



# MANUAL BALANCING DAMPER

## MODELS: 1810FDB PARALLEL BLADE 1820FDB OPPOSED BLADE

The Nailor 1800FDB 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 1800FDB Series incorporates a rugged flanged frame for direct fastening to flanged ductwork and features a roll-formed triple-vee blade design that maximizes strength, and zero maintenance concealed linkage (out of the air stream) for reduced air turbulence.

Nailor's 1800FDB Series exceed the volume damper design recommendations in SMACNA "HVAC Duct Construction Standards - Metal and Flexible" (1<sup>st</sup> edition 1985), and offer an economical manufactured product alternative to custom 'shop built' dampers.

### STANDARD CONSTRUCTION:

- Frame:** 3 5/8" (92) deep with 1 1/2" (38) flange both sides, 16 ga. (1.6) galvanized steel. Welded construction.
- Blades:** 6" (152) wide on 5 1/2" (140) centers. 16 ga. (1.6) galvanized steel triple-vee 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<sup>®</sup>.
- Axles:** 1/2" (13) dia. plated steel double bolted to blades.
- Drive Shaft:** 6" (152) long x 1/2" (13) dia. double-bolted removable drive shaft.
- Minimum Size:** Single blade (parallel): 6" x 4" (152 x 102).  
Two blades (parallel or opposed): 6" x 10" (152 x 254).
- Maximum Size:** 46" x 70" (1168 x 1778).  
Multiple section assemblies are not available.

**Temperature Range:** -50°F to 250°F (-45°C to 121°C)

### OPTIONS:

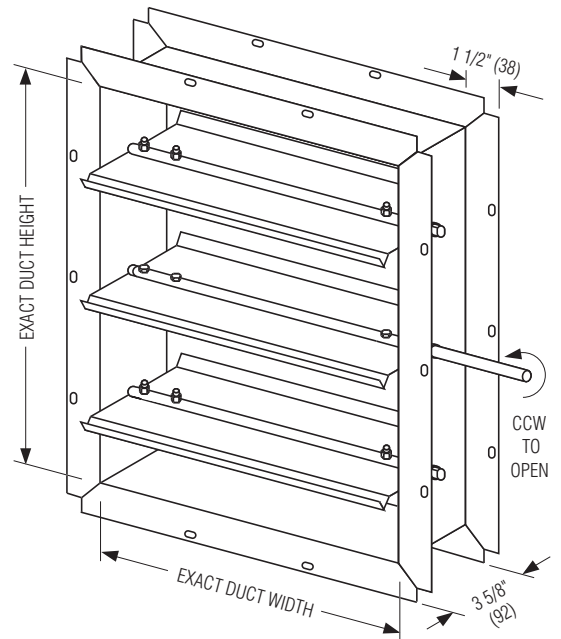
- HLF Hand-locking quadrant for use with 3 5/8" (92) deep flanged frame
- BO Oilite bearings
- 304 Stainless Steel construction
- DLO Lock-on drive shaft
- Other \_\_\_\_\_

### PERFORMANCE:

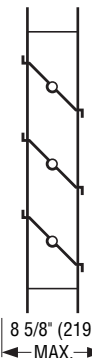
Dampers are designed to operate in a clean, dry environment. For proper operation, dampers must be installed without racking. The hand quadrant must be installed on the indicated drive blade.

**Maximum System Pressure:** 2.5" w.g. (625 pa).

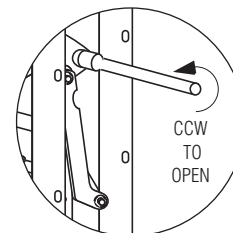
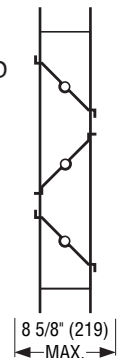
**Maximum Face Velocity:** 2000 fpm (10 m/s).



**MODEL 1810FDB PARALLEL BLADE**

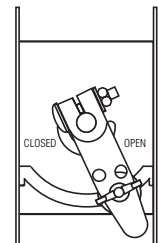


**MODEL 1820FDB OPPOSED BLADE**



**OPTIONAL LOCK-ON DRIVE SHAFT**

**OPTIONAL HAND-LOCKING QUADRANT**



Dimensions are in inches (mm).

<b>SCHEDULE TYPE:</b>				
<b>PROJECT:</b>				
<b>ENGINEER:</b>	<b>DATE</b>	<b>B SERIES</b>	<b>SUPERSEDES</b>	<b>DRAWING NO.</b>
<b>CONTRACTOR:</b>	2 - 9 - 07	1800	1 - 8 - 07(A)	1800FDB