



**Lochinvar**<sup>®</sup>  
HIGH EFFICIENCY BOILERS & WATER HEATERS

**COPPER-FIN II<sup>®</sup>  
WATER HEATER  
Submittal Sheet**

**CFE-Sub-08**

**COPPER-FIN II<sup>®</sup> GAS WATER HEATERS (MODELS 402-2072)**

**JOB NAME** \_\_\_\_\_

**LOCATION** \_\_\_\_\_

**ENGINEER** \_\_\_\_\_

**MECH. CONTRACTOR** \_\_\_\_\_

**MODEL NO.** \_\_\_\_\_

**TYPE GAS** \_\_\_\_\_

**Btu/hr INPUT** \_\_\_\_\_

**RECOVERY RATE IN GPH** \_\_\_\_\_ **@** \_\_\_\_\_ **°F RISE**

**NOTES**

**STANDARD FEATURES** \_\_\_\_\_

- › **85% Thermal Efficiency**
- › **Proportional Firing up to 4:1 Turndown**
  - › Hot Surface Ignition
  - › Low NOx Operation
  - › Sealed Combustion
  - › Low Gas Pressure Operation
- › **Vertical & Horizontal Venting**
  - › Category I Venting
    - › Double Wall "B" Vent Material
  - › Category IV Venting
    - › AL29-4C Stainless Steel Vent Material
- › **ASME Copper Finned Tube Heat Exchanger**
  - › ASME Certified, "H" Stamped
  - › Gasketless design
  - › 160 psi working pressure
- › On/Off Switch
- › Combustible Floor Rated (CF 0992-2072)
- › Adjustable High Limit w/ Manual Reset
- › Low Lead Circulating Pump
- › Flow Switch
- › Low Air Pressure Switch
- › Inlet & Outlet Temperature Sensors
- › Easy Access Terminal Strips
- › Downstream Test Cocks
- › 150 psi ASME Temperature and Pressure Relief Valve
- › 1 Year Warranty on Parts (See Warranty for Details)
- › 5 Year Limited Warranty (See Warranty for Details)

**SMART SYSTEM™ FEATURES** \_\_\_\_\_

- › **SMART SYSTEM™ Operating Control**
- › 2 Line/16 Character LCD Display
- › Built in Cascading Sequencer for up to 8 water heaters
- › Front-End Loading Capability with Armor Water Heaters
- › Building Management System Integration with 0-10 VDC Input
- › 0-10 VDC Rate Output
- › Password Security
- › Low Water Flow Control & Indication
- › Inlet & Outlet Temperature Readout
- › Freeze Protection
- › Condensing Protection
- › Service Reminder
- › Time Clock
- › **Data Logging**
  - › Hours Running
  - › Ignition Attempts
  - › Last 10 Lockouts
- › **Programmable System Efficiency Optimizers**
  - › Night Setback
- › **Pump Control**
  - › Water Heater Pump
  - › Recirculation Pump
- › **High Voltage Terminal Strip**
  - › 120 VAC / 60 Hertz / 1 Phase Power Supply
  - › Pump Contacts with Pump Relay
- › **Low Voltage Terminal Strip**
  - › 24 VAC Auxiliary Device Relay Output - Louvers
  - › Auxiliary Proving Switch Contacts - Louvers
  - › Alarm on Any Failure Contacts

- › Runtime Contacts
- › Unit Enable/Disable Contacts
- › Tank Sensor Contacts
- › Contacts for Air Louvers
- › Contacts on Any Failure
- › Cascade Contacts
- › 0-10 VDC BMS External Control Contact
- › 0-10 VDC Rate Output Contacts

**OPTIONAL EQUIPMENT** \_\_\_\_\_

- › Alarm
- › High & Low Gas Pressure Switches w/ Manual Reset
- › Cupro-Nickel Heat Exchanger
- › Low Water Cut Off, Probe Type w/ Manual Reset & Test
- › Modbus Communications
- › BMS Gateway - BACnet or LonWorks
- › Combustible Floor Kit (CF 0402-0752)
- › Stack Frame

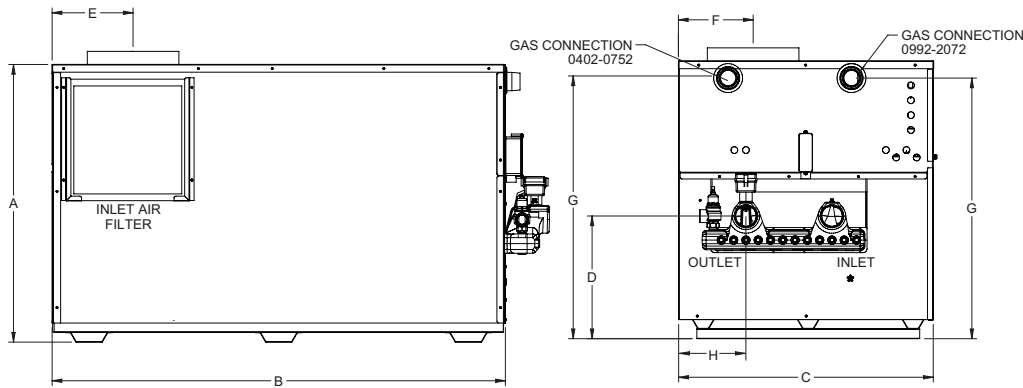
**FIRING CODES** \_\_\_\_\_

- › M7 Firing Code - California Code
- › M9 Firing Code - Hot Surface Ignition with Electronic Supervision
- › M13 Firing Code - CSD1 / Factory Mutual / GE Gap

**CERTIFICATIONS** \_\_\_\_\_

- › ANSI Z21.13/CSA 4.9 certified
- › South Coast Air Quality Management District
- › Texas Commission on Environmental Quality

# Copper-Fin II® Gas Water Heater Dimensions & Specifications



Copper-Fin II Water Heater			Dimensions & Specifications												
Model Number	Input MBH	GPH @ 100°F Rise	A	B	C	D	E	F	G	H	Vent Size	Air Inlet	Gas Conn	Shipping Weight	
CFN0402PM	399	412	31-1/2"	37-3/4"	22-1/4"	12-1/2"	7"	7"	29"	6-1/2"	6"	6"	1-1/4"	454	
CFN0502PM	500	515	31-1/2"	45-1/2"	22-1/4"	12-1/2"	7"	7"	29"	6-1/2"	6"	6"	1-1/4"	467	
CFN0652PM	650	670	31-1/2"	56-3/4"	22-1/4"	12-1/2"	8-1/2"	8-1/4"	29"	6-1/2"	8"	8"	1-1/4"	551	
CFN0752PM	750	773	31-1/2"	64"	22-1/4"	12-1/2"	8-1/2"	8-1/4"	29"	6-1/2"	8"	8"	1-1/4"	611	
CFN0992PM	990	1,020	36"	48-1/4"	33-1/2"	15-3/4"	8-1/2"	8-1/2"	33-3/4"	8-3/4"	10"	10"	2"	843	
CFN1262PM	1,260	1,298	36"	58-1/2"	33-1/2"	15-3/4"	10-1/2"	9-1/2"	33-3/4"	8-3/4"	12"	12"	2"	939	
CFN1442PM	1,440	1,484	36"	68-3/4"	33-1/2"	15-3/4"	10-1/2"	10-1/2"	33-3/4"	8-3/4"	12"	12"	2"	1,035	
CFN1802PM	1,800	1,855	36"	82-1/4"	33-1/2"	15-3/4"	11"	11"	33-3/4"	8-3/4"	14"	12"	2"	1,168	
CFN2072PM	2,070	2,133	36"	92-1/2"	33-1/2"	15-3/4"	11"	11"	33-3/4"	8-3/4"	14"	12"	2"	1,285	

**Notes:** Change 'N' to 'L' for LP gas models. No deration on LP models. Water connections for models CF 0402-0752 are 2" NPT on 6-1/2" centers. Header increases "B" dimension 3-1/2" for models CF 0402-0752 and 6-1/4" for models CF 0992-2072. Water connections for models CF 0992-2072 are 2-1/2" NPT on 11-1/4" centers. Pump and flanges are shipped loose for field installation. Performance data is based on manufacturer test results.

## Venting Options

- Aire-Lock™ Direct Vent Sealed Combustion
- DirectAire® Vertical
- DirectAire® Vertical w/ Sidewall Inlet
- Outdoor Installation
- Power DirectAire® Horizontal
- Powered Side Wall
- Sidewall



**Lochinvar**  
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