
- IRI, FM and CSD-1 control systems





LGB

Gas Boiler for Natural Draft Venting

400,000 Btu thru 2,860,000 Btu Models

BOILERS

COMMERCIAL

LGB RATINGS												
Boiler Model (1)	A.G.A. Input MBH (2)	A.G.A. Gross Output MBH (2)	Net I=B=R Ratings (3)			Boiler H.P.	Boiler Water Content Gallons		Approx Shipping Weight (lbs)	Chimney Breeching Size (I.D.) Inches (4)	Price	
			Square Feet Steam	MBH Steam (2)	MBH Water (2)		Steam (to waterline)	Water			Steam	Water
LGB-4	400	324.0	1013	243	282	9.7	23.2	36.5	1185	10	\$7,090.00	\$6,514.00
LGB-5	520	421.2	1317	316	366	12.6	28.9	45.6	1455	12	\$8,090.00	\$7,516.00
LGB-6	650	526.5	1646	395	458	15.7	34.6	54.7	1725	12	\$9,928.00	\$9,482.00
LGB-7	780	631.8	1975	474	549	18.9	40.3	63.9	2005	12	\$11,170.00	\$10,724.00
LGB-8	910	737.1	2304	553	641	22.0	46.0	73.0	2290	14	\$12,664.00	\$12,156.00
LGB-9	1040	842.4	2633	632	733	25.2	51.9	82.1	2560	14	\$13,798.00	\$13,290.00
LGB-10	1170	947.7	2965	711	824	28.3	57.6	91.2	2800	16	\$15,242.00	\$14,806.00
LGB-11	1300	1053.0	3292	790	916	31.5	63.4	100.4	3105	16	\$16,496.00	\$16,060.00
LGB-12	1430	1158.3	3621	869	1007	34.6	69.1	109.5	3365	16	\$17,652.00	\$17,216.00
LGB-13	1560	1263.6	3954	949	1099	37.8	74.9	118.6	3785	16	\$19,312.00	\$18,754.00
LGB-14	1690	1368.9	4313	1035	1190	40.9	80.7	127.7	4085	16	\$20,424.00	\$19,994.00
LGB-15	1820	1474.2	4679	1123	1282	44.0	86.4	136.9	4355	16	\$21,506.00	\$21,076.00
LGB-16	1950	1579.5	5046	1211	1373	47.2	92.2	146.0	4725	17	\$22,622.00	\$22,192.00
LGB-17	2080	1684.8	5408	1298	1465	50.3	98.0	155.1	4975	17	\$23,738.00	\$23,308.00
LGB-18	2210	1790.1	5775	1386	1557	53.5	103.6	164.2	5270	18	\$25,426.00	\$24,996.00
LGB-19	2340	1895.4	6125	1470	1648	56.6	109.5	173.4	5540	18	\$26,864.00	\$26,434.00
LGB-20	2470	2000.7	6471	1553	1740	59.8	115.3	182.5	5820	19	\$27,902.00	\$27,592.00
LGB-21	2600	2106.0	6813	1635	1831	62.9	121.0	191.6	6080	19	\$29,594.00	\$29,396.00
LGB-22	2730	2211.3	7155	1717	1923	66.1	126.8	201.2	6365	19	\$30,884.00	\$30,684.00
LGB-23	2860	2316.6	7496	1799	2014	69.2	132.5	209.8	6625	20	\$32,172.00	\$31,974.00

Notes: 1. Add to boiler model "-S" for steam and "-W" for water 2. MBH refers to thousands of Btu per hour 3. Net I=B=R ratings are based on net installed radiation of sufficient quantity for the requirement of the building and nothing need be added for normal piping and pick-up. Water ratings are based on a piping and pick-up allowance of 1.15. Steam ratings are based on the following allowances: LGB 4-12: 1.33; LGB 13: 1.332; LGB 14: 1.322; LGB 15: 1.312; LGB 16: 1.304; LGB 17: 1.297; LGB 18: 1.292; LGB 19: 1.289; LGB 20-23: 1.288. An additional allowance should be made for gravity hot water systems or unusual piping and pick-up loads. Ratings shown are for elevations up to 2,000 feet. For elevations above 2,000 feet, reduce ratings at the rate of 4% for each 1,000 feet above sea level. 4. 20' chimney height may be used based on using a 6' length of connector for breeching of the size shown from the nearest draft hood outlet to the chimney or vent with not more than one standard sloping-type 90° elbow. If individual vertical vents are to be used, each vent diameter should be the same size as the respective draft hood outlet and the height may be reduced to 5 ft. measured above the draft hood outlet.

Note: Water boilers tested at 80 psi working pressure



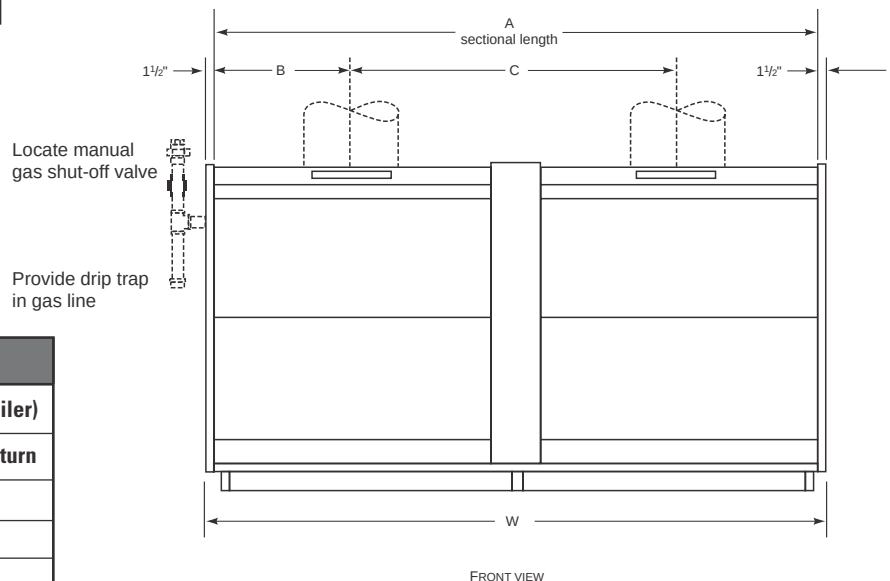
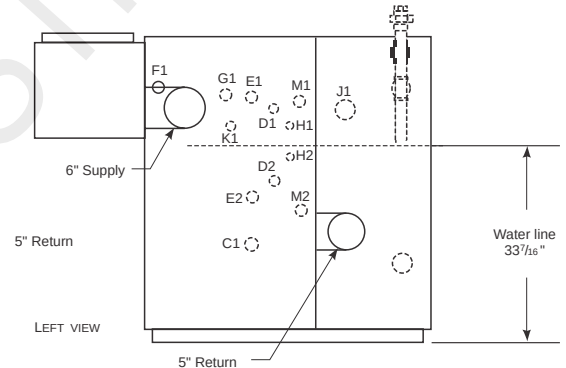
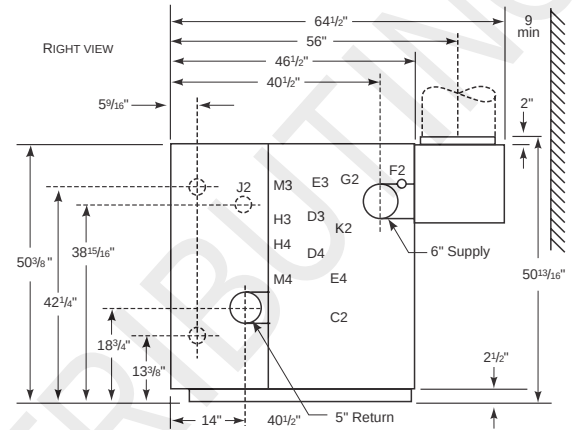
LGB

Gas Boiler for Natural Draft Venting
400,000 Btu thru 2,860,000 Btu Models

LGB DIMENSIONS

Boiler Model	Dimensions in Inches				Draft Hood Outlet(s) Number & Size
	A	B	C	W	
LGB-4	18	9		21	1 - 10"
LGB-5	23	11 1/2		26	1 - 12"
LGB-6	28	14		31	1 - 12"
LGB-7	33	16 1/2		36	1 - 12"
LGB-8	38	19		41	1 - 14"
LGB-9	43	21 1/2		46	1 - 14"
LGB-10	48	24		51	1 - 16"
LGB-11	53	26 1/2		56	1 - 16"
LGB-12	58	29		61	1 - 16"
LGB-13	63	16 1/2	30	66	2 - 12"
LGB-14	68	19	32 1/2	71	1 - 12" / 1 - 14"
LGB-15	73	19	35	76	2 - 14"
LGB-16	78	21 1/2	37 1/2	81	2 - 14"
LGB-17	83	21 1/2	40	86	2 - 14"
LGB-18	88	24	42 1/2	91	1 - 14" / 1 - 16"
LGB-19	93	24	45	96	2 - 16"
LGB-20	98	26 1/2	47 1/2	101	2 - 16"
LGB-21	103	26 1/2	60	106	2 - 16"
LGB-22	108	29	52 1/2	111	2 - 16"
LGB-23	113	29	55	116	2 - 16"

Notes: 1. For LGB 4-23 - return tapping size is 5" (qty 2) and supply tapping size is 6" (qty 2). 2. Gas trains on all IRI boilers and LGB 21-23 for CSD-1 & FM are located outside the boiler jacket. Allow additional clearances as required.



WATER BOILERS

Recommended Minimum Pipe Sizes (20° rise through boiler)

Boiler Model	Pipe Size Supply and Return
LGB-4	2"
LGB-5	2 1/2"
LGB-6 through 8	3"
LGB-9 through 16	4"
LGB-17 through 23	5"

LGB

Gas Boiler for Natural Draft Venting
400,000 Btu thru 2,860,000 Btu Models

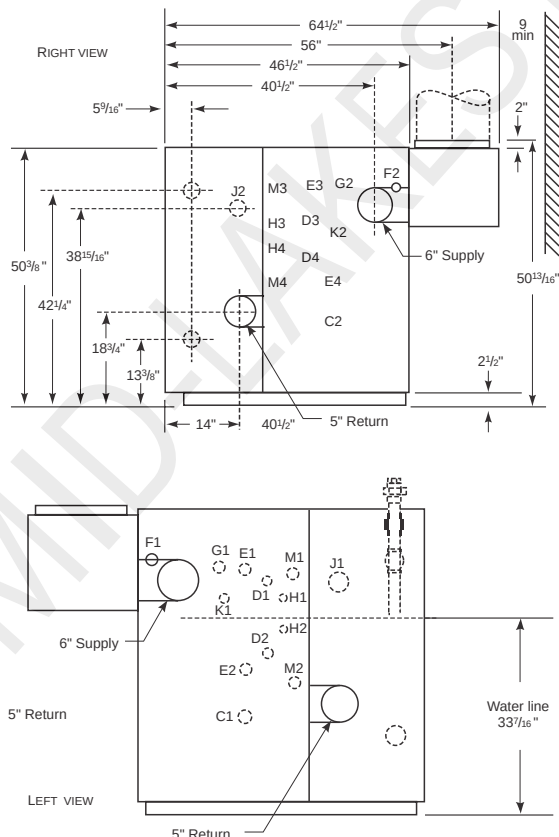
BOILERS

COMMERCIAL

LGB CONTROL TAPPING

Location		Size	Steam	Water (Note 4)
Left End	Right End			
C1	C2	1 1/4"	Boiler drain	Boiler drain
D1 & D2	D3 & D4	1/2"	Gauge glass (Note 3)	
E1 & E2	E3 & E4	1"	Low water cut off (Note 3)	Optional low water cut off
E1	E3	1"	Pressure operating & limit controls & pressure gauge	Limit control (Note 2)
F1	F2	1"		To expansion tank or automatic air vent (Note 2)
G1	G2	3/4"		Operating control (Note 2)
H1 & H2 (Note 1)	H3 & H4 (Note 1)	3/8"	Tri-cock	
J1	J2	2"	Steam relief valve and skim tapping	Water relief valve and skim tapping
K1	K2	1/2"		Combination pressure and temperature gauge (Note 2)
M1 & M2	M3 & M4	1"	Optional low water cut off (Note 3)	Optional low water cut off
M1	M3	1"	Firing rate control (when used)	Firing rate control (when used) of probe low water cut off

- Notes: 1. Available on special request only
2. Must be on same side as supply to system
3. Must be on same side as steam equalizer piping



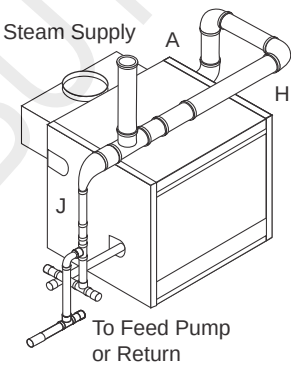
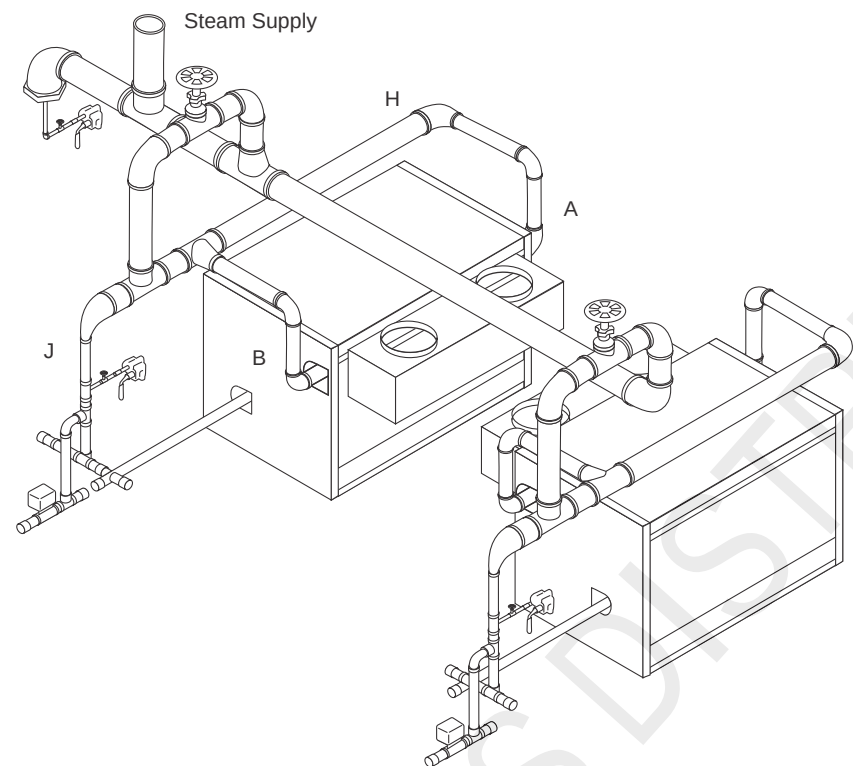
NATURAL GAS VALVE SUPPLY PIPING CONNECTION SIZES

Boiler Model	No. of Gas Trains	Standard A.G.A. 5" W.C.
LGB-4	1	1"
LGB-5	1	1"
LGB-6	1	1 1/4"
LGB-7	1	1 1/4"
LGB-8	1	1 1/4"
LGB-9	1	1 1/4"
LGB-10	1	1 1/2"
LGB-11	1	2"
LGB-12	1	2"
LGB-13	2	1 1/4"
LGB-14	2	1 1/4"
LGB-15	2	1 1/4"
LGB-16	2	1 1/4"
LGB-17	2	1 1/4"
LGB-18	2	1 1/2" / 1 1/4"
LGB-19	2	1 1/2"
LGB-20	2	1 1/2" / 2"
LGB-21	2	2"
LGB-22	2	2"
LGB-23	2	2"



LGB

Gas Boiler for Natural Draft Venting
400,000 Btu thru 2,860,000 Btu Models



STEAM BOILERS				
Recommended Minimum Pipe Sizes for Dual Risers				
Boiler Model	Riser		Header H	Equalizer J
	A	B		
LGB-13 through 15	4"	4"	6"	4"
LGB-16 through 19	5"	5"	6"	4"
LGB-20 through 23	6"	6"	8"	4"

STEAM BOILERS			
Recommended Minimum Pipe Sizes for Single Risers			
Boiler Model	Riser A	Header H	Equalizer J
LGB-4 through 8	4"	4"	2"
LGB-9 through 11	5"	5"	2 1/2"
LGB-12	6"	6"	2 1/2"





88

Boiler-Burner Units – Light Oil, Gas and Gas-Light Oil
596,000 Btu thru 5,845,000 Btu Models

Features:

- Pressurized for forced draft venting or chimney draft
- Cast iron sections
- Insulated steel jacket
- Flame retention burner for light oil, gas or gas-light oil (except H-88)
- Burner mounting plate with refractory (except H-88)
- Cast iron flue collar with built-in breeching damper
- Observation ports on front and back sections
- Side cleanout plates
- Flue brush

**CALL FOR
PRICING**

Water Boilers:

- 30 PSI ASME relief valve (boilers tested for 50 PSI working pressure)
- Combination high-limit and low-limit control
- Combination pressure-temperature-altitude gauge
- Nipple and 5" x 6" reducing coupling (1288-1888 boilers only)
- Built-in air eliminator
- Water boilers available on special request at 80 PSI working pressure

Steam Boilers

- 15 PSI ASME side outlet safety valve
- Low-limit and high-limit pressure controls
- Steam pressure gauge
- Siphon
- Gauge cock, glass and guards



88

Boiler-Burner Units – Light Oil, Gas and Gas-Light Oil
596,000 Btu thru 5,845,000 Btu Models

88 RATINGS													
Boiler Unit Number Steam or Water	I-B-R Burner Capacity		Gross I-B-R Output MBH	Net I-B-R Ratings			Boiler H.P.	Net Firebox Volume Cu. Ft.	Stack Gas Volume CFM	Positive Pressure in Firebox	Approx. Shipping Wt. (lbs) Boiler Only	Boiler Water Content Gal. (water boiler)	I-B-R Vent Dia. Inches
	Light Oil GPH	Gas MBH		Steam Sq. Ft.	Steam MBH	Water MBH							
488R F	6.9	996	794	2,483	596	690	23.7	11.02	370	0.42	2,650	109	10
488 F	7.0	1,010	810	2,533	608	704	24.2	11.02	376	0.43	2,650	109	10
588 F	9.4	1,357	1,084	3,388	813	943	32.4	14.45	507	0.44	3,210	132	10
688 F	11.8	1,703	1,358	4,275	1,026	1,181	40.6	18.08	639	0.46	3,770	155	10
788 F	14.2	2,049	1,632	5,225	1,254	1,419	48.8	21.61	772	0.47	4,335	178	12
888 F	16.6	2,396	1,904	6,154	1,477	1,656	56.9	25.14	906	0.49	4,895	201	12
988R F	17.2	2,482	1,991	6,442	1,546	1,731	59.5	28.67	954	0.45	5,460	224	14
988 F	18.8	2,713	2,176	7,038	1,689	1,892	65.0	28.67	1,031	0.50	5,460	224	14
1088R F	20.0	2,887	2,304	7,454	1,789	2,003	68.8	32.20	1,101	0.49	6,020	247	14
1088 F	21.5	3,103	2,452	7,933	1,904	2,132	73.2	32.20	1,184	0.52	6,020	247	14
1188 F	23.5	3,392	2,724	8,813	2,115	2,369	81.4	35.73	1,299	0.53	6,580	270	14
1288 F	26.0	3,753	3,000	9,704	2,329	2,609	89.6	39.26	1,443	0.55	7,145	293	14
1388 F	28.5	4,113	3,270	10,579	2,539	2,843	97.7	42.79	1,588	0.56	7,705	316	14
1488 F	31.0	4,474	3,550	11,483	2,756	3,087	106.0	46.32	1,735	0.58	8,270	339	16
1588 F	33.0	4,763	3,820	12,358	2,966	3,322	114.1	49.85	1,854	0.59	8,830	362	16
1688R F	34.5	4,979	3,980	12,875	3,090	3,461	118.9	53.38	1,945	0.59	9,390	385	16
1688 F	35.5	5,124	4,090	13,229	3,175	3,557	122.2	53.38	2,002	0.61	9,390	385	16
1788 F	38.0	5,485	4,370	14,138	3,393	3,800	130.5	56.91	2,152	0.62	9,955	408	18
1888 F	40.5	5,845	4,640	15,008	3,602	4,035	138.6	60.44	2,303	0.64	10,515	431	18

88

Boiler-Burner Units – Light Oil, Gas and Gas-Light Oil
596,000 Btu thru 5,845,000 Btu Models

BOILERS

COMMERCIAL

RECOMMENDED PIPING CONNECTIONS

WATER BOILERS

Boiler Size	Pipe Size	
	Supply	Return
488	3"	3"
588 thru 788	4"	4"
888 thru 1188	5"	5"
1288 thru 1888	6"	6"

88 DIMENSIONS

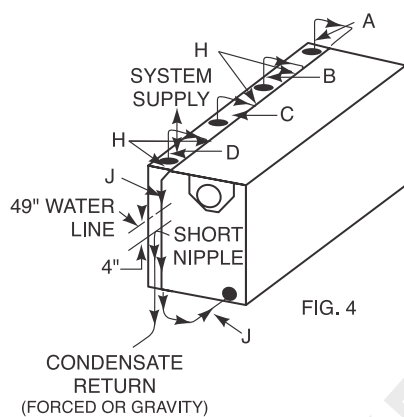
Boiler Number	Supply Tappings Number and Size		Return Tappings Number and Size		Dimensions (inches)							
	Steam	Water	Steam	Water	A	B	C	D	E	H	L	W
488	2-5"	2-5"	1-6"	1-6"	23			10	54 3/4	23 3/8	32 1/4	30
588	2-5"	2-5"	1-6"	1-6"	31			10	54 3/4	31 3/8	40 1/4	38
688	2-5"	2-5"	1-6"	1-6"	39			10	54 3/4	39 3/8	48 1/4	46
788	2-5"	2-5"	1-6"	1-6"	47			12	53 3/4	47 3/8	56 1/4	54
888	2-5"	2-5"	1-6"	1-6"	55			12	53 3/4	55 3/8	64 1/4	62
988	2-5"	2-5"	1-6"	1-6"	63			14	52 3/4	63 3/8	72 1/4	70
1088	2-5"	2-5"	1-6"	1-6"	71			14	52 3/4	71 3/8	80 1/4	78
1188	2-5"	2-5"	1-6"	1-6"	79			14	52 3/4	79 3/8	88 1/4	86
1288	3-5"	2-5"	1-6"	1-6"	87	39 1/2		14	52 3/4	87 3/8	96 1/4	94
1388	3-5"	2-5"	1-6"	1-6"	95	47 1/2		14	52 3/4	95 3/8	104 1/4	102
1488	3-5"	2-5"	1-6"	1-6"	103	55 1/2		16	51 3/4	103 3/8	112 1/4	110
1588	3-5"	2-5"	1-6"	1-6"	111	63 1/2		16	51 3/4	111 3/8	120 1/4	118
1688	3-5"	2-5"	1-6"	1-6"	119	47 1/2		16	51 3/4	119 3/8	128 1/4	126
1788	4-5"	2-5"	1-6"	1-6"	127	31 1/2	79 1/2	18	51 3/4	127 3/8	136 1/4	134
1888	4-5"	2-5"	1-6"	1-6"	135	39 1/2	87 1/2	18	51 3/4	135 3/8	144 1/4	142

88 CONTROL TAPPINGS

Location	Size	Steam	Water
A	2"	Safety valve and/or skim tapping	High-limit control
B	2"	Safety valve	Pressure relief valve
C1	1"		Combination high-limit and low-limit control
C1 & C2	1"	Alternate water level controls	Alternate low-water cutoff
D1 & D2	1"	Water level controls	Low-water cutoff
E1 & E2	1/2"	Gauge glass	
F1 & F2	3/8"	Try cock tappings	
G	3/4"*	Pressure limit control, pressure operating control and pressure gauge	Combination pressure-temperature-altitude gauge
H	3/4"	Drain	Drain
K	1"		Piping to compression tank or automatic air vent

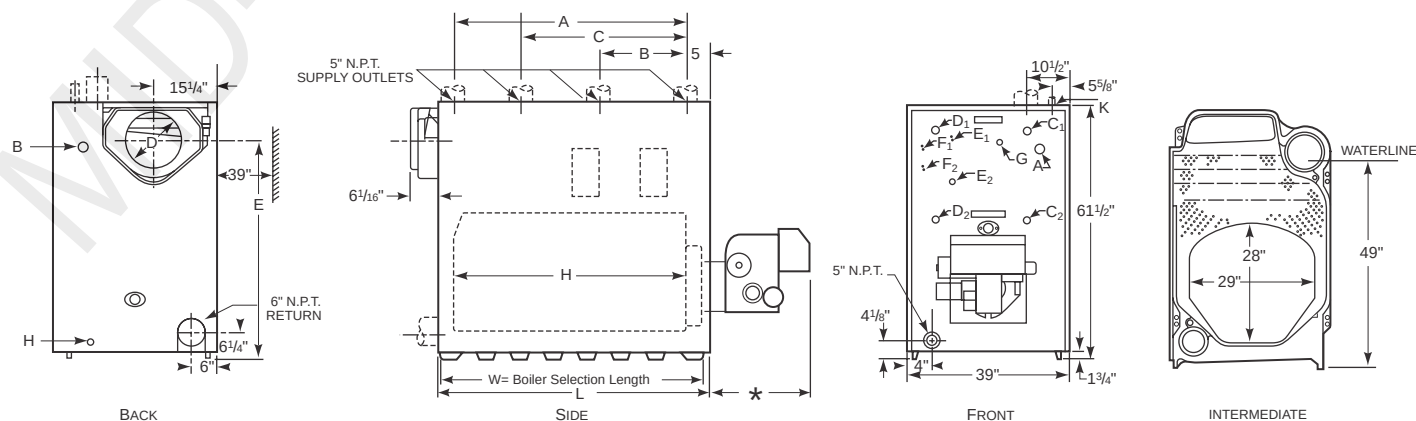
* bushed to 1/2"

RECOMMENDED PIPING CONNECTIONS



STEAM BOILERS							
Figure No.	Boiler Size	Riser Pipe Size				Header*	Equalizer
		A	B	C	D	H	J
1	488	4"				4"	2 1/2"
1	588 and 688	5"				5"	2 1/2"
2	788	4"	4"			6"	2 1/2"
2	888	5"	5"			6"	2 1/2"
2	988 and 1088	5"	5"			8"	2 1/2"
2	1188	5"	5"			8"	4"
3	1288 thru 1488	5"	5"	5"		8"	4"
3	1588 and 1688	5"	5"	5"		10"	4"
4	1788 and 1888	5"	5"	5"	5"	10"	4"

* 24" minimum from the waterline to header





80

Boiler-Burner Units - Light Oil, Gas and Gas-Light Oil
346,000 Btu thru 1,674,000 Btu Models

Features:

- Cast iron sections
- Insulated steel jacket
- Flame retention burner (except H-80)
 - Burner mounting plate with refractory (except H-80)
 - Aluminized steel flue collector assembly
 - Steel flue collar and breeching damper
 - Refractory blanket and target wall in combustion area
- Side cleanout plates
- Flue brush
- Boilers available with either rear flue or top flue (rear flue standard)

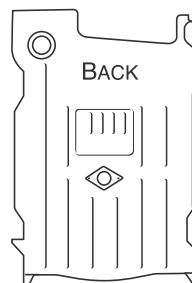
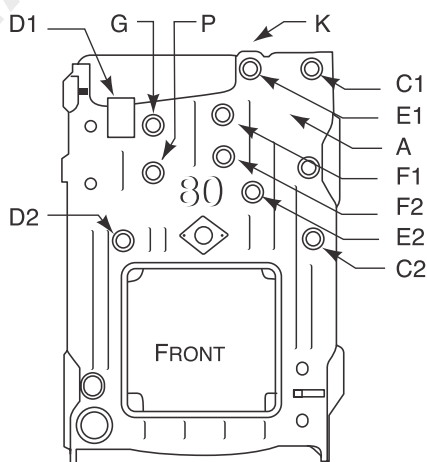
**CALL FOR
PRICING**

Water Boilers:

- 30 PSIG ASME safety relief valve (sections tested for 80 PSIG maximum working pressure)
- Combination high limit/low limit control
- Combination pressure/temperature gauge
- Built-in air eliminator

Steam Boilers

- 15 PSIG ASME safety valve (side outlet)
- Low limit and high limit pressure controls
- Steam pressure gauge
- Gauge glass, gauge cocks and gauge guards





Boiler-Burner Units - Light Oil, Gas and Gas-Light Oil
346,000 Btu thru 1,674,000 Btu Models

80 RATINGS

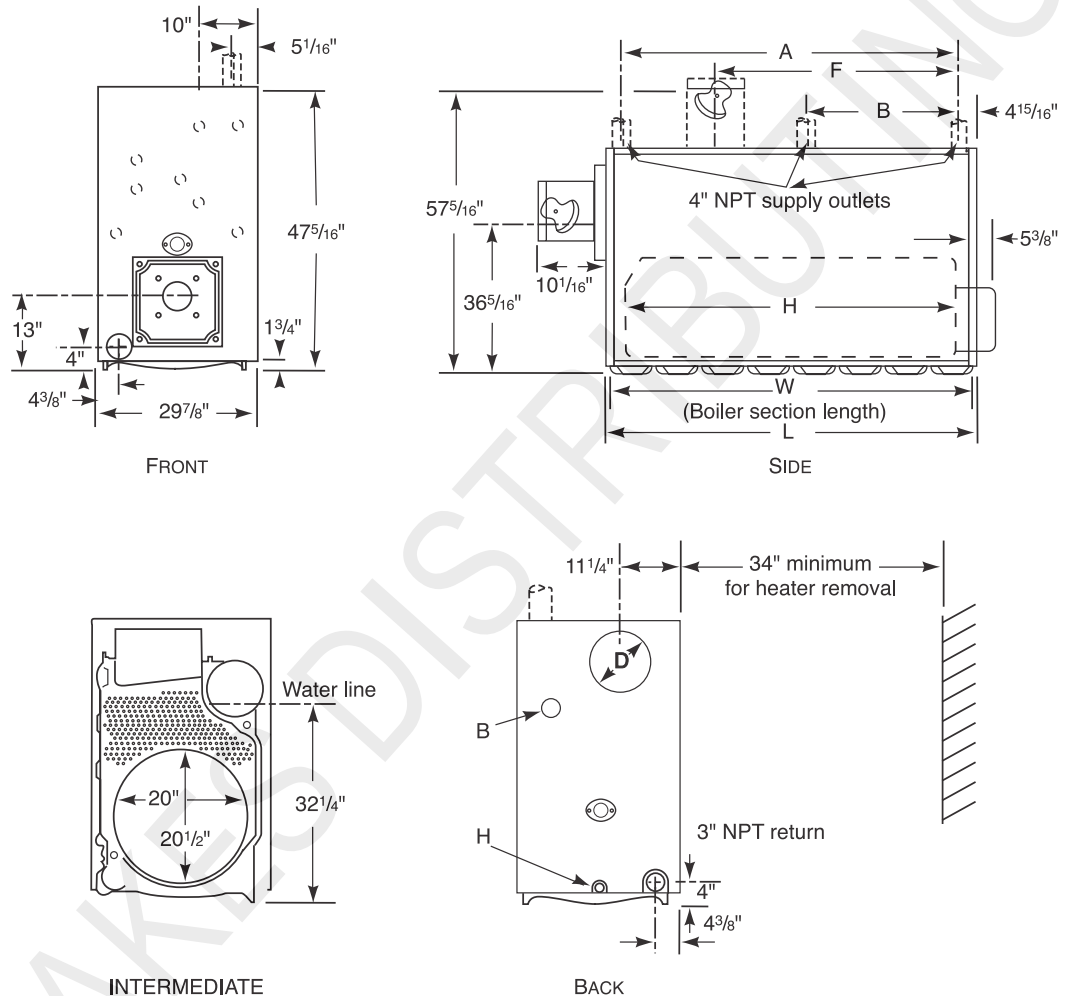
Boiler Model	I=B=R Burner Capacity		Gross I=B=R Output MBH	Net I=B=R Ratings			Boiler H.P.	Net Firebox Volume Cu. Ft.	Stack Gas Volume CFM	Positive Pressure in Firebox Inches W.C.	I=B=R Vent Size Inches	Boiler Water Content (gal)		Packaged Boiler Ship Wt. Lbs (approx)	Boiler Operating Weight Lbs (approx)
	Light Oil GPH	Gas MBH		Steam Sq. Ft	Steam MBH	Water MBH						Water	Steam (to waterline)		
380	2.4	346	278	867	208	242	8.3	2.61	139	0.28	8	37.5	27.5	1058	1170
480	3.4	491	396	1238	297	344	11.8	3.97	198	0.28	8	49	36	1203	1411
580	4.45	639	515	1608	386	448	15.4	5.33	259	0.28	8	60.5	44.5	1448	1752
680	5.5	787	634	1983	476	551	18.9	6.69	320	0.27	8	72	53	1843	2093
780	6.5	935	753	2354	565	655	22.5	8.05	378	0.27	10	83.5	61.5	2088	2434
880	7.5	1082	872	2725	654	758	26	9.41	436	0.27	10	95	70	2317	2774
980	8.5	1230	991	3096	743	862	29.6	10.77	494	0.27	10	106.5	78.5	2678	3115
1080	9.6	1378	1110	3471	833	965	33.2	12.13	558	0.26	10	118	87	2923	3456
1180	10.6	1526	1229	3842	922	1069	36.7	13.49	616	0.26	10	129.5	95.5	3068	3697
1280	11.6	1674	1348	4242	1018	1172	40.3	14.85	675	0.26	12	141	104	3313	4038

80 CONTROL TAPPINGS

80 CONTROL TAPPINGS						
		Water Boilers (with water level controls)			Steam Boilers (with water level controls)	
Tapping	Size (NPT)	Probe-type primary Probe-type secondary	Float-type primary Probe-type secondary	Float-type primary Float-type secondary	Float-type primary Probe-type secondary	Float-type primary Float-type secondary
A	1 ½"	Additional high/low limit control			Not used	
B	3"	Water relief vavle			Steam relief valve and skim tapping	
C1	1"	Firing rate control	Primary water level control		Primary water level control	
C2	1"	Not used	Primary water level control		Primary water level control	
D1	1"	Not used	Not used	Secondary level control	Not used	Secondary level control
D2	1"	Not used	Not used	Secondary level control	Not used	Secondary level control
E1	1"	Not used	Not used	Not used	Gauge glass	
E2	1"	Combination high/low limit control			Gauge glass	
F1	1"	Primary level control	Not used		Try cock tapping	
F2	1"	Not used	Firing rate control		Try cock tapping	
G	1"	Pressure-temperature gauge			Control tree (limit control, operating control and pressure gauge)	
H	1 ½"	Boiler drain			Boiler drain	
K	1"	Expansion tank piping or automatic air vent			Not used	
P	1"	Secondary level control		Not used	Secondary level control	Not used

80

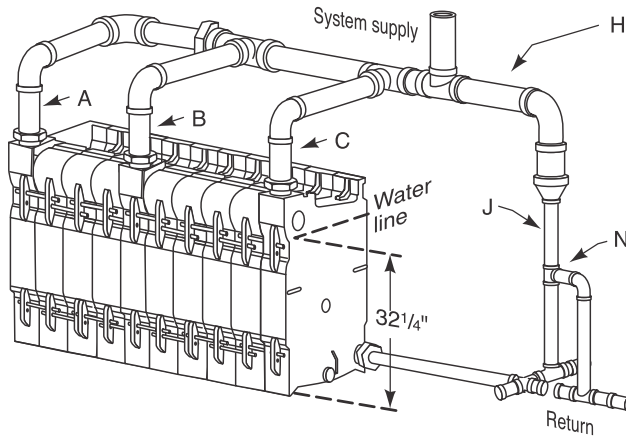
Boiler-Burner Units - Light Oil, Gas and Gas-Light Oil
346,000 Btu thru 1,674,000 Btu Models



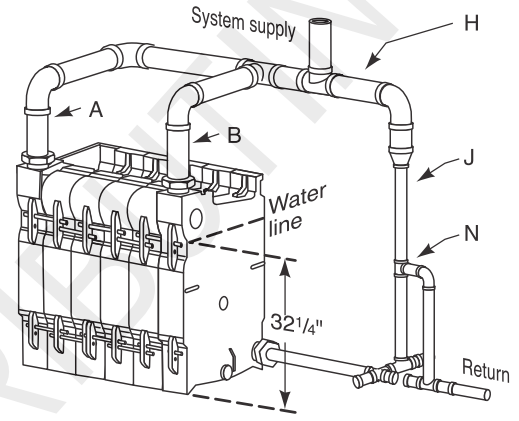
80 DIMENSIONS

Boiler Model	Supply Tappings Qty - Size		Return Tappings Qty - Size		Dimensions (inches)						
	Water	Steam	Water	Steam	A	B	D	F	H	W	L
380	2 - 4"	2 - 4"	2 - 3"	2 - 3"	13 1/8		8	12 7/16	13 1/2	20 3/8	21 5/8
480	2 - 4"	2 - 4"	2 - 3"	2 - 3"	20 1/8		8	13 5/8	20 1/2	27 3/8	28 5/8
580	2 - 4"	2 - 4"	2 - 3"	2 - 3"	27 1/8		8	13 5/8	27 1/2	34 3/8	35 5/8
680	2 - 4"	2 - 4"	2 - 3"	2 - 3"	34 1/8		8	13 5/8	34 1/2	41 3/8	42 5/8
780	2 - 4"	2 - 4"	2 - 3"	2 - 3"	41 1/8		10	27 5/8	41 1/2	48 3/8	49 5/8
880	2 - 4"	2 - 4"	2 - 3"	2 - 3"	48 1/8		10	27 5/8	48 1/2	55 3/8	56 5/8
980	2 - 4"	2 - 4"	2 - 3"	2 - 3"	55 1/8		10	41 5/8	55 1/2	62 3/8	63 5/8
1080	2 - 4"	3 - 4"	2 - 3"	2 - 3"	62 1/8	27 9/16	10	41 5/8	62 1/2	69 3/8	70 5/8
1180	2 - 4"	3 - 4"	2 - 3"	2 - 3"	69 1/8	34 9/16	10	55 5/8	69 1/2	76 3/8	77 5/8
1280	2 - 4"	3 - 4"	2 - 3"	2 - 3"	76 1/8	34 9/16	12	55 5/8	76 1/2	83 3/8	84 5/8

Boiler-Burner Units - Light Oil, Gas and Gas-Light Oil 346,000 Btu thru 1,674,000 Btu Models



1080-1280

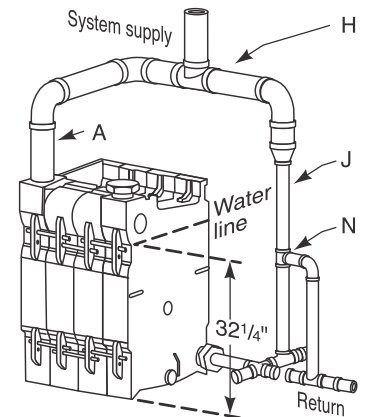


680-980

RECOMMENDED PIPING CONNECTIONS

WATER BOILERS		
	Pipe Size*	
Boiler Model	Supply	Return
380	2"	2"
480	2 1/2"	2 1/2"
580	3"	3"
680	3"	3"
780	4"	4"
880	4"	4"
980	4"	4"
1080	4"	4"
1180	4"	4"
1280	4"	4"

STEAM BOILERS						
	A	B	C	H	J	
Boiler Model	Riser	Riser	Riser	Header	Equalizer	
380	3"			3"	2"	
480	4"			4"	2"	
580	4"			4"	2 1/2"	
680	3"	3"		4"	2 1/2"	
780	4"	4"		4"	2 1/2"	
880	4"	4"		4"	3"	
980	4"	4"		6"	3"	
1080	4"	4"	4"	6"	3"	
1180	4"	4"	4"	6"	3"	
1280	4"	4"	4"	6"	3"	



380-580

* Pipe sizes are minimum for 20°F or higher temperature drop

N Connect return to equalizer with close nipple, no lower than 4 inches below boiler water line
H Header must be at least 24 inches above boiler water line. Maintain pipe size for no less than 10 pipe diameters from boiler.



94

Heavy Duty Boiler-Burner Units – Light Oil, Gas-Light Oil and Gas
2,526,000 Btu thru 8,660,000 Btu Models

Features:

- Flame retention oil, gas or gas/oil burner
- Insulated flush jacket
- Burner mounting plate with refractory
- Flue collar with built-in breeching damper
- Front cleanout doors and wing nuts
- Front cleanout plates and wing nuts
- Back access door
- Flue brushes and handles
- Two close nipples and caps for washout tapings on front section
- Supply elbow(s) or top outlet(s)

**CALL FOR
PRICING**

Water Boilers

- ASME safety relief valve
- Combination high limit and low limit control
- Combination pressure-temperature-altitude gauge

Steam Boilers

- ASME side outlet safety valve
- Low limit and high limit pressure controls
- 4 1/2" steam pressure gauge
- Siphon
- Gauge glass and gauge cocks



Heavy Duty Boiler-Burner Units – Light Oil, Gas-Light Oil and Gas
2,526,000 Btu thru 8,660,000 Btu Models

94 RATINGS										
Boiler Unit Number Steam or Water	I-B-R Burner Capacity		Gross I-B-R Output BTU/Hr.	Net I-B-R Ratings			Net Sq. Ft. Water	Boiler H.P.	Draft Loss Through Boiler-in. Water	I-B-R Chimney Size Vent Dia. Inches
				Steam Sq. Ft.	Steam BTU/Hr.	Water BTU/Hr.			Light Oil & Gas	
894	17.50	2526	2,028,000	6,560	1,574,500	1,763,500	11,755	60.6	0.175	14
994	20.00	2887	2,320,000	7,505	1,801,200	2,017,400	13,450	69.3	0.215	14
1094	22.50	3247	2,612,000	8,450	2,028,000	2,271,300	15,140	78.0	0.255	16
1194	25.00	3608	2,904,000	9,395	2,254,700	2,525,200	16,835	86.7	0.295	16
1294	27.50	3969	3,190,000	10,320	2,476,700	2,773,900	18,490	95.3	0.335	16
1394	30.00	4330	3,480,000	11,260	2,701,900	3,026,100	20,175	104.0	0.375	18
1494	32.50	4691	3,770,000	12,195	2,927,000	3,278,300	21,855	112.6	0.415	18
1594	35.00	5052	4,070,000	13,165	3,159,900	3,539,100	23,595	121.6	0.455	18
1694	37.50	5412	4,360,000	14,105	3,385,100	3,791,300	25,275	130.2	0.485	18
1794	40.00	5773	4,650,000	15,045	3,610,200	4,043,500	26,955	138.9	0.525	20
1894	42.50	6134	4,940,000	15,980	3,835,400	4,295,700	28,640	147.6	0.565	20
1994	45.00	6495	5,230,000	16,920	4,060,600	4,542,800	30,285	156.2	0.605	20
2094	47.50	6856	5,520,000	17,855	4,285,700	4,800,000	32,000	164.9	0.650	20
2194	50.00	7216	5,810,000	18,795	4,510,900	5,052,200	33,675	173.6	0.750	20
2294	52.50	7577	6,100,000	19,735	4,736,000	5,304,300	35,360	182.2	0.850	22
2394	55.00	7938	6,390,000	20,670	4,961,200	5,556,500	37,045	190.9	0.950	22
2494	57.50	8299	6,680,000	21,610	5,186,300	5,808,700	38,725	199.6	1.050	22
2594	60.00	8660	6,970,000	22,550	5,411,500	6,060,900	40,406	208.2	1.150	22

SERIES 19A

Cast Iron Boilers

375,000 Btu thru 2,165,000 Btu Models

Features:

- Cast iron wet-base sections tested for 80 PSI
- Insulated metal jacket
- Cast iron smokehood with integral damper
- Burner mounting plate with insulation block
- Front and rear flame observation ports
- Steel angle floor rails
- Hi-temp hydronic port seals
- Flue brush
- Target wall (3-6 sections)

Water Boiler/Burner Units

- ASME relief valve, 40 PSI
- Theraltimeter
- Manual reset, hi-limit control
- Lo-limit operating control

Steam Boiler/Burner Units

- ASME side outlet safety valve, 15 PSI
- Steam gauge (0-30 psig)
- Gauge glass with gauge cocks and guards
- Manual reset, hi-limit control
- Lo-limit operating control



19A I B R RATINGS, BURNER CAPACITIES

Boiler Number	Boiler Horsepower	I=B=R Gross Output	Net I=B=R Rating		I=B=R Burner Capacity		Water Content (Gals.)		Shipping Weight (lbs)
			Steam Sq. Ft.	Water MBH	Oil GPH	Gas MBH	Steam Sq. Ft.	Water MBH	
19A - 3	9	297	929	258	2.60	375	33.2	38.6	1325
19A - 4	12	413	1292	359	3.60	520	41.1	49.2	1652
19A - 5	17	575	1796	500	5.00	725	49.0	59.8	2000
19A - 6	22	738	2308	642	6.50	931	56.8	70.3	2351
19A - 7	27	901	2817	783	7.90	1137	64.7	80.9	2691
19A - 8	32	1063	3321	924	9.30	1342	72.6	91.5	3038
19A - 9	37	1226	3833	1066	10.80	1548	80.5	102.0	3274
19A - 10	42	1388	4383	1207	12.20	1754	88.3	112.6	3725
19A - 11	46	1551	4946	1349	13.60	1989	96.2	123.1	4064
19A - 12	51	1713	5508	1490	15.00	2165	104.0	133.7	4429

Designed and tested to the ASME boiler and pressure vessel code, section IV for maximum allowable working pressure, steam 15 psig, water 80 psig

CALL FOR PRICING

DIMENSIONS (IN INCHES)

Boiler Number	Overall Length "A"		"B"	"C"	Burner Length "D"		"E" Distance Between Supply Tappings	"F" Flue Pipe Diameter
	PF/J	PF/C			PF/J	PF/C		
19A - 3	44		9	18	21		12	7
19A - 4	50	59	15	24	21	30	18	7
19A - 5	56	65	21	30	21	30	24	8
19A - 6	62	71	27	36	21	30	30	8
19A - 7	68	82	33	42	21	35	36	9
19A - 8	74	88	39	48	21	35	42	10
19A - 9	80	94	45	54	21	35	48	10
19A - 10	86	100	51	60	21	35	54	10
19A - 11		106	57	66		35	60	10*
19A - 12		112	63	72		35	66	10*

* 11 and 12 section requires 12" diameter vent pipe. Transition collar provided by Smith.

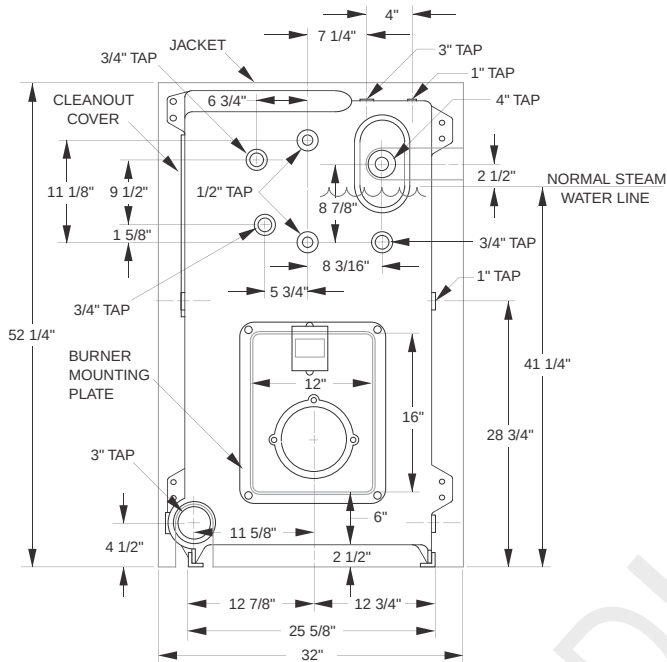
SERIES 19A

Cast Iron Boilers

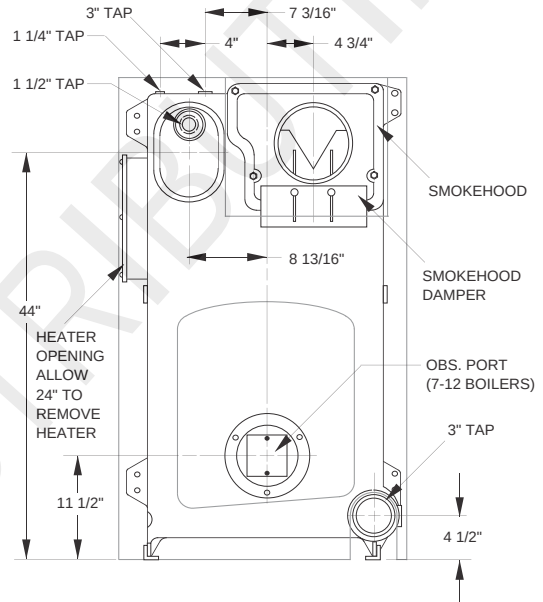
375,000 Btu thru 2,165,000 Btu Models

BOILERS

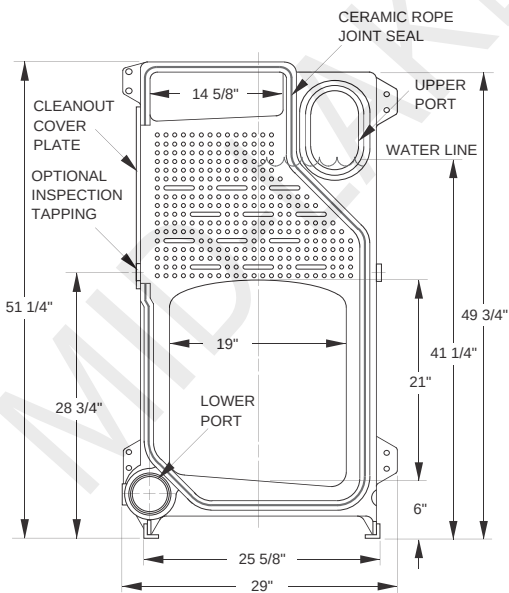
COMMERCIAL



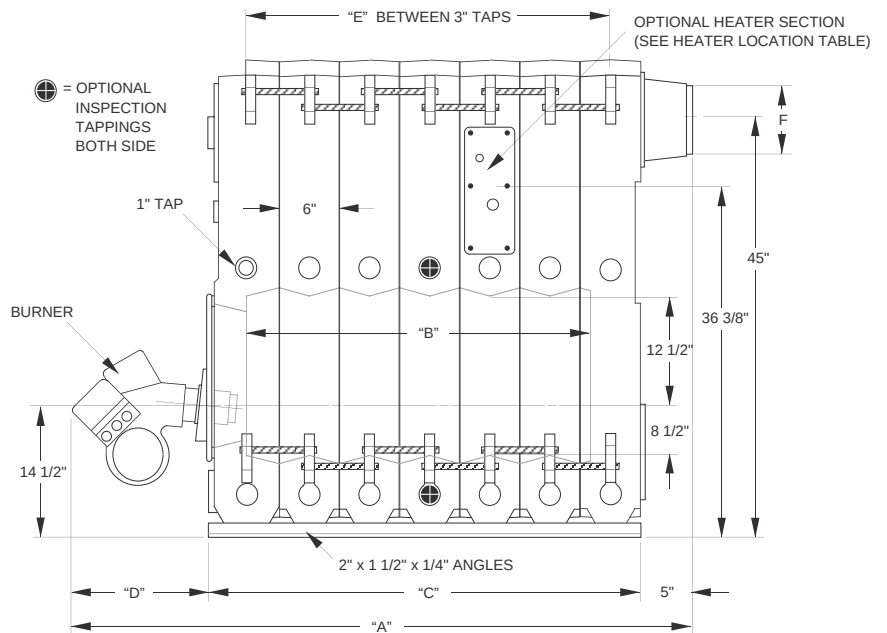
FRONT VIEW



REAR VIEW



INTERMEDIATE SECTION



SIDE VIEW

SERIES 28A

Cast Iron Boilers

375,000 Btu thru 2,165,000 Btu Models

**CALL FOR
PRICING**

BOILERS

COMMERCIAL



Features:

- Cast iron wet-base sections
- Insulated metal jacket
- Cast iron smokehood with integral damper
- Burner mounting plate with insulation block
- Front and rear flame observation ports
- Steel angle floor rails
- Ceramic fiber rope seal
- Graphite port connectors
- Flue brush

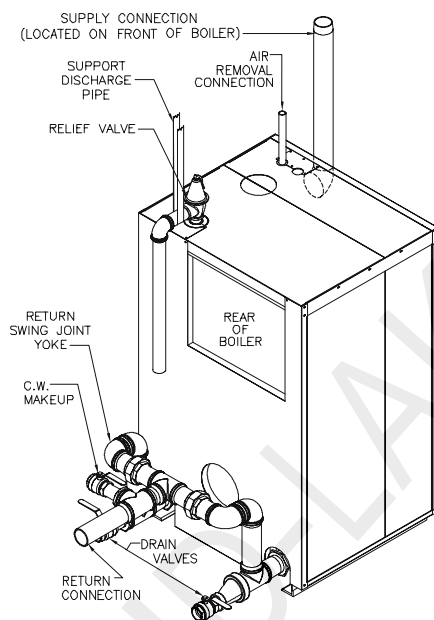
Water Boilers:

- 80 PSI working pressure sections
- ASME relief valve, 40 PSI
- Theraltimeter
- Manual reset, high limit control (boiler/burner units only)

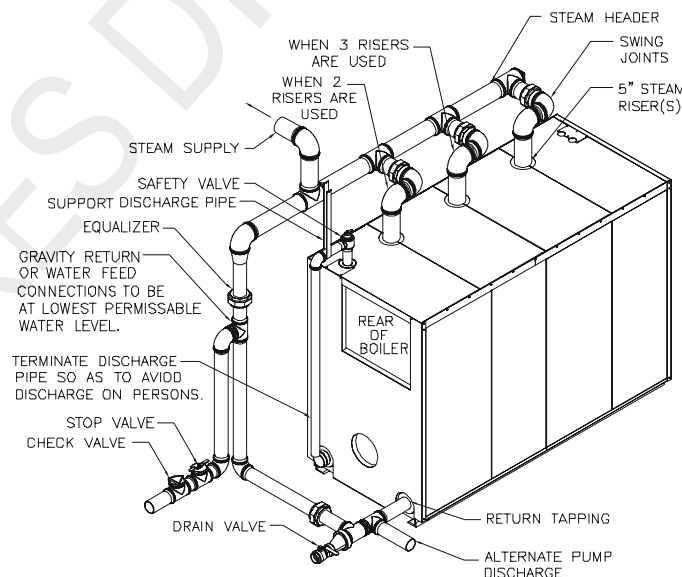
Steam Boilers:

- ASME side outlet safety valve, 15 PSI
- Steam gauge
- Gauge glass with gauge cocks and guards
- Manual reset, high limit control (boiler/burner units only)
- Operating control (boiler/burner units only)

STEAM PIPING



WATER PIPING



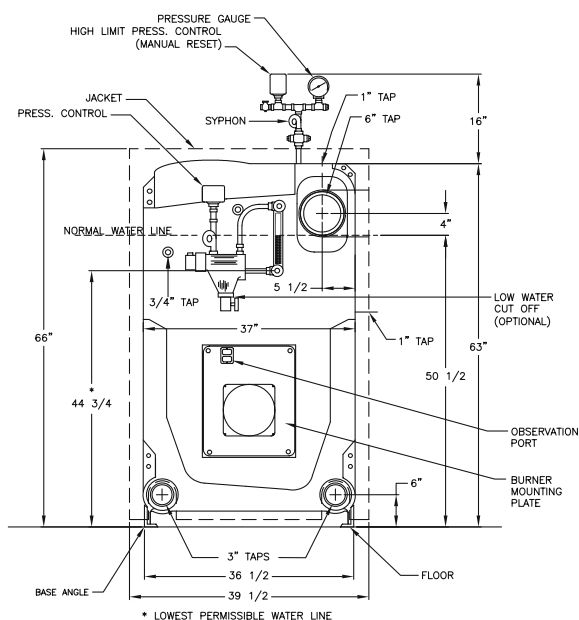
RECOMMENDED PIPING CONNECTIONS

TABLE OF STEAM PIPING SIZES			
Boiler Section	No. of 5" Risers	Header	Equalizer (inches)
28A-S-4 & 5	1	5"	2 1/2
28A-S-6 & 7	2	5"	2 1/2
28A-S-8 thru 10	2	6"	4
28A-S-11 thru 18	3	8"	4

WATER BOILERS		
Boiler Size	Pipe Size	
	Supply	Return
4 and 5	3"	3"
6 and 9	4"	4"
10 and 18	5"	5"

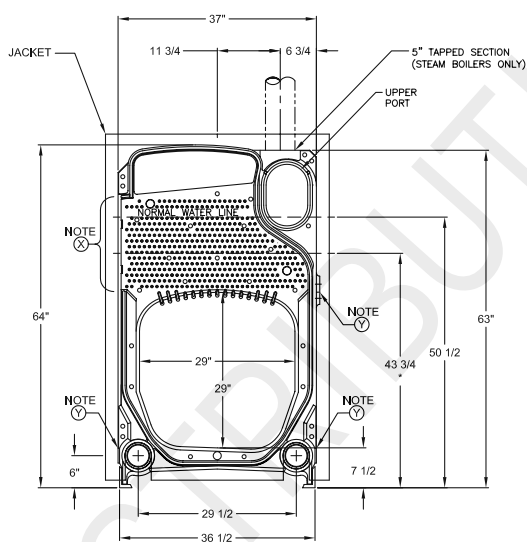
Cast Iron Boilers

375,000 Btu thru 2,165,000 Btu Models

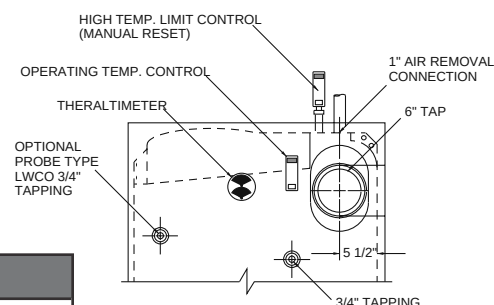


FRONT VIEW

Steam Boiler



INTERMEDIATE SECTION



FRONT VIEW

Water Boiler

28A RATINGS							
Boiler Number	Boiler Horse Power	I=B=R Gross Output (MBH)	Net I=B=R Ratings			Water Contents (gals)	Shipping Weight
			Steam Sq. Ft.	Water MBH	I=B=R Burner Cap Gas MBH	Steam	
28A - 4	27	900	2813	783	1154	103.8	3102
28A - 5	35	1166	3646	1014	1491	125.8	3730
28A - 6	43	1433	4538	1246	1827	147.8	4368
28A - 7	51	1699	5458	1477	2163	169.8	5005
28A - 8	59	1965	6358	1709	2499	191.8	5653
28A - 9	67	2232	7221	1941	2836	213.8	6293
28A - 10	75	2498	8079	2172	3172	235.8	6971
28A - 11	83	2764	8942	2403	3508	257.8	7609
28A - 12	91	3031	9804	2636	3844	279.8	8249
28A - 13	98	3297	10667	2867	4180	301.8	8885
28A - 14	106	3563	11525	3098	4517	323.8	9524
28A - 15	114	3830	12392	3330	4853	345.8	10224
28A - 16	122	4096	13250	3562	5189	367.8	10948
28A - 17	130	4362	14113	3793	5525	389.8	11669
28A - 18	138	4629	14975	4025	5862	411.8	12390

Designed and tested to the ASME boiler and pressure vessel code, section IV for maximum allowable working pressure, steam 15 psig, water 80 psig



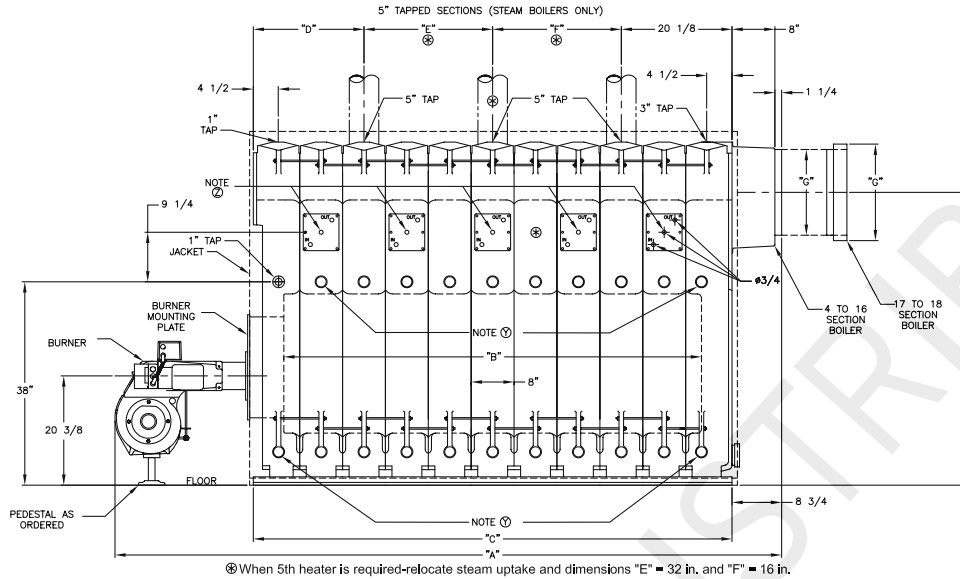
SERIES 28A

Cast Iron Boilers

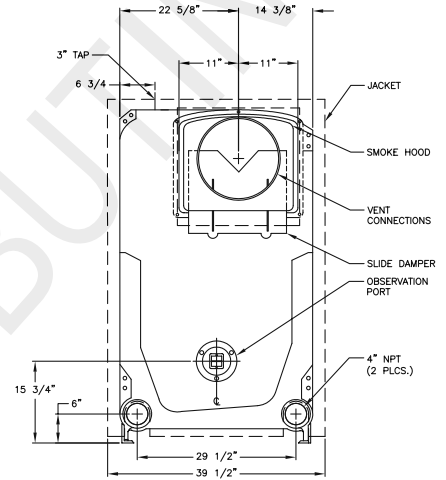
375,000 Btu thru 2,165,000 Btu Models

BOILERS

COMMERCIAL



SIDE VIEW



REAR VIEW

28A DIMENSIONS

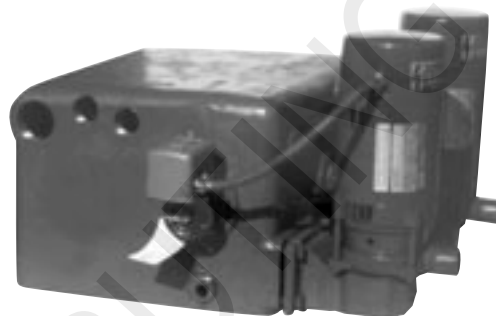
Boiler Number	Overall Length "A"	Furnace Length "B"	Boiler Length "C"	Steam Uptake Locations			Dia. Vent Conn. "G"	Height Vent Conn. "H"
	Power Flame			"D"	"E"	"F"		
28A - 4	71 5/8	23 1/3	33	12 1/2			10	57 5/8
28A - 5	83 1/8	31 1/3	41	20 1/2			10	57 5/8
28A - 6	91 1/8	39 1/3	49	12 1/2	16		10	56 5/8
28A - 7	99 1/8	47 1/3	57	12 1/2	24		12	56 5/8
28A - 8	107 1/8	55 1/3	65	12 1/2	32		12	55 5/8
28A - 9	115 1/8	63 1/3	73	12 1/2	40		14	55 5/8
28A - 10	128	71 1/3	81	20 1/2	40		14	55 5/8
28A - 11	137 1/8	79 1/3	89	20 1/2	24	24	14	55 5/8
28A - 12	145 1/8	87 1/3	97	20 1/2	24	32	14	54 5/8
28A - 13	153 1/8	95 1/3	105	20 1/2	32	32	14	54 5/8
28A - 14	161 1/8	103 1/3	113	20 1/2	32	40	16	54 5/8
28A - 15	169 1/8	111 1/3	121	20 1/2	40	40	16	54 5/8
28A - 16	177 1/8	119 1/3	129	20 1/2	48	40	16	54 5/8
28A - 17	191 1/8	127 1/3	137	20 1/2	48	48	18	54 5/8
28A - 18	199 1/8	135 1/3	145	20 1/2	56	48	18	54 5/8

Condensate Return Units

TYPE EC

Features:

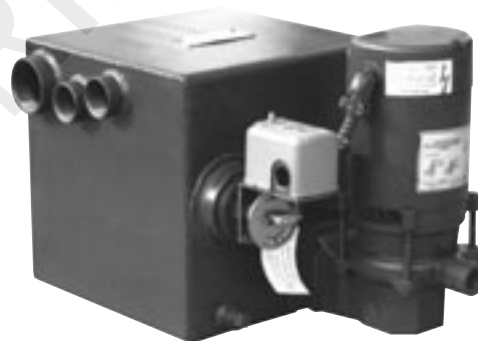
- Small economical condensate return units for temperatures to 200°F
- For systems up to 20,000 sq. ft. EDR
- Discharge pressures to 25 PSIG
- Units available in simplex or duplex style
- 3500 RPM single phase motors
- Cast iron receivers



TYPE LP

Features:

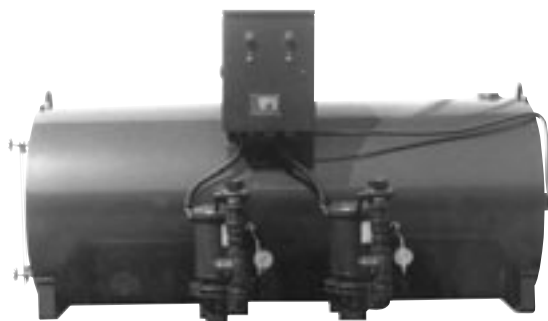
- Small economical condensate return units for temperatures to 200°F
- Standard 3/16" thick black steel receiver
- Units designed for up to 20,000 sq. ft. EDR
- Discharge pressures up to 25 PSIG
- Units available in simplex or duplex style
- 3500 RPM single phase motors
- Steel receivers



TYPE CSC

Features:

- Large condensate return units for temperatures to 200°F
- Heavy gauge black steel receivers
- 300 series stainless steel receivers also available
- Numerous sizes of receivers to permit flexibility and economical selections
- CSC floor mounted style for low gravity returns
- 1750 RPM, 3500 RPM, single phase or three phase motors



SHIPCO PUMPS CONDENSATE RETURN UNITS PRICING

Model Number	Price
120EC	\$1,648.00
SC80EC	\$1,368.00
SC80LP	\$1,172.00
Replacement Pump and Motor	
SH110D	
1/3 hp B Pump and Motor Assembly	\$950.00

Boiler Feed Units

BOILERS

CONDENSATE/BOILER FEED/VACUUM PUMPS

**EMH**

TYPE EMV/EMH

Features:

- Economical boiler feed return units for temperatures to 200°F
- Single or three phase 3500 RPM motors
- All pumps bronze fitted with industry standard motors
- EMV styles for small floor space problems
- EMH styles for low inlet returns
- Numerous sizes of receivers in each style
- Heavy gauge black steel receivers

**EMV**

TYPE CS-B

Features:

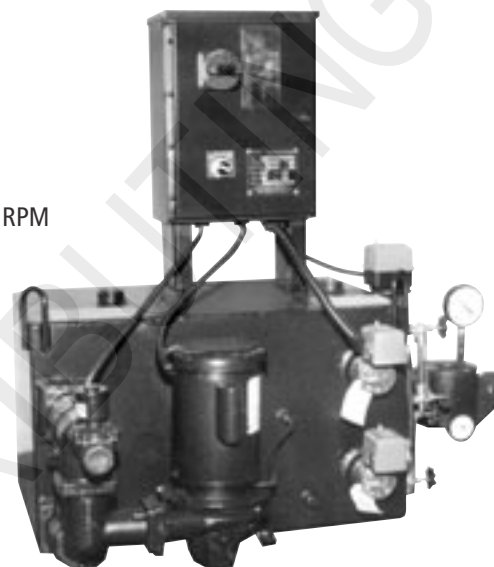
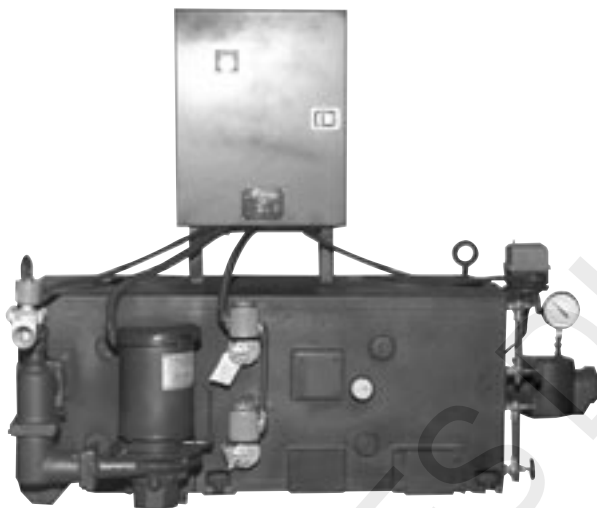
- Cylindrical steel boiler feed units
- All pumps bronze fitted with industry standard motors
- Heavy gauge black steel receivers
- 300 series stainless steel receivers available
- Single or three phase motors, 1750 RPM or 3500 RPM available

**CALL FOR
PRICING**

Vacuum Condensate Units

TYPE LRV/LRV-S**Features:**

- Low return vacuum pumps with cast iron or steel receivers
- Vacuum unit for fast and even distribution of steam throughout system
- Simplex or duplex style available in single or three phase motors, 1750 RPM or 3500 RPM
- Standard close coupled bronze fitted pumps with industry standard motors

**CALL FOR
PRICING**