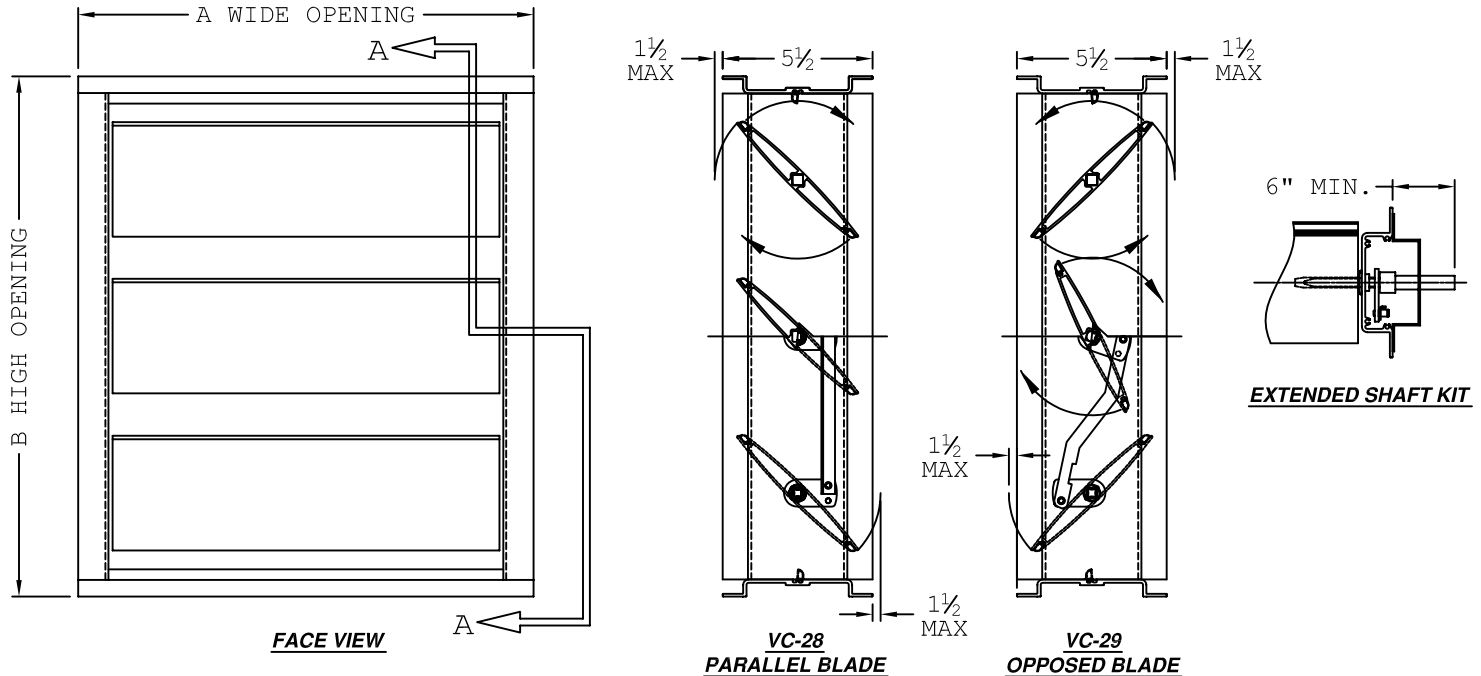


# VOLUME CONTROL DAMPER, AIRFOIL BLADES, ALUMINUM CONSTRUCTION, 150°F MAX. TEMP.



OPTIONS										COMMENTS
AWV ITEM No.	QUANTITY	MODEL TYPE VC-28 OR VC-29	"A" WIDE OPENING (IN.)	"B" HIGH OPENING (IN.)	No. OF PANELS (WIDE x HIGH)	OIB BEARINGS	STAINLESS STEEL SLEEVE BEARINGS	300 SERIES STAINLESS STEEL LINKAGE & AXLES	SILICONE BLADE SEALS	

## SPECIFICATIONS

**FRAME:** 5-1/2" x .125" THK. 6063-T5 EXTRUDED ALUMINUM HAT CHANNEL.

**BLADES:** 6-3/32" WIDE x .070 THK. 6063-T5 EXTRUDED ALUMINUM.

**AXLES:** 3/8" SQUARE PLATED STEEL.

**BEARINGS:** NYLON.

**LINKAGE:** PLATED STEEL BAR AND CONCEALED IN JAMB TYPE ARMS.


**SEALS:** EXTRUDED SANTOPRENE ON BLADE EDGES WITH STAINLESS STEEL COMPRESSION AT JAMBS.

**FINISH:** MILL WITH TOUCH UP ON WELDS.

**ACTUATOR:** 6" EXTENDED SHAFT. DAMPERS MORE THAN ONE PANEL WIDE OR HIGH AND OPERATED WITH ONE ACTUATOR MUST BE JACKSHAFTED. FACTORY SUPPLIED ACTUATORS ARE SHIPPED LOOSE TO BE MOUNTED EXTERNALLY WITH EXTENDED SHAFT KIT AS STANDARD.

## NOTES

1. MAXIMUM PANEL SIZE: 60" W x 72" H.  
MINIMUM PANEL SIZE: 6" W x 6" H. PARALLEL BLADE (SINGLE BLADE)  
6" W x 9" H. (OPPOSED BLADE)  
MINIMUM HEIGHT WITH JACKSHAFTING - 12"
2. "A" (WIDTH) AND "B" (HEIGHT) DIMENSIONS ARE OPENING SIZES. DAMPERS WILL BE FABRICATED 1/4" UNDERSIZE.
3. ANY VARIATIONS TO THE STANDARD SPECIFICATIONS MUST BE FACTORY APPROVED IN ADVANCE.
4. DAMPERS WITH MULTIPLE PANELS IN BOTH WIDTH AND HEIGHT MAY REQUIRE STRUCTURAL SUPPORT. IT IS RECOMMENDED THAT LARGE OPENINGS BE DESIGNED WITH STRUCTURAL MEMBERS SO THAT DAMPERS WILL SPAN EITHER WIDTH OR HEIGHT WITH A SINGLE PANEL. AWV DOES NOT SUPPLY STRUCTURAL SUPPORT WITH STANDARD DAMPERS.
5. DAMPERS MAY BE INSTALLED VERTICALLY OR HORIZONTALLY, BUT WE DO NOT RECOMMEND INSTALLATION WITH THE BLADES AND AXLES IN THE VERTICAL POSITION.
6. STAINLESS STEEL SLEEVE BEARINGS ARE NOT RECOMMENDED FOR SALTY ENVIRONMENTS.

REV.	DESCRIPTION	DATE	BY
DATE:			
AWV PROD. No.:			
PROJECT:			
CUSTOMER / ORDER No.:			
ARCH. / ENGR.:			
AGENT / ORDER No.:			
 <b>american warming and ventilating</b> A MESTEK COMPANY 7301 INTERNATIONAL DRIVE HOLLAND, OHIO			
VC-28 & 29 VOLUME CONTROL DAMPERS			
DRN. BY	DWG. NO.	REV.	
BET	VC-28-1		
DATE	2/4/10		

# MODEL VC-28 & VC-29

**Volume Control Damper:** Aluminum Construction • 150°F Max. Temperature • Airfoil Blades

## Leakage:

VC-28 / 29 dampers are rated for Class IA leakage as tested to AMCA Standard 511-99; Certified Ratings Programs for Air Control Devices. Class IA leakage is defined as 3 CFM/sq. ft. of damper face area at 1 in. wg. Closing torques followed the rules described below. Leakage is based on temperature ranges from 40°F and 104°F and standard air density of 0.75 lb/ft³.

Leakage, cfm/sqft (L/s/sqm)		
Pressure / Class	Required Ratings	
	1 in.wg (0.25 kPa)	4 in.wg (1.0 kPa)
1A	3 (15.2)	N/A
1	4 (20.3)	8 (40.6)
2	10 (50.8)	20 (102)
3	40 (203)	80 (406)

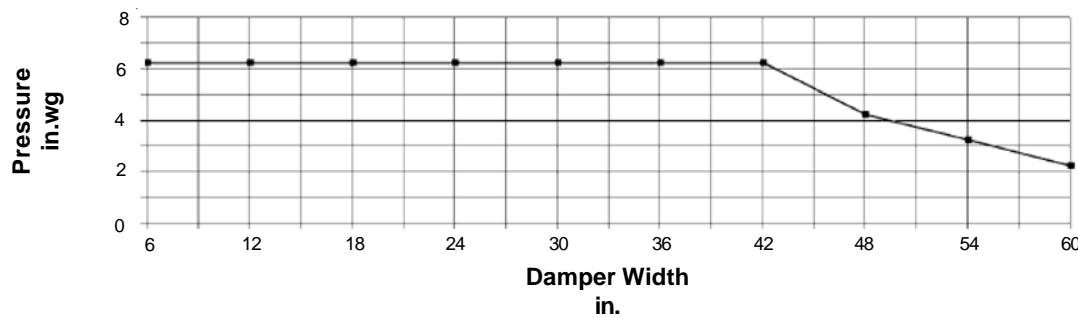
## Torque:

Closing Torque Applied to Extended Shaft	
Damper Width	Closing Torque (in-lbs/sq.ft.)
48"W Maximum	7 in-lbs/sq.ft.
60"W Maximum	5 in-lbs/sq.ft.
Minimum Torque: 25 in-lbs	

Torque Multipliers for Pressures Greater than 2 in.wg				
Damper Width	Static Pressure (in.wg)			
	3 in. wg	4 in.wg	5 in.wg	6 in.wg
48"W Maximum	1.43 in.wg	2.86 in.wg	2.86 in.wg	2.86 in.wg
60"W Maximum	Maximum Pressure is 2 in.wg			

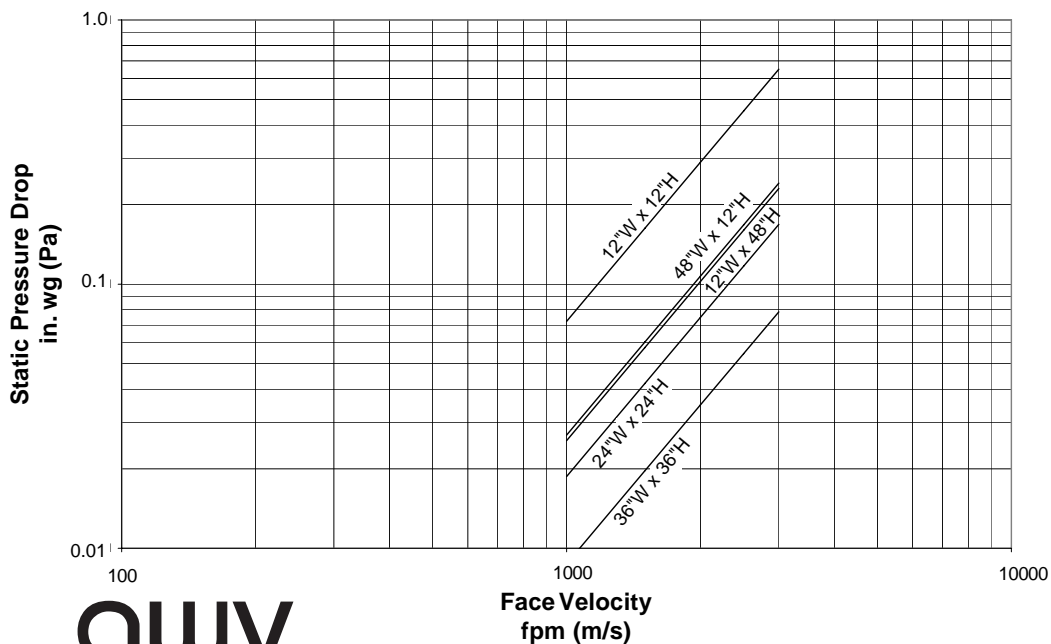
## Pressure Limitations:

Pressure limitations allow maximum blade deflection of 1/180 of span on 60" damper widths. Deflections in other damper widths less than 48" at high pressures shown will result in a blade deflection less than 1/180 of span.



## Pressure Drop:

Performance is based on AMCA Standard 500, Figure 5.3 (in-duct mount), operating temperatures between 50°F and 104°F and a standard air density of 0.75 lb/ft³. Actual pressure drop performance will vary based on damper size and exact installation configuration. The curves shown below are parallel blade results, opposed blade results are similar.



American Warming & Ventilating certifies that the model VC-28 / 29 damper shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance ratings and air leakage ratings.

**awv**  
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