



Lochinvar®

HIGH EFFICIENCY BOILERS & WATER HEATERS

COPPER-FIN II® COMMERCIAL BOILER

Submittal Sheet

CHE-Sub-11

COPPER-FIN II GAS BOILER (MODELS 402 - 2072)

Job Name: _____ Model No. _____

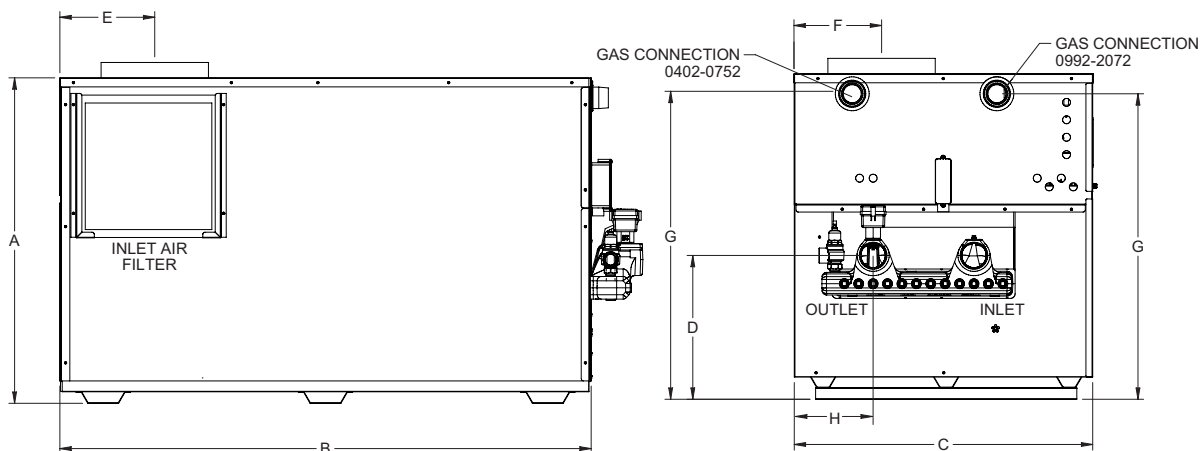
Location: _____ Type Gas: _____

Engineer: _____ Equipment Tag(s): _____

Agent/Wholesaler: _____

Contractor: _____

NOTES:



Copper-Fin II Heating Boiler					Dimensions & Specifications											
Model No.	Input MBH	Thermal Eff.	Output MBH	Net AHRI Rating	A	B	C	D	E	F	G	H	Vent Size	Air Inlet	Gas Conn	Ship Wt.
CHN0402	399	85%	339	295	31-1/2"	37-3/4"	22-1/4"	12-1/2"	7"	7"	29"	6-1/2"	6"	6"	1-1/4"	378
CHN0502	500	85%	425	370	31-1/2"	45-1/2"	22-1/4"	12-1/2"	7"	7"	29"	6-1/2"	6"	6"	1-1/4"	414
CHN0652	650	85%	553	481	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"	500
CHN0752	750	85%	638	555	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"	543
CHN0992	990	85%	842	732	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"	773
CHN1262	1,260	85%	1,071	931	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"	863
CHN1442	1,440	85%	1,224	1,064	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"	965
CHN1802	1,800	85%	1,530	1,330	36"	82-1/4"	33-1/2"	15-3/4"	11"	11"	33-3/4"	8-3/4"	14"	12"	2"	1,100
CHN2072	2,070	85%	1,760	1,530	36"	92-1/2"	33-1/2"	15-3/4"	11"	11"	33-3/4"	8-3/4"	14"	12"	2"	1,219

Notes:

- Change 'N' to 'L' for LP gas models.
- No deration on LP models.
- Water connections for models CH 0402-0752 are 2" NPT on 6-1/2" centers.
- Water connections for models CH 0992-2072 are 2-1/2" NPT on 11-1/4" centers.
- Header increases "B" dimension 3-1/2" for models CH 0402-0752 and 6-1/4" for models CH 0992-2072.
- Performance data is based on manufacturer test results.

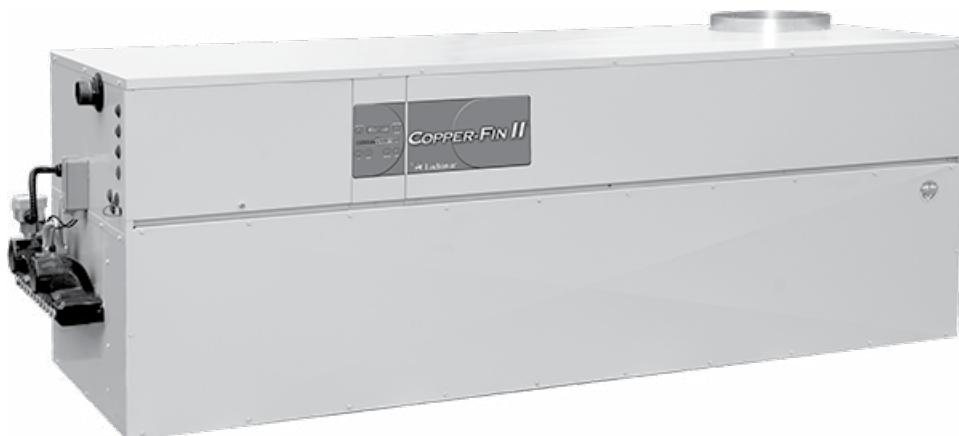
COPPER-FIN II®

Certifications

ANSI Z21.13/CSA 4.9 certified

South Coast Air Quality Management District

Texas Commission on Environmental Quality



Standard Features

› 85% Thermal Efficiency (AHRI Certified)

› 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 (CH 0992 - 2072)
- › Adjustable High Limit w/ Manual Reset
- › Flow Switch
- › Low Air Pressure Switch
- › Inlet & Outlet Temperature Sensors
- › Easy Access Terminal Strips
- › Downstream Test Cocks
- › 50 psi ASME Relief Valve
- › Temperature & Pressure Gauge
- › 1 Year Warranty on Parts
(See Warranty for Details)
- › 10 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 boilers
- › Front End Loading Capability with Crest or Knight Boilers
- › Building Management System Integration with 0-10 VDC Input
- › Outdoor Reset Control with Outdoor Air Sensor
- › Password Security
- › Domestic Hot Water Prioritization

- › Low Water Flow Control & Indication
- › Inlet & Outlet Temperature Readout
- › Freeze Protection
- › Service Reminder
- › Time Clock
- › 0-10 VDC Rate Output
- › Condensing Protection
- › 0-10 VDC System Pump Speed Input

› Data Logging

- › Hours Running, Space Heating
- › Hours Running, Domestic Hot Water
- › Ignition Attempts
- › Last 10 Lockouts

› Programmable System Efficiency Optimizers

- › Night Setback
- › Anti-Cycling
- › Outdoor Air Reset Curve
- › Boost Temperature & Time

› Three Pump Control

- › System Pump
- › Boiler Pump
- › Domestic Hot Water 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
- › 3-way Valve Contacts for Low Temp. Protection
- › Alarm on Any Failure Contacts
- › 0-10 VDC System Pump Speed Contacts
- › Runtime Contacts
- › DHW Thermostat Contacts
- › DHW Tank Sensor Contacts
- › Unit Enable/Disable Contacts
- › System Sensor Contacts - Supply and Return
- › Outdoor Air Sensor Contacts
- › Contacts for Air Louvers
- › Contacts on Any Failure
- › Cascade Contacts
- › 0-10 VDC BMS External Control Contact
- › 0-10 VDC Rate Contacts

Optional Equipment

- Alarm on Any Failure
- High & Low Gas Pressure Switches w/ Manual Reset
- Cupro-Nickel Heat Exchanger
- Low Water Cut Off, Probe Type w/ Manual Reset & Test
- Modbus Communications
- BACnet MSTP Communications
- BMS Gateway - BACnet IP or LonWorks
- Combustible Floor Kit (CH 0402-0752)
- Stack Frame
- Low Temperature Protection Valve
- 30 psi ASME Relief Valve
- 75 psi ASME Relief Valve
- 100 psi ASME Relief Valve
- 125 psi ASME Relief Valve
- 150 psi ASME Relief Valve

Firing Codes

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

Venting Options

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



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