



MANUAL BALANCING DAMPER

MODELS: 1810 PARALLEL BLADE 1820 OPPOSED BLADE

The Nailor 1800 Series Dampers are especially designed for manual balancing applications. They are suitable for use in the majority of commercial low to medium pressure and velocity HVAC systems. They are designed and built to provide a cost effective and reliable damper for reduced volume control and not positive shut-off. They are not recommended for applications as an automatic control damper.

The 1800 Series includes many of the design features incorporated in the Nailor 1000 Series Control Dampers. These include a sturdy hat channel frame with die-formed corner gussets for reinforcement, a roll-formed vee groove blade design that maximizes strength and zero maintenance concealed linkage (out of the air stream) for reduced air turbulence.

Nailor's 1800 Series exceed the volume damper design recommendations in SMACNA "HVAC Duct Construction Standards - Metal and Flexible" and offer an economical manufactured product alternative to custom 'shop built' dampers.

STANDARD CONSTRUCTION:

- Frame:** 5" x 7/8" x 16 ga. (127 x 22 x 1.6) galvanized steel hat channel with die-formed corner gussets. Low profile (flat top and bottom) on dampers 10" (254) high and under.
- Blades:** 6" (152) wide on 5 1/2" (140) centers. 16 ga. (1.6) galv. steel vee groove design. Parallel or opposed action.
- Linkage:** Concealed type totally enclosed within the frame and out of the airstream. Plated steel.
- Bearings:** 1/2" (13) dia. Celcon®.
- Axles:** 1/2" (13) dia. plated steel double bolted to blades.
- Drive Shaft:** 6" (152) long x 1/2" (13) dia. double-bolted fixed drive shaft on each damper section. The drive shaft is easily removed if required.

Temperature Range: -50°F to +250°F (-46°C to +121°C).

Sizes (Duct W x H):

Minimum		Maximum	
Single Section		Single Section	Multiple Section
Single Blade (parallel) 6" x 4" (152 x 102)	Two Blades (parallel or opposed) 8" x 10" (203 x 254)	48" x 72" (1219 x 1829)	96" x 144" (2438 x 3658)

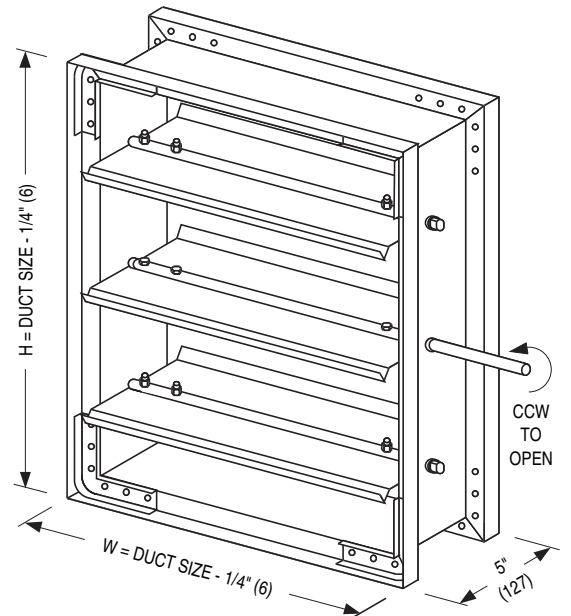
OPTIONS:

- BO** Oilite bearings
- 304** Stainless Steel construction
- DLO** Lock-on drive shaft
- HLQ** Hand-locking quadrant (one required per damper section)
- HL2** Hand-locking quadrant with 2" (51) stand-off bracket
- Other _____.

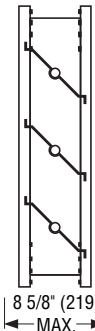
PERFORMANCE:

Dampers are designed to operate in a clean, dry environment. For proper operation, dampers must be installed without racking. The hand quadrant must be installed on the indicated drive blade.

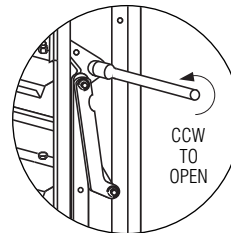
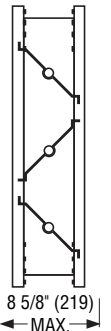
Models 1810/1820 - Maximum Performance Ratings	
Maximum Face Velocity	2000 fpm (10 m/s)
Maximum System Pressure	2.5 in. w.g. (625 Pa)



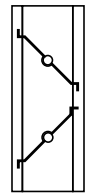
MODEL 1810 PARALLEL BLADE (optional)



MODEL 1820 OPPOSED BLADE (standard)



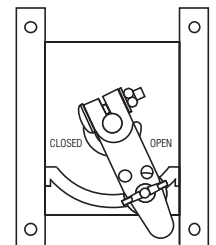
The low profile frame illustration is used to maximize free area on units 10" (254) high and under.



OPTIONAL LOCK-ON DRIVE SHAFT

OPTIONAL HAND-LOCKING QUADRANT

7/8" (22) stand-off



Dimensions are in inches (mm).

SCHEDULE TYPE:	
PROJECT:	
ENGINEER:	
CONTRACTOR:	

DATE	A SERIES	SUPERSEDES	DRAWING NO.
12 - 4 - 12	1800	10 - 1 - 10	1800-1