

CROWN SERIES 32

**Commercial Atmospheric
Natural Gas-Fired
Hot Water or Steam Boiler**

**For businesses, institutions, apartments
and other commercial buildings**



- Cast iron sections and push nipples
- Stainless steel burners
- Built-in draft hood fits under low ceilings
- Modular design, shipped unassembled, enables easy transportation and installation
- Optional tankless coil for domestic hot water on water boilers
- Steam boilers tapped for a Mega-Stor or Maxi-Therm indirect water heater
- Available with Standard or CSD-1 control systems
- Sizes from 475 to 2,850 MBH input
- Every sale backed by friendly, experienced technical support



**M.E.A.
APPROVED**
MEA 172-05-E



Heat exchanger constructed
and tested in accordance with
ASME Section IV standard.



CROWN Series 32 boilers are designed for the special heating needs of businesses, institutions, apartments and other commercial buildings

Series 32 boilers are equipped with proven controls and safety features to optimize operation. With built-in draft hoods, they will fit under low ceilings. Control options make them the best choice for a wide variety of installations.

Wide range of sizes

The Series 32 boilers can supply heating loads from 475 to 2,850 MBH input.

Domestic hot water can be provided by an optional tankless coil water heater on water boilers only. The steam boilers are tapped for Mega-Stor or Maxi-Therm indirect water heaters.

The hot water boiler has a maximum allowable working pressure of 50 PSI. The steam boiler has a maximum allowable working pressure of 15 PSI. Both have combustion efficiencies of 80.5 percent, meeting the requirements of ASHRAE 90.1.

Durable materials

Heat exchanger sections for the Series 32 boiler are constructed of cast iron that transfers heat quickly and efficiently. The burners are long lasting stainless steel, and designed for quiet, trouble free operation.

For optimum efficiency, the heating surfaces and vertical flues in the heat exchangers are cast with pins to increase the surface area. This design gets the maximum heat from every BTU of fuel while keeping draft losses low.

Cast iron push nipples – which are used to assemble the heat exchanger sections – resist corrosion from petroleum-based chemicals including corrosion inhibitors, pump lubricants and antifreeze, and won't break down from contact with flue gases.

Cast iron push nipples expand and contract at the same rate as the sections they join, so the entire assembly will remain water tight.

Modular design

The Series 32 has a compact design which uses preassembled and tested base modules. These modules have individual gas trains with a residential style combination gas valve and ignition control for simplicity and redundancy. These base modules are combined to provide the appropriate input.

Heat exchanger sections are shipped unassembled, which makes them easier to handle, get through narrow doorways and assemble. The sections can be ordered factory assembled.

Products that serve customers well



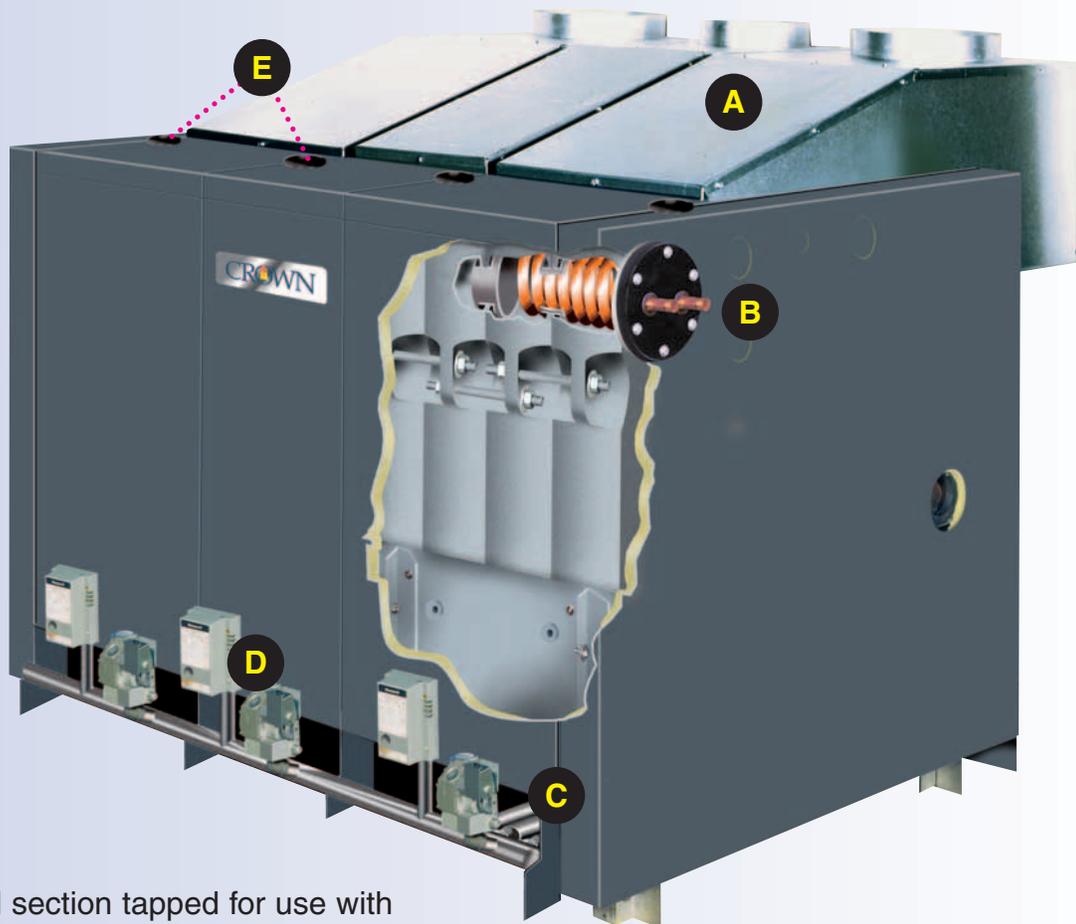
Like all CROWN boilers, the Series 32 design draws upon years of experience providing products that serve our customers well. The Series 32 joins an extensive lineup of boilers that heat homes

and businesses with chimneys and those that require through the wall venting or sealed combustion. CROWN's line provides hot water or steam, fueled by gas or oil. And all CROWN products are backed by competitive warranties and by outstanding technical support.

SERIES 32 Commercial Hot Water or Steam Boiler

Features

- A.** Built-in draft hood enables installation under low ceilings.
- B.** High performance tankless coil available on water boilers for domestic hot water.
- C.** Stainless steel burners assure long life and resist corrosion.
- D.** Gas controls meet full requirements of ANSI Z21.13. Gas train constructed of simple, residential style combination gas valves.
- E.** Supply tapplings at top for ease of system piping.



Standard Equipment

For Natural Gas only

Sections unassembled; end section tapped for use with optional tankless coil (water only)

Base and gas train fully assembled and tested before shipment

Water Trim: 30 PSI relief valve (50 PSI optional); pressure temperature gauge, L4006A high limit control

Steam Trim: 15 PSI safety valve, steam gauge, gauge glass set, pressure limit control, #67 LWCO

Optional Equipment

CSD-1 compliant control system

Factory assembled sections

Selection of LWCO, feeders and limit controls available

Mega-Stor or Maxi-Therm indirect water heater

Data for Optional Tankless Coil Water Heater

Tankless Coil Model Number	For Use In Boilers	Continuous Draw Coil Ratings 40° - 140° Rise with 200°F Boiler Temperature	Pressure Drop Through Coil (psi)	Minimum Number of Sections Required Per Coil	Clearance Requirement For Coil Removal
T-1	All Sizes	4.5 GPM	8.8	5	27"
T-2	All Sizes	5.0 GPM	18.0	6	32"
T-3	32-665 & Larger	6.0 GPM	1.2	8	42"

All Series 32 boilers are furnished with left and right heater end sections. It is possible to install a heater in both ends provided the number of sections in the boiler is not less than the sum of the number of sections required for each heater as indicated in the table. Example: T2 + T3 = 6 + 8 = 14 section or larger boiler.



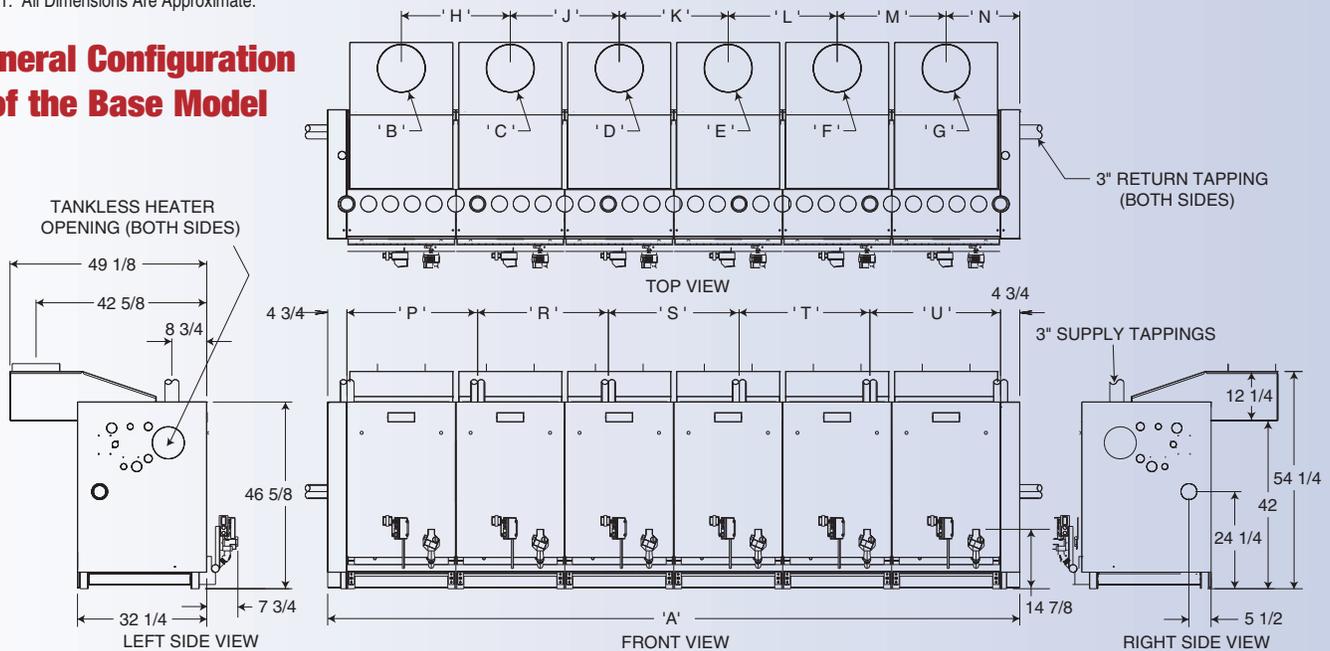
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Dimensions (inches): When ordering specify water or steam

Boiler Model Number	Jacket Overall Length	Drafthood Size & Location													Top Supply Location					Flue Outlet No. & Size			
		'A'	'B' Dia.	'C' Dia.	'D' Dia.	'E' Dia.	'F' Dia.	'G' Dia.	'H'	'J'	'K'	'L'	'M'	'N'	'P'	'R'	'S'	'T'	'U'	10"	12"		
32-475	36 3/4	12	-	-	-	-	-	-	-	-	-	-	-	18 3/8	27 3/16	-	-	-	-	-	-	1	
32-570	42 1/4	10	10	-	-	-	-	16 5/16	-	-	-	-	-	12 15/16	32 5/8	-	-	-	-	-	-	2	-
32-665	47 5/8	10	12	-	-	-	-	19 1/16	-	-	-	-	-	15 11/16	38 1/16	-	-	-	-	-	-	1	1
32-760	53 1/8	12	12	-	-	-	-	21 3/4	-	-	-	-	-	15 11/16	43 1/2	-	-	-	-	-	-	-	2
32-855	58 1/2	12	12	-	-	-	-	24 7/16	-	-	-	-	-	18 3/8	48 15/16	-	-	-	-	-	-	-	2
32-950	64	12	12	-	-	-	-	27 3/16	-	-	-	-	-	18 3/8	54 3/8	-	-	-	-	-	-	-	2
32-1045	69 3/8	10	12	12	-	-	-	19 1/16	21 3/4	-	-	-	-	15 11/16	27 3/16	32 5/8	-	-	-	-	-	1	2
32-1140	74 7/8	12	12	12	-	-	-	21 3/4	21 3/4	-	-	-	-	15 11/16	32 5/8	32 5/8	-	-	-	-	-	-	3
32-1235	80 1/4	10	12	12	-	-	-	21 3/4	27 3/16	-	-	-	-	18 3/8	32 5/8	38 1/16	-	-	-	-	-	1	2
32-1330	85 3/4	12	12	12	-	-	-	24 7/16	27 3/16	-	-	-	-	18 3/8	38 1/16	38 1/16	-	-	-	-	-	-	3
32-1425	91 1/8	12	12	12	-	-	-	27 1/4	27 3/16	-	-	-	-	18 3/8	38 1/16	43 1/2	-	-	-	-	-	-	3
32-1520	96 5/8	12	12	12	12	-	-	21 3/4	21 3/4	21 3/4	-	-	-	15 11/16	43 1/2	43 1/2	-	-	-	-	-	-	4
32-1615	102	10	12	12	12	-	-	19 1/16	24 7/16	27 3/16	-	-	-	18 3/8	32 5/8	32 5/8	27 3/16	-	-	-	-	1	3
32-1710	107 1/2	12	12	12	12	-	-	21 3/4	24 7/16	27 3/16	-	-	-	18 3/8	32 5/8	38 1/16	27 3/16	-	-	-	-	-	4
32-1805	112 7/8	12	12	12	12	-	-	24 7/16	27 1/4	27 3/16	-	-	-	18 3/8	32 5/8	32 5/8	38 1/16	-	-	-	-	-	4
32-1900	118 3/8	12	12	12	12	-	-	27 1/4	27 1/4	27 3/16	-	-	-	18 3/8	32 5/8	38 1/16	38 1/16	-	-	-	-	-	4
32-1995	123 3/4	10	10	12	12	12	-	16 5/16	21 3/4	27 3/16	27 3/16	-	-	18 3/8	38 1/16	38 1/16	38 1/16	-	-	-	-	2	3
32-2090	129 1/4	12	12	12	12	12	-	21 3/4	21 3/4	24 7/16	27 3/16	-	-	18 3/8	32 5/8	32 5/8	27 3/16	27 3/16	-	-	-	-	5
32-2185	134 5/8	12	12	12	12	12	-	21 3/4	24 7/16	27 3/16	27 3/16	-	-	18 3/8	38 1/16	32 5/8	27 3/16	27 3/16	-	-	-	-	5
32-2280	140 1/8	12	12	12	12	12	-	24 7/16	27 3/16	27 3/16	27 3/16	-	-	18 3/8	32 5/8	32 5/8	32 5/8	32 5/8	-	-	-	-	5
32-2375	145 1/2	12	12	12	12	12	-	27 3/16	27 3/16	27 3/16	27 3/16	-	-	18 3/8	32 5/8	32 5/8	32 5/8	38 1/16	-	-	-	-	5
32-2470	151	10	10	12	12	12	12	16 5/16	21 3/4	27 3/16	27 3/16	27 3/16	18 3/8	32 5/8	32 5/8	38 1/16	38 1/16	-	-	-	-	2	4
32-2565	156 3/8	10	12	12	12	12	12	19 1/16	24 7/16	27 3/16	27 3/16	27 3/16	18 3/8	38 1/16	32 5/8	38 1/16	38 1/16	-	-	-	-	1	5
32-2660	161 7/8	12	12	12	12	12	12	21 3/4	24 7/16	27 3/16	27 3/16	27 3/16	18 3/8	32 5/8	32 5/8	32 5/8	27 3/16	27 3/16	-	-	-	-	6
32-2755	167 1/4	12	12	12	12	12	12	24 7/16	27 3/16	27 3/16	27 3/16	27 3/16	18 3/8	32 5/8	32 5/8	32 5/8	32 5/8	27 3/16	27 3/16	-	-	-	6
32-2850	172 3/4	12	12	12	12	12	12	27 3/16	27 3/16	27 3/16	27 3/16	27 3/16	18 3/8	32 5/8	32 5/8	32 5/8	32 5/8	32 5/8	32 5/8	-	-	-	6

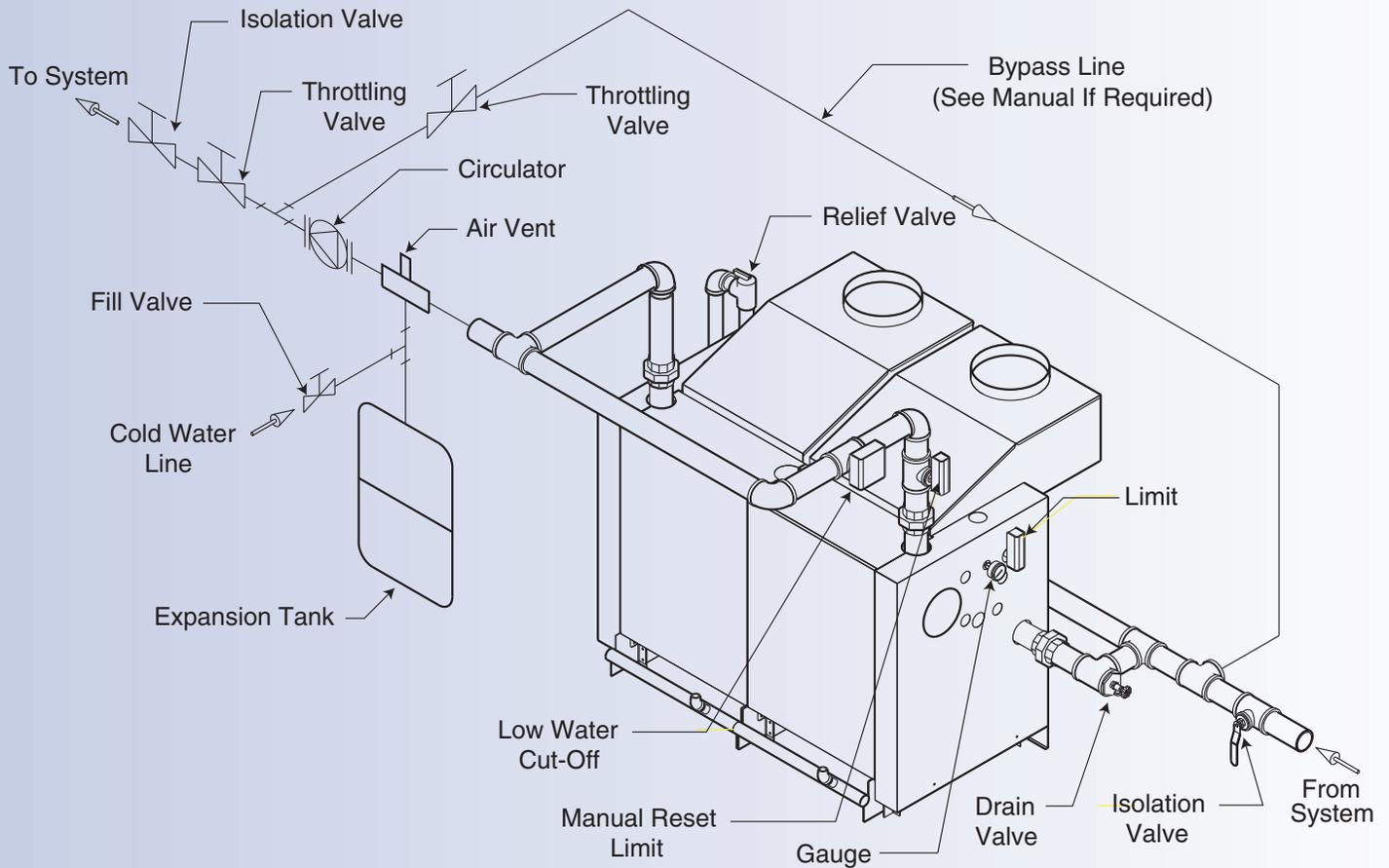
1. All Dimensions Are Approximate.

General Configuration of the Base Model



SERIES 32 Commercial Hot Water or Steam Boiler

Recommended Hot Water Boiler Piping



Boiler Model	Supply Header Size (in)	Supply Water Riser Connections		Return Header Size (in)	Return Water Connections	
		Quantity	Size (in)		Quantity	Size (in)
32-475	2	1	2	2	1	2
32-570	2	1	2	2	1	2
32-665	2 1/2	1	2 1/2	2 1/2	1	2 1/2
32-760	2 1/2	1	2 1/2	2 1/2	1	2 1/2
32-855	2 1/2	1	2 1/2	2 1/2	1	2 1/2
32-950	3	1	3	3	1	3
32-1045	3	1	3	3	1	3
32-1140	3	1	3	3	1	3
32-1235	3	1	3	3	1	3
32-1330	3	1	3	3	1	3
32-1425	3	1	3	3	1	3
32-1520	3	2	2 1/2	3	2	2 1/2
32-1615	3	2	2 1/2	3	2	2 1/2
32-1710	3	2	2 1/2	3	2	2 1/2
32-1805	3	2	2 1/2	3	2	2 1/2
32-1900	3	2	3	3	2	3
32-1995	4	2	3	4	2	3
32-2090	4	2	3	4	2	3
32-2185	4	2	3	4	2	3
32-2280	4	2	3	4	2	3
32-2375	4	2	3	4	2	3
32-2470	4	2	3	4	2	3
32-2565	4	2	3	4	2	3
32-2660	4	2	3	4	2	3
32-2755	4	2	3	4	2	3
32-2850	4	2	3	4	2	3

Hot Water Boiler Supply and Return Pipe Sizes

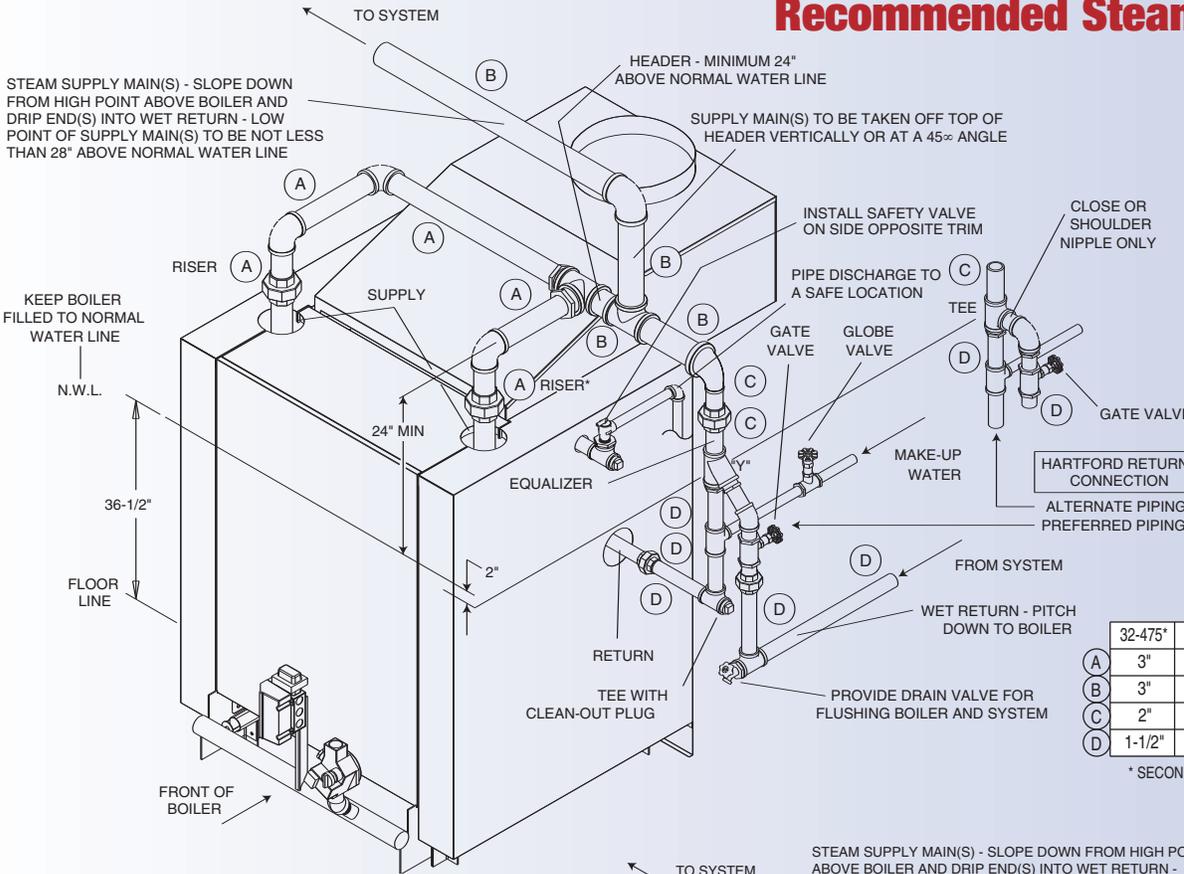
Note: 1. The pipe sizes listed above are nominal trade sizes for Schedule 40 pipe.



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Recommended Steam Boiler Piping

STEAM SUPPLY MAIN(S) - SLOPE DOWN FROM HIGH POINT ABOVE BOILER AND DRIP END(S) INTO WET RETURN - LOW POINT OF SUPPLY MAIN(S) TO BE NOT LESS THAN 28" ABOVE NORMAL WATER LINE



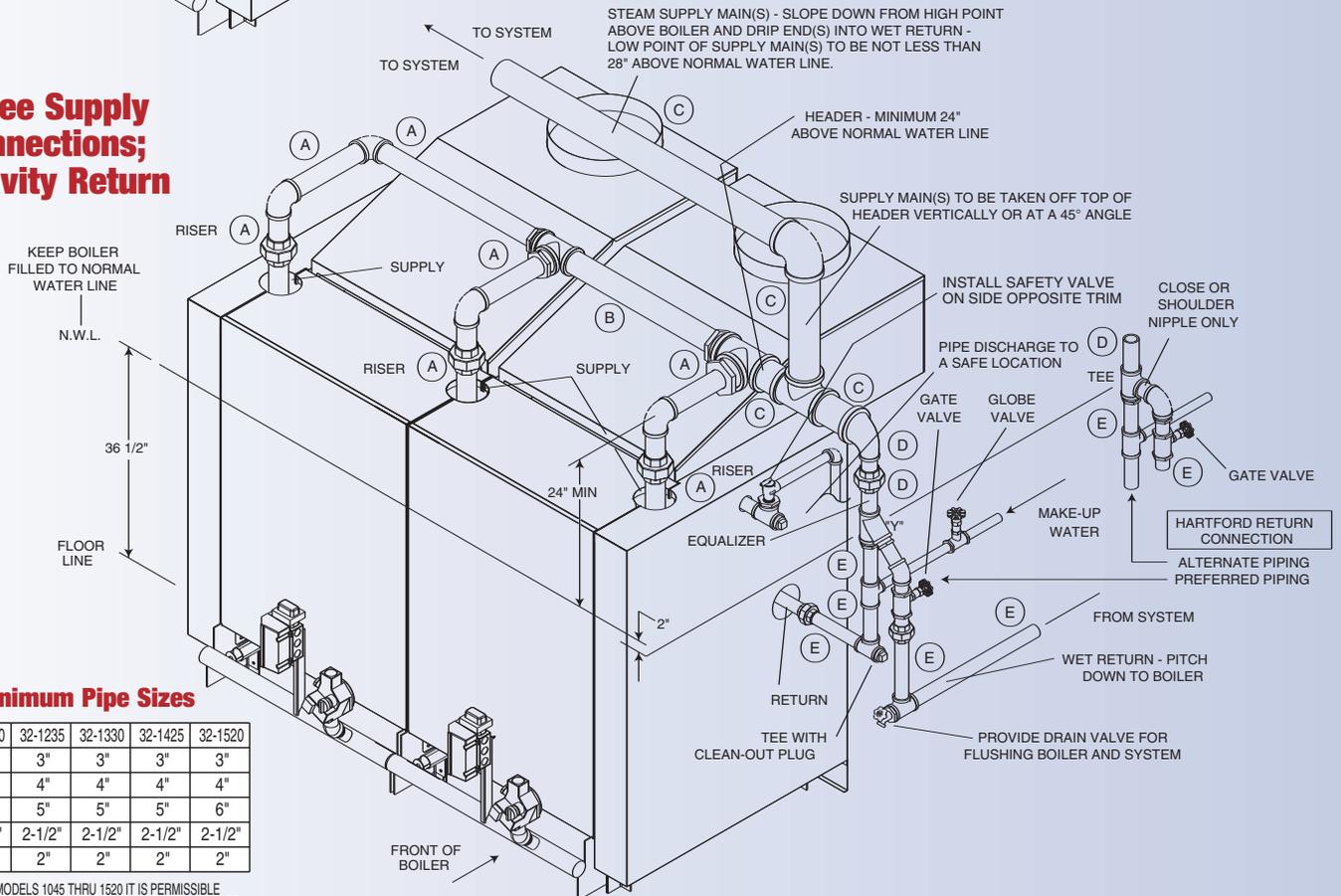
One or Two Supply Connections; Gravity Return

Minimum Pipe Sizes

	32-475*	32-570	32-665	32-760	32-855	32-950
(A)	3"	3"	3"	3"	3"	3"
(B)	3"	4"	4"	4"	4"	5"
(C)	2"	2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"
(D)	1-1/2"	1-1/2"	2"	2"	2"	2"

* SECOND SUPPLY RISER OPTIONAL

Three Supply Connections; Gravity Return



Minimum Pipe Sizes

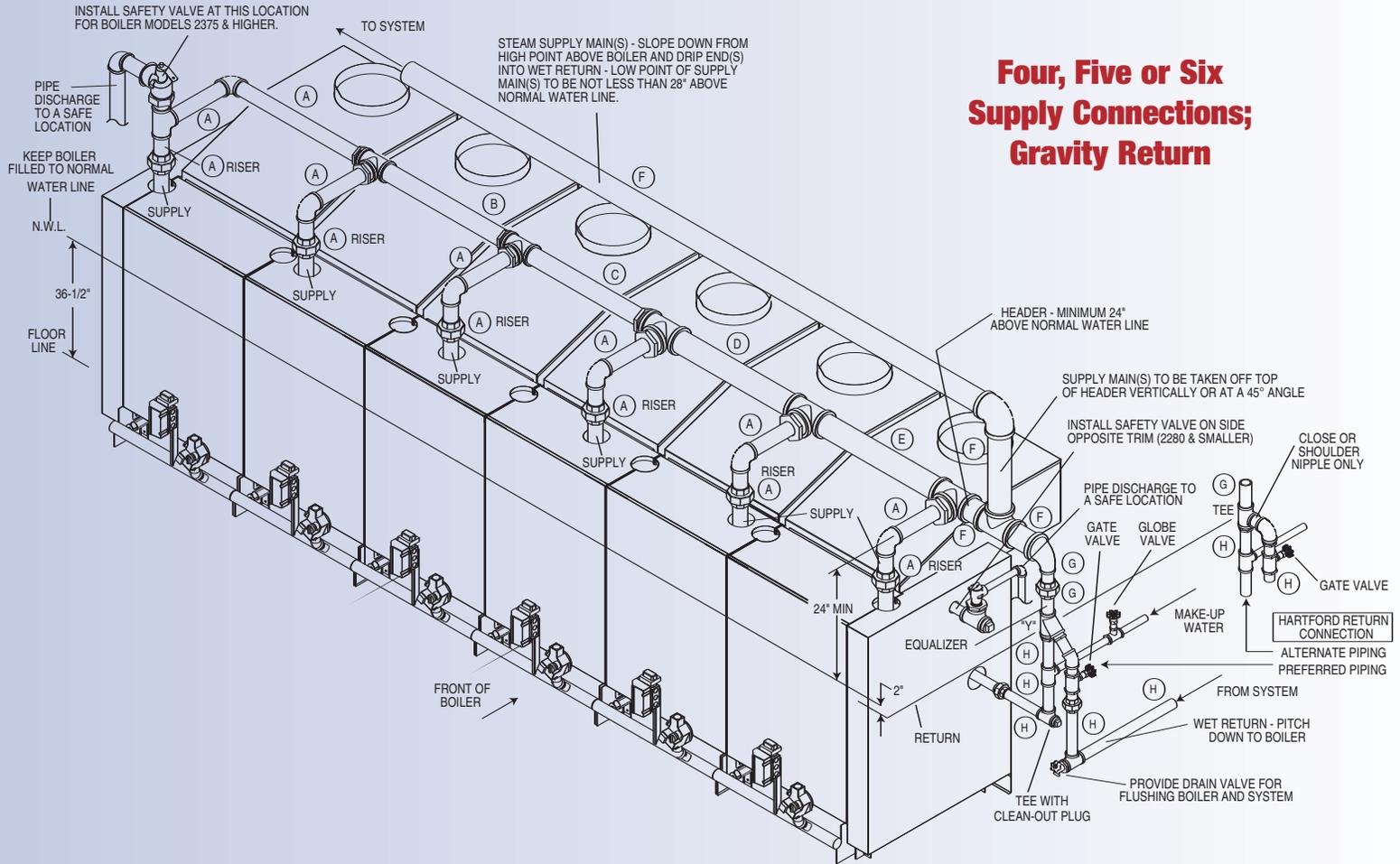
	32-1045	32-1140	32-1235	32-1330	32-1425	32-1520
(A)	3"	3"	3"	3"	3"	3"
(B)	4"	4"	4"	4"	4"	4"
(C)	5"	5"	5"	5"	5"	6"
(D)	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"
(E)	2"	2"	2"	2"	2"	2"

NOTE: FOR BOILER MODELS 1045 THRU 1520 IT IS PERMISSIBLE TO FABRICATE THE ENTIRE LENGTH OF THE STEAM HEADER USING THE LARGEST PIPE DIAMETER AS INDICATED IN B FOR A GIVEN SIZE BOILER IN THIS RANGE.

SERIES 32 Commercial Hot Water or Steam Boiler

Recommended Steam Boiler Piping

Four, Five or Six Supply Connections; Gravity Return



Minimum Pipe Sizes

	1615*	1710*	1805*	1900*	1995*	2090*	2185**	2280**	2375**	2470**	2565**	2660***	2755***	2850***
(A)	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
(B)	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"
(C)	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"
(D)	-	-	-	-	-	-	8"	8"	8"	8"	8"	8"	8"	8"
(E)	-	-	-	-	-	-	-	-	-	-	-	8"	8"	8"
(F)	6"	6"	6"	6"	6"	6"	8"	8"	8"	8"	8"	8"	8"	8"
(G)	2-1/2"	2-1/2"	3"	3"	3"	3"	3"	3"	3"	3"	4"	4"	4"	4"
(H)	2"	2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	3"	3"	3"

NOTE: FOR BOILER MODELS 1615 THRU 2850 IT IS PERMISSIBLE TO FABRICATE THE ENTIRE LENGTH OF THE STEAM HEADER USING THE LARGEST PIPE DIAMETER AS INDICATED IN C, D OR E FOR A GIVEN SIZE BOILER IN THIS RANGE.

* FOUR SUPPLY RISERS REQUIRED ** FIVE SUPPLY RISERS REQUIRED *** SIX SUPPLY RISERS REQUIRED



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SERIES 32 Commercial Hot Water or Steam Boiler

Specifications: When ordering specify water or steam

BASIC BOILER MODEL	NUMBER OF SECTIONS	NATURAL GAS ONLY						WATER VOL. ₁ STEAM (Gal)	WATER VOL. ₂ WATER (Gal)	BHP OUTPUT ₃	SHIPPING WEIGHT (APPROX)
		INPUT (MBH)	HEATING CAPACITY (MBH)	I=B=R NET RATING			Combustion Efficiency %				
				Steam		Water (MBH)					
				(Sq. ft)	(MBH)						
32-475	6	475	380	1188	285	330	80.5	28.58	39.80	11.4	1370
32-570	7	570	456	1425	342	397	80.5	32.65	45.47	13.6	1616
32-665	8	665	532	1663	399	463	80.5	36.72	51.14	15.9	1802
32-760	9	760	608	1900	456	529	80.5	40.79	56.81	18.2	1989
32-855	10	855	684	2138	513	595	80.5	44.86	62.48	20.4	2175
32-950	11	950	760	2376	570	661	80.5	48.93	68.15	22.7	2394
32-1045	12	1045	836	2613	627	727	80.5	53.00	73.82	25.0	2640
32-1140	13	1140	912	2851	684	793	80.5	57.07	79.49	27.2	2827
32-1235	14	1235	988	3088	741	859	80.5	61.14	85.16	29.5	3013
32-1330	15	1330	1064	3326	798	925	80.5	65.21	90.83	31.8	3200
32-1425	16	1425	1140	3563	855	991	80.5	69.28	96.50	34.1	3411
32-1520	17	1520	1216	3801	912	1057	80.5	73.35	102.17	36.3	3657
32-1615	18	1615	1292	4050	972	1123	80.5	77.42	107.84	38.6	3843
32-1710	19	1710	1368	4312	1035	1190	80.5	81.49	113.51	40.9	4030
32-1805	20	1805	1444	4575	1098	1256	80.5	85.56	119.18	43.1	4224
32-1900	21	1900	1520	4839	1161	1322	80.5	89.63	124.85	45.4	4410
32-1995	22	1995	1596	5102	1225	1388	80.5	93.70	130.52	47.7	4681
32-2090	23	2090	1672	5366	1288	1454	80.5	97.77	136.19	49.9	4868
32-2185	24	2185	1748	5628	1351	1520	80.5	101.84	141.86	52.2	5054
32-2280	25	2280	1824	5890	1414	1586	80.5	105.91	147.53	54.5	5240
32-2375	26	2375	1900	6143	1474	1652	80.5	109.98	153.20	56.8	5427
32-2470	27	2470	1976	6392	1534	1718	80.5	114.05	158.87	59.0	5673
32-2565	28	2565	2052	6638	1593	1784	80.5	118.12	164.54	61.3	5884
32-2660	29	2660	2128	6884	1652	1850	80.5	122.19	170.21	63.6	6078
32-2755	30	2755	2204	7130	1711	1917	80.5	126.26	175.88	65.8	6265
32-2850	31	2850	2280	7376	1770	1983	80.5	130.33	181.55	68.1	6451

1. Water Volume Total To Normal Water Line (Steam Boiler).
2. Water Volume Total (Water Boiler).
3. Ratings Based on 33,475 Btuh Per Boiler Horsepower

Not for installation on combustible flooring

CROWN Boiler Co.

Since 1949, homeowners have depended on us for quality, value and service

3633 I Street, P. O. Box 14818
Philadelphia, PA 19134

Phone: (215) 535-8900 Fax: (215) 535-9736

Visit us on the web: www.crownboiler.com