CONDENSING BOILERS

COMMERCIAL AND INSTITUTIONAL

Gas 310... ECO

Innovative Design For Better Fuel Efficiency

A Symbol of Quality Engineering For Over Three Centuries

- 99%+ Efficiency
- Condensing Cast Aluminum Heat Exchanger
- Operates under large Temperature Differentials - Up to 80ºF without Thermal Shock
- Low NOx Compatibility
- Maximum Working Pressure at 100 p.s.i.

www.dedietrichboilers.com

De Dietrich BOILERS

DDRGE20508

Gas 310... ECO

Modulating Condensing Boilers

The De Dietrich Gas 310... ECO Series of condensing boilers combines over thirty years of European condensing technology experience with the proven North American control expertise. The cast aluminum heat exchanger allows for superior and faster heat transfer that results in greater efficiencies. The boilers' large water ways allows for lower pressure drops through the boiler, allowing for smaller pump sizes. The state of the art premix burner is capable of high turn down ratios that allow for maximum performance and lower NOx emissions. The light weight heat exchanger enables installation in weight sensitive locations, up to 30% lighter than other condensing boilers. A ten year warranty covers the cast aluminum heat exchanger from anything that you throw at it.

The boiler has two separate collectors, one for the flue gas and one for the heat exchanger condensate.

The user and installer friendly Honeywell boiler control system incorporates a P.I.D function that eliminates overshooting and controls a steady system temperature as designed. With four temperature sensors constantly monitoring the inlet and outlet temperatures the heat exchanger is completely protected.

The boiler maximum capacity can be adjusted to the building requirements. Meaning the high fire can be set to fire at the design firing rate. With five models ranging from 1,000 to 2,000 MBH (output) you can pinpoint the model that fits your application perfectly.

Pre-mix gas burner delivers outstanding performance and reliability. With a turndown ratio of 5:1 the ECO is the ULTIMATE fuel saving boiler

Standard Features

- True modulating combustion, either remotely or locally
- No minimum return water temperature or flow requirements
- Operates up to 81ºF temperature differential
- Four boiler temperature sensors for boiler ultimate protection & operation
- Factory packaged & tested for simple, easy Plug & Play installation
- ASME approved to 100psi maximum pressure rating
- Quiet operation - less than 60 dBA
- State of the art MCBA Honeywell boiler controller. Easily integrated with building management systems and Required Control Schemes
- Optional low NOx combustion feature for stringent California emissions (15-30ppm corrected)
- Proven thirty year European cast aluminum heat exchanger design maximizes condensing operation for CSA approved 99% efficiency
- Cast alumimum heat exchanger is not sensitive to condensate corrosion unlike stainless steel
- Optimum cast aluminum design results in efficient heat transfer - (7) times more conductive than stainless steel at a (1/3) of the weight. Results in less system water, faster response & less structural loading concerns
- Pre-mixed combustion with Honeywell fuel-air ratio valve allows higher turn-downs, lower inlet gas pressure and sealed combustion
- Stainless steel woven mesh premix burner
- Piping connection options (right hand & left hand) allow for modular installations with 1" minimal clearances
- Standard with probe type LWCO (manual reset), high limit Aquastat (manual reset) & 30psi relief valve
- Three wheels for easy mobility
- 10 year heat exchanger warranty
- 3.5" to 14" W.C. natural gas supply pressures

Safety and reliability are key components in the integrated Heneywell MCBA master control

THINK BOILERS...THINK

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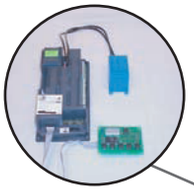
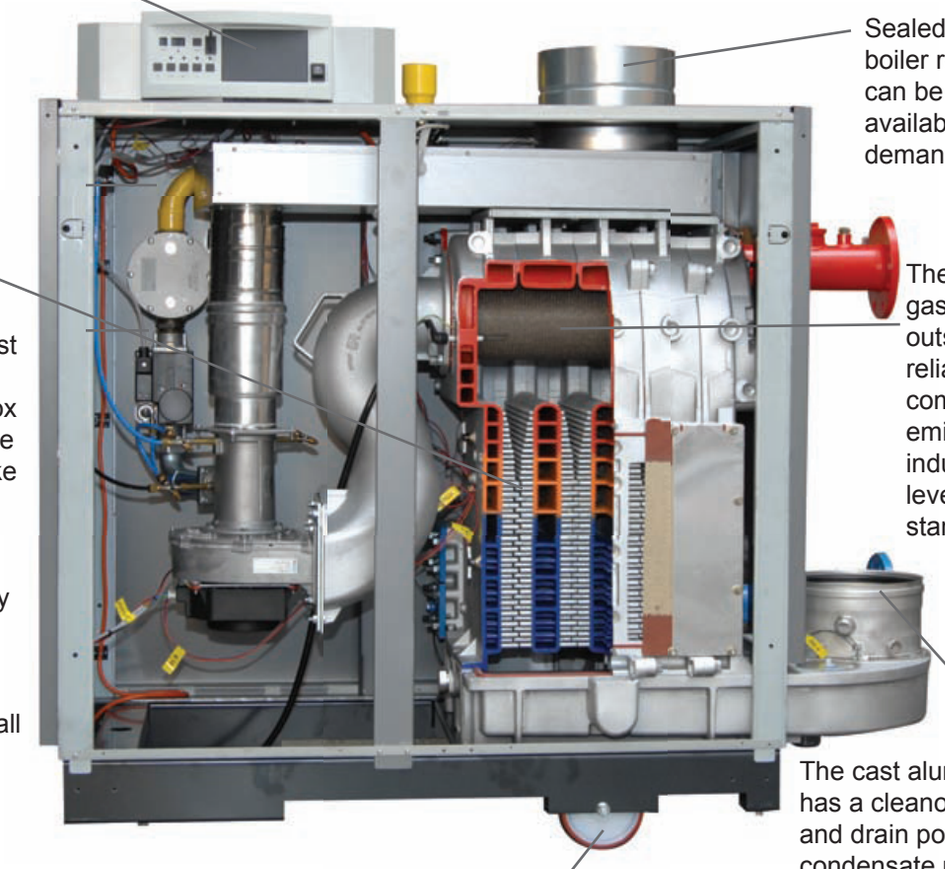
Gas 310... ECO

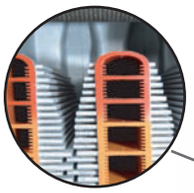
Modulating Condensing Boilers



The Honeywell MCBA boiler control uses analogue sensors (NTC) to measure temperature. Protection of the gas boiler is achieved by use of NTC - Sensors. This protection incorporates amongst other things the absolute value, the differential value and the temperature increase per second of the NTC 1 and NTC 2 sensors. The MCBA can receive a BMS signal or it can run the boiler locally. The easy set up can be done with or without the aid of a computer. The use of the optional outdoor temperature reset control gives the boiler the ability to reach its ulitmate high efficiency.



Sealed combustion for the tight boiler rooms or atmospheric air can be used. Optional air filter available if the application demands.



This light weight cast aluminum boiler comes out of the box ready to start up, the factory presets make for the fastest start ups. Every boiler is factory fire tested. On-site disassembly and assembly is easily done if the “through the door” boiler is still not small enough.

The stainless steel premix gas burner delivers outstanding performance and reliability. With the ultimate combustion control the emissions are below the industry standards. NOx levels of 15 to 30ppm are standard.

The cast aluminum condensate tray has a cleanout for annual servicing and drain port. De Dietrich has a condensate neutralizer available.

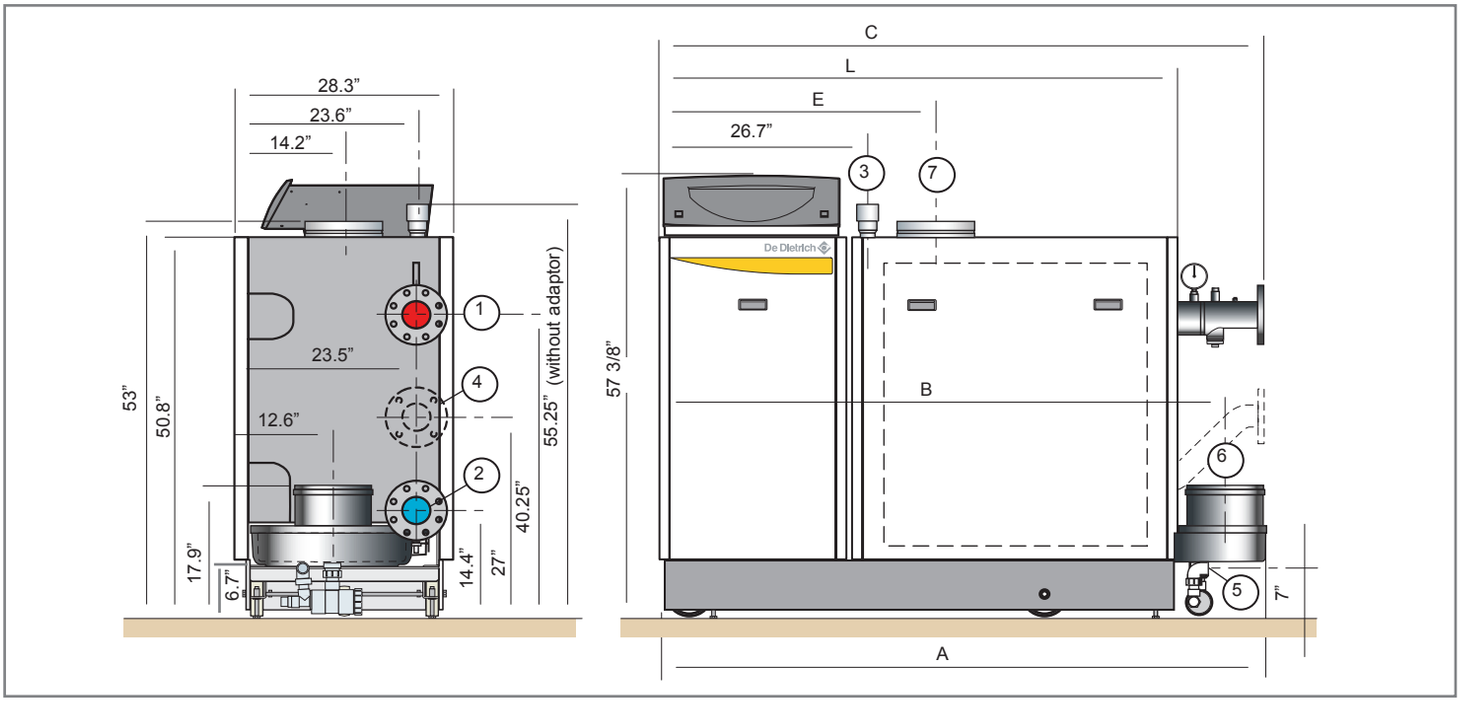
For trouble free installation and maneuvering a set of removeable casters is installed on the Gas 310... ECO boiler. Once the boiler is in place a self contained engineered levelling system ensures secure mounting to the service pad.

An optional secondary water return inlet allows for warmer water to be returned.

De Dietrich BOILERS ***As the Boiler Should Be!!!***

MEA 304-06-M (City of New York)
MASS Approved

GAS 310...ECO Dimensions



GAS 310...ECO	310-5	310-6	310-7	310-8	310-9
A	63”	63”	78.4”	78.4”	78.4”
B	57.6”	57.6”	73”	73”	73”
C	62.6”	62.6”	77.9”	77.9”	77.9”
E	39.5”	35.5”	43.7”	39.7”	35.6”
L	51.7”	51.7”	67”	67”	67”

1 - Heating supply 3” ANSI 150# flange
2 - Return water 2.5” ANSI 150# flange
3 - Gas connection 2” NPT adaptor
4 - Second return (optional) 2.5” ANSI 150# flange
5 - Condensate connection 1.25”
6 - Flue gas vent connection 10” (cat. II & IV)
7 - Combustion air inlet connection 10”

Boiler Model	Unit	310-5	310-6	310-7	310-8	310-9
General						
Firing Sequence Operation		On-Off, 2 Stage or Full Modulation				
Input (min.)	MBH (kW)	205(70)	256(87)	311(106)	358(122)	413(141)
Input (max.)	MBH (kW)	1,017(347)	1,269(433)	1,529(522)	1,785(609)	2,041(697)
Output (min.)	MBH (kW)	191(65)	242(83)	287(98)	334(114)	386(132)
Output (max.)	MBH (kW)	962(328)	1,205(411)	1,457(497)	1,703(581)	1,955(667)
Combustion Efficiency (gross)	%	up to 99				
Thermal Efficiency (heat to H2O)	%	up to 98.5				
Stand-by Losses (average)	%	Less than < 0.3				
Gas Type		Natural Gas Only - LNG Consult Factory				
Gas Inlet Operating press. (max.)	inch w.c. (mbar)	up to 14 (35)				
NO_x Emissions	ppm	up to 30 ppm				
Max. Water Temp. (safety limit)	° F (° C)	230 (110)				
Water Temp. Operating Range	° F (° C)	68 - 194 (20 - 90) max.				
ASME MAWP Rating (max)		100 psi				
Water Content (boiler only)	US Gal (liters)	12.9(49)	15.9(60)	18.8(71)	21.7(82)	24.6(93)
Weight (dry)	LBS (kg)	794(360)	903(410)	1014(460)	1124(510)	1234(560)

Information contained in this brochure is subject to change without written notification

Represented by:

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