



Advanced Heating
& Hot Water Systems

MOD CON

Stainless Steel - Commercial Boiler

An Intelligent Design that Delivers Highly Efficient
Hydronic Heating with up to **98%** Thermal Efficiency

- Up to 5:1 Turndown Ratio
- Whisper Quiet Operation
- Low NOx Operation
- High Grade Inconel Burner
- Cascade up to 8 Boilers
- ASME Approved



UP TO 850,000 BTUH OF HEATING POWER

Construction Features

Combustion System

- Up to 98% Thermal Efficiency
- Modulating Burner with up to 5 : 1 Turndown Ratio
- 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

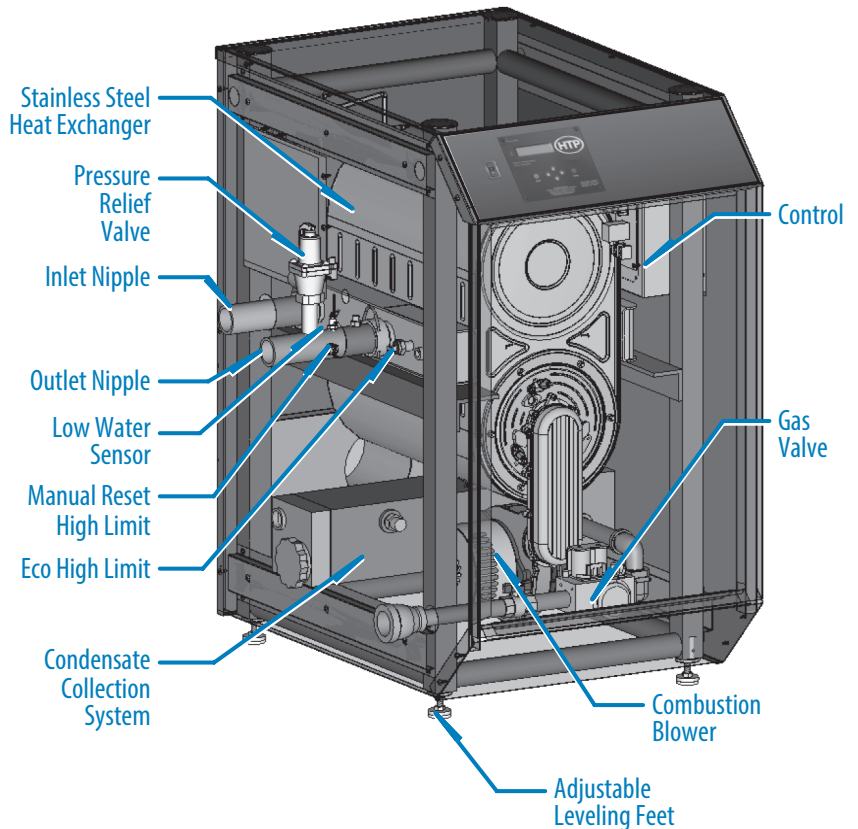
Integrated Control System

- Built-in sequencer for up to 8 boilers
- Digital display - Total System Control
- 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)

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 500/700/850)

Look Inside



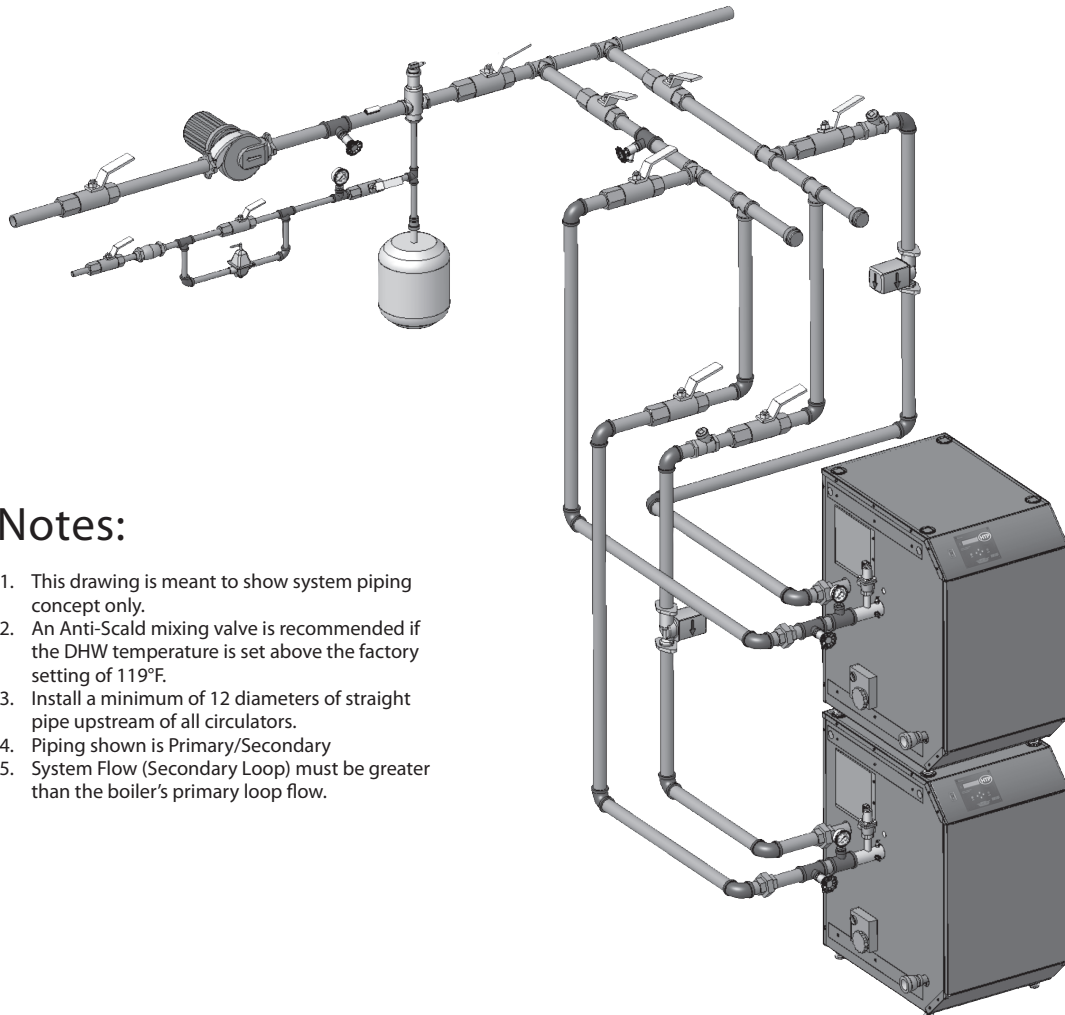
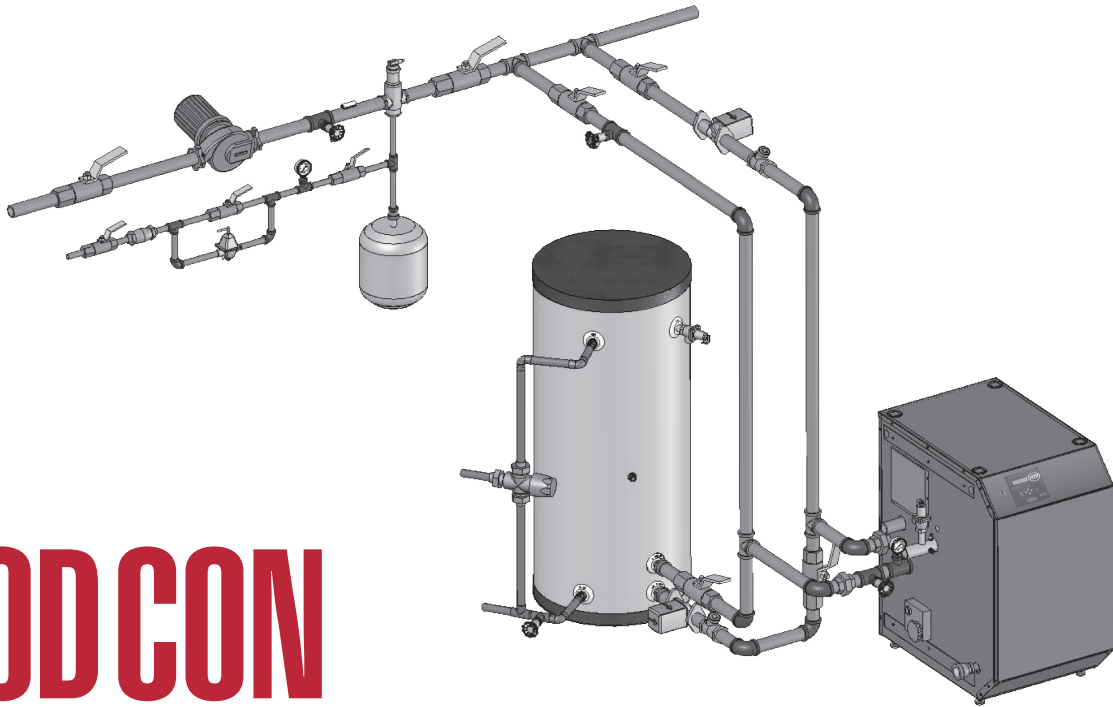
Additional Features

- Superior Condensate Collection System
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.

Single Boiler Space Heating with Indirect Priority

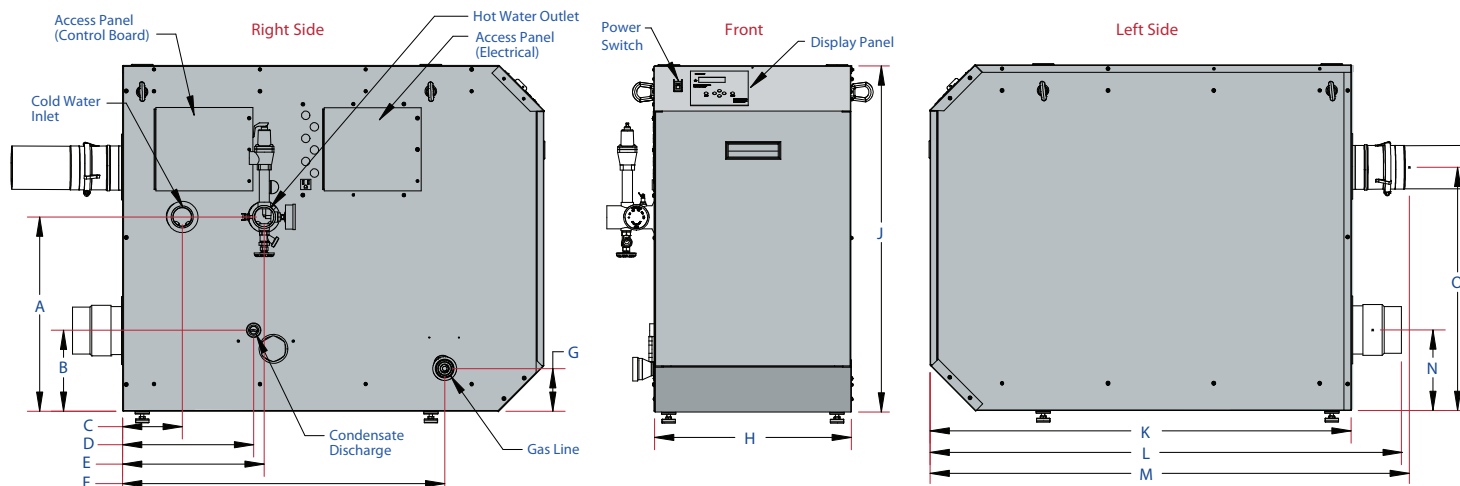
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Notes:

1. This drawing is meant to show system piping concept only.
2. 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 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.



Model	A	B	C	D	E	F	G	H	J	K	L	M	N	O
MOD CON 500	20"	14.75"	6.25"	13.25"	14.50"	33.25"	5.25"	20.5"	36"	43.75"	46"	48"	8.25"	25.5"
MOD CON 700	20"	20"	6.25"	16.25"	18.75"	43.50"	20"	20.5"	36"	62.25"	68.5"	73"	8.25"	25.5"
MOD CON 850	20"	20"	6.25"	16.25"	18.75"	43.50"	20"	20.5"	36"	62.25"	68.5"	73"	8.25"	25.5"

Model		500	700	850
Installation		Indoor, Floor Standing, Fully Condensing		
Minimum / Maximum Input (Btu/Hr)		100,000 / 500,000	170,000 / 700,000	170,000 / 850,000
Thermal Efficiency		94%	98%	94%
Heating Capacity (MBH)		470	686	799
Flue System		Category IV, Sealed Combustion Direct Vent, Power Vent		
Minimum Combined Vent Run		16 feet		
Maximum Combined Vent Run		4" (200 feet)	6" (200 feet)	
Approved Exhaust Vent Materials		PVC, CPVC, PP, Stainless Steel		
Shipping Weight (lbs)		505	580	
Gas Supply Pressure	NG	3.5" to 14"WC		
	LP			
Manifold Pressure	Min / Max	NG/LP: -0.01" WC		
Power Supply		120V 60 Hz, 6.3A		
General Operating Conditions		Ambient Temperature Range: 33 – 104°F (0.6 – 40°C) Product Approvals and Requirements: ANSI Z21.13 / CSA 4.9		
Ignition System		Direct Electronic Spark Ignition / Flame Rectification		
Burner System		Premixed Fuel Modulation / Stainless Steel Metal Fiber Burner		
Gas Valve System		Air Ratio Valve		
Dimensions (in Inches)	W	20.5		
	H	36		
	D	46	68.5	
Boiler Water Content (Gallons)		4.2	5.8	
Minimum Flow Rate @ 30°F ΔT (GPM)		33	54	
Boiler Setpoint Temperature Range		50 – 190°F / 32 - 190°F (with Outdoor Reset Curve)		
DHW Indirect Setpoint Temperature Range		70 – 185°F		
Water Pressure (PSI)	Heat Exchanger MAWP	160		
	Pressure Relief Valve	75		
Control Panel / Main Controller		LCD Display with LED Indicators / 926 Digital Control		
Connection Sizes	Supply / Return	2" NPT		
	Gas Inlet	1 1/2" NPTF	2" NPTF	
Materials	Cabinet	Powder Coated Galvaneal Steel		
	Heat Exchanger	316L Stainless Steel Water Tube		
Safety Devices		Flame Rectifier Probe, Water Temperature High Limit Switch (190°F), Freeze Protection, Condensate Trap with Overflow Switch, Included LWCO (Optional UL 353 LWCO), Blocked Vent Pressure Switch, Optional Gas High/Low Pressure Switch		