



Advanced Heating
& Hot Water Systems

MOD CON

Double Stack

Volume Water Heater

A TRUE
10:1

Turndown Ratio

Btuh Modulation Rates

100,000 - 1,000,000

170,000 - 1,700,005

Built in Redundancy
(No Downtime)

Small Footprint

Prepiped Reverse Return

Stainless Steel Heat Exchanger

Gas Fired Commercial

Volume Water Heater

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

Shutoff Valves Preinstalled on Both the Top & Bottom Units



MOD CON DOUBLE STACK VWH • A Closer Look

Vent Out

Shutoff
Valves

Cold
Water Inlet

Hot
Water Outlet

Pressure Relief
Valve

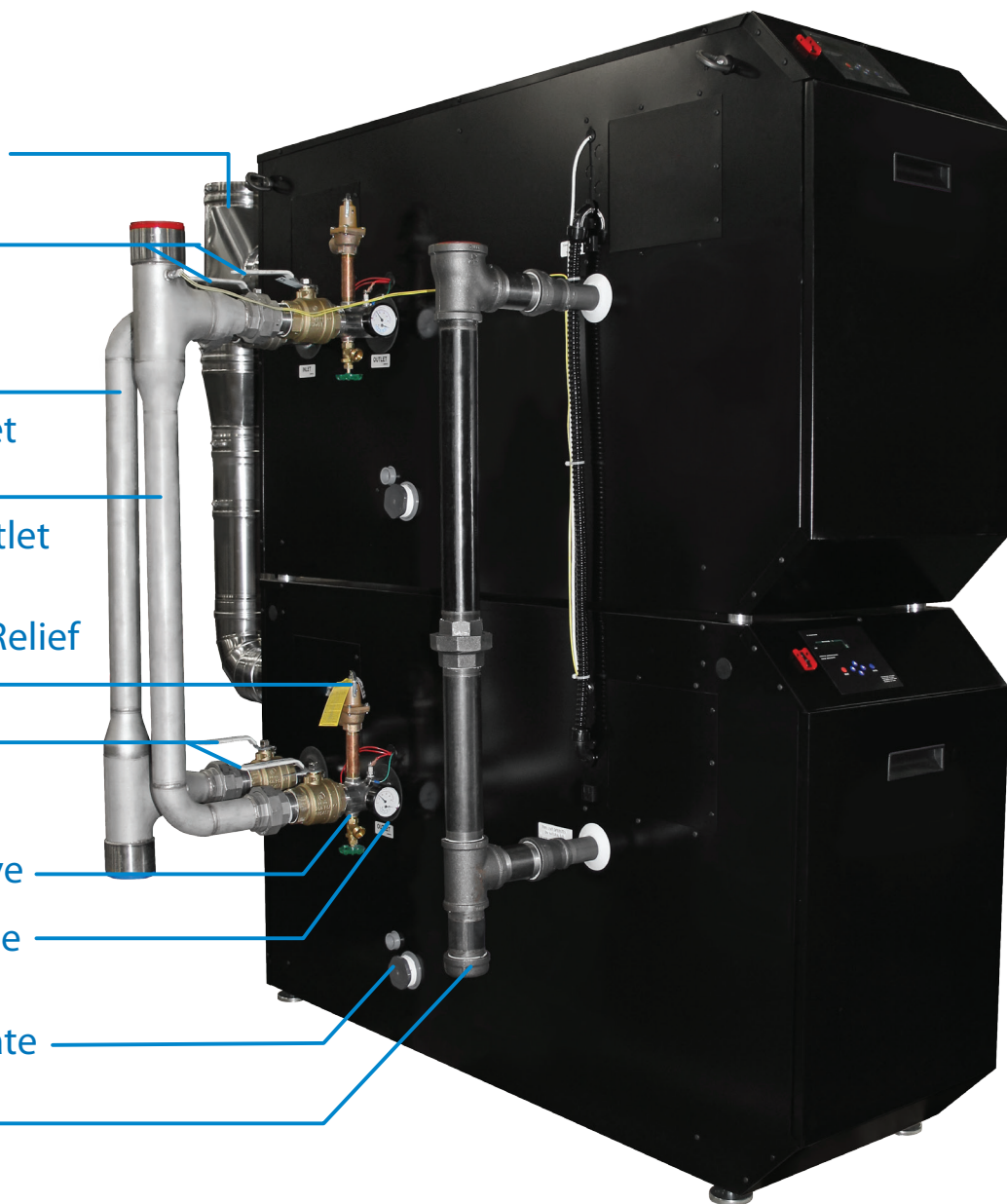
Shutoff
Valves

Drain Valve

T&P Gauge

Condensate

Gas Line



MOD CON DS • Additional Features

- Superior Condensate Collection System (Patent Pending) Easy to Service with Overflow Protection
- PVC – CPVC – Stainless Steel Venting
- Vents Up to 150 feet, Combined
- Adjustable Legs
- Direct Vent Sealed Combustion
- Models Available in Natural or LP Gas
- Easy Access to Wiring and Field Service of Combustion Heat Exchanger
- Flow Switch (Standard)
- 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 DS • Optional Equipment

- System Sensor (Part # 7250P-324)
- Indirect Sensor (Part # 7250P-325)
- 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)
- PC Interface Cable (Part # 7250P-320)
- Boiler Caster Kit (Part # 7350P-604)
- Mod Con Condensate Neutralizer (Part # 7350P-611)

MOD CON DOUBLE STACK VWH • Features

Combustion System

- **Modulating Burner with a True 10 to 1 Turndown**
- Whisper Quiet Operation
- Low NOx Operation
- High Grade Inconel Burner
- Reliable Spark Ignition
- **Combined Vent System**
- Gas Valve (Tested to UL, FM, CSA Standards)

Commercial

Up to 1,700,005 Btuh

Perfect for high demand applications including apartment buildings, restaurants, hotels, schools, hospitals, laundry facilities, office buildings and other commercial jobs.

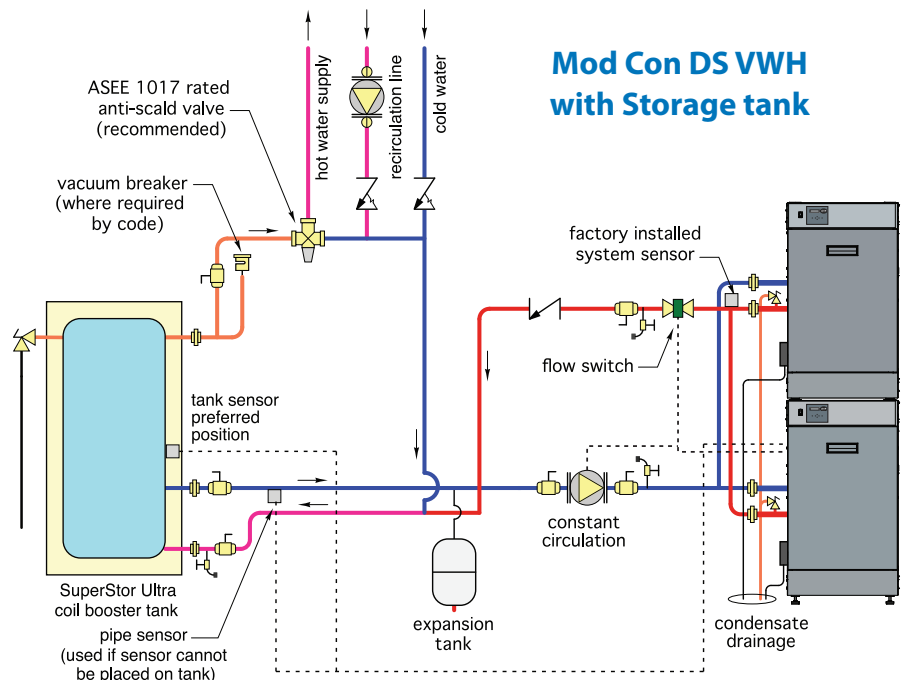


Heat Exchanger

- **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 4 Mod Con Double Stacked VWH Units**
Top & Bottom Boilers are Sequenced
- Integrated Control Allows Only the Amount of Heated Energy Required
- Control Feature Inputs for Outdoor Sensor, 0-10 VDC for Building Management System and Indirect Sensor
- Manual Reset High Limit Switch (supplied)
- Flow Switch Monitoring Ensures the Unit has Adequate Flow Before Firing the Burner
- Multiple Pump Outputs: Boiler Pump, System Pump, Indirect Pump
- 24 Volt Monitor for System Safety
- Dual Flame Sensing (Flame & Spark Ignition Probes)
- Master / Follower Control System



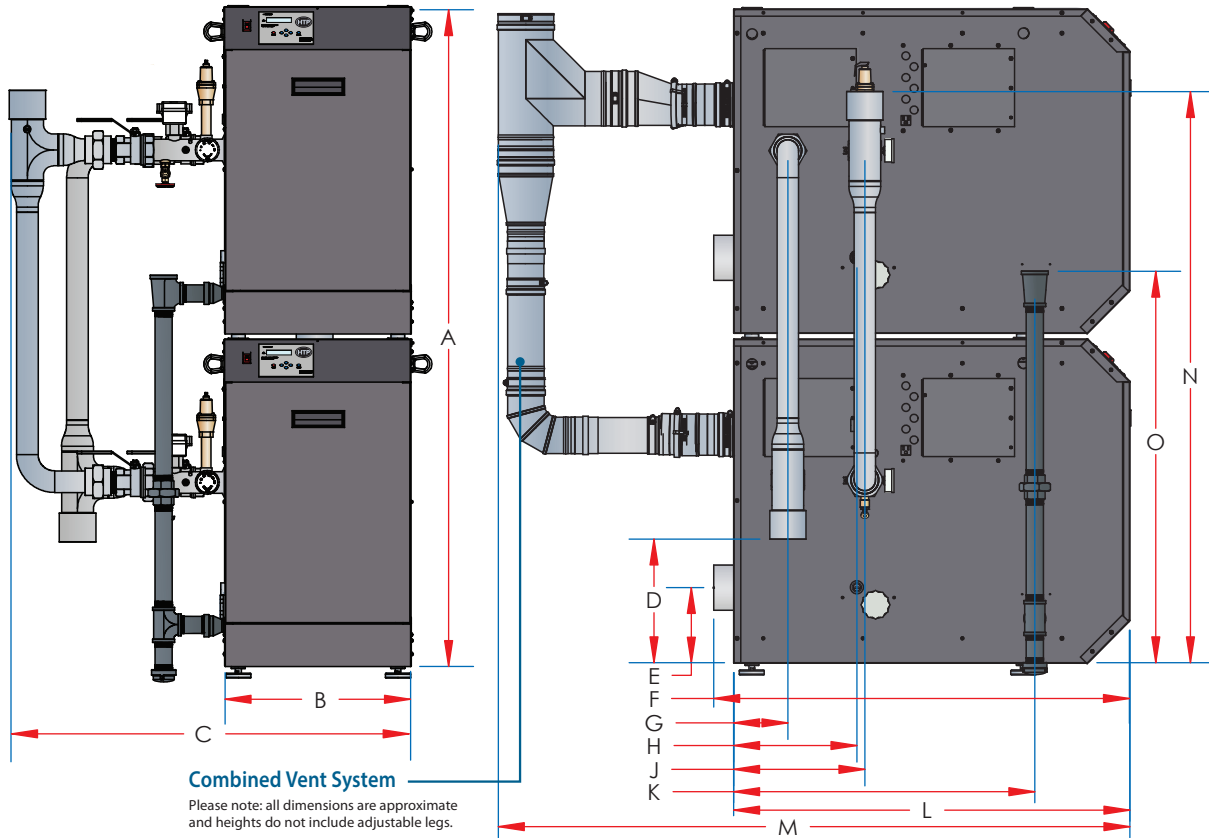
Mod Con DS VWH with Storage tank

MOD CON DOUBLE STACK VWH WITH STORAGE TANKS RATINGS

ΔT (Delta T) (°F)	1000VWH				1700VWH			
	Gallons Per Hour	First Hour Rating w/ 200 Gallon Tank	First Hour Rating w/ 300 Gallon Tank	First Hour Rating w/ 500 Gallon Tank	Gallons Per Hour	First Hour Rating w/ 350 Gallon Tank	First Hour Rating w/ 500 Gallon Tank	First Hour Rating w/ 750 Gallon Tank
		Contact HTP for Available Storage Tanks				Contact HTP for Available Storage Tanks		
40°	2918	3068	3143	3293	5012	5275	5387	5575
50°	2335	2485	2560	2710	4010	4272	4385	4572
60°	1945	2095	2170	2320	3341	3604	3716	3904
70°	1668	1818	1893	2043	2864	3127	3239	3427
80°	1459	1609	1684	1834	2506	2769	2881	3069
90°	1297	1447	1522	1672	2228	2490	2603	2790
100°	1167	1317	1392	1542	2005	2267	2380	2567
110°	1061	1211	1286	1436	1823	2085	2198	2385
120°	973	1123	1198	1348	1671	1933	2046	2233
130°	898	1048	1123	1273	1542	1805	1917	2105
140°	834	984	1059	1209	1432	1695	1807	1995

NOTE: The First Hour Rating can be increased by using an external mixing valve and increasing the tank setpoint temperature. Example: If the installation requires 120°F from mixing valve, set the tank at 140°F to increase the First Hour Rating.

	A	B	C	D	E	F	G	H	J	K	L	M	N	O
Mod Con DS VWH1000	72.5"	20.5"	45.5"	13.75"	8.375"	46"	6"	13.63"	14.5"	33.25"	43.75"	66.75"	63.25"	43.375"
Mod Con DS VWH1700	72.5"	20.5"	45.5"	13.75"	8.375"	64.5"	8.25"	20"	18.75"	43.5"	62.375"	88.5"	63.25"	59"



Model		1000	1700
Installation		Indoor, Floor Standing, Modulating, Fully Condensing	
Minimum / Maximum Input (Btu/Hr)		100,000 / 1,000,000	170,000 / 1,700,005
Thermal Efficiency		97%	98%
Heating Capacity (MBH)		970	1666
Flue System		Category IV, Sealed Combustion Direct Vent, Power Vent	
Minimum Combined Vent Run		16 feet	
Maximum Combined Vent Run		6" (150 feet)	8" (150 feet)
Approved Exhaust Vent Materials		Schedule 40 PVC, CPVC, PP, Stainless Steel	
Shipping Weight (lbs)		1010	1160
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	45.5	
	H	72.5	
	D	66.75	88.5
Boiler Water Content (Gallons)		8.4	11.6
Minimum Flow Rate @ 30°F ΔT (GPM)		66	109
DHW Setpoint Temperature Range		95 – 180°F	
Water Pressure (PSI)	Heat Exchanger MAWP	160	
	Pressure Relief Valve	150	
Control Panel / Main Controller		LCD Display with LED Indicators / 926 Digital Control	
Connection Sizes	Supply / Return	3" NPT	
	Gas Inlet	2" NPTF	2 1/2" 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	