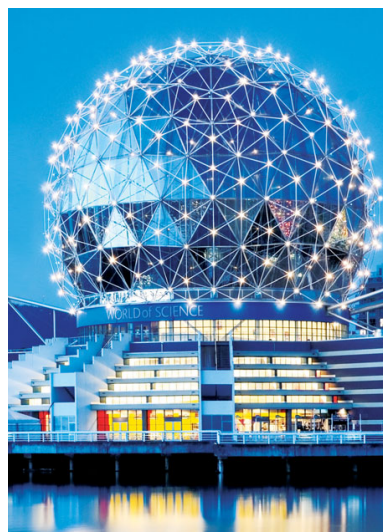




# COMMERCIAL GAS BOILERS HIGH EFFICIENCY AAA SERIES FOR HYDRONIC HEATING SYSTEMS



85% Combustion Efficiency  
Longevity and Proven Performance  
Commercial, Industrial, and Institutional  
480 to 3,000 MBH in Natural Gas or Propane



# AAA SERIES BOILERS

## TURN UP THE HEAT ON THE COMPETITION WITH THE AAA SERIES...

Since 1947, Allied Technologies has been a leader and innovator in the design of high quality gas boilers and heating system technology. The Super Hot AAA Series is our latest generation of commercial gas boiler and is built to provide years of reliable performance and heating comfort.

The AAA design represents the next step in the evolution of our popular AAE Series boilers, which have been proven and respected in industry for over 40 years. For this latest version, our designers applied upgrades to meet the current DOE requirements and significantly increased efficiency by extending heat exchanger fin, improving insulation, and optimizing the low-CO/NOx burner.

With twenty-two models ranging from 480 to 3,000 MBH and a programmable controller with 6 application modes, the AAA Series has the versatility to handle virtually any project with ease.



AAA 960 Natural Gas with  
BC-1 two-stage control

## FEATURES

### DOUBLE-PASS STEEL HEAT EXCHANGER

Our unique double-pass steel fin-tube heat exchanger offers increased heat transfer surface area created by a continuous spiral-welded fin. Steel top and bottom headers are welded to a 180° riser to complete the double-pass and provide a sturdy, light weight heat exchanger which resists thermal shock. Large diameter waterways provided by 2 inch OD industrial boiler tube (ASME SA-178A) prevent plugging and results in a lower pressure drop, thus saving circulator costs. The heat exchanger requires no field assembly and has no gaskets or push nipples. No other heat exchanger matches its strength, low cost and environmentally friendly construction.

### STAINLESS STEEL ATMOSPHERIC BURNERS

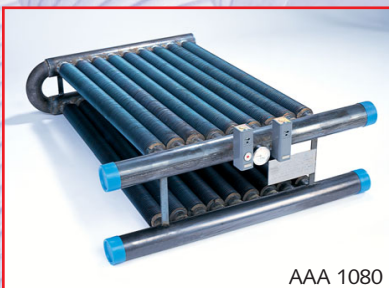
High grade, heat resistant stainless steel burners ensure years of trouble-free performance, low emissions, and outstanding combustion efficiency with virtually no combustion noise.

### SYSTEMS INTEGRATION

The two-stage BC-1 controller comes standard on all models and is programmable with 6 modes for handling a variety of applications. In addition, terminal contacts for direct digital control (DDC) allow for optional connection to any building management system.

### RAPID RESPONSE

The mid-mass thermal design and PID staging of the BC-1 controller ensure a rapid response to "calls for heat". This is especially important for critical operations or when used for heating an indirect-fired water heater or tankless coil.



AAA 1080

- Efficient double-pass heat exchanger
- Supply and Return can be connected from either side
- Fully welded construction by certified ASME welders

# APPLICATIONS

Commercial, Industrial, Institutional

- High Rises
- Apartments
- Schools
- Snow Melt
- Hotels
- Modular installations

Combine your boiler with our C Series Indirect Tankless Coils or EPP Series Indirect Water Heaters for fast and efficient service of domestic hot water.

## EASE OF INSTALLATION AND OPERATION

The AAA Series comes fully assembled and equipped for a quick installation and easy setup. Each boiler includes the BC-1 controller which provide two-stage gas valve control, outdoor reset, and a display screen to show operating status and error messages. The AAA Series boiler is designed to make service and maintenance user-friendly with a simple layout, easy access points and removable panels.

### STANDARD EQUIPMENT

- BC-1 Two-Stage Controller
- Outdoor Reset Sensor
- Boiler Inlet and Outlet Sensors
- Intermittent Electronic Ignition
- Two Stage Gas Valve
- Redundant Gas Valve
- Temperature/Pressure Gauge
- On/Off Switch with Indicator Light
- Operating Limit
- High Limit
- 30 psi ASME Pressure Relief Valve
- 24 Volt Transformer and Fuse
- Draft Hood
- Control Panel Enclosure

### OPTIONAL EQUIPMENT

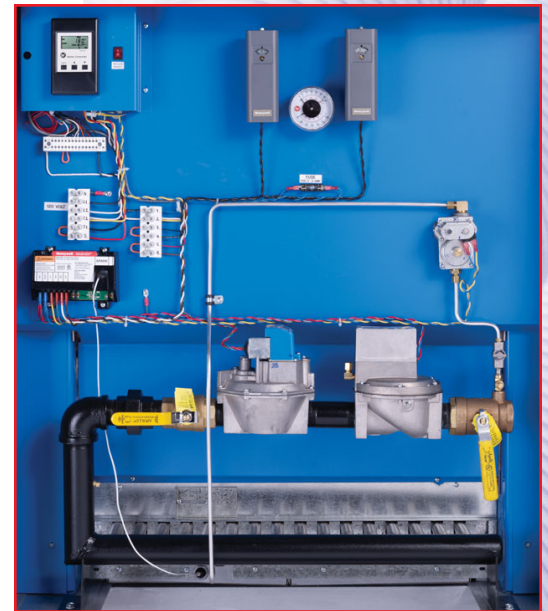
- Low Water Cut Off
  - Flow Switch
  - Flame Supervision
  - Auto/Manual Switch
  - Alarm Feature
  - Direct Digital Control (DDC)
  - Comb Seismic Restraint/Lifting Lugs
  - Higher Setting ASME Pressure Relief Valve
  - High/Low Gas Pressure Switches
  - Propane
- Available in the following codes:
- ASME CSD-1
  - CSA B51

### QUALITY AND RELIABILITY

AAA Series boilers are constructed from high quality materials and built to the exacting standards of Section IV of *ASME Boiler and Pressure Vessel Code*. Allied Technologies has been authorized by ASME to hold the 'H' stamp for heating boilers and is continually audited by their inspectors. AAA Series boilers have a maximum allowable working pressure of 160 psi (1100 kPa) and a maximum supply temperature of 210°F (99°C). Each heat exchanger is hydrostatically pressure tested to 240 psi and factory inspected as part of our Quality Control Program.

### WARRANTY

Super Hot AAA Series boilers are manufactured to the highest standards of material and workmanship and backed by unparalleled customer service and support. The AAA Series features a 10 YEAR WARRANTY on the heat exchanger and one year warranty on all parts and controls. Installation, operating and maintenance instructions are supplied with each boiler. See printed warranty for details.



AAA 1080 Natural Gas  
c/w High/Low Fire Two Stage Gas Valve  
(Control panel enclosure removed  
for Display).



Advanced Two-Stage  
Programmable Controller

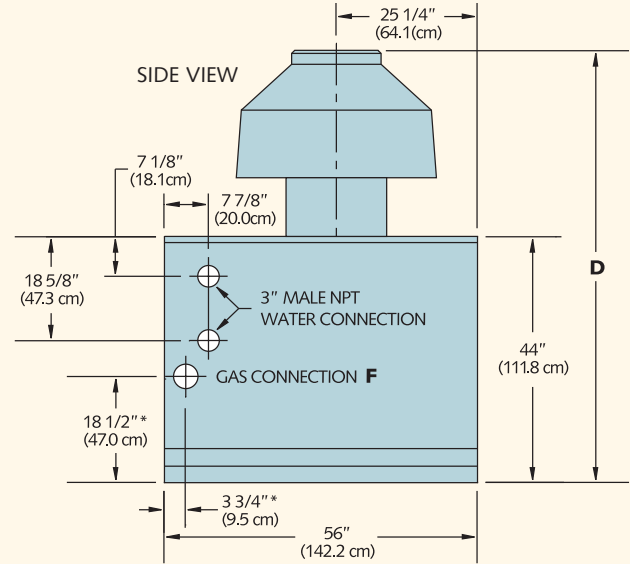
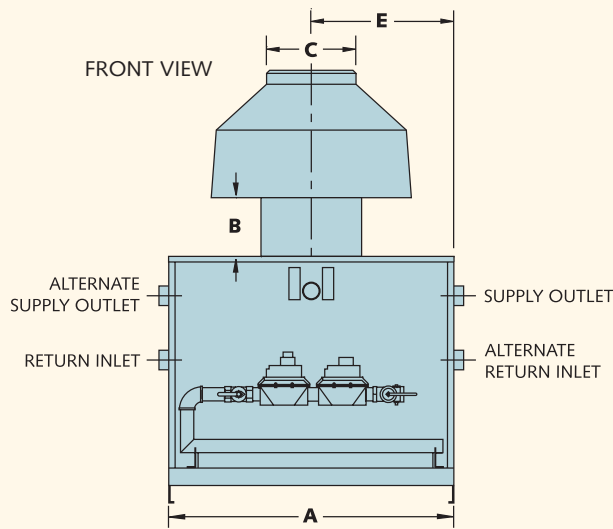


Burner Tray Assembly with High  
Grade Stainless Steel Burners



# AAA SERIES BOILERS

## DIMENSIONS AND SPECIFICATIONS



Note: 3" NPT water connections extend 1 1/2" on each side from Boiler Jacket

MODEL NUMBER	INPUT*		OUTPUT*			DIM A		DIM B		DIM C		DIM D		DIM E**		GAS*** CONN F	WATER CONTENT		SHIPPING WEIGHT	
	MBH	kW	MBH	kW	H.P.	in	cm	in	cm	in	cm	in	cm	in	cm	NPT	U.S. GAL.	L	lb	kg
AAA480†	480	141	408	120	12.2	24	61.0	16.5	41.9	10	25.4	68.9	175.0	12.0	30.5	1"	5.56	21.0	675	307
AAA600†	600	176	510	149	15.2	27	68.6	16.5	41.9	10	25.4	71.2	181.0	13.5	34.3	1"	6.75	25.5	725	330
AAA720	720	211	612	179	18.3	30	76.2	11.5	29.2	12	30.5	71.2	181.0	15.0	38.1	1"	7.95	30.1	790	359
AAA840	840	246	714	209	21.3	33	83.8	11.5	29.2	14	35.6	72.9	185.1	16.5	41.9	1"	9.14	34.6	860	391
AAA960	960	281	816	239	24.4	36	91.4	11.5	29.2	14	35.6	72.9	185.1	18.0	45.7	1 1/4"	10.34	39.1	940	427
AAA1080	1080	317	918	269	27.4	39	99.0	11.5	29.2	16	40.6	76.0	193.0	19.5	49.5	1 1/4"	11.53	43.6	990	450
AAA1200	1200	352	1020	299	30.5	42	106.7	11.5	29.2	16	40.6	76.0	193.0	21.0	53.3	1 1/4"	12.73	48.2	1050	477
AAA1320	1320	387	1122	329	33.5	45	114.3	13.0	33.0	18	45.7	77.3	196.3	22.5	57.2	1 1/4"	13.92	52.7	1140	518
AAA1440	1440	422	1224	359	36.6	48	121.9	13.0	33.0	18	45.7	77.3	196.3	24.0	61.0	1 1/4"	15.12	57.2	1205	548
AAA1560	1560	457	1326	389	39.6	51	129.5	13.0	33.0	18	45.7	77.3	196.3	25.5	64.8	1 1/4"	16.31	61.7	1270	577
AAA1680	1680	492	1428	419	42.7	54	137.2	11.5	29.2	20	50.8	78.7	199.9	27.0	68.6	1 1/2"	17.51	66.3	1350	614
AAA1800	1800	528	1530	448	45.7	57	144.8	11.5	29.2	22	55.9	80.7	205.0	28.5	72.4	1 1/2"	18.7	70.8	1440	655
AAA1920	1920	563	1632	478	48.8	60	152.4	11.5	29.2	22	55.9	80.7	205.0	30.0	76.2	1 1/2"	19.9	75.3	1520	691
AAA2040	2040	598	1734	508	51.8	63	160.0	11.5	29.2	24	61.0	82.6	209.8	31.5	80.0	1 1/2"	21.09	79.8	1605	730
AAA2160	2160	634	1836	538	54.9	66	167.6	11.5	29.2	24	61.0	82.6	209.8	33.0	83.8	1 1/2"	22.28	84.3	1645	748
AAA2280	2280	669	1938	568	57.9	69	175.2	11.5	29.2	24	61.0	82.6	209.8	34.5	87.6	1 1/2"	23.48	88.9	1690	768
AAA2400	2400	703	2040	598	61.0	72	182.9	11.5	29.2	24	61.0	82.6	209.8	36.0	91.4	1 1/2"	24.67	93.4	1770	805
AAA2495	2495	731	2121	622	63.4	75	190.5	13.0	33.0	2x18	2x45.7	78.8	200.2	2x18.25	2x46.4	2"	25.87	97.9	1850	841
AAA2640	2640	774	2244	658	67.1	78	198.1	13.0	33.0	2x18	2x45.7	78.8	200.2	2x19.75	2x50.2	2"	27.06	102.4	1890	859
AAA2760	2760	809	2346	688	70.1	81	205.7	13.0	33.0	2x18	2x45.7	78.8	200.2	2x20.25	2x51.4	2"	28.26	107.0	1935	880
AAA2880	2880	845	2448	717	73.2	85	215.9	13.0	33.0	2x18	2x45.7	78.8	200.2	2x21.00	2x53.3	2"	29.45	111.5	1975	898
AAA3000	3000	880	2550	747	76.2	87	221.0	13.0	33.0	2x18	2x45.7	78.8	200.2	2x21.75	2x55.3	2"	30.65	116.0	2020	918

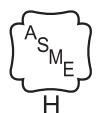
\* Derate Input/Output by 10% for Propane. For above 2,000 feet, contact Allied.

Specifications and/or design are subject to change without notice

\*\* AAA 2495 and larger use two draft hoods. Dimension "E" is measured from both left and right sides.

\*\*\* Gas Connection "F" shows typical sizes only. Connections may vary depending on the gas valve used.

† AAA480 & AAA600 are supplied with DIM B = 16.5" but can be field modified to DIM B = 10.5"  
All models: Combustion Efficiency = 85%



## ALLIED TECHNOLOGIES

DIVISION OF E-Z-RECT MANUFACTURING LTD

Manufacturers of Gas & Electric Boilers, Tankless Coils, Stainless Steel Tanks  
94 Riverside Drive | North Vancouver | BC | Canada | V7H 2M6  
604.929.1214 | sales@alliedboilers.com | www.alliedboilers.com