

Alternate Heating

Coal Gun[®]

Residential • Commercial

Automatic Coal-Fired Stoker Boilers

***THE ANSWER
to your High
energy expense...
Smokeless and
Labor friendly!***



Anthracite (Hard) Coal

Alternate Heating Systems, Inc.

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ASME H-Stamp
Certified Boiler



MADE IN THE USA

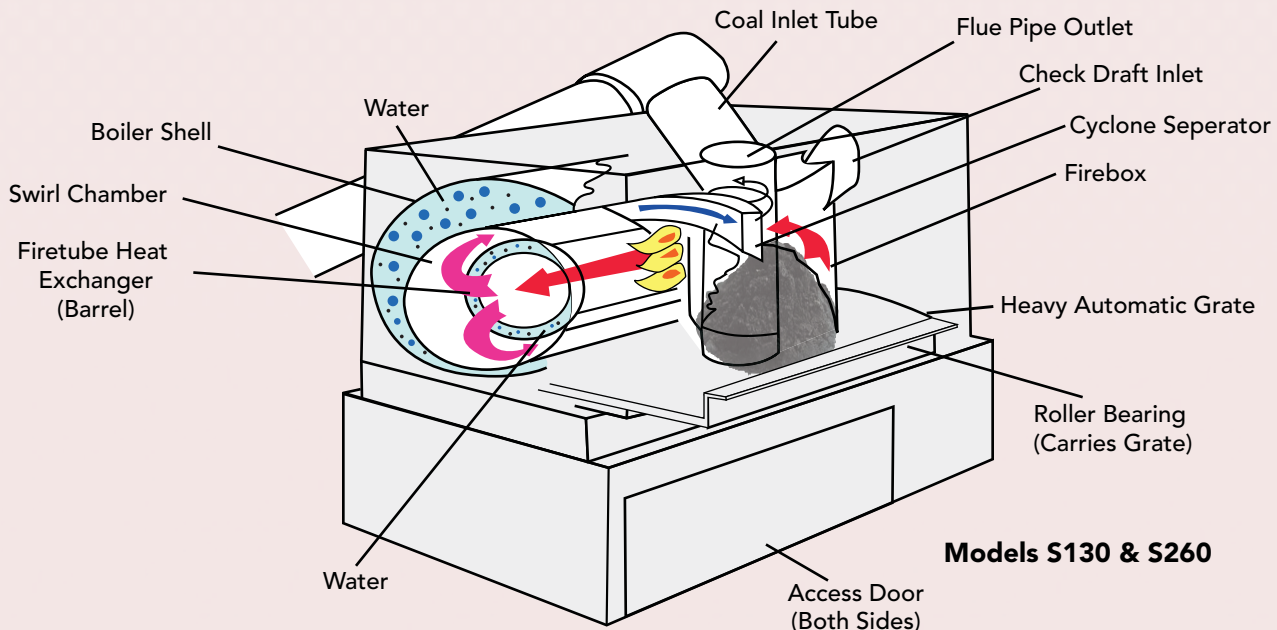
Coal Gun®

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Alternate Heating Systems Commitment to Quality...

Every **AHS Coal Gun®** is manufactured from the highest quality materials by highly trained, dedicated technicians. Every unit is tested extensively before it leaves our factory to ensure its adherence to our high standards of quality. In fact, we guarantee that our product is free from defects in materials and workmanship*. Each **AHS Coal Gun®** comes complete with all controls necessary for operation and safety. Standard equipment includes an insulated boiler jacket, totally enclosed motor and drive systems, primary and backup aquastat thermostats (hot water units), commercial low water cut-off, and a pressure relief valve (steam units).

Our **Coal Gun®** boilers are some of the most durable heating units available. The AHS commitment to quality leads to a long boiler life (some reported at 30 years and counting) and years of hassle-free operation. The bottom line is that a quality-manufactured **AHS Coal Gun®** will save you both time and money in your heating application.



How It Works...

Pea sized anthracite coal is transferred from your coal storage bin to the unit through an optional spiral auger. A fan induced draft pulls air through the barrel enhancing combustion of the coal. The hot exhaust gasses then spin through our unique swirl chamber heat exchanger and into the cyclone separator where any fly ash is removed.

Fuel Consumption...

The amount of fuel used depends on a great many factors, including the weather, type of installation, and building construction. Due to its high efficiency, however, the **AHS Coal Gun®** uses less fuel than other units on the market and will substantially reduce your annual heating costs.



AHS Coal Gun® Specifications

Assembled Boiler	S130	S260	S500	S1000	S1500
Width	22"	26"	34"	40"	45"
Height (Does not include hopper)	42"	47"	58"	66"	77"
Length	48"	62"	82"	102"	118"
Weight	875 lbs.	1,275 lbs.	2,200 lbs.	3,800 lbs.	5,000 lbs.
Water Capacity	27 gallons	56 gallons	115 gallons	220 gallons	380 gallons
Area Heating Capacity	4,000 Sq. Ft.*	8,000 Sq. Ft.*	15,000 Sq. Ft.*	30,000 Sq. Ft.*	50,000 Sq. Ft.*
BTU/hr (Gross Input)	130,000	260,000	500,000	1,000,000	1,650,000 (50 HP)
Flue Size	5"	6"	8"	10"	12"
Return Tapping	1 1/2" NPT	(2) 1 1/2" NPT	(2) 2" NPT	(2) 2 1/2" NPT	(2) 2 1/2" NPT
Supply Taping	1 1/2" NPT	(1) 1 1/2" NPT	(1) 2" NPT	(2) 2 1/2" NPT	(2) 2 1/2" NPT

*Depending on building construction, use, and insulation.

Disassembled Boiler (Does not include Base)	S130	S260	S500	S1000	S1500
Width	20"	25"	33"	40"	45"
Height (Does not include hopper)	23"	27"	34"	41"	48"
Length	32"	46"	63"	77"	100"
Weight	400 lbs.	680 lbs.	1,250 lbs.	2,500 lbs.	3,500 lbs.

Specifications and designs subject to change without notice.



- The AHS Coal Gun® can be found in service in a variety of commercial and residential areas including car washes, egg processing plants, motels, Laundromats, private residences, apartment houses, retail stores, greenhouses, etc.
- Multiple units may be installed in tandem for up to 3,300,000 BTU/hr.
- The efficient AHS Coal Gun® can pay for itself over a two year period

Fuel Cost BTU Conversion Chart

(Assuming Equal Efficiency)

Anthracite Coal \$/ton	Heating Oil \$/Gal	Direct Electric ¢/kWh	Natural Gas ¢/ft³	Propane \$/Gal	Wood Pellets \$/ton
600	3.00	7.3	2.2	1.96	350
580	2.90	7.1	2.1	1.89	340
560	2.80	6.8	2.1	1.83	325
540	2.70	6.6	2.0	1.76	315
520	2.60	6.3	1.9	1.70	300
500	2.50	6.1	1.8	1.63	290
480	2.40	5.8	1.8	1.57	280
460	2.30	5.6	1.7	1.50	270
440	2.20	5.4	1.6	1.44	255
420	2.10	5.1	1.5	1.37	245
400	2.00	4.9	1.5	1.31	230
380	1.90	4.6	1.4	1.24	220
360	1.80	4.4	1.3	1.17	210
340	1.70	4.1	1.2	1.11	200
320	1.60	3.9	1.2	1.04	185
300	1.50	3.7	1.1	0.98	175
280	1.40	3.4	1.0	0.91	160
260	1.30	3.2	1.0	0.85	150
240	1.20	2.9	0.9	0.78	140
220	1.10	2.7	0.8	0.72	125
200	1.00	2.4	0.7	0.65	115
150	0.75	1.8	0.5	0.49	85
130	0.65	1.6	0.4	0.42	75
100	0.50	1.2	0.4	0.33	55

How to use this chart...

Check the price of Anthracite coal in your area. Find that price in the first column above. In that row, you will find the prices of other heating fuels necessary to match the BTU/h output to price ratio for coal. For example, if coal costs \$130 per ton, to get the same amount of energy (BTU/h) for the same cost, heating oil would need to cost \$0.65 per gallon and propane would need to be \$0.42 per gallon. Information from US Dept. of Energy.



Optional Coal Gun Accessories

- Automated spiral auger
- Domestic hot water coil
- Belt driven induction fan (S130 & S260)
- Thermo activated grate (See below for more detail)
- Low Pressure Steam

Thermo Ash-Monitoring Control Option

A timer-controlled grate is sufficient to achieve good performance on the Coal Gun. However, we now offer the option of a Thermo Ash-Monitoring Control which provides optimal use of your fuel. Ash that contains fuel that is not fully combusted will be a higher temperature than ash coming from thoroughly combusted fuel. The Thermo Ash-Monitoring Control automatically monitors the temperature of the ash leaving the coal pot and leaves the ash in place until complete combustion occurs before allowing it to fall away. Therefore, no adjustment other than the factory adjustment is typically necessary to have the boiler perform at peak power output throughout the burn season (a minor on-site adjustment may be necessary when the boiler is first installed). In contrast, to maintain peak power output with a timer-based grate system, the timer must be adjusted to compensate for progressively more rapid burn times of the coal as the seasonal temperature gets progressively colder and likewise as temperatures warm in the spring. With the Thermo Ash-Monitoring controlled grate, it is possible for the fire to remain lit for days during low usage periods without having to adjust the grate by hand as would be necessary in a timer-based grate control system.

Coal Gun Benefits:

- Innovative Efficient Design
- Clean Burning
- Smokless
- Automatic Feed
- Can be left unattended for up to 7 days
- Safe and environmentally friendly heat
- Burns clean anthracite coal
- Proven design, durable construction
- Largest firepot in the industry allows for long off cycles
- Self cleaning action in heat exchanger
- Positive draft design eliminates troublesome chimneys
- Most complete combustion with almost unheard of exhaust stack temperatures
- Large ash receptacle
- Able to operate for days unattended
- Few moving parts
- Choose from #200, #300, or #400 hoppers

Limited Warranty

Alternate Heating Systems, Inc. boilers and furnaces are warranted against defects in materials and workmanship for the following periods:

- Boiler Vessel - 5 years
- Grate S130/S260 - Lifetime Warranty
- All other components both manufactured by Alternate Heating Systems, Inc. and purchased from vendors will vary in length of warranty from 30 days to 1 year

A copy of the complete warranty text, detailing coverage, limitations, warranty claim procedure and state law rights is available from Alternate Heating Systems, Inc.

ASME Certification

The American Society of Mechanical Engineers (www.asme.org) certification is available on any of our boiler lines for an additional charge. This certification assures that the pressure vessel has been designed and constructed in accordance with the ASME Code. This certification is required for all commercial installations. The certification is also required for some residential installations depending upon local codes - it is up to the homeowner to determine the need for an ASME certification on any boiler purchased.



Alternate Heating Systems manufactures alternative fuel burning heating equipment and sells (primarily direct) throughout the US, Canada, and internationally. Call us today to schedule a tour of our facilities, visit our showroom, and see a working demonstration of any boiler models.

Authorized Distributor

Time is the best friend of Truth.

For details about becoming a distributor, call or visit our website.