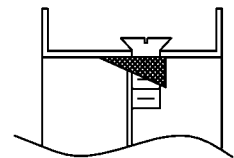
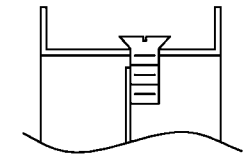
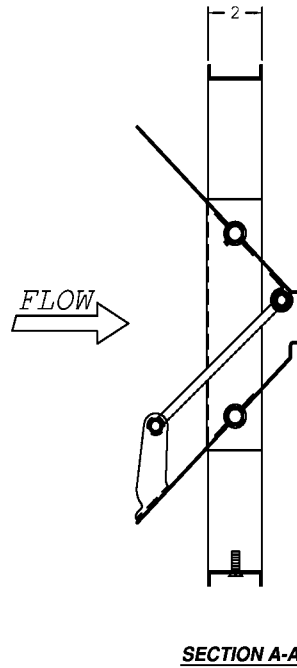
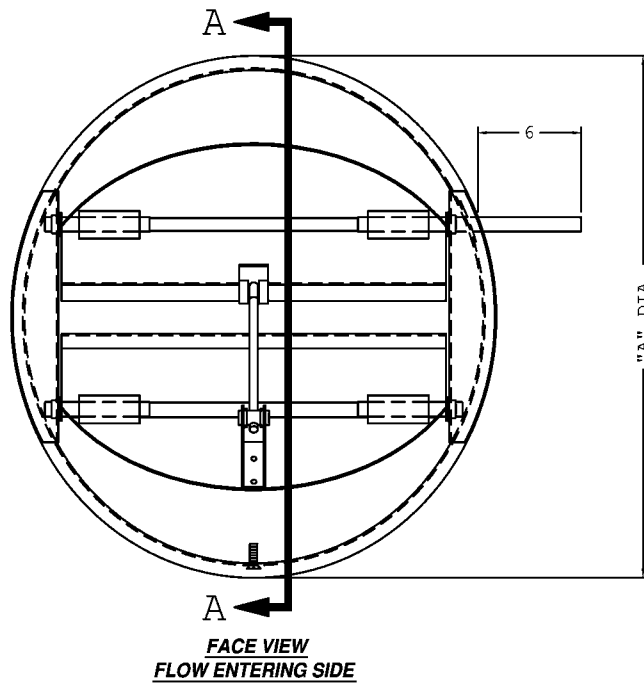


VOLUME CONTROL DAMPER, SINGLE THICKNESS BLADE, GALVANIZED STEEL CONSTRUCTION, 180°F MAX. TEMP.




AWV ITEM No.	QUANTITY	"A" DUCT DIAMETER	OPTIONS										COMMENTS	
			BEARINGS					SEALS						
			S.S. SLEEVE (350°F)	TEFLON SLEEVE (250°F)	O.I.B. SLEEVE (300°F)	PRESS FIT S.S. BALL W/CAD. PLATED RACES (250°F)	EPT BLADE (150°F)	VINYL BLADE (150°F)	SILICONE BLADE (450°F)	SILICONE JAMB (450°F)	S.S. JAMB (350°F)	S.S. LINKAGE	S.S. AXLES	

STANDARD SPECIFICATIONS

FRAME: 2" x 1/2" x 14 GAUGE GALVANIZED STEEL CHANNEL.
 INNERFRAME: 16 GAUGE GALVANIZED STEEL ANGLE.
 BLADES: 16 GAUGE GALVANIZED STEEL.
 AXLES: 1/2" DIAMETER PLATED STEEL STUBS.
 BEARINGS: NYLON SLEEVE WITH STAINLESS STEEL THRUST WASHERS.
 LINKAGE: PLATED STEEL BRACKETS, BRASS BARRELS AND A 5/16" DIAMETER PLATED STEEL ROD.
 STOPS: #10 PLATED SHEET METAL SCREWS FOR THE OPEN AND CLOSED POSITIONS.
 FINISH: MILL WITH TOUCH UP ON WELDS.
 ACTUATOR: AN EXTENDABLE SHAFT 6" BEYOND THE FRAME IS STANDARD.

NOTES

- DESIGN CRITERIA:
 MAX. VELOCITY: 3000 FPM / 15 m/s
 MAX. DIFF. PRESS.: 2 IN. WG / 500 Pa
 MAX. TEMPERATURE: 180°F / 82°C (WITHOUT SEALS)
 150°F / 65°C (WITH EPT & VINYL SEALS)
 450°F / 232°C (WITH SILICONE & S.S. SEALS) (MUST USE S.S. AXLES, LINKAGE & SLEEVE BEARINGS)
- MINIMUM DIAMETER: 12"
 MAXIMUM DIAMETER: 28"
- "A" DIMENSION IS THE DUCT DIAMETER. DAMPERS ARE FABRICATED 1/8" UNDERSIZE.
- DRAWINGS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC INFORMATION FOR ANY COMPONENT PART OR CONSTRUCTION DETAIL WILL BE FURNISHED UPON REQUEST.
- ANY VARIATIONS FROM THE STANDARD SPECIFICATIONS MUST BE FACTORY APPROVED IN ADVANCE.
- SEE PAGE 17 OF DAMPER BROCHURE FOR PERFORMANCE DATA.

REV.	DESCRIPTION	DATE	BY
DATE:			
AWV PROD. No.:			
PROJECT:			
CUSTOMER / ORDER No.:			
ARCH. / ENGR.:			
AGENT / ORDER No.:			
 american warming and ventilating A MESTEK COMPANY 7301 INTERNATIONAL DRIVE HOLLAND, OHIO			
VC-23 VOLUME CONTROL DAMPER			
DRN. BY	PRE	DWG. NO.	REV.
DATE	11-14-00	VC-23-1	

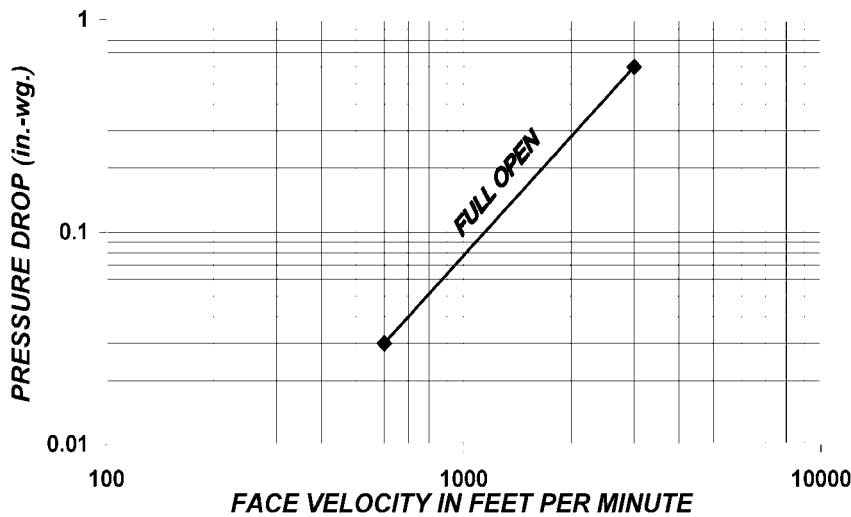
TORQUE:

The torque required to operate a control damper is the greatest torque value that the damper will see in operation. The table below gives torque values for velocity, pressure and seals. The torque required for a damper without seals is the torque due to velocity or pressure, whichever is greater. The torque required for a damper with seals is the torque due to velocity, pressure, or seals, whichever is greater.

The velocity torque values shown in the table below are based on 1000 fpm face velocity. For higher velocities multiply the table values by $(\text{Vel./1000})^2$. The pressure torque values shown in the table below are based on 1 in. wg. For higher pressures multiply the table value by the new pressure.

VC-23											
TORQUE	DIA.	12	14	16	18	20	22	24	26	28	
	Velocity	In-lbs	5	5	5	5	6	8	10	12	16
	Pressure	In-lbs	10	10	10	15	25	35	35	50	60
	Seal	In-lbs	16	22	28	34	42	52	62	72	84

PRESSURE DROP: TYPICAL PERFORMANCE CURVE



TESTED PER AMCA
STANDARD 500;
FIGURE 5.3: (IN-DUCT MOUNT)
SIZE TESTED - 18" DIAMETER

LEAKAGE:

Quantities are derived from tests performed in accordance with AMCA Standard 500. The values shown in the chart are stated in SCFM. For lower leakages, consult our representative or factory customer service department prior to selection.

DAMPER DIAMETER	LEAKAGE IN SCFM			
	VC-23 WITHOUT SEALS		VC-23 WITH SEALS	
	PRESSURE		PRESSURE	
	1 in. wg.	2 in. wg.	1 in. wg.	2 in. wg.
12	230	325	15	22
14	265	375	16	23
16	300	425	16	23
18	340	480	17	24
20	380	535	18	26
22	420	595	18	26
24	460	650	19	27
26	500	705	20	29
28	540	760	22	32