

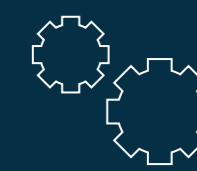
HIGH EFFICIENCY WATER HEATING AND HYDRONIC BOILER SYSTEMS



*Designed by Hamilton Engineering,
manufactured in Michigan*



INNOVATIVE Condensing Technology

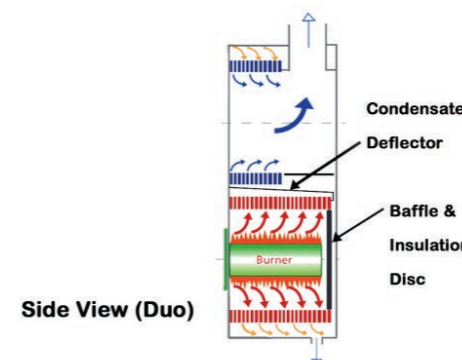
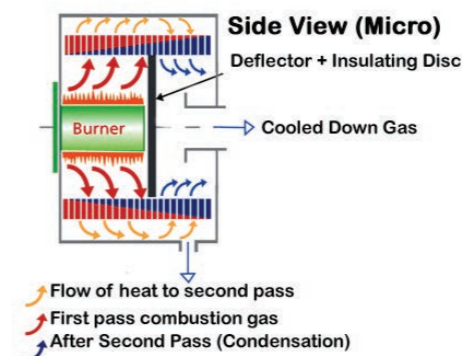


INNOVATIVE CONDENSING TECHNOLOGY

How Condensing Technology Works

In the combustion process, a minimum of 11% of the heat generated is latent heat (wet heat, think steam). In non-condensing combustion, only a portion of the sensible heat (dry heat) is transferred to the water; the rest of the dry heat and all of the wet heat is released into the atmosphere through the venting system as wasted energy.

In the EVO condensing system, the products of combustion (some of the wet heat and all of the dry heat) are forced to pass over the portion of the heat exchanger where the coolest water enters the system. At this point, the flue gases condense, releasing trapped heat that is then absorbed into the water through the heat exchanger. Condensate (water) and low temperature flue gases are left behind. The flue gases are so cool, in fact, they can be vented through PVC if desired.



Rack Mounted and Pre-Plumbed To Your Specifications



Hamilton's Rack Pack™ Six Pack
1,890,000 BTU Input as shown

Rack Pack™ Six Pack Features Include:

- **STEEL CONSTRUCTED RACK MOUNTING:** Modular welded steel rack supports the entire system, includes leveling bolts.
- **FACTORY ENGINEERED COMMON VENTING:** Only one inlet air and one exhaust opening required for up to 8 units, AL29-4C stainless steel or PVC (where local jurisdictions allow).
- **COMMON WATER PIPING:** All units are manifolded together with copper and brass plumbing, including individual isolation and drain valves.
- **ELECTRICAL POWER SUPPLY (208/240V-50/60HZ-1PH):** All units and their pumps are pre-wired with breaker panel service disconnects—one field connection.
- **COMMON CONDENSATE NEUTRALIZER:** All condensate runs from individual units to a common drain system filled with The design allows for easy refilling when pH begins to drop from neutral (~7.0) at outlet.
- **GAS MANIFOLD:** Welded black pipe gas manifold providing single point connection, includes individual shutoffs.
- **CASCADE CONTROLS:** A two-wire communication cable between units facilitates the use of this feature, while maintaining independent primary safety controls. In the event of lost communication, control reverts back to the individual units.

Modular Heat Exchangers

Model Sizes

136,000 / 180,000 / 199,999 BTUs

300,000 / 399,999 / 630,000 BTUs



EVO™ Condensing Water Heaters and Boilers

- **EFFICIENCY:** Up to 99.8% depending on incoming water temperature
- **CONSTRUCTION:** All 316L stainless steel is used for the heat exchanger
- **CAPACITIES:** Systems from 129,000–5,000,000 BTU/hr

UNIQUE FEATURES

- **COMMON VENTING:** Up to 8 units may be common vented together. EVO's non-return valves and propriety software make this possible
- **CASCADING CONTROLS:** Up to 8 units can communicate with each other to operate as one large system, maintaining precise temperature control
- **MODULATING BURNER:** Up to 5:1 turndown ratio adjusts to meet demand, further increasing efficiency while reducing cycling
- **PRE-ASSEMBLED SYSTEMS:** All Rack Packs™ are factory tested and shipped ready to set in place with minimal assembly, reducing labor costs, downtime and installation issues
- **SCALE MONITORING:** Internal software constantly monitors heat exchanger performance to warn if scale formation is beginning.
- **FREEZE PROTECTION:** Controller starts the pump (and the burner if necessary) to protect against heat exchanger freeze-ups in cold climates.
- **HEATING CONTROL CONFIGURATIONS:** Outdoor reset, 0–10 VDC, open therm/E-Bus/BMS, remote thermostat, remote sensor, boiler pump, system pump, indirect pump or three way valve—domestic hot water as priority or not. The EVO product line has a multitude of standard control configurations, all of which are possible without adding expensive boards or external control panels.



**WHY HAMILTON?
INNOVATIVE CONDENSING TECHNOLOGY!**

Hamilton's EVO line is engineered using technology developed and patented in Europe in 1992. To date, this technology has been installed in more than seven million facilities worldwide. Hamilton has combined the best of this technology with its years of experience in condensing equipment to design and develop a product line that broadens its applications and capacities, and eliminates many of the common mistakes made during installation.



SOME OF THE INNOVATIVE PRODUCTS BY HAMILTON...

COMPANION CWIS™

This ultra high efficiency, space-saving design incorporates EVO technology and includes a storage tank up to 160 gallons, containing Hamilton's patented Cold Water Injection System™ (CWIS™). The combination of the EVO technology and CWIS™ provides a system with efficiency unmatched by tank type or circulating tank systems.



HAMILTON ODD WATER™ SYSTEM

In poor water conditions (combined hardness and TDS of over 25 grains per gallon, or aggressive or acidic water), the Odd Water™ system eliminates scaling and other factors that contribute to premature failure of a conventional water heating system.



REPRESENTED BY



Innovative Hot Water Solutions

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