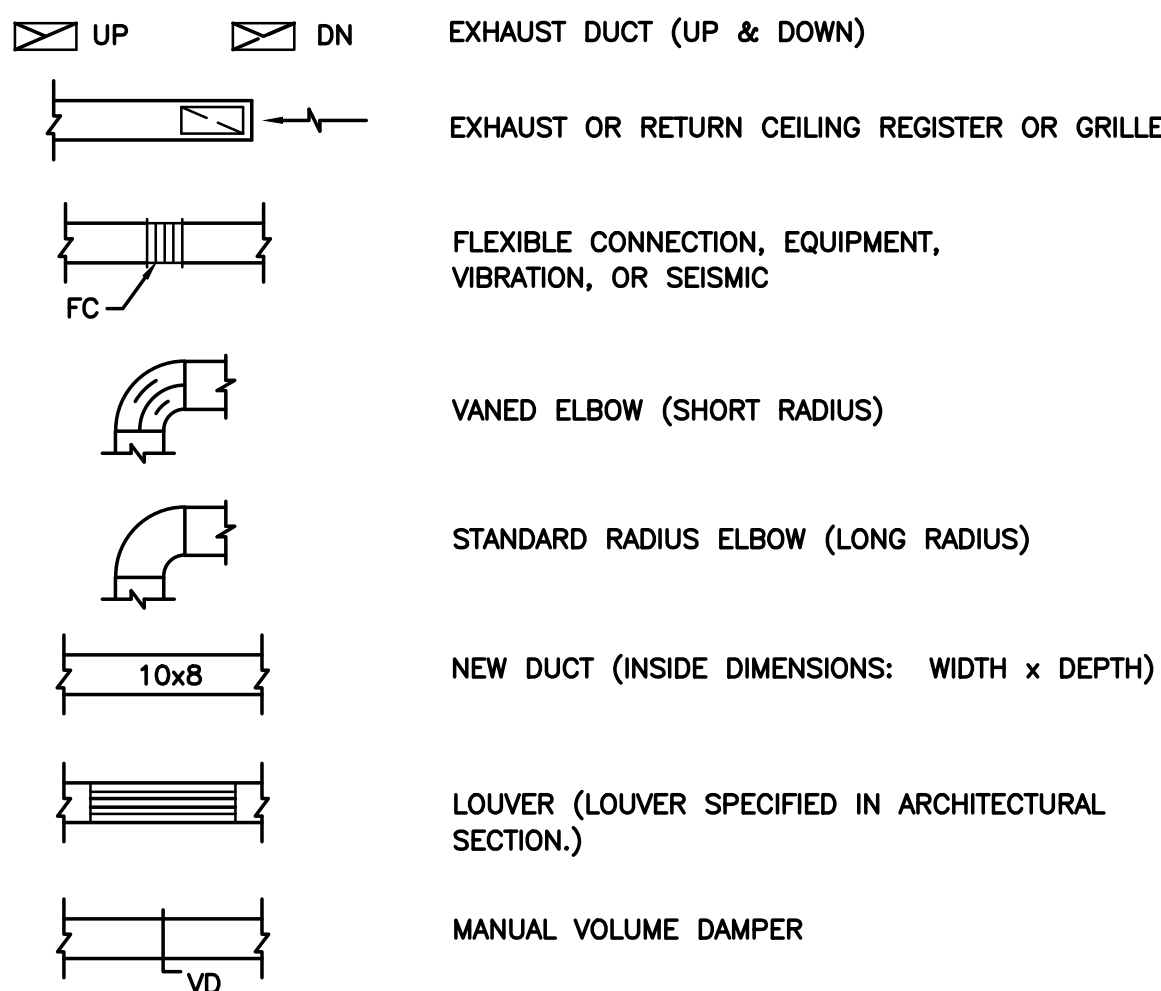


DUCTWORK SYMBOLS



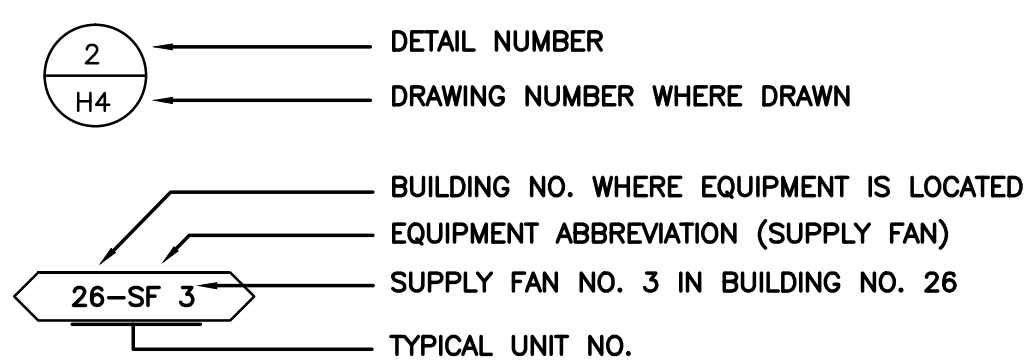
ABBREVIATIONS

A/E	ARCHITECT / ENGINEER	HP	HORSEPOWER
AMP	AMPERE	IN WC	INCH WATER COLUMN
AP	ACCESS PANEL	KW	KILOWATT
APD	AIR PRESSURE DROP	L/s	LITERS PER SECOND (OR LITERS/SECOND)
BHP	BRAKE HORSEPOWER	MM	MILLIMETER
BIW	BACKWARD INCLINED WHEEL (FAN)	PA	PASCAL
CFM	CUBIC FEET PER MINUTE	RPM	REVOLUTIONS PER MINUTE
DIA	DIAMETER	TYP	TYPICAL
EA	EXHAUST AIR	VD	VOLUME DAMPER (MANUAL OPPOSED BLADE)
EF	EXHAUST FAN		
ER	EXHAUST REGISTER		
ESP	EXTERNAL STATIC PRESSURE		
FC	FLEXIBLE CONNECTION		

GENERAL NOTES

1. THE FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED. DUCT SIZES ARE NET INSIDE DIMENSIONS.
2. TOTAL STATIC PRESSURE NOTED IN THE SCHEDULES INCLUDES DUCT SYSTEM, TERMINAL UNITS, FILTERS, COILS, ETC.
3. DIFFUSER, REGISTER AND GRILLE SIZES SHOWN ON FLOOR PLANS ARE NECK SIZES.
4. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF CEILING DIFFUSERS, REGISTERS, AND GRILLES.
5. SEISMIC PROVISIONS: NOT REQUIRED

DRAWING SYMBOLS



SYMBOLS & IDENTIFICATION OF GRILLES, REGISTERS, & DIFFUSERS

IDENTIFICATION	
12/12 CO-200-4.1	STYLE
NECK SIZE DESCRIPTION	CFM
DESCRIPTION	
ER - EXHAUST REGISTER	
STYLE	
STYLE C	CEILING REGISTER OR GRILLE

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 [3600]
36 [900]	ONE 1 [25] x 18 GA STRAP	420 [190]	144 [3600]
50 [1250]	ONE 1 [25] x 16 GA STRAP	700 [317]	144 [3600]
60 [1500]	TWO 3/8 [10]# RODS	1320 [598]	144 [3600]
84 [2100]	TWO 1/2 [13]# RODS	2500 [1133]	144 [3600]

LOAD RATED FASTENERS

BAND OF SAME SIZE AS HANGER STRAP

50" [1250mm] & UNDER

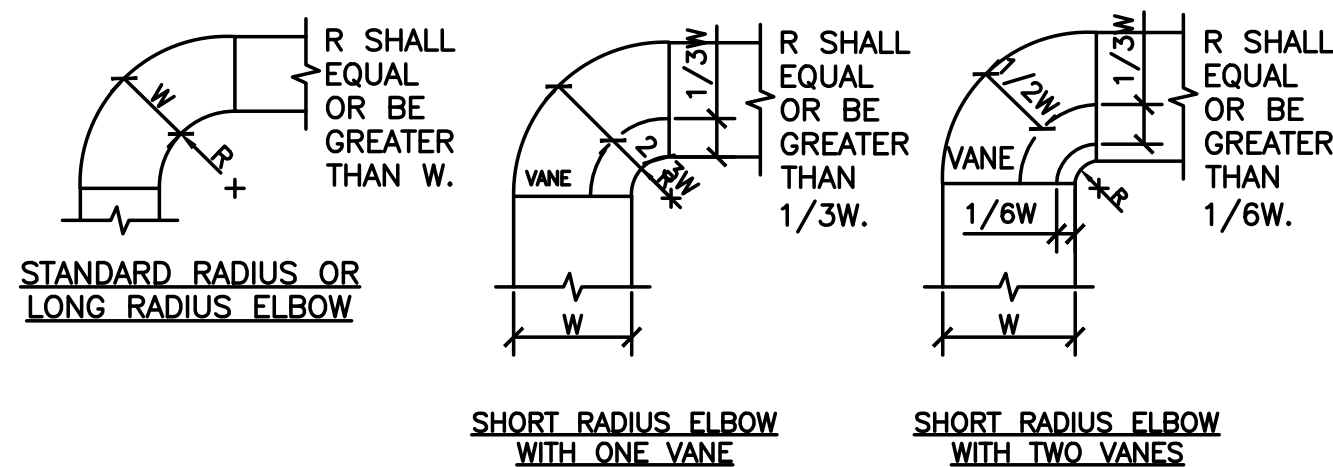
HANGER RODS

BAND OVER 50" [1250mm]

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

1 ROUND DUCT HANGERS

NTS

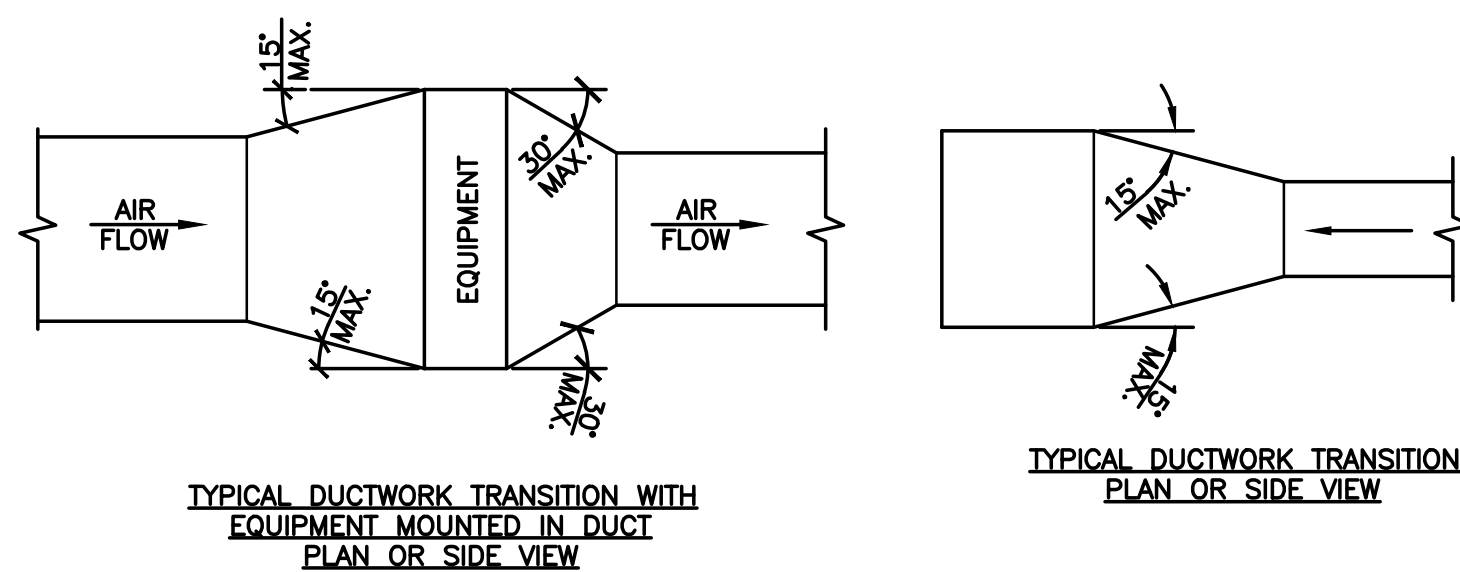


NOTE:

1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
2. ALL STANDARD RADIUS ELBOWS CAN BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

2 DUCTWORK RADIUS ELBOWS

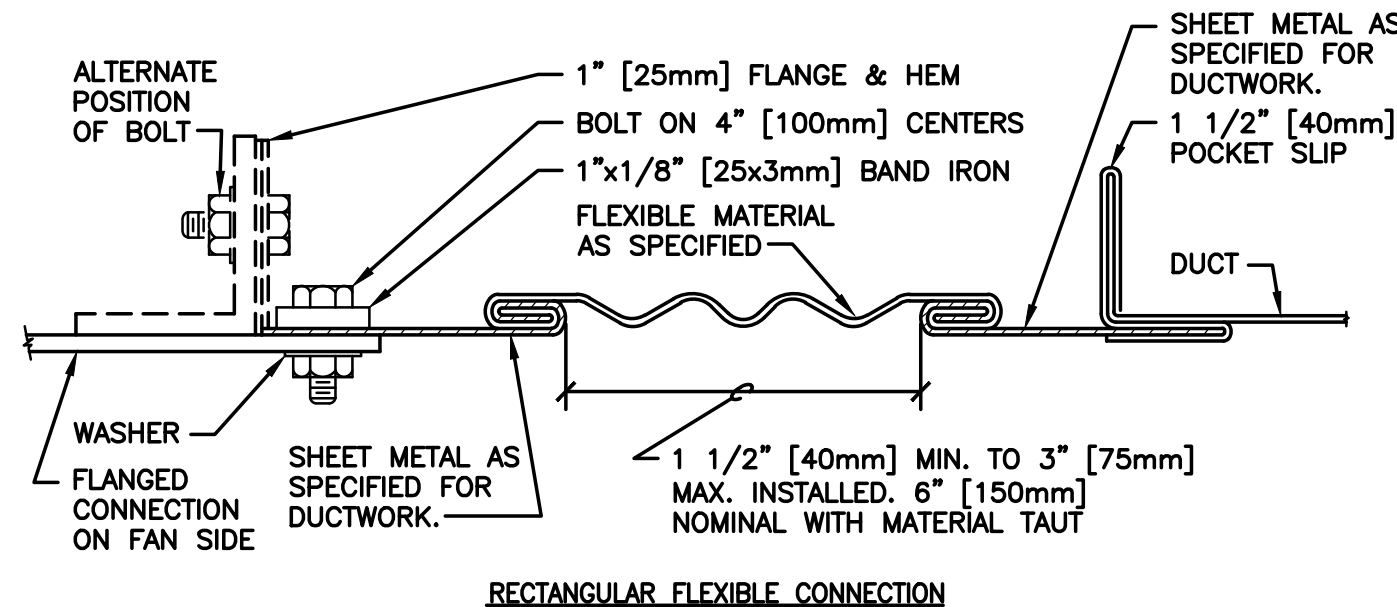
NTS



NOTE: UNLESS OTHERWISE INDICATED ON PLANS, MAXIMUM ANGLES SHOWN SHALL APPLY.

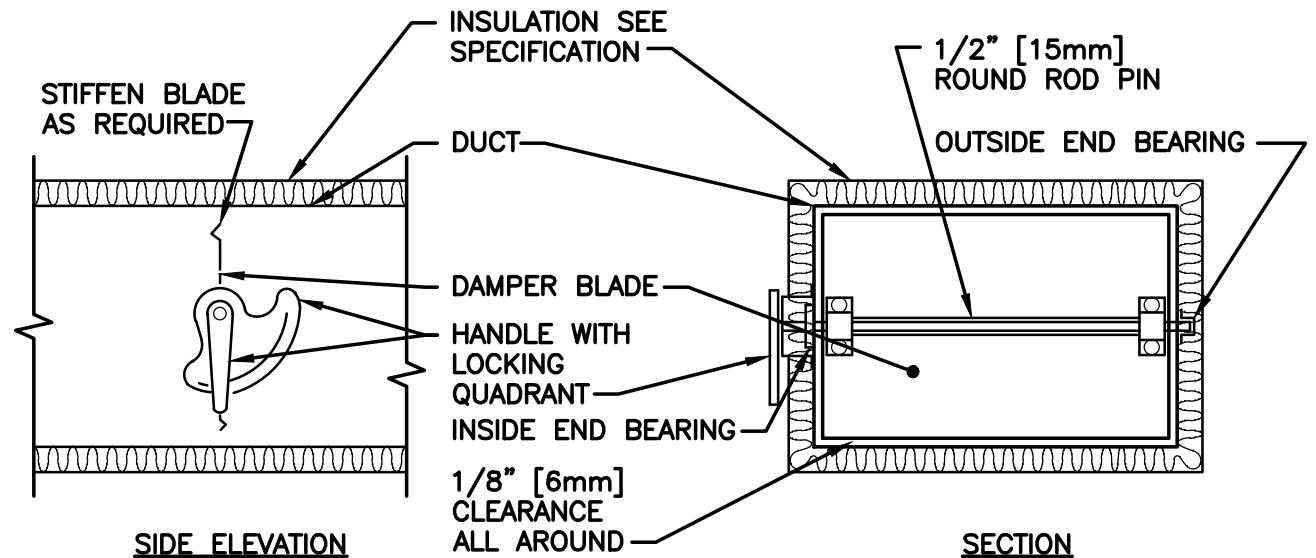
3 DUCTWORK TRANSITIONS (WITH EQUIPMENT MOUNTED IN DUCT)

NTS



4 FLEXIBLE DUCT CONNECTIONS

NTS



NOTE:

1. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
2. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.

5 VOLUME DAMPER DETAIL

NTS

CONSULTANTS:



ARCHITECT/ENGINEERS:



Drawing Title
SYMBOLS, ABBREVIATIONS, AND DETAILS - HVAC
BUILDING 417

Approved Project Director

Project Title
RECREATIONAL POOL FACILITY
RENOVATIONS
BATH HOUSE

Location
VAMC, MARTINSBURG, WV

Date
05-04-12

Checked
-

Drawn
-

Project Number
613-11-140

Building Number
417

Drawing Number
417-MH001

Dwg. of-

Office of
Construction
and Facilities
Management

