



48/50HJ,62AQ-3SB

48/50HJ004-007 and 62AQ060,100--GA

48/50HJ008-014 and 62AQ200,300--GA

**COBRA™ COMBINATION GAS HEATING/
ELECTRIC COOLING UNITS WITH FACTORY-INSTALLED
62AQ ENERGY\$RECYCLER™ UNIT**

**COBRA COMBINATION ELECTRIC COOLING UNITS WITH
FACTORY-INSTALLED 62AQ ENERGY\$RECYCLER UNIT
AND FIELD-INSTALLED ELECTRIC HEAT**

- PERFORMANCE DATA**
- CERTIFIED DIMENSION PRINTS**
- CERTIFIED ROOF CURB
DIMENSION PRINTS**
- ACCESSORY DIMENSION PRINTS**



Date:	Supersedes:	48/50HJ004-007 and 62AQ060,100--GA 48/50HJ008-014 and 62AQ200,300--GA COMBINATION UNITS	48HJ,62AQ AND 50HJ,62AQ	Rev: -3SB
JOB NAME:		LOCATION:		
BUYER:	BUYER P.O. #		CARRIER #	
UNIT NUMBER:		MODEL NUMBER:		
PERFORMANCE DATA CERTIFIED BY:				DATE:



DESCRIPTION

COBRA™ 48HJ and 62AQ units or 50HJ and 62AQ units offer combination heating, cooling and energy recovery capabilities. 48HJ section units are one-piece, gas heating/electric cooling units, that are prewired and charged with R-22 refrigerant at the factory. 50HJ section units are one-piece, electric cooling units, that are prewired and charged with R-22 refrigerant at the factory. 62AQ Energy\$Recycler™ energy recovery unit uses conventional heat pump technology to recycle energy from the return air from the conditioned space and pre-treats the outdoor air entering the rooftop unit. The rooftop section is equipped with an integral non-fused disconnect (80 A maximum) to satisfy the electrical requirements of BOTH the rooftop and the 62AQ sections. All connecting condensate piping, control and power wiring, and mechanical fastening is factory installed, tested, and qualified. The entire assembly is capable of being installed on a standard 48/50HJ004-014 roof curb accessory. The units are factory tested in Cooling mode. The units are designed in accordance with UL Standard 1995, and listed by the Underwriters' Laboratories.

ROOFTOP UNIT SECTION STANDARD FEATURES

Standard one-year full product warranty.
Five-year protection plan for the motor-compressor.
SEER up to 13.0 EER up to 11.8.
Available Extended Warranties

- Labor warranty (requires authorized start-up)
- Up to 5-year additional heat exchanger warranty (48 Series Only)

Low outdoor temperature cooling operation to 25 F (–4 C) as standard.
Units are certified by UL and UL, Canada. Factory-run test printout included in each rooftop.
24-volt control circuit, with resettable circuit breaker.
Exclusive Cycle-LOC™ compressor anti-cycle protection.
Two-inch disposable-type return air filters in dedicated rack.
Independent circuit with internal line break and overload protection, self-lubricating with internal discharge muffler.
Refrigerant circuit contains a filter drier to trap dirt and moisture.
Scroll compression standard on rooftop unit.
Adjustable motor pulley belt drive evaporator fan standard on all size units, with permanently lubricated high-static motors.
Noncorrosive composite condensate pan with self-draining sloping design and both bottom and side drain connections in accordance with ASHRAE standards.
Loss-of-charge, freeze protection, and high-pressure safety switches.
Standard thru-the-bottom power entry capability on rooftop unit.
Indoor and outdoor coils constructed of lanced aluminum fins mechanically bonded to internally grooved seamless copper tubes.
Available corrosion resistant coils.
Full perimeter heavy gage base rail with built-in rigging adapters and fork truck slots (48/50HJ and 62AQ).

Single-point electrical connections (48/50HJ and 62AQ).
Factory-supplied integral non-fused disconnect (80 amp maximum).
Direct-drive propeller condenser-fan motor totally enclosed with permanently lubricated bearings.
Prepainted cabinet with primer inner panels, certified at 500-hr salt spray test and noncorrosive screws.
Large, easily removable panels provide ready access to unit components for rapid removal or maintenance.
Filter access door for filter access and maintenance that requires no tools.
Fixed orifice metering device precisely controls flow to each circuit individually.
Reliable accurate control circuit with color coded wires and easy accessible terminal board.

48 Series Units Only

Induced draft combustion system with Hall effect sensor to detect proper operation of induced draft motor.
Heavy Alumagard™ coated heat exchangers, with aluminized steel burners and 2-stage gas valves.
Heating controls with solid-state direct spark ignition system, and two-stage redundant gas valve. Fan switch, overtemperature switch and flame rollout switch also included.
Integrated gas control board with built-in diagnostics to determine error codes and control indoor fan ON/OFF delays.
Integrated gas control board provides anti-cycle protection for gas heat operation.
Dedicated 3 to 5 ton Low NO_x units meet California Air Quality NO_x requirement of 40 nanograms/joule or less.
Dedicated 3 to 5 ton, 3-phase non-NO_x single-stage units.

62AQ ENERGY\$RECYCLER SECTION STANDARD FEATURES

Factory wired with rooftop unit for single point electrical connection.
Supply fan is standard (GA designation on model number).
Centrifugal, direct-drive, supply and exhaust fans.
62AQ section includes integral economizer for up to 100% outdoor air capacity, eliminating the need for a rooftop unit-mounted economizer.
Factory-supplied condensate piping for both 48/50HJ section and 62AQ section to a single condensate drain.
Combination 48HJ and 62AQ or 50HJ and 62AQ units fit on standard accessory roof curb.
Field-assembly of 62AQ unit to rooftop unit is eliminated.
Conventional heat pump technology is used to pre-treat incoming outdoor air.

62AQ Engery\$Recycler unit requires minimal maintenance compared to a heat/enthalpy wheel design.
No cross-contamination of supply air when poor quality return air is present (in areas with poor air quality).
Controlled by a Thermidistat™ device (combination thermostat and humidity sensor) or thermostat and separate humidistat.
Two-in. filters with easy access.
Fixed orifice metering device combined with modulating type TXV refrigeration controls
Suction line accumulator.
Integral fuses.

PERFORMANCE DATA

COOLING

Net Total Cap. _____ Btuh
Net Sensible Cap. _____ Btuh
Compressor Power Input _____ kW
_____ F Outdoor Air Temperature
Indoor Entering Air db _____ F wb _____ F
Cfm _____ Ext. Static Pressure _____ in. wg
Fan Rpm _____ Bhp _____

HEATING

Input
Stage 1 _____ Total _____ Btuh
Output:
Stage 1 _____ Total _____ Btuh
AFUE _____ %
Steady State _____ %
Operating Weight _____ lb (unit) _____ lb (curb)

FAN PERFORMANCE

Return ESP _____ in. wg Return CFM _____ Supply CFM _____

ELECTRICAL DATA

Power Supply to Unit _____ Volts _____ Phase _____ Hz
Minimum Circuit Amps _____ Maximum Overcurrent Protection (Fuse only) _____

OPTIONS AND ACCESSORIES

FACTORY-INSTALLED OPTIONS — 48/50HJ

- ☐ High-Static Indoor Fan Motor/Drive
- ☐ Copper/Copper Coils — Indoor, Outdoor, Both
- ☐ Non-Fused Disconnect Switch (80 amp max)
- ☐ 115-Volt Convenience Outlet (load side)
- ☐ PremierLink™ Controls
- ☐ Hinged Access Panels for Indoor Fan, Compressor, Control Box, and Filter
- ☐ HumidiMi\$er™ Dehumidification Device
- ☐ E-Coated Outdoor Coils/Aluminum or Copper Fins
- ☐ E-Coated Indoor Coils/Aluminum Fins/Copper Tubes
- ☐ Pre-Coated Outdoor Coils
- ☐ NOVAR Controls (3051)
- ☐ Stainless Steel Heat Exchanger Tubes

FACTORY-INSTALLED OPTIONS — 62AQ ENERGY\$RECYCLER™ UNIT

- ☐ E-Coat Coil

FIELD-INSTALLED ACCESSORIES — 48/50HJ

- ☐ Solid-State Enthalpy Control (Unoccupied Mode Only)
- ☐ Differential Enthalpy Control (Unoccupied Mode Only)
- ☐ Differential Dry Bulb Control (Unoccupied Mode Only)
- ☐ Standard Unit Roof Curb (14 or 24-in. Height)
- ☐ Full Perimeter HJ/AQ Roof Curb (14 or 24-in. Height)
- ☐ Thru-the-Bottom Electrical Connection Kit
- ☐ Thermidistat™ Device
- ☐ Humidistat
- ☐ Condenser Coil Hail Guard
- ☐ Condenser Coil Protector
- ☐ Condenser Coil Salt Spray Protector
- ☐ -20 F Motormaster® Low Ambient Control Kit
- ☐ Liquid Propane (LP) Gas Kit (48 Series Units Only)
- ☐ Flue Hood Protector Kit (48 Series Units Only)
- ☐ Flue Discharge Deflector (48 Series Units Only)
- ☐ Indoor Fan/Filter Status Indicator
- ☐ CO₂ Sensor
- ☐ Electric Heat (50 Series Units Only)
- ☐ Other _____

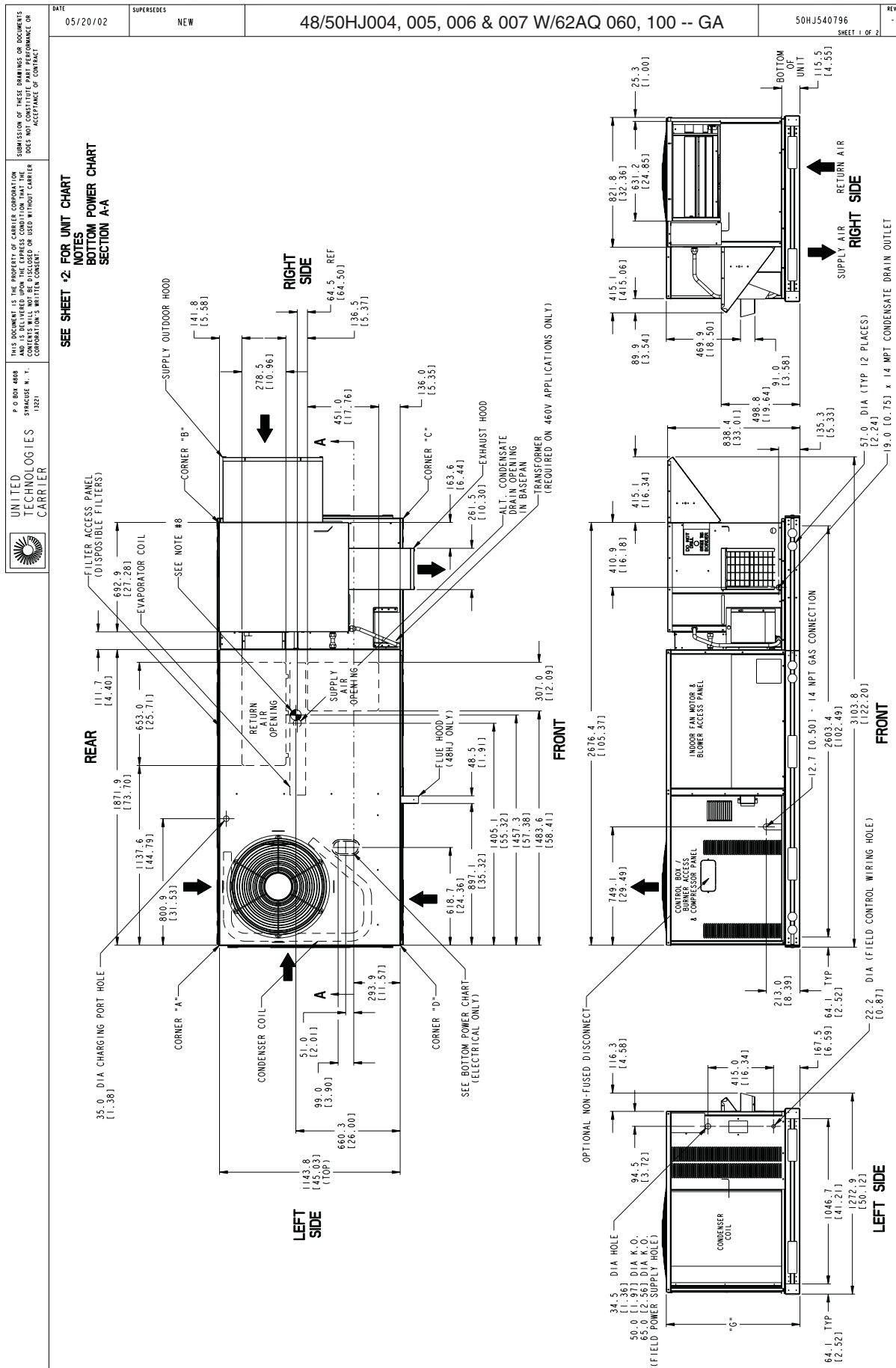
FIELD-INSTALLED ACCESSORIES — 62AQ ENERGY\$RECYCLER UNIT

- ☐ Sleeper Rails (8 to 14-in. or 14 to 24-in. Height)

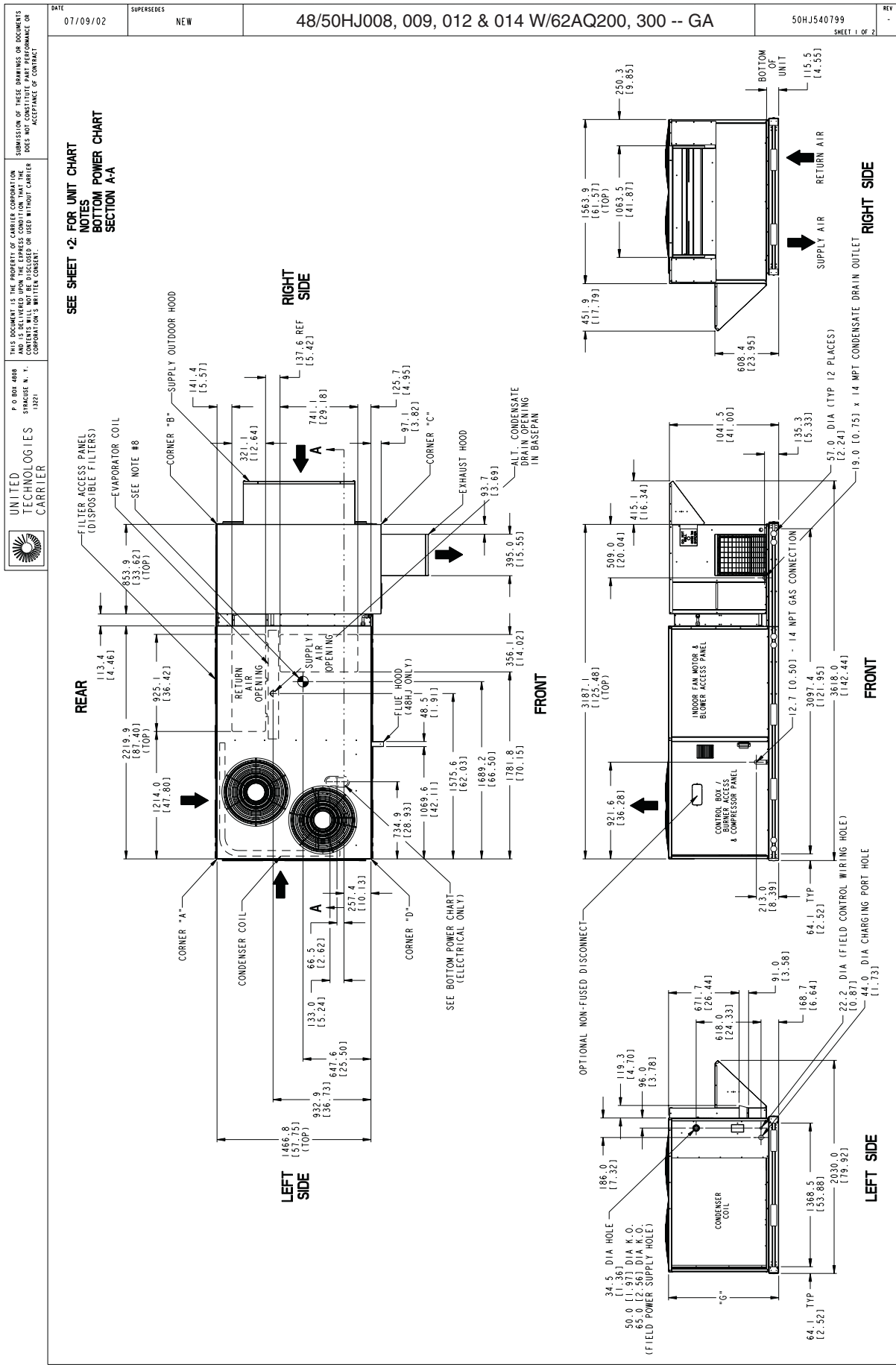
BLANKET QUOTE CONTROLS

- ☐ 115-V Field Powered GFI Convenience Outlet (line side)
- ☐ 115-V GFI Convenience Outlet (field powered)
- ☐ Fused Disconnect
- ☐ Hinged Access Panels
- ☐ Lockout of High Fire Stage for Heating
- ☐ Louvered Hail Guard
- ☐ Low Ambient Controller (Motormaster® I)
- ☐ Smoke Detector — Return Air
- ☐ Smoke Detector — Return and Supply Air
- ☐ Split Power (transfer switch NOT included)
- ☐ UV-C Lamps (installed and powered with door interlock switch and disconnect switch)
- ☐ COBRA™ Sloped Full Perimeter Curb

CERTIFIED DIMENSION PRINT



CERTIFIED DIMENSION PRINT



CUT ALONG DOTTED LINE

CUT ALONG DOTTED LINE

CUT ALONG DOTTED LINE

CERTIFIED ROOFTOP UNIT ROOF CURB DIMENSION PRINT

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CUT ALONG DOTTED LINE

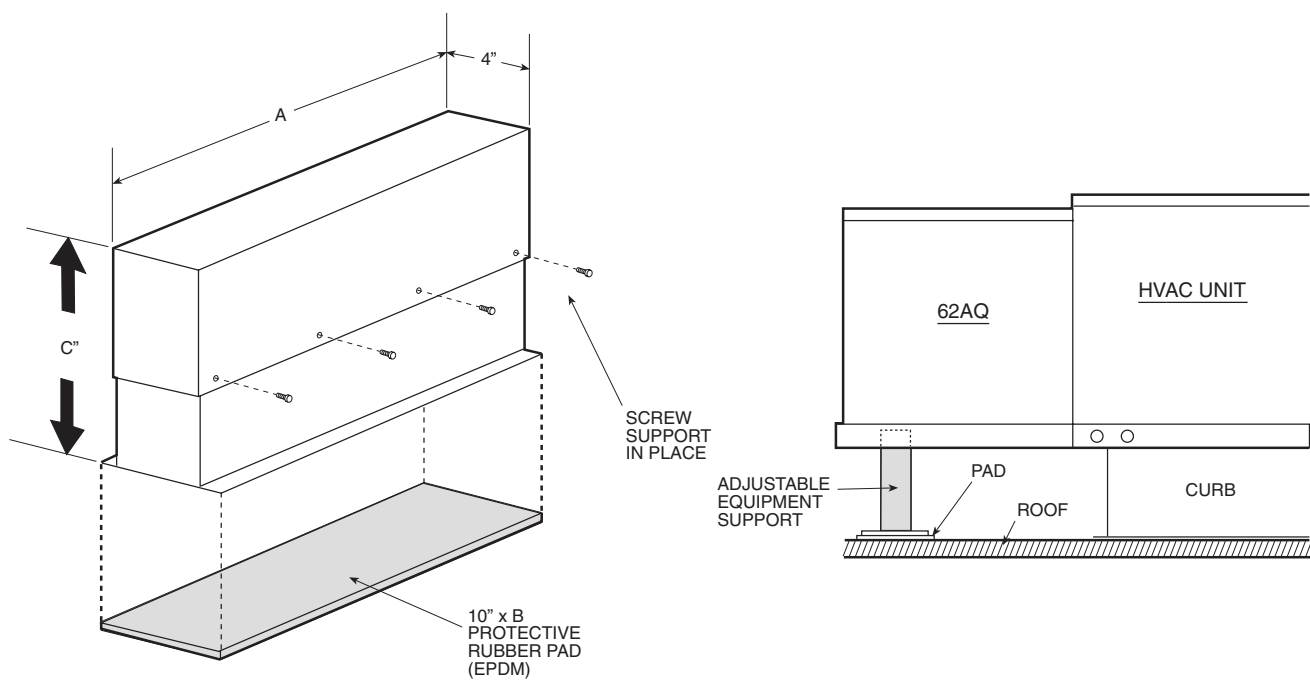
CERTIFIED ROOFTOP UNIT ROOF CURB DIMENSION PRINT

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ACCESSORY DIMENSIONAL DRAWING

SUPPLEMENTAL 62AQ SECTION EQUIPMENT SUPPORT

UNIT SIZE	EQUIPMENT SUPPORT PART NUMBER	DIMENSIONS (in.)		
		A	B	C
3-6 Ton	CRAQSUPT001A00	36.9	40	8 to 14
	CRAQSUPT002A00	36.9	40	14 to 24
7 1/2-12 1/2 Ton	CRAQSUPT003A00	49.7	54	8 to 14
	CRAQSUPT004A00	49.7	54	14 to 24



CUT ALONG DOTTED LINE

CUT ALONG DOTTED LINE

HJ/AQ COMBINED UNIT FULL PERIMETER ROOF CURB DRAWING

⚠ CAUTION

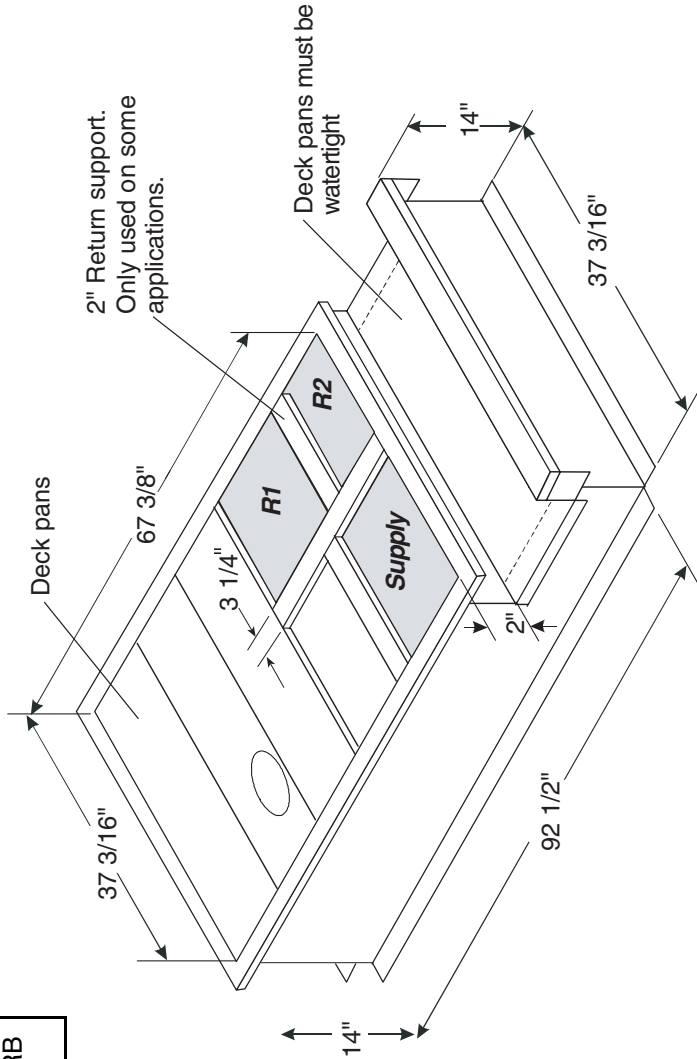
DO NOT USE THIS DRAWING TO FIELD-FABRICATE A CURB! SIGNIFICANT PROBLEMS CAN OCCUR IF A CARRIER APPROVED CURB IS NOT USED.

DUCT OPENING SIZES

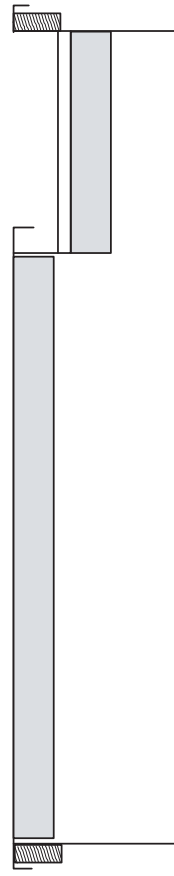
Supply = 13 7/8" x 20 1/4"
R1 = 13 5/8" x 17 3/4"
R2 = 13 5/8" x 12 5/16"

R1 = Return from building to HVAC

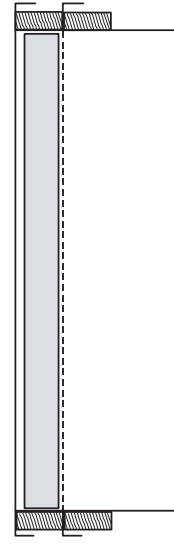
R2 = Return from building to 62AQ



SIDE VIEW



END VIEW



48/50HJ004-007 WITH 62AQ060, 100

HJ/AQ COMBINED UNIT FULL PERIMETER ROOF CURB DRAWING

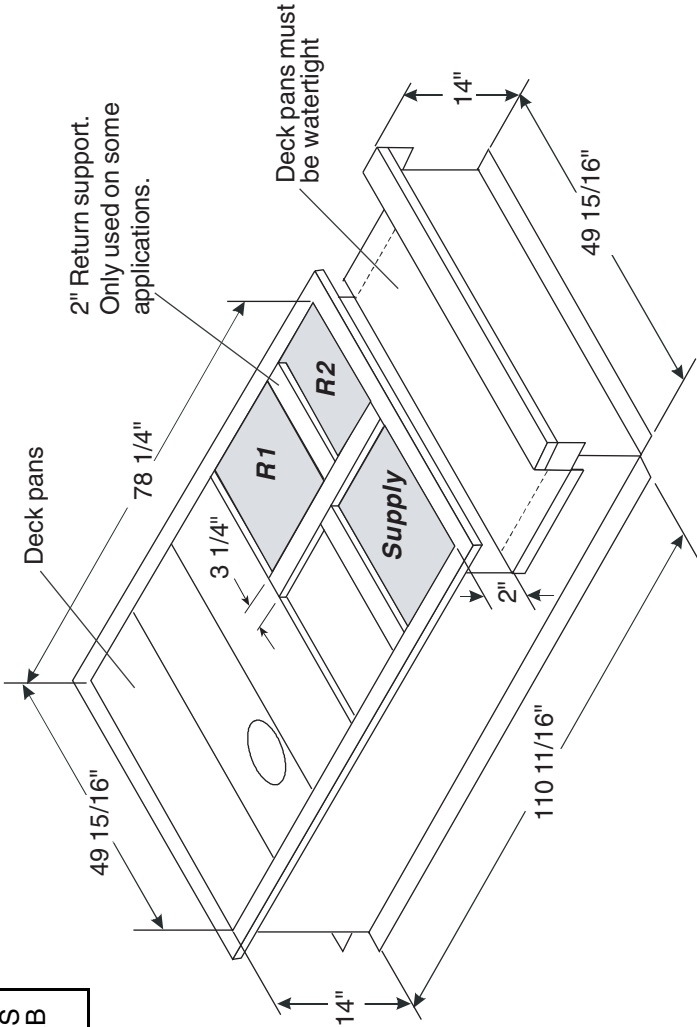
48/50HJ008-014 WITH 62AQ200, 300

CAUTION

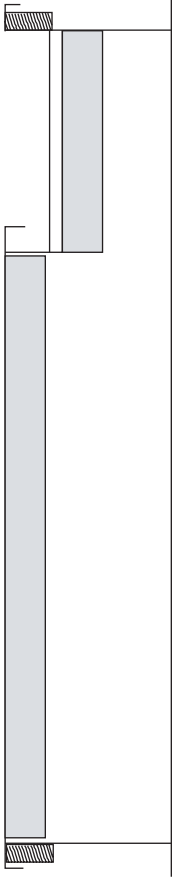
DO NOT USE THIS DRAWING TO FIELD-FABRICATE A CURB! SIGNIFICANT PROBLEMS CAN OCCUR IF A CARRIER APPROVED CURB IS NOT USED.

DUCT OPENING SIZES
Supply = 15 11/16" x 31 3/8"
R1 = 15 5/16" x 29 1/16"
R2 = 15 5/16" x 9"

R1 = Return from building to HVAC
R2 = Return from building to 62AQ



SIDE VIEW



END VIEW

