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Mod Con Stainless Steel Commercial Boiler

An Intelligent Design that Delivers Highly Efficient Hydronic Heating with 94% Thermal Efficiency













# Stainless Steel Heat Exchanger

# **MOD CON Construction Features**

## **Combustion System**

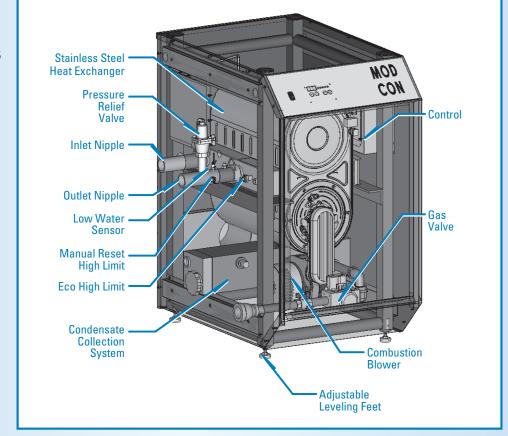
- 94% Thermal Efficiency
- Modulating Burner with 5 to 1 turn down
- · Whisper Quiet Operation
- Low NOx Operation
- High Grade Inconel Burner
- · Reliable Spark Ignition
- Gas Valve (Tested to UL, FM, CSA Standards)

### **Heat Exchanger**

- All Stainless Steel Construction
- No Gaskets, Welded Construction. ASME Approved
- · 150 PSI Relief Rated
- · Easy to Service

# Integrated Control System

- Built-in sequencer for up to 8 boilers
- Digital display with LED status indicators
- Integrated Control allows only the amount of heated energy required.



- Outdoor sensing with Indirect priority, allows for greater energy savings and comfort
- Built in Low water cut off with additional manual reset high limit switch
- Multiple Pump outputs Boiler Pump
   System Pump Indirect Pump
- · 24 volt monitor for system safeties
- Dual flame sensing (Flame probe / Spark Ignition Probe)

## **MOD CON Additional Features**

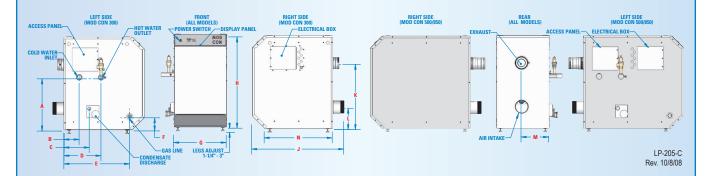
- Superior Condensate
   Collection System (Patent Pending) Easy to service with overflow protection
- PVC CPVC Stainless Steel Venting
- · Vents up 200 feet combined
- Double Stack units for double the output in small foot print
- Adjustable Legs
- Direct Vent Sealed Combustion
- Models available for Natural or LP Gas
- Easy access to wiring and field service of combustion heat exchanger

- Zero clearance to combustibles
- Low water cutoff standard equipment
- · High limit manual reset
- Removable front cover allows easy access to burner assembly
- Zero clearance to all combustible surfaces.
- Factory installed AGA/ASME rated relief valve.
- PC monitoring for history system operation (optional)
- Self diagnostic electronic control with digital readout to monitor system parameters.

## MOD CON Optional Equipment

- System Sensor (Part # 7250P-324)
- Indirect Sensor (Part # 7250P-325)
- 4" Stainless Steel Outside Termination Vent Kit (V2000)
- 6" Stainless Steel Outside Termination Vent Kit (V3000)
- High and Low Gas Pressure Switch Kit with Manual Reset (Part # 7350P-600)
- U.L. 353 Compliant Low Water Cut-Off Interface Kit with Manual Reset (Part # 7350P-601)
- Alarm System (Part # 7350P-602) (to monitor any failure)
- Stacking Kit (Part # 7350P-603)
- PC Interface Cable (Part # 7250P-320)
- Boiler Caster Kit (Part # 7350P-604)
- Mod Con Condensate Neutralizer (Part # 7350P-611)
- Flow Switch Kit (Part #7350P-605 Mod Con 500/850, Part #7350P-606 Mod Con 300)

## **MOD CON Dimensional Information**



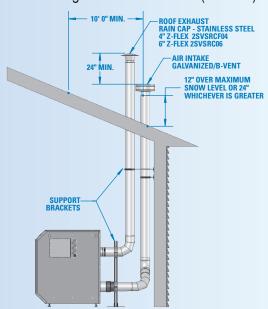
Model	Α	В	С	D	E	F	G	Н	J	K	L	M	N
MOD CON 500	20.00"	6.25"	13.25"	14.50"	33.25"	5.15"	20.50"	36.00"	40.00"	25.50"	14.75"	10.50"	34.00"
MOD CON 850	20.00"	6.25"	16.25"	18.75"	43.50"	20.00"	20.50"	36.00"	68.75"	25.50"	20.00"	10.50"	57.50"

#### PLEASE NOTE: ALL DIMENSIONS ARE APPROXIMATE AND HEIGHTS DO NOT INCLUDE ADJUSTABLE LEGS.

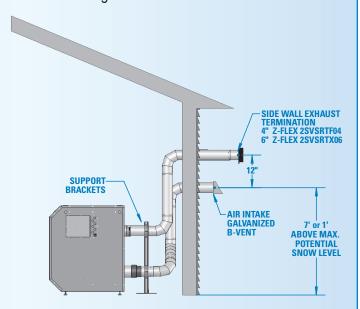
Model	BTU / hr Input Low Fire	Gross Output BTU / hr	Net I=B=R BTU / hr	Thermal Efficiency	Boiler Water	Supply/ Return Conn.	Gas Conn.	Vent Dia.	Wt	High Fan Speed	Low Fan Speed	Ignition
MOD CON 500	100,000-500,000	470,000	409,000	94%	4.2	2"	1-1/2"	4"	505	6930	1250	3000
MOD CON 850	170,000-850,000	799,000	695,000	94%	5.8	2"	2"	6"	580	5500	1500	3000

# **MOD CON Vertical Venting**

## Roof Venting with Stainless Steel (AL294C)



## Sidewall Venting with Stainless Steel



#### Note:

Vent must be at least 12" over maximum snow level or 24", whichever is greater - check with local code requirements

#### General Note:

All vent pipes must be glued, properly supported and the exhaust must be pitched a minimum of 1/4" per foot back to the heater (to allow drainage of condensate).

LP-205-Y Rev. 7/07/08

## MOD CON Single Boiler Space Heating with Indirect Priority BALL VALVE (TYPICAL) 4 PIPE DIAMETER SPACING MAXIMUM AIR ELIMINATOR FROM SYSTEM SUPPLY SENSOR (OPTIONAL) BOILER CIRCULATOR SYSTEM CIRCULATOR SWING CHECK VALVE TO SYSTEM TEMPERATURE/ PRESSURE GAUGE MAKE-UP WATER -MODCON BOILER BACKFLOW PREVENTER ANTI-SCALD PRESSURE REDUCING VALVE PRESSURE GAUGE HOT WATER OUTLET HOT WATER CIRCULATOR PRESSURE SWING CHECK VALVE UNION (TYPICAL) RELIEF LP-205-L DRAIN VALVE Rev. 10/29/08 BALL VALVE (TYPICAL) 4 PIPE DIAMETER SPACING MAXIMUM AIR ELIMINATOR SUPPLY SENSOR (OPTIONAL) FROM SYSTEM DRAIN VALVE SWING CHECK VALVE (TYPICAL) SYSTEM CIRCULATOR EXPANSION TANK TO SYSTEM MAKE-UP WATER DRAIN VALVE BOILER 1 (MASTER) BACKELOW PREVENTER PRESSURE REDUCING VALVE PRESSURE GAUGE Notes: BOILER CIRCULATOR (TYPICAL) 1. This drawing is meant to show system piping concept only. An Anti-Scald mixing valve is recommended if the DHW temperature is set above the factory setting of 119°F. 3. Install a minimum of 12 diameters of straight s. listed a minimum of 12 diameters of straig pipe upstream of all circulators. 4. Piping shown is Primary/Secondary 5. System Flow (Secondary Loop) must be greater than the boiler's primary loop flow. UNION (TYPICAL) DRAIN VALVE (TYPICAL) TEMP/PRESSURE GAUGE (TYPICAL) -BOILER 2 (FOLLOWER) LP-205-CC Rev. 7/8/08

