## UNIT HEATER SCHEDULE

| Mark | LOCATION | CFM | FAN MOTORS RPM | FAN MOTORS VOLTS | FAN MOTORS PH | WATTS | CAPACITY | TEMP EWT | TEMP LWT | WPD (FT) | GPM | BASIS OF DESIGN MANUFACTURER AND MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UH-HS-1 | MECH 240 (BASEMENT) | 245 | 1550 | 115 | 1 | 16 | 8,030 Btu/h | 180 °F | 160.0 °F | 0.80 | 0.80 | STERLING HS-108A | |

## HEATING COIL SCHEDULE

1. FIN MATERIAL SHALL BE ALUMINUM, COPPER TUBE, 0.020" THICK.
2. FIN MATERIAL SHALL BE ALUMINUM, COPPER TUBE, 0.016" THICK.

| Mark | SUPPLY AIRFLOW | SIZE HEIGHT | SIZE LENGTH | FLUID TYPE | CAPACITY HEATING | TEMPERATURE EWT | TEMPERATURE LWT | FLOW | PRESSURE DROP HEATING | TEMPERATURE EAT | TEMPERATURE LAT | AIR PRESSURE DROP | FACE VELOCITY | COIL FINS PER FOOT | COIL ROWS | VOLUME | BASIS OF DESIGN MFG. AND MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HC-HS-2 | 4,500 CFM | 29 in | 54 in | WATER | 427,844 Btu/h | 180 °F | 150 °F | 28.5 GPM | 16.40 Feet | 8.0 °F | 94.9 °F | 0.430 in-wg | 667 FPM | 108 | 3 | 3.00 gal | DAIKIN 5WQ0903B | 1 |
| HC-HS-3 | 7,000 CFM | 33 in | 59 in | WATER | 303,660 Btu/h | 180 °F | 150 °F | 20.23 GPM | 2.25 Feet | 50.0 °F | 90.0 °F | 0.105 in-wg | 518 FPM | 134 | 1 | 2.43 gal | TRANE D5WB33059G0AA1348ABA0A | 2 |
| HC-HS-4 | 4,500 CFM | 27 in | 51 in | WATER | 400,180 Btu/h | 180 °F | 150 °F | 26.66 GPM | 2.05 Feet | 8.0 °F | 90.0 °F | 0.147 in-wg | 467 FPM | 124 | 2 | 2.35 gal | TRANE DUWB27051G0BA124CAABOOA | 2 |

## DIFFUSER, REGISTER AND GRILLE SCHEDULE

1. PROVIDE WITH COATED STEEL OPPOSED BLADE DAMPER.
2. THE DIFFUSER BACK PAN SHALL BE EXTERNALLY INSULATED WITH A MOLDED HEAVY DUTY FOIL/SCRIM VAPOR BARRIER WITH AN R-VALUE OF SIX. THE INSULATION SHALL MEET THE REQUIREMENTS OF UL181 AND NFPA 90A.

| Mark | DESCRIPTION/PATTERN | OVERALL SIZE | DUCT CONNECTION SIZE | MOUNTING | MATERIAL | BASIS OF DESIGN MANUFACTURER AND MODEL | REMARKS |
|---|---|---|---|---|---|---|---|
| ER-HS-4 | 45° DEFLECTION AND 3/4 IN. BLADE SPACING | | 48"x8" | WALL | STEEL | PRICE 530 | |
| RR-HS-1 | 45° DEFLECTION AND 3/4 IN. BLADE SPACING | | 20"x28" | SURFACE | STEEL | PRICE 530 | |
| SD-HS-7 | SPIRAL DUCT MOUNTED, DOUBLE DEFLECTION, 3/4" BLADE SPACING SUPPLY REGISTER | | 20"x10" | SPIRAL DUCT | EXTRUDED ALUMINUM | PRICE SDGE | 1 |
| SD-HS-8 | SPIRAL DUCT MOUNTED, DOUBLE DEFLECTION, 3/4" BLADE SPACING SUPPLY REGISTER | | 16"x4" | SPIRAL DUCT | EXTRUDED ALUMINUM | PRICE SDGE | 1 |
| SD-HS-9 | Modular Louvered Face Diffuser | 19-3/4"x19-3/4" | 10"ø | SURFACE | STEEL | PRICE SMD | 2 |

## DUCT SILENCER SCHEDULE

1. SHALL BE A STRAIGHT DISSIPATIVE SILENCER.
2. SHALL BE A RECTANGULAR, ELBOW, DISSIPATIVE SILENCER.
3. SHALL BE A ROUND DISSIPATIVE SILENCER

| Mark | LENGTH | HEIGHT | WIDTH | SIZE DIAMETER | LEG A | LEG B | AIRFLOW | VELOCITY | AIR PRESSURE DROP (IN WG) | Description | OCTAVE BAND DYNAMIC INSERTION LOSS (dB) 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | BASIS OF DESIGN MFG. AND MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DS-HS-5 | 3' - 0" | | | 18 in | | | 2,500 CFM | 1,415 FPM | 0.07 | Circular Medium Velocity - Absorptive Silencer | 4 | 6 | 14 | 26 | 35 | 36 | 27 | 19 | Price Industries CS | 3 |
| DS-HS-6 | 3' - 0" | | | 20 in | | | 2,620 CFM | 1,201 FPM | 0.09 | Circular Medium Velocity - Absorptive Silencer | 4 | 7 | 15 | 27 | 39 | 41 | 31 | 22 | Price Industries CS | 3 |
| DS-HS-7 | 4' - 6" | 20 in | 36 in | | 45" | 45" | 5,650 CFM | -1,130 FPM | 0.08 | Elbow Medium Velocity - Absorptive Silencer | 6 | 10 | 17 | 22 | 27 | 25 | 21 | 18 | Price Industries ERM54/3A | 2 |
| DS-HS-8 | 4' - 6" | 20 in | 36 in | | 45" | 45" | 6,300 CFM | -1,260 FPM | 0.14 | Elbow Medium Velocity - Absorptive Silencer | 7 | 12 | 20 | 26 | 32 | 29 | 24 | 21 | Price Industries ERM54/3B | 2 |
| DS-HS-9 | 3' - 0" | 20 in | 34 in | | | | 5,650 CFM | 1,196 FPM | 0.06 | Rectangular High Velocity - Absorptive Silencer | 3 | 5 | 8 | 13 | 10 | 8 | 7 | 5 | Price Industries RH36/7A | 1 |
| DS-HS-10 | 4' - 0" | 20 in | 38 in | | | | 6,300 CFM | 1,194 FPM | 0.09 | Rectangular High Velocity - Absorptive Silencer | 4 | 7 | 10 | 16 | 11 | 10 | 8 | 6 | Price Industries RH48/WC | 1 |

## CONDENSATE PUMP SCHEDULE

| Mark | TYPE | CAPACITY SQ. FT. EDR | FLOW | DISCHARGE PRESSURE | RPM | SUCTION X DISCHARGE (IN. X IN.) | FLUID TYPE | RECEIVER CAPACITY | ELECTRICAL DATA HP | ELECTRICAL DATA VOLTS | ELECTRICAL DATA PH | BASIS OF DESIGN MFG. AND MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CP-HS-2 | DUPLEX STEEL CONDENSATE UNIT | 30,000 | 45.0 GPM | 40 psig | 3,500 | 3"x1-1/2" | STEAM CONDENSATE | 45.0 gal | 2 | 208 | 3 | SHIPCO DS | |

## SHELL AND TUBE HEAT EXCHANGER SCHEDULE

1. TUBE MATERIAL SHALL BE COPPER. SHELL MATERIAL SHALL BE STEEL. HEAD MATERIAL SHALL BE CAST IRON.

| Mark | TYPE | LOCATION | TOTAL HEAT EXCHANGED (MBH) | SHELL DIAMETER | BUNDLE LENGTH | HIGH TEMPERATURE SIDE - SHELL FLUID | STEAM INLET PRESSURE | FLOW RATE (POUNDS PER HOUR) | INLET TEMPERATURE | PRESSURE DROP | LOW TEMPERATURE SIDE - TUBE FLUID | GPM | PRESSURE DROP | EWT | LWT | SURFACE AREA (SQUARE FEET) | BASIS OF DESIGN MFG. AND MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HX-HS-2 | SHELL AND TUBE | BOILER ROOM | 4,883.33 | 14 in | 70 in | STEAM | 5 psig | 5,050.9 | 226.4 °F | 0.64 psi | WATER | 500 | 1.330 psi | 160 °F | 180 °F | 148.3 | BELL AND GOSSETT QSU-145-2 | 1 |

## CABINET UNIT HEATER SCHEDULE

1. PROVIDE WITH UNIT MOUNTED DISCONNECT SWITCH AND ELECTRICALLY COMMUTATED FAN MOTOR.

| Mark | LOCATION | TYPE | CFM | FAN MOTORS RPM | FAN MOTORS VOLTS | FAN MOTORS PH | HP | CAPACITY (MBH) | TEMP EWT | TEMP LWT | WPD (FT) | GPM | BASIS OF DESIGN MANUFACTURER AND MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CUH-HS-1 | BASEMENT VESTIBULE | RECESSED CEILING, BOTTOM INLET/OUTLET | 230 | 1,050 | 115 | 1 | 1/15 | 14.1 | 180 °F | 160 °F | 0.15 | 1.41 | STERLING RC-1200-02 | 1 |
| CUH-HS-2 | BASEMENT STORAGE ROOM | CEILING SURFACE MOUNTED, BOTTOM INLET/FRONT OUTLET | 230 | 1,050 | 115 | 1 | 1/15 | 14.1 | 180 °F | 160 °F | 0.15 | 1.64 | STERLING C-1180-02 | 1 |
| CUH-HS-3 | KITCHEN | CEILING SURFACE MOUNTED, BOTTOM INLET/FRONT OUTLET | 630 | 1,050 | 115 | 1 | 1/10 | 49.8 | 180 °F | 150 °F | 1.30 | 3.27 | STERLING C-1160-06 | 1 |

## HORIZONTAL BLOWER COIL AIR HANDLING UNIT SCHEDULE

1. PROVIDE UNIT WITH MIXING BOX WITH REAR OUTDOOR AIR OPENING AND BOTTOM INLET RETURN AIR OPENING

| TAG | BASIS OF DESIGN MANUFACTURER AND MODEL NUMBER | ELECTRICALLY COMMUTATED SUPPLY FAN DATA: TOTAL SUPPLY AIRFLOW | OUTSIDE AIRFLOW | TOTAL STATIC PRESSURE (IN WC) | EXTERNAL STATIC PRESSURE (IN WC) | FAN SPEED (RPM) | DIRECT EXPANSION COOLING COIL - REFRIGERANT R410A: TOTAL CAPACITY | SENSIBLE CAPACITY | AIR PRESSURE DROP | FINS/IN | COIL ROWS | ENTERING AIR TEMPERATURE (DB) | ENTERING AIR TEMPERATURE (WB) | LEAVING AIR TEMPERATURE (DB) | LEAVING AIR TEMPERATURE (WB) | HEATING COIL DATA: TOTAL CAPACITY | FLUID TYPE | FLOW RATE (GPM) | PRESSURE DROP (FEET OF WATER) | COIL ROWS | TEMPERATURE EAT | TEMPERATURE LAT | AIR PRESSURE DROP | TEMPERATURE EWT | TEMPERATURE LWT | ELECTRICAL: VOLTAGE | PHASE | FREQUENCY | FLA | MCA | MAX FUSE SIZE | ECM BRAKE HORSEPOWER | MOTOR HP | FILTER DATA: FILTER TYPE | FILTER PRESSURE DROP | DIMENSIONS AND WEIGHT: SIZE HEIGHT | SIZE LENGTH | SIZE WIDTH | OPERATING WEIGHT | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BC-HS-1 | DAIKIN BCHE0301 | 2,500 CFM | 810 CFM | 1.82 | 1 | 2,228 | | | | | | | | | | 181,284 Btu/h | WATER | 8.00 GPM | 1.95 | 2 | 48 °F | 114.3 °F | 0.180 in-wg | 180 °F | 133.8 °F | 208 V | 3 | 60 Hz | | 14.40 | 25 | 1.07 | 4.42 | 4" MERV-13 | 0.65 in-wg | 26 in | 72 in | 49 in | 591.0 lb | 1 |
| BC-HS-2 | DAIKIN BCHE0301 | 2,620 CFM | 915 CFM | 1.84 | 1 | 2,289 | | | | | | | | | | 160,545 Btu/h | WATER | 5.00 GPM | 0.85 | 2 | 45 °F | 100.9 °F | 0.190 in-wg | 180 °F | 114.8 °F | 208 V | 3 | 60 Hz | | 14.40 | 25 | 1.14 | 4.42 | 4" MERV-13 | 0.65 in-wg | 26 in | 72 in | 49 in | 591.0 lb | 1 |

## INDOOR AIR HANDLING UNIT SCHEDULE

1. UNIT SHALL INCLUDE 6" HIGH FORMED CHANNEL BASE. UNIT SHALL INCLUDE MAXIMUM EXTERNAL DIMENSIONS OF 140" LENGTH x 80" WIDTH x 78" HEIGHT (INCLUDING CHANNEL BASE). UNIT SHALL INCLUDE THE FOLLOWING SECTIONS, SHIPPED SEPARATE IN MAXIMUM 32" LONG SECTIONS: 30" LONG MIXING BOX W/ TOP OA INTAKE OPENING AND DAMPER AND END RA INTAKE OPENING AND DAMPER, 12" LONG PANEL FILTER SECTION, 12" LONG HOT WATER COIL SECTION, 30" LONG DX COOLING COIL SECTION, 24" LONG SUPPLY FAN ARRAY SECTION AND 32" LONG PLENUM SECTION WITH TOP OUTLET.
2. THE FAN ARRAY SHALL UTILIZE 4 ELECTRICALLY COMMUTATED MOTOR FANS (WITH VFD'S BUILT INTO THE FAN HUB) WIRED TO A SINGLE 0-10 VDC CONTROL INPUT. THE DDC SYSTEM SHALL PROVIDE A 0-10 VDC SIGNAL TO THE UNIT MOUNTED CONTROL BOX TO VARY FAN SPEED OUTPUT.
3. PROVIDE ACCESS DOORS AT THE FOLLOWING SECTIONS: MIXING BOX (26" WIDE x 68" HIGH), FILTER SECTION (8" WIDE x 68" HIGH), DX COOLING COIL SECTION (12" WIDE x 62" HIGH), PLENUM SECTION (24" WIDE x 68" HIGH)

| Mark | IDENTITY: MFG | MODEL | LOCATION | AREA SERVED | FAN TYPE | TOTAL AIR VOLUME | OCCUPIED MODE OUTSIDE AIR RATE | MIXING BOX APD | PLENUM SECTION APD | SUPPLY FAN ARRAY SECTION: SUPPLY FAN QUANTITY | CFM PER FAN | FAN WHEEL DIAMETER (PER FAN) | EXTERNAL STATIC PRESSURE (IN WC) | TOTAL STATIC PRESSURE (IN WC) | OPERATING SPEED (RPM) | MOTOR DRIVE | BHP PER FAN | HP PER FAN | VOLTS | PHASE | MCA | MOP | HEATING COIL SECTION: CAPACITY HEATING | HEATING COIL TEMPERATURE EAT | HEATING COIL TEMPERATURE LAT | ROWS | HEATING COIL FINS/IN | APD (IN-WG) | FACE VEL. (FPM) | HEATING COIL TEMPERATURE EWT | HEATING COIL TEMPERATURE LWT | HEATING COIL FLOW RATE | WPD (FT-WG) | DIRECT EXPANSION COOLING COIL: TOTAL COOLING CAPACITY | SENSIBLE COOLING CAPACITY | EAT DB | EAT WB | LAT DB | LAT WB | COIL AIR PRESSURE DROP | FACE VELOCITY (FPM) | ROWS | REFRIGERANT | NUMBER OF REFRIGERANT CIRCUITS | TOTAL REFRIGERANT WEIGHT | FILTER: TYPE | FACE AREA (SF) | DEPTH SIZE (INCHES) | CLEAN APD (IN-WG) | UNIT SIZE (IN): L | W | H | OPERATING WEIGHT | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AHU-HS-3 | DAIKIN APPLIED | CAH030GDQM | GYM MEZZANINE | GYMNASIUM 49 | AXIAL DISCHARGE, AIRFOIL BLADES | 14,000 CFM | 3,200 CFM | 0.15 in-wg | 0.11 in-wg | 4 | 3,500 | 17.71 in | 1.5 | 2.89 | 1,825 | Direct | 2.56 | 4.8 | 208 V | 3 | 46.8 | 50 | 692,526 Btu/h | 55.0 °F | 100.2 °F | 2 | 8 | 0.18 | 525 | 180 °F | 149.8 °F | 45.9 GPM | 2.60 | 454,298 Btu/h | 342,325 Btu/h | 79.2 °F | 65.3 °F | 56.8 °F | 54.6 °F | 0.63 in-wg | 501 | 4 | R410A | 2 | 58 lb | Pre Pleat (MERV 13) | 30.3 | 2.00 | 0.31 | 140 | 80 | 72 | 3,615 lb | 1, 2, 3 |

## ROOFTOP UNIT SCHEDULE

1. PROVIDE UNIT WITH FACTORY WIRED 115 VOLT CONVENIENCE OUTLET.

| Mark | IDENTITY DATA: MANUFACTURER | MODEL | ELECTRICAL - LOADS: VOLTS | PHASE | HERTZ | SUPPLY FAN HP | SUPPLY FAN BRAKE HP | HP EXHAUST FAN | HP BRAKE EXHAUST FAN | MCA | MOCP | FLA | STAINLESS STEEL GAS HEAT SECTION: GROSS INPUT | GROSS OUTPUT | GAS PRESSURE (MIN/MAX, IN H2O) | AIR HEATING COIL PRESSURE DROP | MODULATION | HEATING EAT | HEATING LAT | FILTER SECTION: PRE-FILTER FILTER | FINAL FILTER | MEAN AIR PRESSURE DROP (IN WC) | AIRFLOW DATA: MAXIMUM SUPPLY AIR | ESP | TOTAL STATIC PRESSURE (IN WC) | RETURN AIR | MAXIMUM OCCUPIED OUTSIDE AIR | MAXIMUM OCCUPIED EXHAUST AIR | EXHAUST FAN ESP | DIRECT EXPANSION COOLING SYSTEM SECTION: COOLING EAT DB | COOLING EAT WB | COOLING LAT COIL DB | COOLING LAT COIL WB | COOLING LAT UNIT DB | COOLING LAT UNIT WB | COOLING SENSIBLE CAPACITY (MBH) | COOLING TOTAL CAPACITY (MBH) | COOLING TOTAL TONNAGE | EVAPORATOR PRESSURE DROP | IEER | EER | ENERGY RECOVERY WHEEL SECTION: ERV OA AIRFLOW | ERV EXHAUST AIRFLOW | ERV PRESSURE DROP | ERV TOTAL COOLING CAPACITY | ERV TOTAL HEATING CAPACITY | ERV OA TEMPERATURE COOLING EAT DB | ERV OA TEMPERATURE COOLING EAT WB | ERV OA TEMPERATURE COOLING LAT DB | ERV OA TEMPERATURE COOLING LAT WB | SUMMER MIXED AIR DB | SUMMER MIXED AIR WB | ERV EXHAUST EAT SUMMER DB | ERV EXHAUST EAT SUMMER WB | ERV OA TEMPERATURE EAT DB WINTER | ERV OA TEMPERATURE EAT WB WINTER | ERV OA TEMPERATURE LAT DB WINTER | ERV OA TEMPERATURE LAT WB WINTER | WINTER MIXED AIR DB | WINTER MIXED AIR WB | ERV EXHAUST EAT DB WINTER | ERV EXHAUST EAT WB WINTER | SUMMER TOTAL EFFECTIVENESS | SUMMER SENSIBLE EFFECTIVENESS | WINTER TOTAL EFFECTIVENESS | WINTER SENSIBLE EFFECTIVENESS | OPERATING WEIGHT | MAXIMUM DISCHARGE dB LEVELS BY OCTAVE BAND: 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---