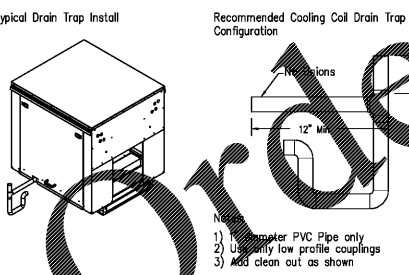
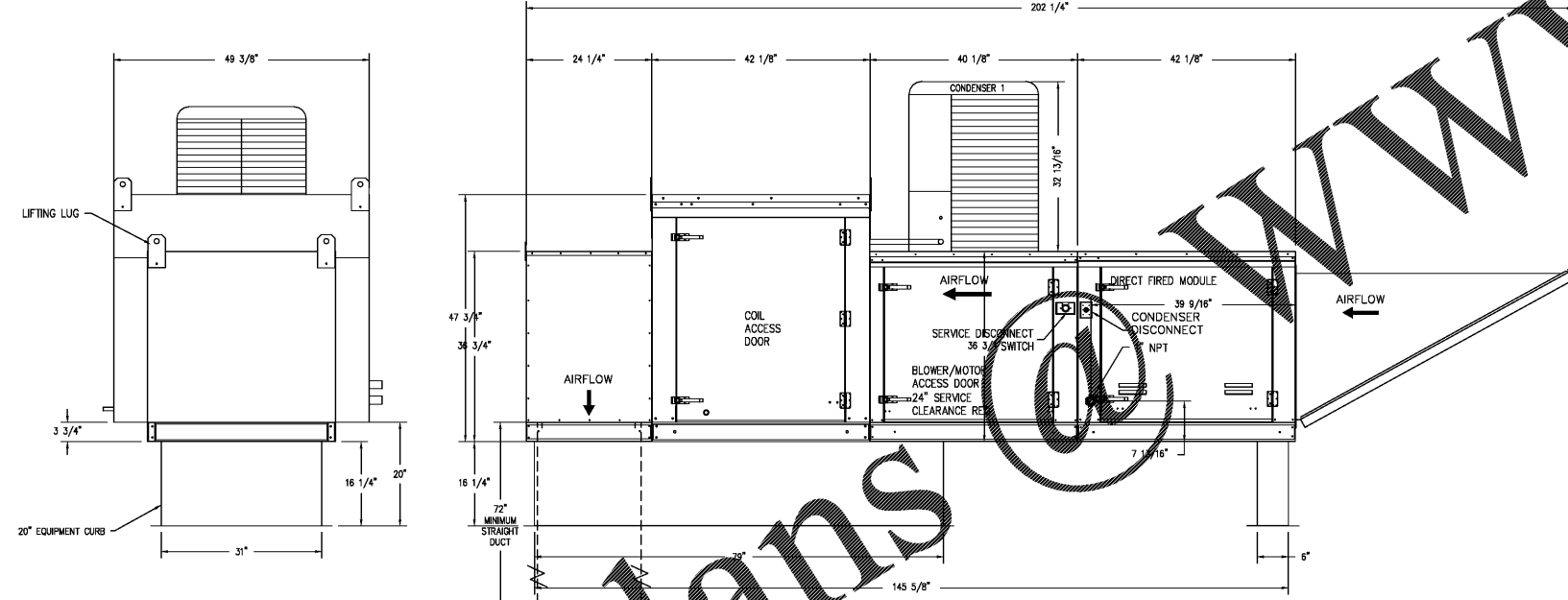
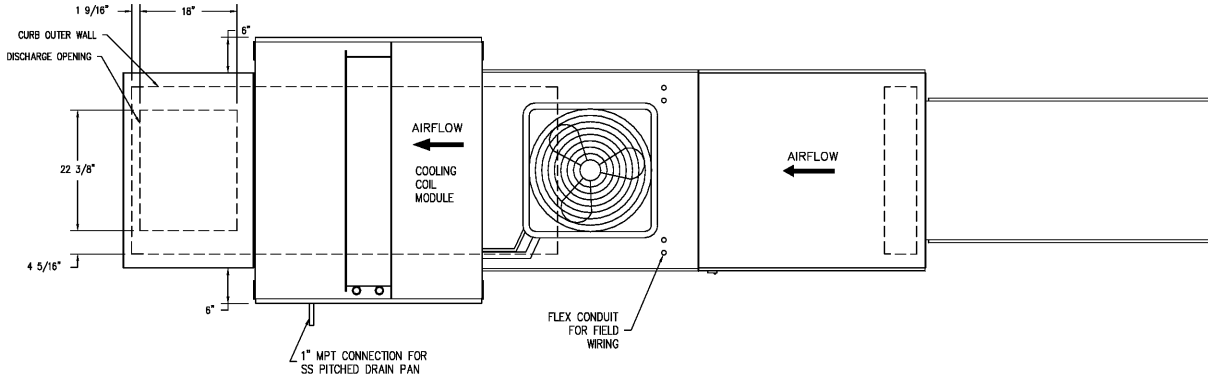


- FAN #4 A2-D-250-200-MPU - HEATER
- DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 20" DIRECT DRIVE FAN
 - INTAKE HOOD WITH EZ FILTERS
 - DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT
 - PROFILE PLATE CONFIGURATION FOR SIZE 2 DIRECT FIRED UNIT FOR LOW CFM APPLICATIONS.
 - COOLING INTERLOCK RELAY, 24VAC COIL, 120V CONTACTS. LOCKS OUT BURNER CIRCUIT WHEN AC IS ENERGIZED.
 - MOTORIZED BACK DRAFT DAMPER 22.75" X 24" FOR SIZE 2 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, LF120S ACTUATOR INCLUDED
 - LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
 - GAS PRESSURE GAUGE, 0-35" 2.5" DIAMETER, 1/4" THREAD SIZE.
 - GAS PRESSURE GAUGE, -5 TO 415 INCHES WC, 2.5" DIAMETER, 1/4" THREAD SIZE.
 - OX COOLING INTAKE AIR THERMOSTAT AND RELAYS MOUNTED IN UNIT - SET POINT FOR THERMOSTAT SHOULD BE 85F.
 - SINGLE ELECTRICAL CABINET LED LIGHTS USED ON MODULAR MUA UNITS
 - 5 TON, SINGLE CIRCUIT MODULAR PACKAGED AC COOLING OPTION FOR SIZE 2 MODULAR PACKAGED UNIT. INCLUDES CONDENSER, DX COIL, FILTER/DRYER KIT, THERMAL EXPANSION VALVE, R410A REFRIGERANT, AND REFRIGERANT PIPING. (1,000 TO 2,750 CFM) NOT BUILT WITH OPPOSITE SIDE CONTROLS OR OPPOSITE AIRFLOW DIRECTION. CONDENSERS REQUIRE SEPARATE 208V, 3 PHASE POWER SUPPLY UNLESS ORDERED WITH SINGLE POINT CONNECTION. COIL = 3E1102
 - DOWNTURN PLENUM FOR SIZE 2 COOLING COIL MODULE - REQUIRED FOR DOWN DISCHARGE COOLING COIL APPLICATIONS
 - SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREMISE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
- NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE UNLESS OTHERWISE SPECIFIED. 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 20" x 20" x 72" LONG.

SUPPLY SIDE HEATER INFORMATION:
WINTER TEMPERATURE = 18F. TEMP. RISE = 80F.
BTU_s CALCULATED OFF ACTUAL AIR DENSITY
OUTPUT BTU_s AT ALTITUDE OF 0.0 FT. = 192564
INPUT BTU_s AT ALTITUDE OF 0.0 FT. = 209309
OUTPUT BTU_s AT ALTITUDE OF 647 FT. = 180105
INPUT BTU_s AT ALTITUDE OF 647 FT. = 204461



Direct Fired (DF) Profile Plate Assembly

Direct Fired Profile Plate Specifications:

Selection:
Direct fired burners shall have patented (US Patent No.: US662923B2), self-adjusting profile plates designed to ensure proper air velocity and pressure drop across the burner. Profile plates shall allow burners to achieve clean combustion by limiting by-product levels to a maximum of 5ppm of carbon monoxide (CO), and 0.5ppm of nitrogen dioxide (NO₂). Direct fired units shall be configured with the blower mounted downstream of the burner. This arrangement will ensure a constant airflow, regardless of inlet air temperature.

Application:
Spring-loaded burner profile plates are engineered to automatically react to the momentum of a fresh air stream, without the need for any motors or actuators to mechanically adjust them. With this feature, all DF units are designed for demand control ventilation (DCV) requirements.

Certification:
All profile plate assemblies shall be included in the DF unit's ETL listing and comply with combined safety standards ANSI Z83.4 and CSA 3.7 (non-recirculating DF heaters) and ANSI Z83.18 (recirculating DF heaters).

General Construction:

- Profile plates shall be formed from G90 galvanized steel.
- Profile plates shall vary in size per unit.
- Profile plates shall be mounted along the same plane as the discharge of the burner.
- Design shall incorporate properly torqued, permanently mounted spring hinges.
- Spring hinges shall be made from plated steel.

REVISIONS	
DESCRIPTION	DATE

CAPTIVEAIRE
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DQ - Bremen, GA
Davis Blvd & Alabama Ave,
BREMEN, GA, 30110

DATE: 10/22/2018
DWG.#: 3590126
DRAWN BY: jsievers
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 5

NEW BUILDING FOR:

INTERSECTION OF DAVIS BLVD & ALABAMA AVENUE
BREMEN, GA 30110
CELL ID: 252 0065

AMERICAN DAIRY QUEEN
MINNEAPOLIS, MN U.S.A.
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HOOD SHOP
DRAWINGS
SHEET NUMBER:
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