Technical Data Sheet

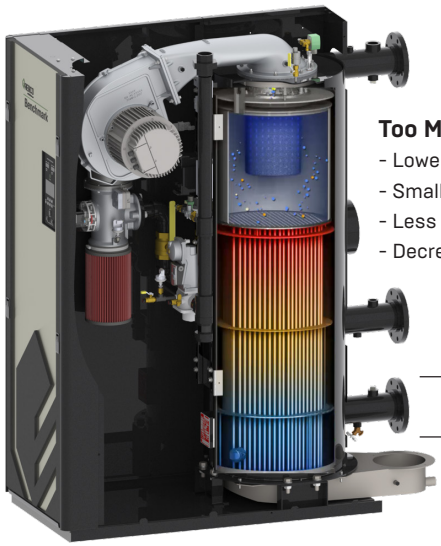
AERtrim™ System for Benchmark Boilers

AERCO's AERtrim is a patented, innovative O_2-trim system for condensing boiler applications, built on the Benchmark's original O_2 monitoring system. It utilizes a low cost, reliable automotive O_2 sensor to monitor O_2 levels (and hence combustion efficiency), and adjust the blower speed to maintain air-fuel ratios at optimum levels for peak efficiency and maximum uptime reliability. The system will self adjust in the event of any site condition changes (air density, gas pressure, BTU content, etc) which can be detrimental to efficiency, stability and reliability.

This system can save customers thousands of dollars by maintaining optimal efficiency, and also saves costly technician visits, should the site experience drastic changes in site conditions. Likewise, the system can offer savings in maintenance costs since it can help extend life of burner and combustion chamber components. The system is a fraction of the cost of other O_2-trim systems and can possibly pay for itself in 3 years or less.

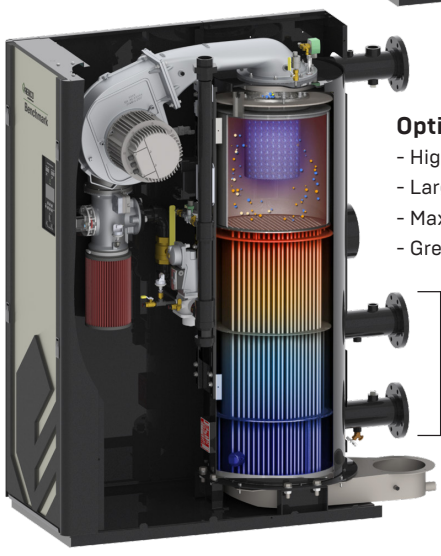
The AERtrim system is standard on the Benchmark® Platinum. The system features self-diagnostic capability such as when excessive trimming is occurring (indicative of a possible system issue) or when the O_2 sensor has fallen out of calibration. It is a system solution which maximizes efficiency, flexibility, uptime reliability and peace of mind. No other commercial manufacturer comes even close to offering a low cost option like AERCO's AERtrim system.

Too Little O_2
- Possible flame loss and other faults
- Increased emissions
- Additional unscheduled maintenance



Too Much O_2
- Lower dew point
- Smaller condensing zone
- Less condensation
- Decreased energy savings

Condensing Zone
90% Efficiency
118° Dew Point



Optimal O_2 Levels
- Higher dew point
- Larger condensing zone
- Maximum efficiency
- Greater savings

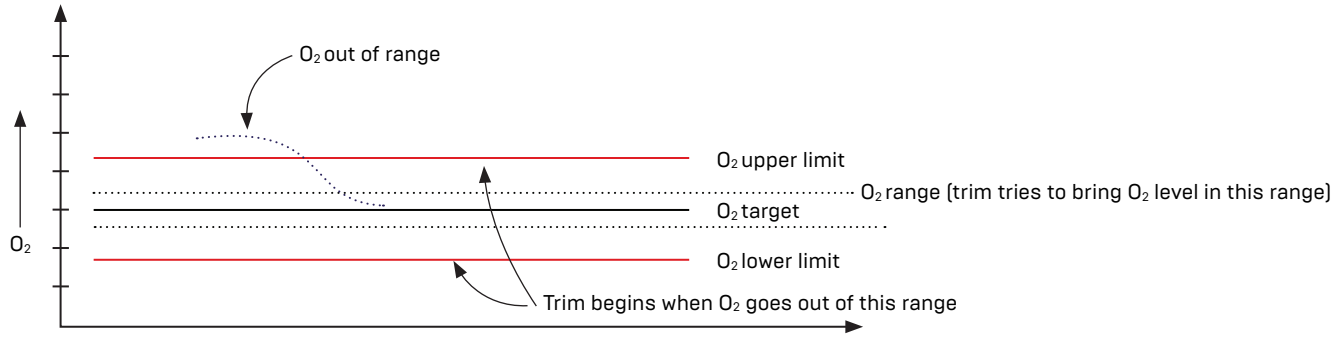
Condensing Zone
95% Efficiency
130° Dew Point

Patent Protected 9,175,853

Features

- Standard on all Benchmark® Platinum boilers
- Ensures maximum combustion efficiency
- Operational costs savings
- Maximizes uptime reliability
- Self diagnostics
- Low cost sensor
- System flexibility, automatically adjusts to site conditions changes resulting from:
  - Gas pressure changes
  - Flue and air blockage
  - Fuel BTU content
- User adjustable parameters
- Extend life of burner components

Sequence of Operation



Savings Value

AERCO's AERtrim system is anticipated to yield an additional 1-2% fuel savings over the course of a heating season. Below is an estimated fuel savings cost based on efficiency percentage gain.

BMK Platinum Model	0.5%	1%	1.5%	2%	2.5%
750	$65.42	$130.00	$194.14	$257.25	$319.88
1000	$87.22	$173.35	$258.85	$343.00	$426.50
1500	$130.83	$260.00	$388.28	$514.50	$639.75
2000	$174.44	$346.70	$517.70	$686.00	$853.00
2500	$218.05	$433.40	$647.13	$857.50	$1,066.25
3000	$261.66	$520.00	$776.55	$1,029.00	$1,279.50
5000	$436.10	$866.80	$1294.26	$1715.00	$2132.50
6000	$523.32	$1040.00	$1553.10	$2058.00	$2559.00

*Estimated fuel savings based on a $1/Therm cost; units operating on an outdoor air reset schedule for a total of 7338 run hours.

**Results may vary depending on operating conditions, fuel costs, etc.

***Consult AERtrim O&M manual or Benchmark® Platinum O&M manual for additional operation information.

Specifications

Standard Listings and Approvals: UL, CUL

AERCO®
A WATTS Brand

Heating and Hot Water Solutions

AERCO International, Inc. • 100 Oritani Drive • Blauvelt, NY 10913
USA: T: (845) 580-8000 • Toll Free: (800) 526-0288 • AERCO.com