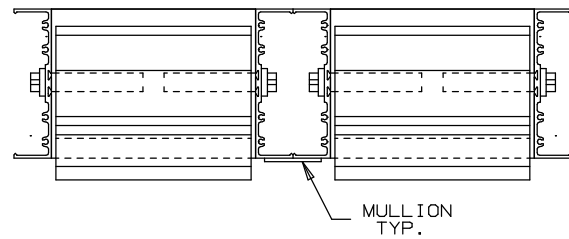
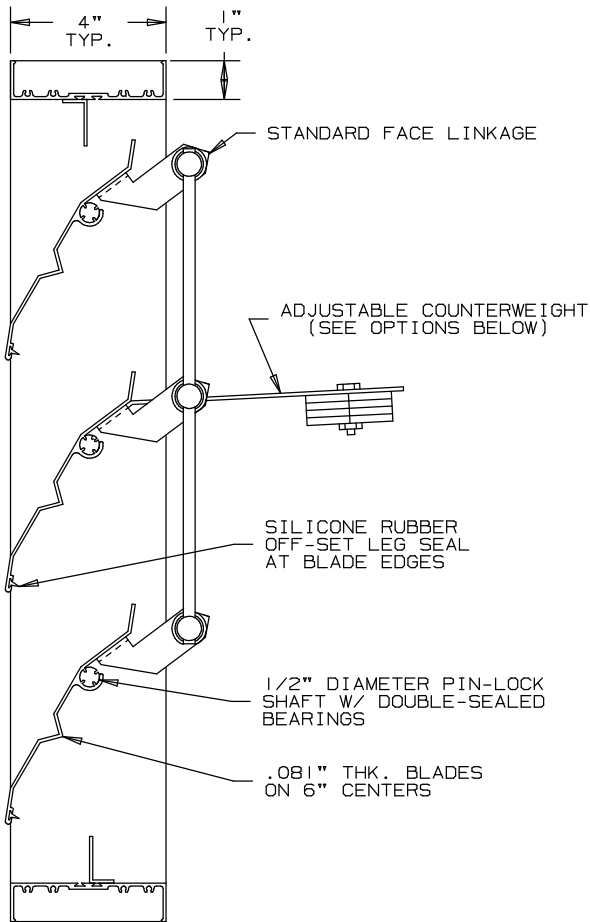


# ARROW BACKDRAFT DAMPERS ALUMINUM

# TYPE 655

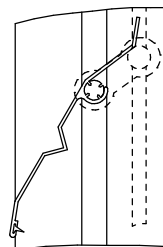


### SPECIFICATIONS

- FRAME : EXTRUDED ALUMINUM, 6063-T6/T52 ALLOY, .081" THICK. 1"x4"x1" CHANNEL FRAME ON ALL SIDES.
- BLADES: EXTRUDED ALUMINUM, 6063-T6/T52 ALLOY, .081" THICK. DESIGNED FOR STRENGTH AND LOW LEAKAGE WITH OVERLAPPING EDGES.
- SHAFTS: 1/2" DIAMETER EXTRUDED ALUMINUM, PIN-LOCK DESIGN.
- SEALS: SILICONE RUBBER OFF-SET LEG AT BLADE EDGES. NONE AT JAMBS.
- BEARING: CELCON BEARING MATERIAL SO THAT THERE WILL BE NO METAL TO METAL FRICTION.
- LINKAGE: FACE MOUNTED IN THE AIRSTREAM.
- FACE OF DAMPER: FULL JAMB SECTION WITH BLADES, HEAD AND SILL CONTAINED IN JAMBS.
- MAXIMUM PANEL SIZE: 48" x 72"
- MINIMUM PANEL SIZE: 8" x 8"
- TEMPERATURE LIMITS: -40°F TO 190°F
- FINISH: MILL IS STANDARD, OPTIONAL FINISHES AVAILABLE.

### OPTIONAL

- FRAMES: ALUMINUM - 1 5/8"x6"x1 5/8" FLANGED - (ALUMINUM) 2"x4"x5/8" STEEL - CHANNEL OR FLANGED
- SCREENS: BIRD OR INSECT
- LINKAGE: IN-JAMB OUT OF AIRSTREAM
- SEALS: POLYURETHANE OR NEOPRENE AT JAMBS
- BEARINGS: OILITE BRONZE OR BALL BEARING
- COUNTERWEIGHTS: ADJUSTABLE FOR INFINITE OPENING PRESSURES, OPTIONAL LOCATIONS. SPECIFY IF AIRFLOW IS HORIZONTAL, VERTICAL UP OR DOWN, SPECIFY TO ASSIST OR RESIST OPENING. SPECIFY LOCATIONS, INTERNALLY (ON BLADES) OR EXTERNALLY (ON EXTENDED SHAFT).



OPTIONAL JAMB LINKAGE AND JAMB SEALS

NOTE:  
WHEN A NON-SYMETRICAL FRAME CROSS SECTION IS SPECIFIED (I.E. FLANGED), SPECIFY THE FLANGE/AIRFLOW ORIENTATION.

FOR PERFORMANCE DATA  
SEE REVERSE SIDE

NOMINAL DEDUCTIONS WILL BE MADE TO OPENING SIZES GIVEN.

											<p>UNION MADE</p>
ITEM	QTY.	WIDTH	HEIGHT	WIDTH	HEIGHT	MULL					
		OPENING SIZE		DAMPER SIZE							

**ARROW UNITED INDUSTRIES**  
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AGENT: \_\_\_\_\_

ARCH./ENG. : \_\_\_\_\_

CONTR. : \_\_\_\_\_

PROJECT : \_\_\_\_\_

EDR: \_\_\_\_\_ ECN: \_\_\_\_\_ JOB: \_\_\_\_\_

DATE: \_\_\_\_\_ DWN.: \_\_\_\_\_ DWG. : \_\_\_\_\_

# ARROW MODEL 655 BACKDRAFT DAMPER PERFORMANCE DATA

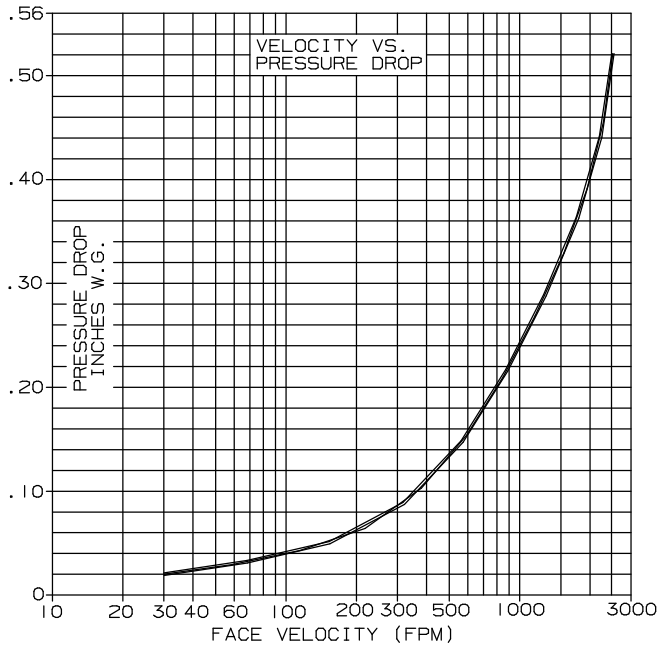
## WITHOUT DUCTWORK

DAMPER INSTALLED PER AMCA 500 FIG. 5.4 (FACE MOUNTED TO A PLENUM).

PRESSURE IS CORRECTED TO .075 LB./CU.FT. AIR DENSITY.

### OPERATIONAL PRESSURES

START TO OPEN - .01 INCHES W.G.  
FULLY OPEN - .52 INCHES W.G.



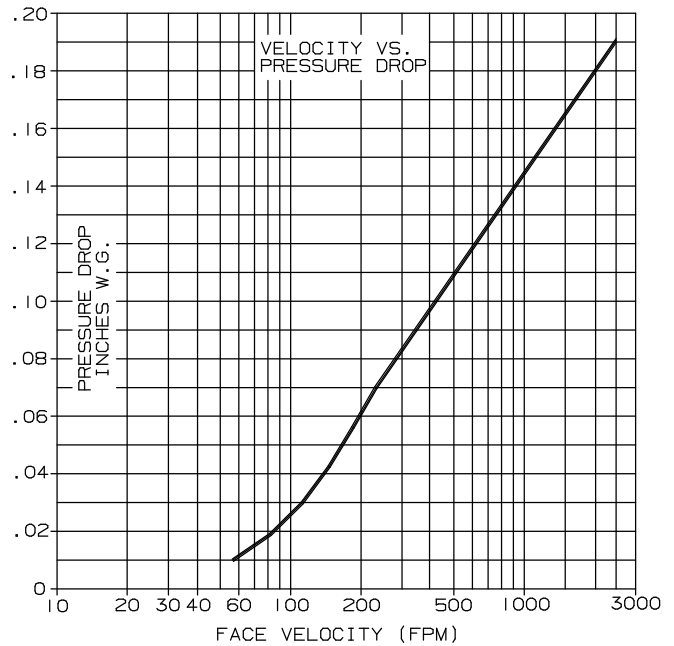
## WITH DUCTWORK

DAMPER INSTALLED PER AMCA 500 FIG. 5.3 (DUCTWORK INSTALLED UPSTREAM AND DOWNSTREAM OF DAMPER).

PRESSURE IS CORRECTED TO .075 LB./CU. FT. AIR DENSITY.

### OPERATIONAL PRESSURES

START TO OPEN - .01 INCHES W.G.  
FULLY OPEN - .18 INCHES W.G.



TYPICAL PERFORMANCE FOR MODEL 655 BACKDRAFT DAMPER  
SIZE TESTED 42" x 42", FURNISHED WITH COUNTERWEIGHT TO ASSIST OPENING.

## AIR LEAKAGE

AIR LEAKAGE QUANTITIES SHOWN IN THE CHART ARE RESULTS OF TESTS PER AMCA STANDARD 500 AND ARE SHOWN AT .10" W.G. DIFFERENTIAL PRESSURE AND CORRECTED TO .075 LB./CU.FT. AIR DENSITY.

TOTAL CFM AIR LEAKAGE AT .10" STATIC PRESSURE DIFFERENTIAL THROUGH CLOSED DAMPER.

		DAMPER WIDTH (INCHES)						
		12"	18"	24"	30"	36"	42"	48"
DAMPER HEIGHT (INCHES)	12"	3.0	4.5	6.0	7.5	9.0	10.5	12.0
	24"	6.0	9.0	12.0	15.0	18.0	21.0	24.0
	36"	9.0	13.5	18.0	22.5	27.0	31.5	36.0
	48"	12.0	18.0	24.0	30.0	36.0	42.0	48.0
	60"	15.0	22.5	30.0	37.5	45.0	52.5	60.0
	72"	18.0	27.0	36.0	45.0	54.0	63.0	72.0

FOR DETERMINING LEAKAGE VALUES GREATER THAN .10" W.G. TO A MAXIMUM 4" W.G. USE THE MULTIPLIER CORRECTION CHART BELOW.

STATIC PRESSURE (IN)	.2	.3	.4	.5	1.0	2.0	3.0	4.0
MULTIPLIER CORRECTION FACTOR	1.7	2.0	2.3	2.7	4.0	5.0	6.7	8.3

MAXIMUM PANEL SIZE LIMIT 48" x 72".

AIR LEAKAGE RATINGS ARE BASED ON AMCA STANDARD 500 USING TEST SET UP FIG. 5.4 WITH DAMPER IN THE CLOSED POSITION WITHOUT THE AID OF A COUNTERWEIGHT OR OTHER MECHANICAL MEANS TO PROVIDE CLOSING TORQUE, FOR A SIZE 42" x 42" DAMPER WITH BLADE & JAMB SEALS.