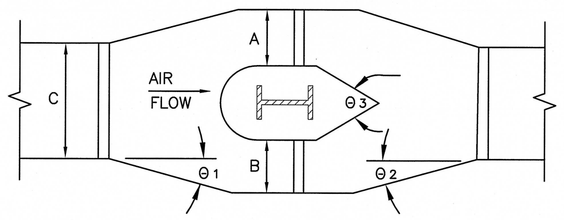
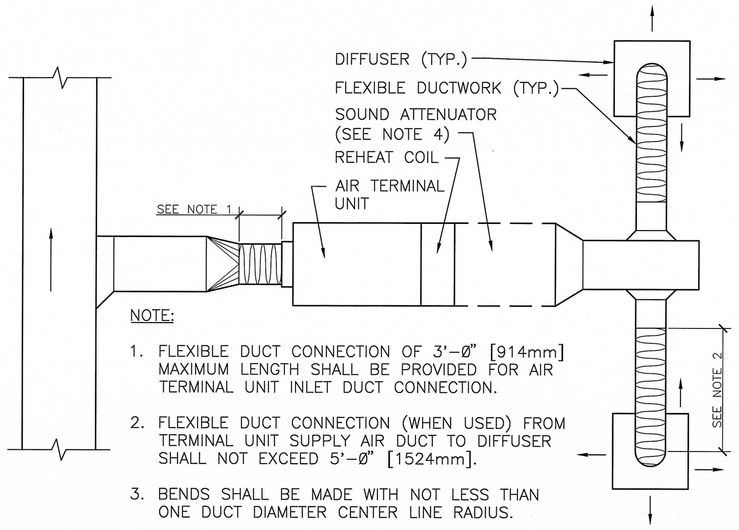


A + B = 1.25C (MIN)
AT CONSTANT DEPTH

Θ1 = 20° MAX
Θ2 = 30° MAX
Θ3 = 60° MAX

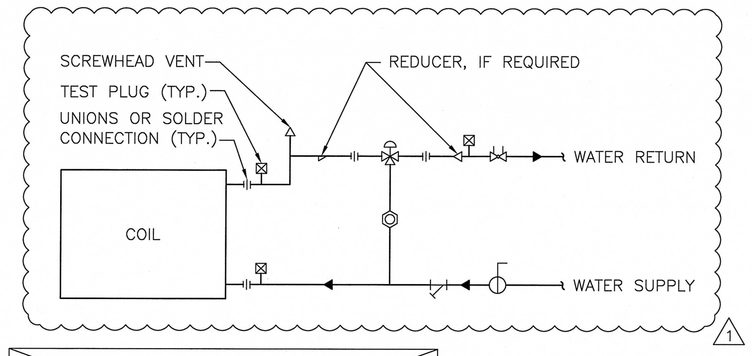
1/H6.2 DUCT OBSTRUCTION



NOTE:

1. FLEXIBLE DUCT CONNECTION OF 3'-0" [914mm] MAXIMUM LENGTH SHALL BE PROVIDED FOR AIR TERMINAL UNIT INLET DUCT CONNECTION.
2. FLEXIBLE DUCT CONNECTION (WHEN USED) FROM TERMINAL UNIT SUPPLY AIR DUCT TO DIFFUSER SHALL NOT EXCEED 5'-0" [1524mm].
3. BENDS SHALL BE MADE WITH NOT LESS THAN ONE DUCT DIAMETER CENTER LINE RADIUS.
4. USE SOUND ATTENUATOR ONLY IF REQUIRED TO MEET DESIGN ROOM NC LEVEL.

2/H6.2 FLEXIBLE DUCT CONNECTION FOR AIR TERMINAL UNITS

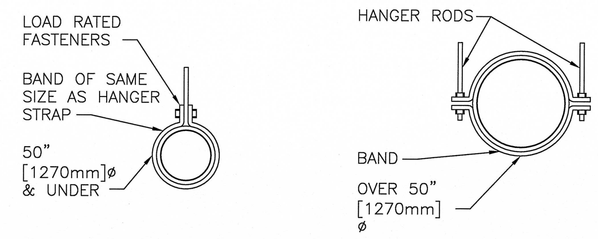


NOTE:

A STRAIGHT-THRU MODULATING CONTROL VALVE IS SHOWN BY SOLID PIPING. WHEN CONTROL DIAGRAM INDICATES THAT A THREE-WAY MODULATING CONTROL VALVE IS REQUIRED, PROVIDE DASHED PIPING AND FITTINGS ALSO. 1

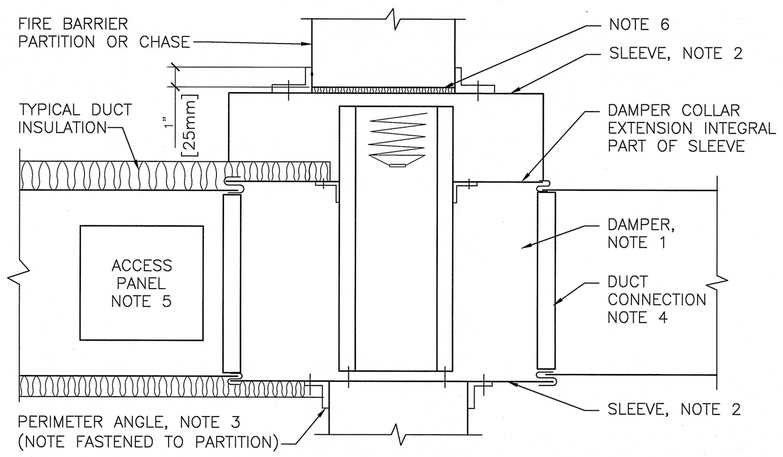
3/H6.2 TYPICAL COIL PIPING CONNECTIONS TO VAV BOXES "3-WAY VALVE"

HANGER STRAPS OR RODS			
MAX. DUCT ø IN. [mm]	QUANTITY/SIZE IN. [mm]	MAX. LOAD LBS. [kg]	MAX. SPACING IN. [mm]
26 [650]	ONE 1 [25] x 22 GA STRAP	260 [119]	144 [3658]
36 [900]	ONE 1 [25] x 18 GA STRAP	420 [190]	144 [3658]
50 [1250]	ONE 1 [25] x 16 GA STRAP	700 [317]	144 [3658]
60 [1500]	TWO 3/8 [10]ø. RODS	1320 [598]	144 [3658]
84 [2100]	TWO 1/2 [13]ø RODS	2500 [1133]	144 [3658]



NOTE:
TABULATED DATA FROM SMACNA ALLOWS FOR DUCT REINFORCING AND INSULATION, BUT NO EXTERNAL LOAD.

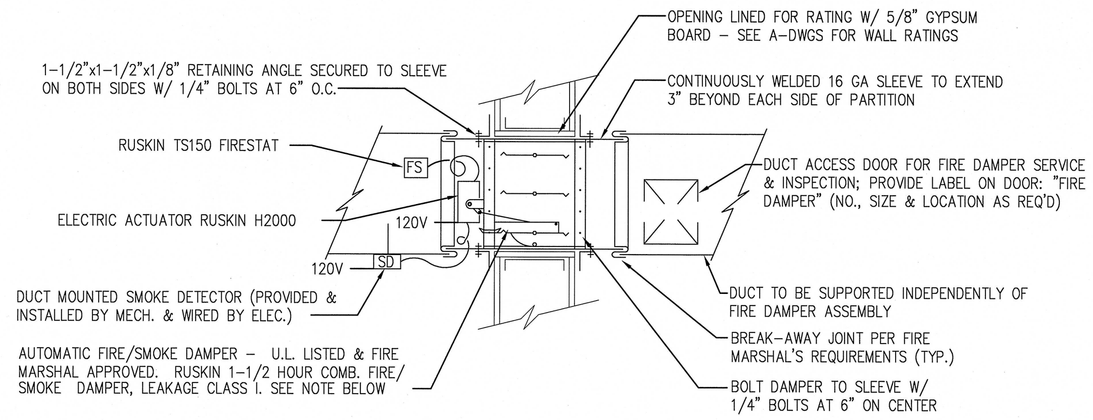
4/H6.2 ROUND DUCT HANGERS



NOTE:

1. A VERTICAL DAMPER IS SHOWN. HORIZONTAL DAMPER INSTALLATION, 1S SIMILAR. FOLLOW DAMPER MANUFACTURER'S INSTRUCTIONS, INCLUDING FASTENER OPTIONS AND GAGES FOR SLEEVE AND PERIMETER ANGLES. FIRE DAMPERS MUST BE INSTALLED IN THE PARTITION OR FLOOR AND NOT OUTSIDE THE PENETRATION.
2. GALVANIZED SLEEVE: GAGE NOT LESS THAN CONNECTING DUCT. FASTEN SLEEVE TO DAMPER FRAME AND TO PERIMETER ANGLES.
3. PERIMETER ANGELS: GALVANIZED STEEL, NOT LESS THAN 1 1/2"x1 1/2" [38x38mm], 14 GAGE, TO PROVIDE 1" [25mm] MINIMUM OVERLAP OF OPENING ON ALL 4 SIDES.
4. BREAKAWAY DUCT CONNECTION: CONTRACTOR'S OPTION OF TYPES SHOWN IN SMACNA LPDS, FIG. 2-13, SEAL JOINTS.
5. ACCESS PANELS: SIZE AND LOCATION TO PERMIT SERVICING THE FUSIBLE LINK OR LINKS.
6. PROVIDE 1/4" TO 1/2" [6 TO 13mm] CLEARANCE ON HEIGHT AND WIDTH. FILL OPEN SPACE WITH ROCK WOOL FIRESTOP FIBER.
7. ALL DUCT WORK RISERS WHICH ARE RUN EXPOSED, SUCH AS THRU ATTIC FLOORS AND MECHANICAL ROOM FLOORS, SHALL BE PROVIDED WITH 3" [76mm] HIGH CONCRETE CURB AROUND OPENING FOR DUCT.

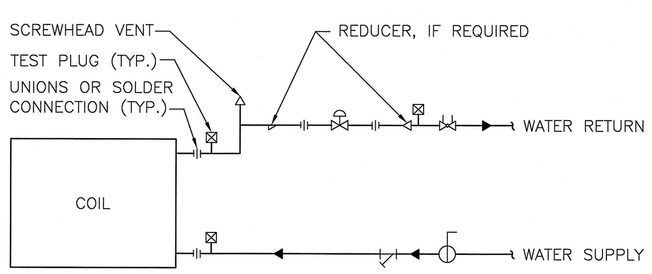
5/H6.2 SECTION THRU TYPICAL FIRE DAMPER INSTALLATION



NOTES:

- RUSKIN MODEL FSD60 OR APPROVED EQUAL SHALL MEET NFPA90A & NFPA92A REQUIREMENTS FOR FIRE SMOKE DAMPERS & CALIFORNIA STATE FIRE MARSHAL CLASSIFICATION LISTING NO. 3225-245:102 (FIRE DAMPER) & 3230-245:110 (SMOKE DAMPER)
- SMOKE/FIRE DAMPER DETAIL IS FOR REFERENCE ONLY, SMOKE/FIRE AND FIRE DAMPERS SHALL BE STATE FIRE MARSHAL APPROVED AND INSTALLED STRICTLY PER MANUFACTURER'S PRINTED INSTRUCTIONS. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE MADE AVAILABLE TO THE INSPECTING AUTHORITIES.
- RECTANGULAR DUCTWORK: RUSKIN MODEL FSD60 OR APPROVED EQUAL
- ROUND DUCTWORK: RUSKIN MODEL FSDR25 OR APPROVED EQUAL
- RUSKIN MODEL FSDR25 OR APPROVED EQUAL MEETS NFPA60A & NFPA92A REQUIREMENTS FOR FIRE SMOKE DAMPERS & CALIFORNIA STATE FIRE MARSHAL CLASSIFICATION LISTING NO. 3225-245:107 (FIRE DAMPER) & 3230-245:108 (SMOKE DAMPER)
- SMOKE DETECTOR SHALL BE ADDRESSABLE & COMPATIBLE WITH BUILIDNG FIRE ALARM SYSTEM; INSTALL SMOKE DETECTOR IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS

6/H6.2 SMOKE/FIRE DAMPER INSTALLATION



7/H6.2 TYPICAL COIL PIPING CONNECTIONS TO VAV BOXES "2-WAY VALVE"

SCALE: 3/4"=1'-0" | 1/2"=1'-0" | 1/4"=1'-0" | 1/8"=1'-0"

111008

REGISTERED PROFESSIONAL ENGINEER — JOHN F. KIRK — M 34008 — EXP. 3/31/10 — MECHANICAL — STATE OF CALIFORNIA

K.F. DAVIS ENGINEERING, INC
530 LA GONDA WAY, SUITE E
DANVILLE, CA 94526

Revisions: 1 DATED 11/10/08	Drawing Title: MECHANICAL DETAILS	Project Title: BLDG 650 REPLACE AIR HANDLERS 1 THRU 4, 7 AND 9 - 15	Date: 08/25/08
			Project No.: 612A4-07-342
Approved:	Approved: Medical Center Director	Drawn: RMK	Building Number:
Approved:	Approved: Chief, Engineering Service	Checked: KL	Location: MATHER VAMC MATHER CALIFORNIA
			DRAWING No. H6.2 Dwg. of

Department of Veterans Affairs