

# MODEL ID42

10" Deep • Single Thickness Blade • 250°F Max. Temperature • Up to 8 in.wg Static Pressure at 2500 fpm • Industrial Damper

## STANDARD MATERIALS AND CONSTRUCTION

**FRAME:** 2" x 10" x 2" - 12-GA galvanized steel formed channel frame, mechanically fastened together

**BLADE:** 12-GA galvanized press formed single thickness, welded to shaft; Blade width 6¾" - 9¾"

**SHAFTS:** ¾" dia. corrosion resistant, plated cold finished steel stub; Drive blade to be continuous length

**BEARINGS:** Bronze oilite flanged sleeve pressed into frame

**LINKAGE:** Chevron type formed bracket of ½" thick steel; Trunnion is a machined pivot of plated steel with 5/16" dia. rod

**FINISH:** Mill

**TEMP. LIMITS:** 250°F

## OPTIONS

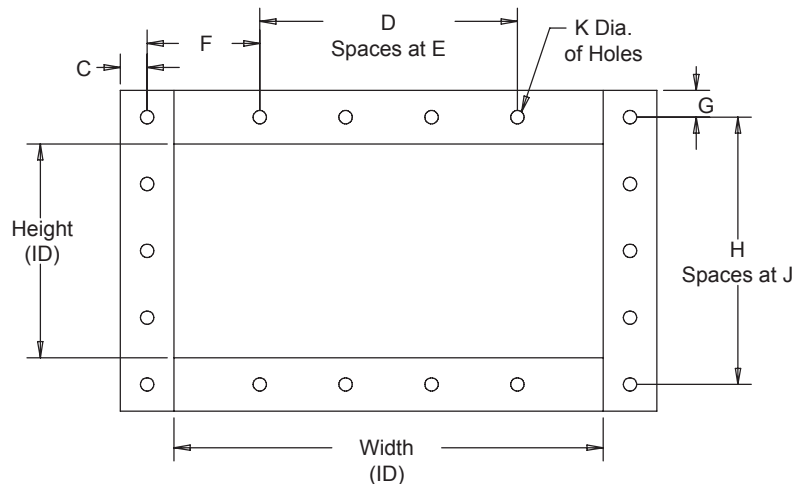
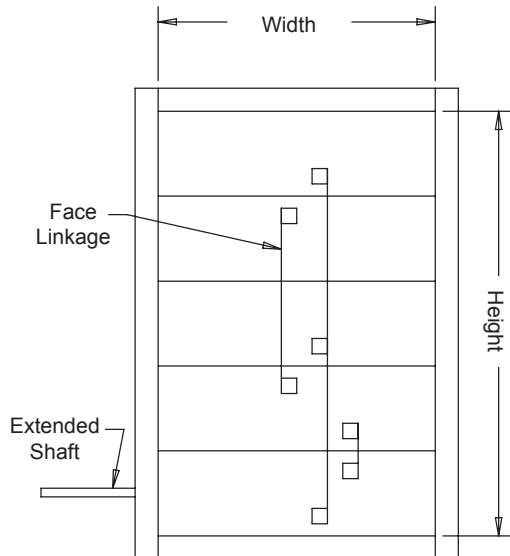
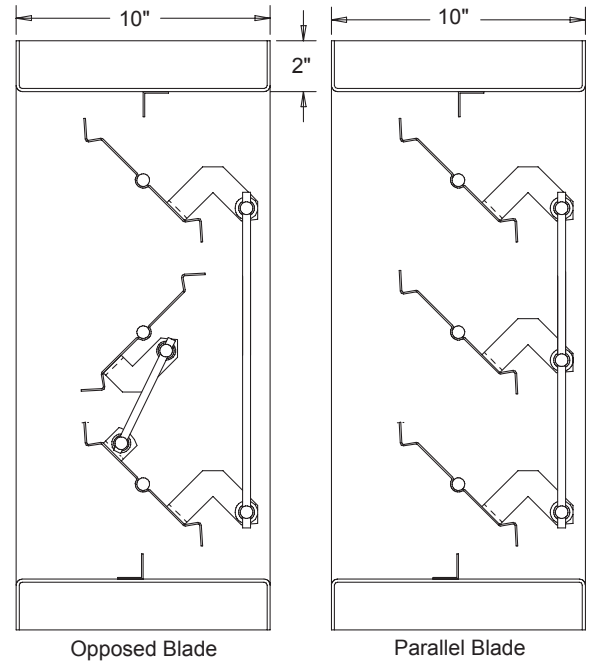
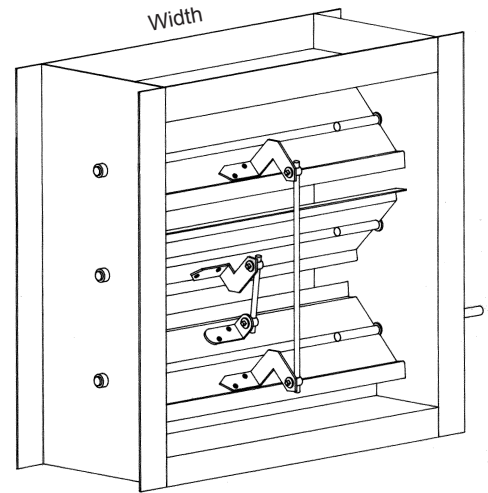
- Neoprene Blade Edge Seals
- Stainless Steel Jamb Seals
- Variable Flange Sizes
- Perimeter Holes - One Flange or Both Flanges
- External Linkage
- Other Bearings
- Other Materials

## NOTES

1. "A" width and "B" height are opening dimensions. Dampers are provided by inside dimension.
2. Velocities above 2500 fpm to 4000 fpm maximum shall require a double set of face linkage.

## DAMPER SIZES

Panels	Min Panel (ID)	Max Single Panel (ID)
ID42	6"W x 6¾"H Single Blade 6"W x 15"H Opposed Blades	48"W x 96"H without Seals 48"W x 72"H with Seals



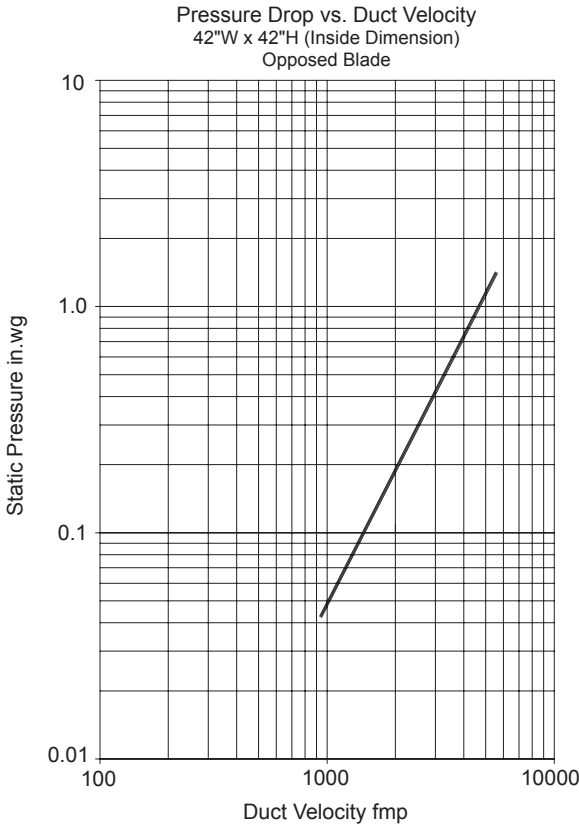
Optional Flange with Holes  
(Must Specify Dimensions C-K)

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**Free Area:**

Pressure drop curves listed are based on AMCA 500, using test set up Fig. 5.3 for damper installed with duct upstream and downstream. Static pressures are corrected to .075 lb/cu.ft. air density.



**Air Leakage:**

Air leakage quantities shown in the chart are results of tests per AMCA Standard 500 and are shown at 1 in.wg differential pressure and corrected to .075 lb/cu.ft. air density.

Air Leakage cfm

		Width						
		12	18	24	30	36	42	48
Height	12	7	10	13	17	20	23	27
	24	13	20	27	33	40	47	54
	36	20	30	40	50	60	70	80
	48	27	40	54	67	80	94	107
	60	33	50	67	84	100	117	134
	72	40	60	80	100	121	141	161

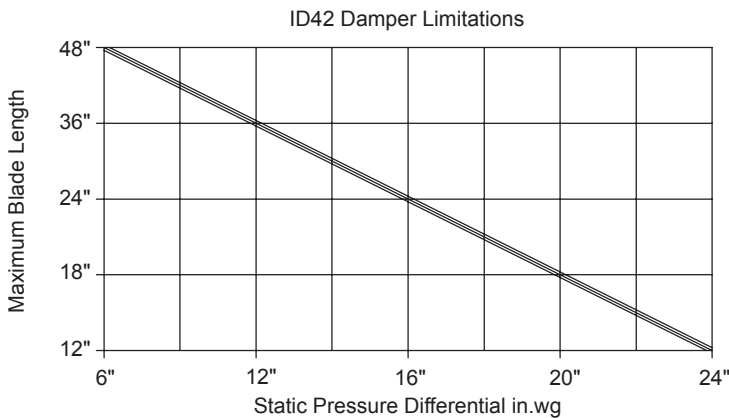
For determining leakage values greater than 1 in.wg to a maximum of 8 in.wg use the multiplier correction chart below

Static Pressure	2	3	4	5	6	7	8
Multiplier Correction Factor	1.4	1.7	2.1	2.5	2.8	3.2	3.6

Air leakage ratings are based on AMCA Standard 500 using test set up 5.4 with a damper closing torque applied to the damper of 25 in.lbs/sq.ft of damper area for a size 48"W x 72"H, with a minimum of 45 in.lbs/sq.ft. of damper area for a size 48"W x 6¾"H.

Damper air leakage shown is based upon publishing only the most conservative leakage results for the ABI model ID42 industrial damper for an entire range of damper sizes.

To ensure proper damper operation and air leakage performance for this damper design. The static pressure/blade length limits shown provide the user with this information and in addition provides a relationship between damper cost and the application.



The ID42 damper design at a blade length of 48" has a maximum allowable blade deflection of L/360 for the static pressure indication on the chart. At reduced blade lengths higher static pressure limits can be attained without sacrificing damper operating and performance characteristics.