

**CAS-HVAC3-I.200-15-15T (#1)** DOAS-1 Weight: 2459 lbs./104 curb



RTU with Indirect Fired Heat and 15" Direct Drive Plenum Fan, 1 Furnace, Electronic Full Modulation, Constant 81% Efficiency, and 16:1 Max Turndown for NG, (13:1 Max Turndown for LP). Stainless Steel Burner and Heat Exchanger.

**SUPPLY MOTOR**

Model DTP1/54 • 1.500 HP, 3 Phs, 208 V, 60 Hz, 4.4 FLA, ODP, Premium (E-Plus3) Eff.

**SUPPLY PERFORMANCE**

Supply Air:	1910 CFM	RPM:	1412
Return Air:	0 CFM	Outdoor Air:	1910 CFM
Tip Speed:	5545 ft/min	BHP:	1.0320
SP:	1.250" w.g. (1.101" Ductwork Discharge ESP + 0.149" Opt.)		
Altitude:	925 ft		

**BLOWER**

15 Inch Plenum Fan for size 3 RTU. Hub specified to match motor shaft.

**TEMPERATURE CONTROL**

CORRIDOR/GENERAL NEUTRAL VENTILATION • Discharge Temp Control • Heating and Cooling Activation Based On Intake Set Point • Manual Blower Mode • 100% Outdoor Air Freezestat • Smoke Detector Interlock • Additional HMI Ships Loose. Use with MUA.

**AIRFLOW DIRECTION**

- Down Discharge - Air Flow Left -> Right

**CURB & SUPPORTS**

- ROOF CURB - 59.5" Width, 91" Length, 14" Supply Height, Insulated.

**HEATING SCHEDULE**

Altitude:	925 ft
Winter Outdoor Air Dry Bulb Temp:	21.0°F
Temp Rise:	74.0°F
Output BTU:	162,000 BTU/Hr
Input BTU:	200,000 BTU/Hr
Based Off:	BTUs Actual Air Density
Gas Type:	Natural

**COOLING SCHEDULE**

Outdoor Air Dry Bulb Temp:	95.0°F
Outdoor Air Wet Bulb Temp:	78.0°F
Max Outdoor Air %:	100%
Mixed Air Dry Bulb Temp:	95.0°F
Mixed Air Wet Bulb Temp:	78.0°F
Mixed Air Dew Point:	72.0°F
Leaving Dry Bulb Temp:	45.9°F
Leaving Wet Bulb Temp:	43.8°F
Leaving Dew Point:	41.8°F
Moisture Removal Rate:	90.6 Lb/Hr
Total Capacity:	195.7 MBH
Sensible Capacity:	95.4 MBH
Latent Capacity:	100.3 MBH
Reheat Coil Capacity:	0.2 MBH
Reheat Coil Leaving Dry Bulb Temp:	90.0°F
Reheat Coil Leaving Wet Bulb Temp:	61.8°F
Reheat Coil Leaving Relative Humidity:	19%
IEER:	18.8
ISMRE2:	8.3

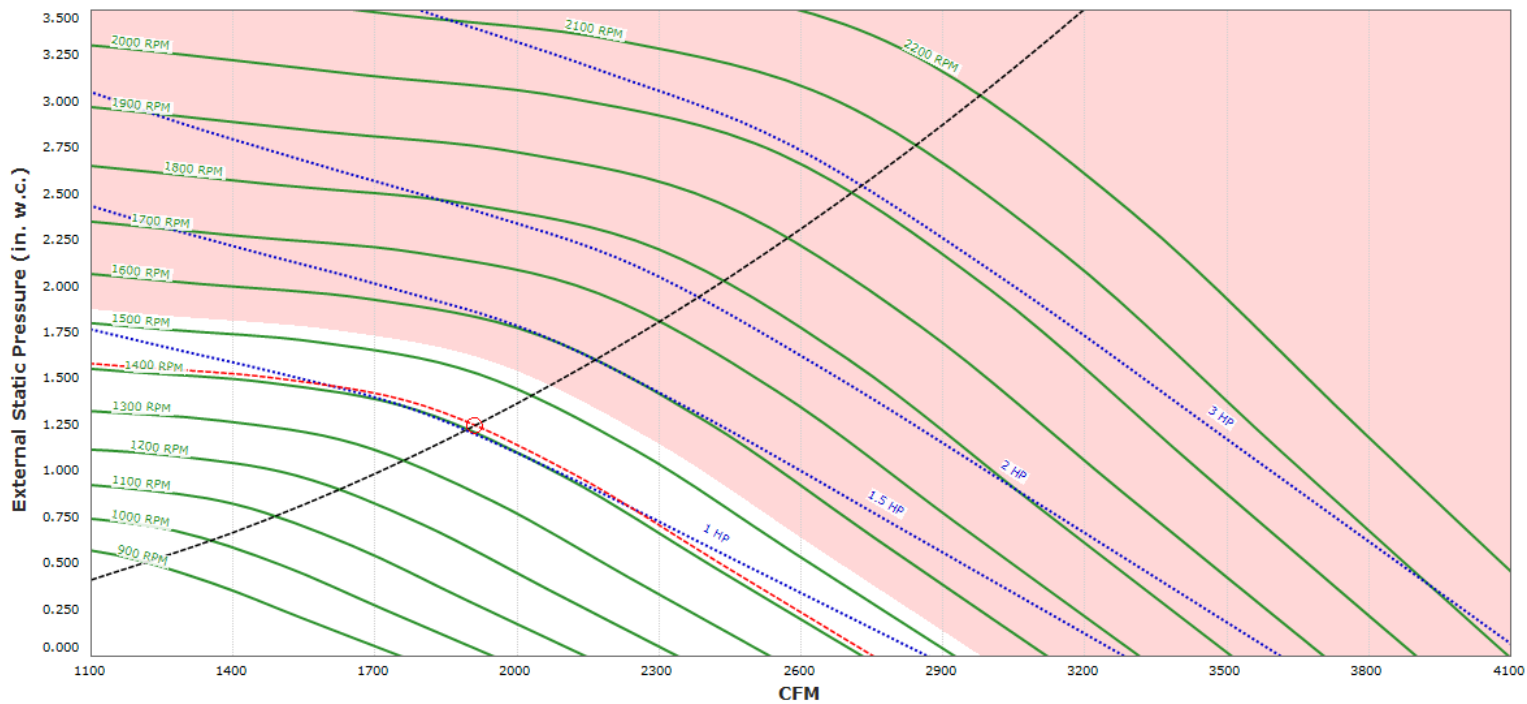
# SUPPLY INSTALLATION INFORMATION

Gas Pressure:	7 in. w.c. - 14 in. w.c.
Insurance Requirements:	No Insurance Requirement (ANSI)
Unit Voltage:	3 phs 208 V 60Hz
Unit Main Input:	57.6 Amps MCA • 60 Amps MOP • 208 V • 6 AWG Wire Min.
SCCR:	10 kAmp
A2L Min. Room Area / Airflow / Height:	558 ft2 • 1004 CFM • 7.2 ft **

\*\* Minimum room area assumed 7.2' supply diffuser height and is calculated per UL60335-2-40 4th ed. Values based on factory charge. Actual site charge may differ.

## CONFIGURED OPTIONS

- Gas Pressure Gauge, 0-35", 2.5" Diameter, 1/4" Thread Size
- Single Point Electrical Connection for RTU. QNTY 1 750va Transformer Used. If a Non-DCV Prewire controls this unit, the #28, #47, "MA", or "E2" Option Prewire must be selected. Do not provide supply starter in prewire.
- Unit will be shipped with construction mode ON. This is used to provide tempering for a building in construction. Activation is set to Intake, Tempering is set to Discharge, Mixing Box is set to 100% OA and HMI number is 1.
- RTU Blower Door Switch. Used to turn on DOOR INTERLOCK Schematic Layer. Does Not Include Door Switch.
- RTU Size 3 Down Discharge
- 2" Merv 13 Filters for Size 3 RTU. QTY 4, 20 x 25 x 2 Merv 13 Filters
- 2" Merv 8 Filters for Size 3 RTU. QTY 4, 20 x 25 x 2 Merv 8 Filters
- Overheat Stat factory set at 80°F and 10 minutes. Prevents unit from overheating the space when cooling.
- CFM monitoring for MUA units. Uses rivet nuts, 1/4" airflow tubing and push to connect fittings.
- VFD factory mounted and wired in unit control vestibule.
- 15 Ton Modulating Cooling Option, 208/230V. R454B Refrigerant, Variable Speed Inverter Duty Compressor, ECM Condensing Fan(s).
- RTU Compressor Oil Sensor Factory Installed. M12 Style Connector.
- Low ambient cooling controls down to 0F ambient temperatures. To be used in recirculating applications.
- R454B Refrigerant Leak Detector Option. Includes 20% LFL sensor and harness.
- Size 3 RTU Curb Duct Hanger - Adjustable Duct Hanger Support Brackets installed for both return and discharge duct.
- 24VAC Fire Input
- Option for Metal Mesh Filters in RTU3 OA Intakes
- Occupied Scheduling Defaulted for IBT/RTU.
- Intake Firestat. Set to 135°F
- Freezestat
- Discharge Firestat. Set to 240°F
- CASLink building monitoring system communications module. Requires internet & field wired ethernet connection or 3G cellular service. Includes Rev 3 Comm Module, RJ45 to modbus converter, 3 FT cat5 cable, and 1 FT of shielded twisted pair.
- GFCI 15 amp Convenience Outlet For RTU3 Enclosure. 120V power supply by others. Includes receptacle, jbox & cover.
- Clogged Filter Switch with Notification on HMI
- RTU Size 3 Hail Guard for outdoor coil. Includes magnets and washers for installation.
- VAV (Variable-Air-Volume) Wiring Package for Commercial Fans. Manual Speed Control Variable Frequency Drive Included
- Supply Variable Frequency Drive - 1-1/2 HP Max., 200/240 V, Single or Three Phase Input, 6.0 A Max., NEMA 1 Enclosure, with 2RJ-45 FOR MODBUS
- Remote MSTP BACnet monitoring
- Cooling Override
- Duct Mounted Smoke Detector For Commercial Direct Fired Heater. Complete with detector (D4120) and sampling tube (DST-1.5). Ships Loose
- Ship Loose Gas Strainer. To be installed upstream of unit connection. 1" Connection
- High Turndown Option for DOAS
- Gas Pressure Gauge, 0 to +10 Inches Wc., 2.5" Diameter, 1/8" Thread Size, Rear Thread, For 2 Furnaces
- RTU Manual 0-10V Intake Control. Actuator Control by 0-10VDC Output on Control Board. Intake Position Controlled Manually via HMI.
- RTU Size 3 Down Return
- Mount Line Reactor in Fan (Does not include reactor cost).
- IBT Only Reheat - Uses back up heat (Indirect) as reheat.




**CAS-HVAC3-I.200-15-15T SOUND (1412 RPM) AT 5 FT. IN OCTAVES:**

	1	2	3	4	5	6	7	8
	83.4	83.7	81	80.4	80.4	75.6	74.7	73.1
LWA:	84.6		Sones:	21.3		DBA:	73.8	

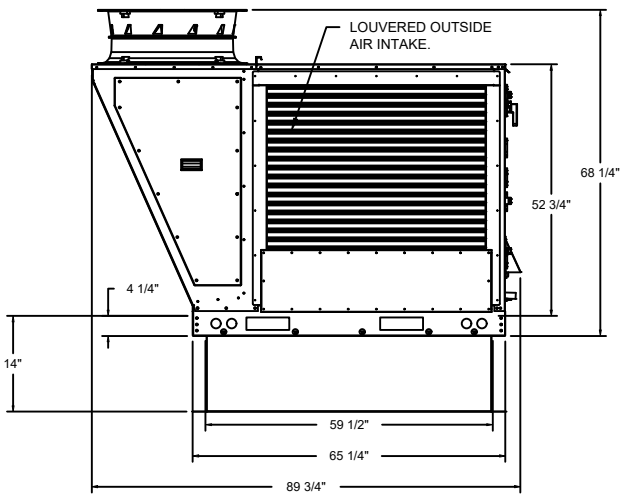
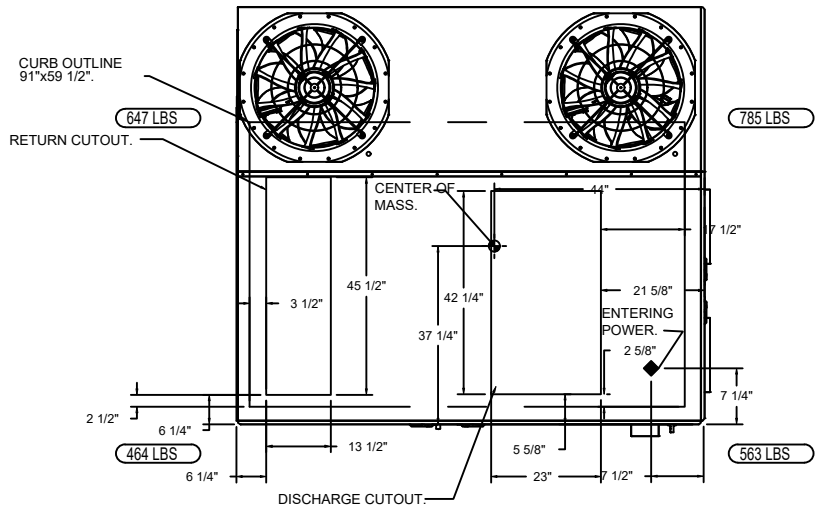
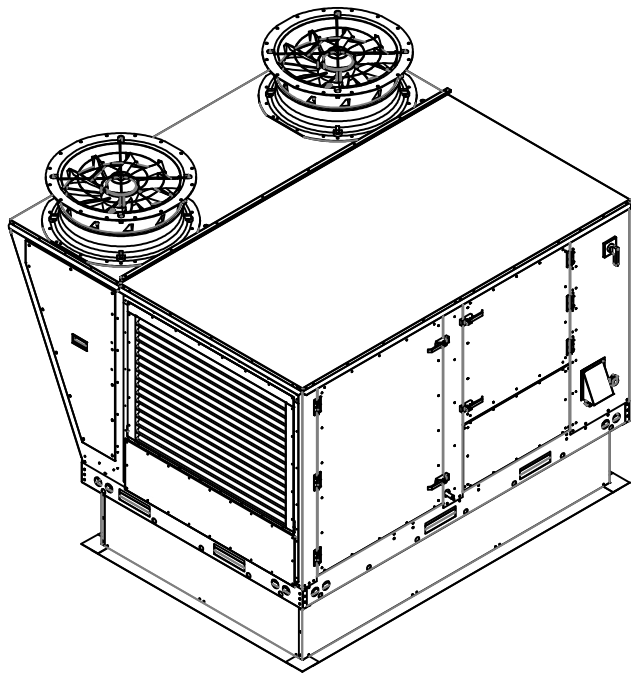
Note: Sound data across operational range. Tested in accordance to AHRI Standard 270/370.

FAN #1 CAS-HVAC3-I.200-15-15T - HEATER (DOAS-1)

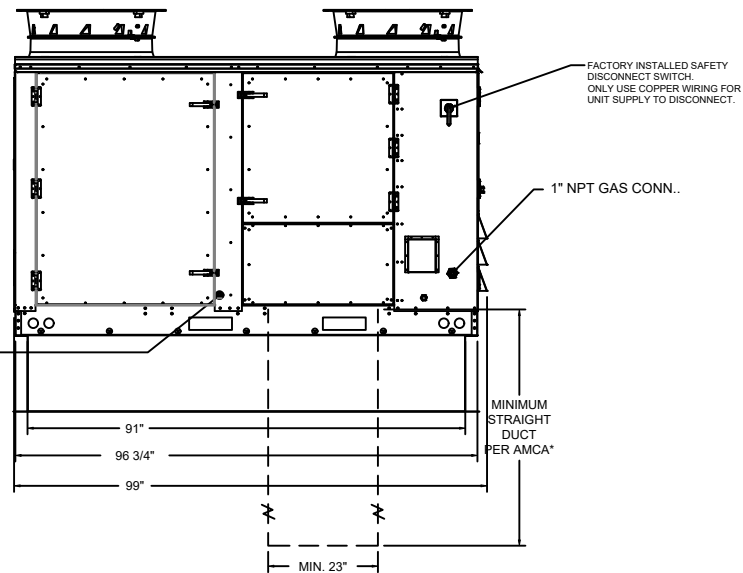
NOTES:

1. DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
2.  DENOTES CORNER WEIGHT.
3. ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.
4. CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.
5. EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.

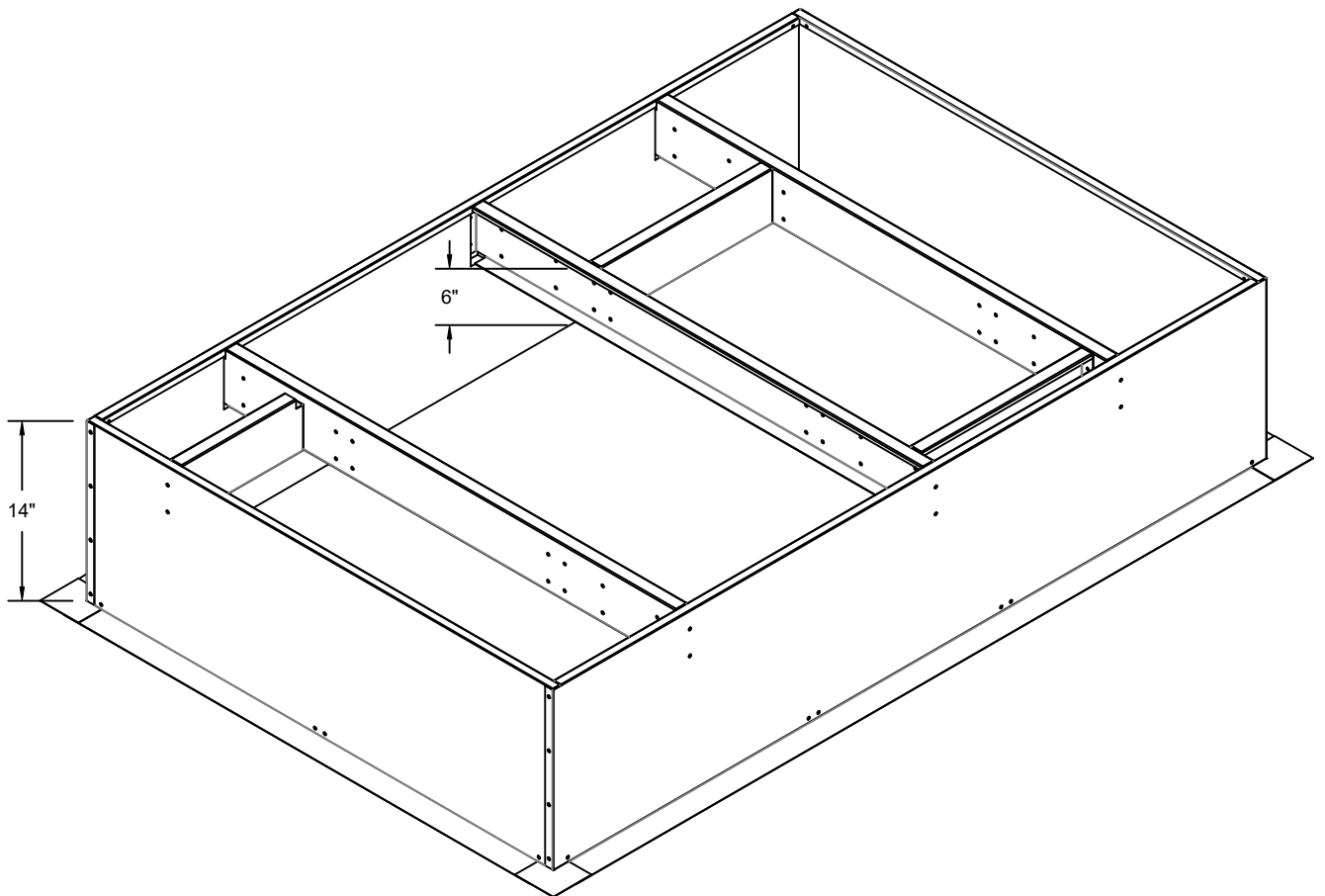
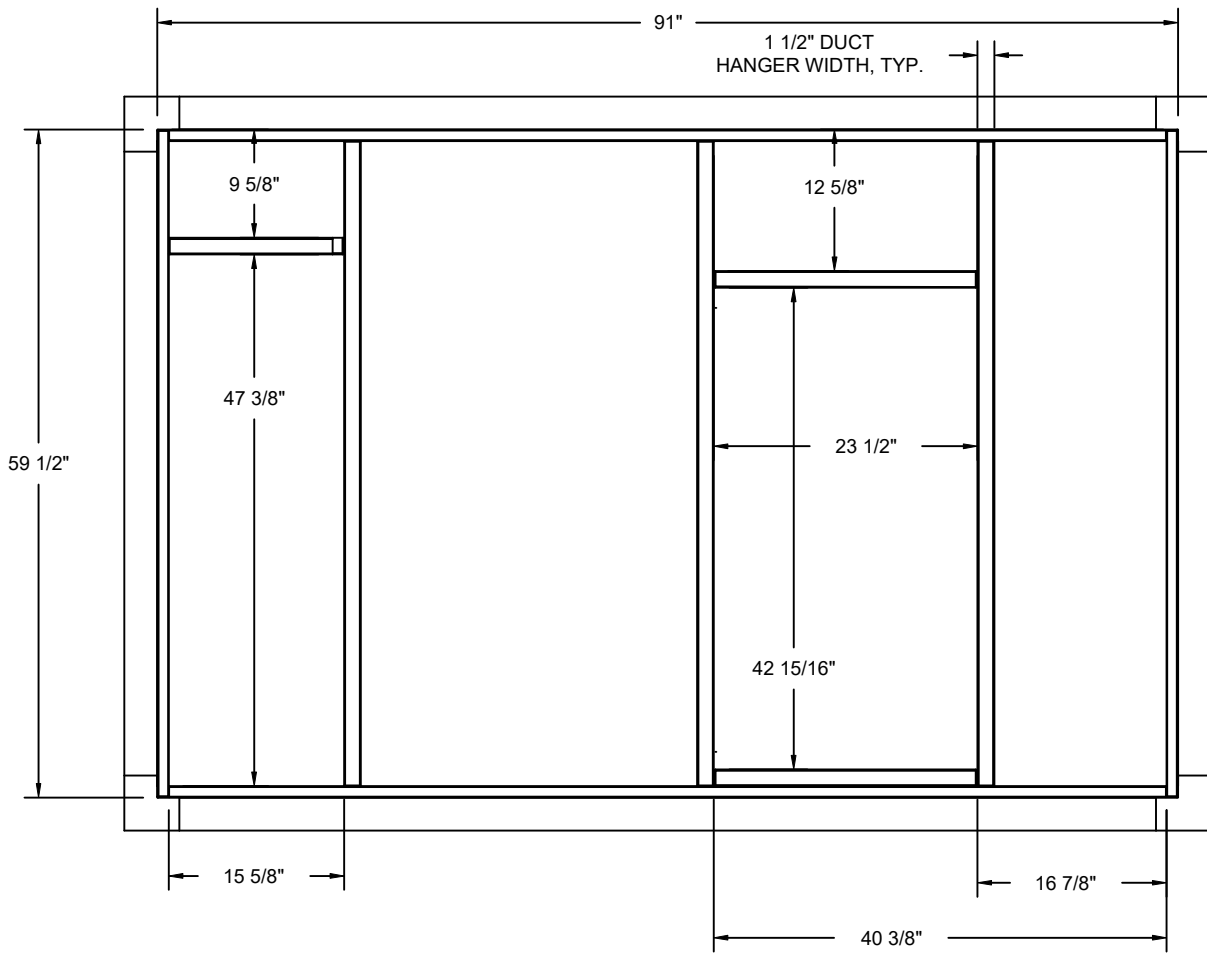
\*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.  
SUGGESTED STRAIGHT DUCT SIZE IS 23" x 39".

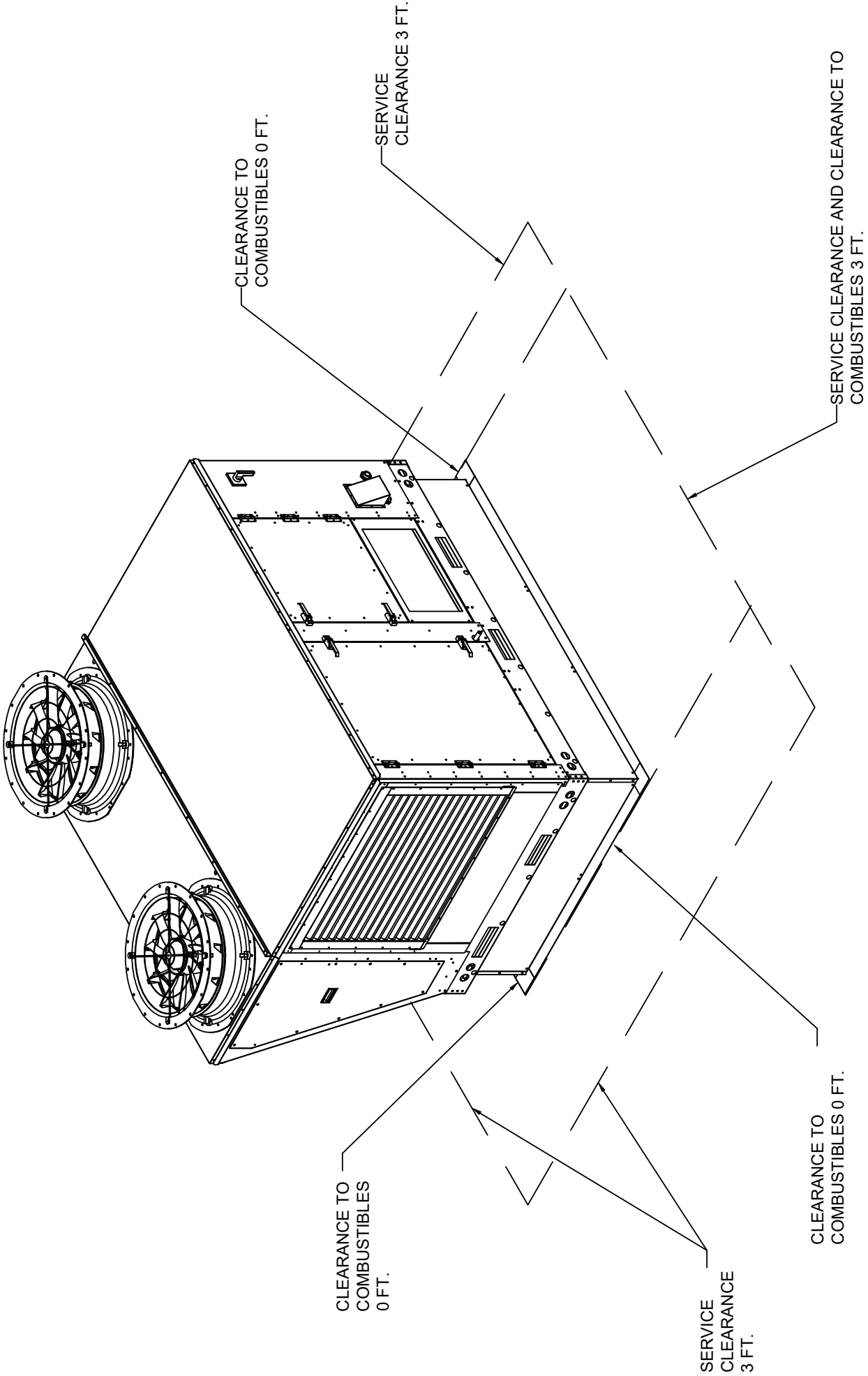


1" NPT SS EVAPORATOR DRAIN (TRAP REQ'D).  
4" MINIMUM TRAP DEPTH.



Fan #1 Curb  
ROOF CURB - 59.5" Width, 91" Length, 14" Supply Height, Insulated.





SIZE 3 - 2 CONDENSERS