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

A BRAND OF ARISTON THERMO USA

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)

Look Inside

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)

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.
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 Specifications

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### Installation

**Minimum / Maximum Input (Btu/Hr)**
- **500**: 100,000 / 500,000
- **700**: 170,000 / 700,000
- **850**: 170,000 / 850,000

**Thermal Efficiency**
- 94%
- 98%
- 98%

**Heating Capacity (MBH)**
- **500**: 470
- **700**: 686
- **850**: 799

### Flue System

- **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)

- **500**: 505 lbs
- **700**: 580 lbs

### General Operating Conditions

- **Gas Supply Pressure**: NG 3.5” to 14” WC
- **Manifold Pressure**: NG/LP: -0.01” WC
- **Power Supply**: 120V 60 Hz, 6.3A

### Ignition System

- **Ignition System**: Direct Electronic Spark Ignition / Flame Rectification

### Burner System

- **Burner System**: Premixed Fuel Modulation / Stainless Steel Metal Fiber Burner

### Gas Valve System

- **Gas Valve System**: Air Ratio Valve

### Dimensions (in Inches)

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### Boiler Water Content (Gallons)

- **500**: 4.2 gallons
- **700**: 5.8 gallons
- **850**: 33 gallons

### Minimum Flow Rate @ 30°F ΔT (GPM)

- **500**: 33 GPM
- **700**: 54 GPM

### Boiler Setpoint Temperature Range

- **500**: 50°F to 190°F
- **700**: 70°F to 185°F
- **850**: 70°F to 185°F

### Water Pressure (PSI)

- **500**: Heat Exchanger MAWP: 160
- **700**: Pressure Relief Valve: 75

### Control Panel / Main Controller

- **Control Panel / Main Controller**: LCD Display with LED Indicators / 926 Digital Control

### Connection Sizes

- **Connection Sizes**: 2” NPT
- **Supply / Return**: 2” NPT
- **Gas Inlet**: 1 1/2” NPTF

### Materials

- **Materials**: 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

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