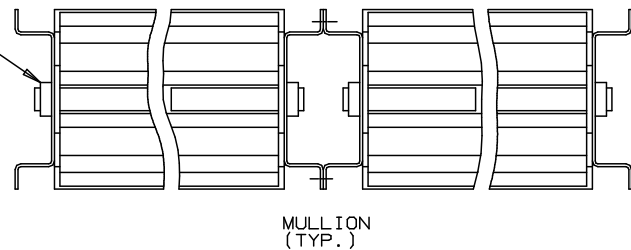
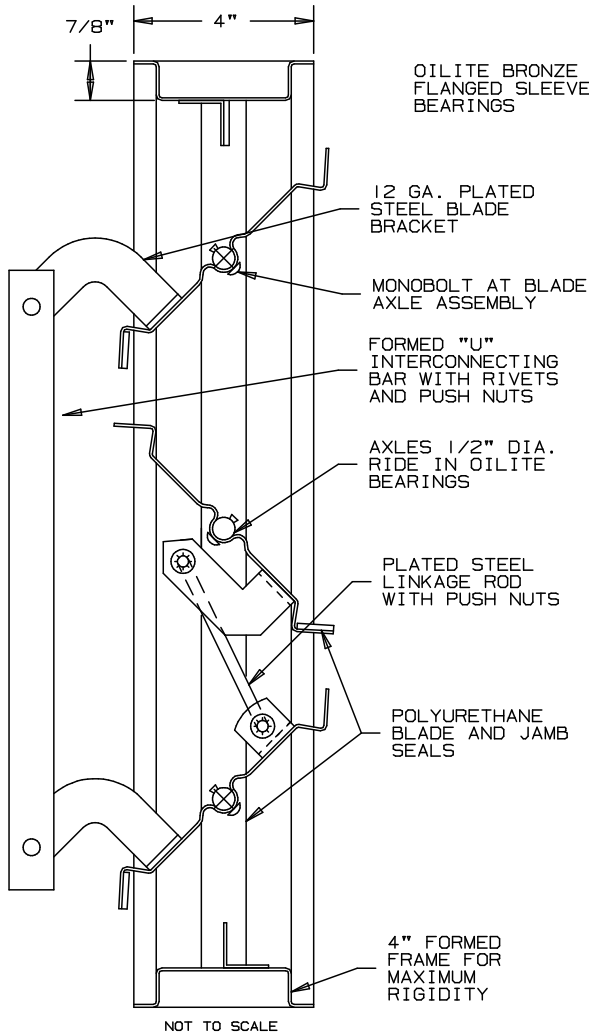


# ARROW STEEL CONTROL DAMPERS

# TYPE 1770

## AN EFFICIENT DAMPER PARALLEL OR OPPOSED BLADES



### SPECIFICATIONS

**FRAME:** 4" WIDE, 16 GA. GALVANIZED STEEL HAT-SHAPED CHANNEL PROVIDES GREATER RIGIDITY AND STRENGTH.

**BLADE:** MAXIMUM 6" SPACING. 16 GA. GALVANIZED STEEL, OVERLAP COVERAGE. MAXIMUM LENGTH 48".

**LINKAGE:** 12 GA. PLATED STEEL BRACKETS ARE RIVETED TO THE BLADES. A .030" ALUMINUM BAR (U-FORMED) INTERCONNECTS THE BLADES. THE OPPOSED-ACTION LINKAGE CONSISTS OF A .25 DIA., "U"-SHAPED, PLATED STEEL ROD WITH PUSH-NUT FASTENERS.

**BEARINGS:** OILITE BRONZE.

**AXLES:** 1/2" DIAMETER PLATED STEEL.

**DRIVESHAFT:** 1/2" DIA. PLATED STEEL, EXTENDABLE 6" BEYOND DAMPER FRAME.

**SEALS:** BLADE AND JAMB OF POLYURETHANE.

**SIZES:** MADE TO EXACT SIZE AS REQUIRED:  
MAXIMUM PANEL: 48" W X 96" H  
MINIMUM PANEL: 6" W X 8 3/4" H

DAMPERS LESS THAN 11" HIGH WILL BE A SINGLE BLADE.

DAMPERS BETWEEN THE HEIGHT OF 11" AND 14 3/4" WILL HAVE TWO BLADES, OPPOSED ACTION ONLY.


DAMPERS LESS THAN 8 3/4" IN HEIGHT WILL BE PROVIDED WITH A 5/8" x 2" x 5/8" EXTRUDED ALUMINUM FRAME.

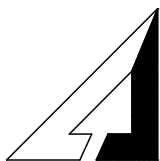
**NOTE:** SERIES 1770 DAMPERS ARE RATED FOR SYSTEMS UP TO 2,000 FPM OR UP TO 4" S.P. IF BEING USED FOR APPLICATIONS BEYOND THIS, PLEASE ADVISE WHEN ORDERING

**SHIPPING WEIGHT:** 6 1/2" LBS. PER SQ. FT.

OPTIONAL  
SPECIAL FRAMES  
PAINT FINISHES

SEE REVERSE SIDE FOR PERFORMANCE DATA  
NOMINAL DEDUCTIONS WILL BE MADE TO THE OPENING SIZE GIVEN.

ITEM	QTY.	WIDTH	HEIGHT	PAR.	OPP.	SEALS	ACTUATOR MODEL	INT.	EXT.	N.C.	N.O.	TAG	 UNION MADE
		DAMPER SIZE (O.D.)						LOCATION	FUNCTION				



**ARROW UNITED INDUSTRIES**  
A DIVISION OF MESTEK, INC.

450 RIVERSIDE DRIVE  
WYALUSING, PA 18853

TEL: (570) 746-1888 FAX: (570) 746-9286  
WEB ADDRESS: WWW.ARROWUNITED.COM

AGENT: \_\_\_\_\_

ARCH./ENG.:

CONTR.:

PROJECT:

EDR: ECN: JOB:

DATE: DWN.: DWG.:

# CONTROL DAMPER MODEL 1770

## PERFORMANCE DATA RECENT TESTS SHOW VERY EFFICIENT PRESSURE DROP

PRESSURE DROP TESTS ARE BASED ON AMCA STANDARD 500 USING TEST SET-UP  
FIGURE 5.3 FOR DAMPERS INSTALLED WITH DUCT UPSTREAM AND DOWNSTREAM.  
STATIC PRESSURES ARE CORRECTED TO .075 LB./CU. FT. AIR DENSITY.

### MODEL 1770 - PARALLEL - 24" x 24" I.D.

PRESSURE DROP vs. DUCT VELOCITY

DUCT VELOCITY (FPM)	100	200	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	3000	4000	6000
1/4 OPEN				.40	.60	.85	1.20	1.50	1.90	2.30	3.50	5.00					
1/2 OPEN		.025	.052	.088	.13	.18	.25	.33	.42	.50	.80	1.20	1.60	2.10	4.40		
3/4 OPEN					.032	.045	.060	.078	.10	.12	.18	.26	.36	.46	1.10	1.80	
FULL OPEN						.014	.018	.024	.032	.037	.056	.078	.11	.14	.30	.52	

PRESSURE DROP / INCHES OF WATER

### MODEL 1770 - OPPOSED - 24" x 24" I.D.

PRESSURE DROP vs. DUCT VELOCITY

DUCT VELOCITY (FPM)	100	200	300	400	500	600	700	800	900	1000	1250	1500	1750	2000	3000	4000	6000
1/4 OPEN			.65	1.15	1.75	2.40	3.30	4.25	5.25	6.50							
1/2 OPEN			.145	.26	.40	.575	.79	1.00	1.30	1.70	2.50	3.60	4.75	6.30			
3/4 OPEN					.059	.080	.115	.145	.18	.22	.345	.475	.65	.85	1.75		
FULL OPEN						.016	.020	.026	.031	.039	.059	.085	.12	.15	.34	.58	1.20

PRESSURE DROP / INCHES OF WATER