

- FANS BY: HMA-K30; H10 (HMA-K41) - 10-1020-16Z HEATER
1. DIRECT GAS FIRED HEATER MADE UP AIR UNIT WITH 16" DIRECT DRIVE FAN
  2. IN-RAE HOOD WITH 12 FIELDS
  3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT
  4. DOWN DISCHARGE CONSTRUCTION FOR SIZE 1 DIRECT DRIVE HEATER
  5. GAS PRESSURE GAUGE - 1/2" TO 1/4" INCHES VAC. 1/2" TAPERED 1/4" THREAD SIZE
  6. MOTORIZED BACK DRAFT DAMPER 16" X 16" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS V/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" X 1/4" FLANGE, LOW LEAKAGE, THERMOS ACTUATOR INCLUDED
  7. COMMERCIAL SMOKE DETECTOR INTERNAL DETECTOR BY SHIMMER
  8. ECM VIBRING PACKAGE FOR 200% SUPPLY MOTOR WITH FAN SIGNAL FROM ECM03 PREVICR.
  9. 3" THICK INSULATED HOOD ASSEMBLY (BLOWER/BLUVER SECTION)
  10. 2 YEAR PARTS WARRANTY

NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMASH STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN ASHRAE PUBLICATION 200. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES, FLEXIBLE DUCTWORK AND SQUARE THROAT/ROUND BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECTS. SYSTEM EFFECTS WILL: VERTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPLY DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 14" X 14"

SUPPLY SIZE HEATER INFORMATION

WINTER TEMPERATURE = 0°F, TEMP. RISE = 60°F

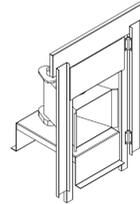
BTUH CALCULATED OFF ACTUAL AIR DENSITY

SUPPLY BTUH AT ALTITUDE OF 0 FT = 131974

INPUT BTUH AT ALTITUDE OF 395 FT = 149744

OUTPUT BTUH AT ALTITUDE OF 395 FT = 136018

INPUT BTUH AT ALTITUDE OF 395 FT = 147886



DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY

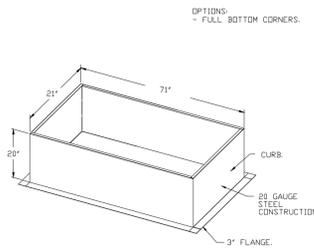
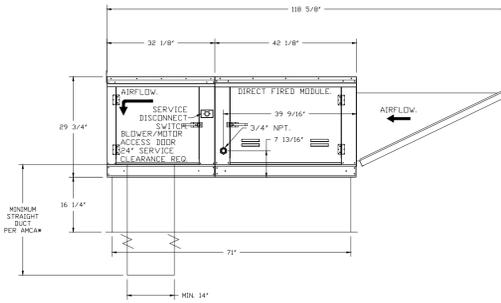
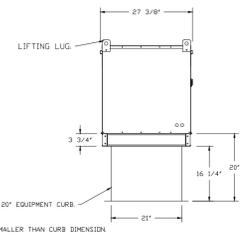
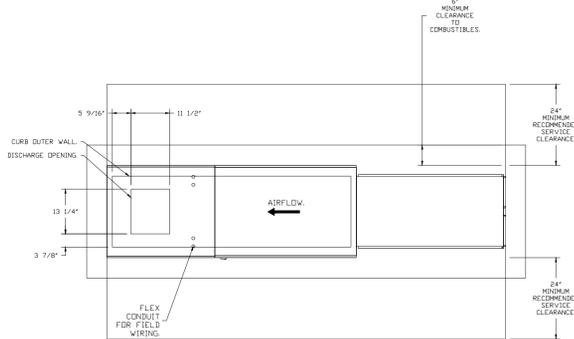
**DIRECT FIRED PROFILE PLATE SPECIFICATIONS**

**DESCRIPTION:**  
DIRECT FIRED BURNERS SHALL HAVE PATENTED (US PATENT NO. US649252B3), 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 2000 PPM OF CARBON MONOXIDE (CO), AND 1000 PPM OF NITROGEN DIOXIDE (NO2) (INDIRECT FIRED UNITS SHALL BE CONFIGURED WITH THE BLOWER MOUNTED DOWNSTREAM OF THE BURNER. THIS ARRANGEMENT WILL ENSURE A CONSISTENT 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.

**CERTIFICATIONS:**  
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 37 (NON-RECIRCULATING OF HEATED) AND ANSI Z83.8 (RECIRCULATING OF HEATED).

**GENERAL CONSTRUCTION:**  
-PROFILE PLATES SHALL BE FORMED FROM 606 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.  
-SEALON SHALL INCORPORATE PROPER TROLES, PERMANENTLY MOUNTED SPRING HINGES.  
-SPRING HINGES SHALL BE MADE FROM PLATED STEEL.



OPTIONS:  
- FULL BOTTOM CORNERS.

REVISIONS	DESCRIPTION	DATE
1		
2		
3		

**econ·air**  
www.econair.com

N. NJ & S. NY  
Rumford, NJ 07070 PHONE: (201) 989-4882 FAX: 91947502 EMAIL: reg@econair.com

Peekskill Firehouse Kitchen Incubator R2  
701 Washington Street,  
Peekskill, NY, 10566

DATE: 7/30/2024  
DWG.#: 6784902  
DRAWN BY: billy.gost  
SCALE: N.T.S.  
MASTER DRAWING

SHEET NO. 6

UNAUTHORIZED ALTERATION OR ADDITION TO A PLAN BEARING A LICENSED PROFESSIONAL ENGINEER'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2 OF THE N.Y. STATE EDUCATION LAW. FELLENER ENGINEERING, LLP CERTIFICATE OF AUTHORIZATION #: 0017795

**FELLENER III**  
ENGINEERING LLP  
www.fellp.com

22 Mulberry St., Suite 2A, Middletown, NY 10940  
1 845-343-1481 fx 845-343-4986

181 Church St., Suite 100, Poughkeepsie, NY 12601  
1 845-454-9704 fx 855-320-8735

DESIGNED BY: RW  
DRAWN BY: JCL  
APPROVED BY: EDF  
FE PROJECT #: 23-369

1" = 16"  
1" = 8"  
1" = 4"  
0 1" 2"

REFERENCE SCALE

**PEEKSKILL FIREHOUSE KITCHEN INCUBATOR**

City of Peekskill (Owner)  
701 Washington Street  
Peekskill, New York 10566  
S-B-L: 32-20-9-1  
City of Peekskill - Westchester County

Date: September 17, 2024  
Revisions:

**H4.06**



Joseph G. Thompson Architect, PLLC  
108 N Division Street, Ste 100  
Peekskill, New York 10566  
PH: (845) 532-8156  
EM: joe@jthompsonarch.com

NOTES:  
IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT OR ENGINEER TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ARCHITECT OR ENGINEER IS ALTERED, THE ALTERING ARCHITECT OR ENGINEER SHALL AFFIX TO HIS ITEM THE SEAL AND THE NOTATION ALTERED BY FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.  
DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS GOVERN.  
© JOSEPH G THOMPSON ARCHITECT, PLLC. ALL RIGHTS RESERVED.



SEAL  
ERIC D. FELLENER, P.E.  
NY PROFESSIONAL ENGINEER  
NO. 073004-1  
ISSUED 1995 EXP. 2025

**DRAFT CONSTRUCTION DOCUMENT - NOT FOR PERMIT OR CONSTRUCTION**

STATE OF NEW YORK  
ERIC D. FELLENER  
LICENSED PROFESSIONAL ENGINEER  
NO. 073004-1  
ISSUED 1995 EXP. 2025

Date: September 17, 2024  
Revisions:

**H4.06**