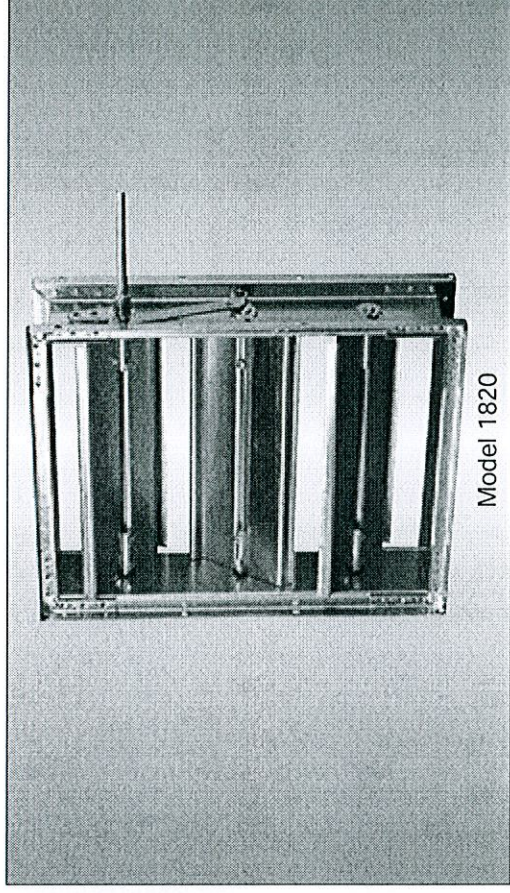


MANUAL BALANCING DAMPERS



- FOR MANUAL BALANCING
- STANDARD PERFORMANCE
- GALVANIZED STEEL



Model 1820

- MODELS:**
- 1810 PARALLEL BLADE
 - 1820 OPPOSED BLADE

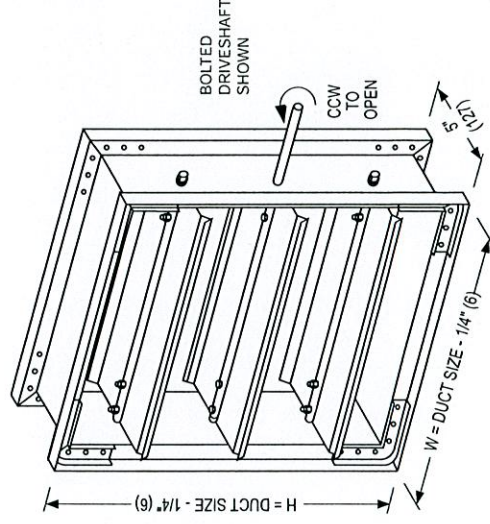
The Nailor 1810/1820 Series dampers are specially designed for manual balancing applications. They are suitable for use in the majority of commercial low to medium pressure and velocity HVAC systems. They are designed and built to provide a cost effective and reliable damper for reduced volume control and not positive shut-off. They are not recommended for applications as an automatic control damper.

The 1810/1820 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 vee-blade design that maximizes strength and zero maintenance concealed linkage (out of the air stream) for reduced air turbulence.

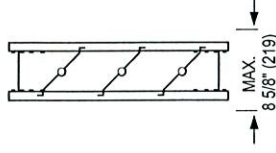
Nailor's 1810/1820 Series exceed the volume damper design recommendations in SMACNA "HVAC Duct Construction Standards - Metal and Flexible" (2nd Edition, 1995), and offer an economical manufactured product alternative to custom 'shop built' dampers.

STANDARD CONSTRUCTION:

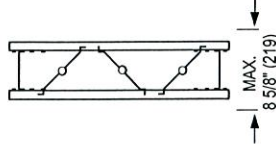
- FRAME:** 5" x 7/8" x 16 ga. (127 x 22 x 1.6) galvanized steel hat channel with die-formed corner gussets. Low profile (flat top and bottom) on dampers 10" (254) high and under.
- BLADES:** 6" (152) wide on 5 1/2" (140) centers. 16 ga. (1.6) galvanized steel vee blade design. Parallel or opposed action.
- LINKAGE:** Concealed type totally enclosed within the frame and out of the air stream. 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 driveshaft that can be easily removed; or optional 6" (152) long x 1/2" (13) dia. lock-on drive shaft (standard in Canada). Drive shaft on each damper section.
- MINIMUM SIZE:** Single blade (parallel): 6" x 4" (152 x 102). Two blades (parallel or opposed): 6" x 10" (152 x 254).
- MAXIMUM SIZE:** Single section size is 48" x 72" (1219 x 1829). Multiple section assembly: 96" x 144" (2438 x 3658).



MODEL 1810
PARALLEL BLADE



MODEL 1820
OPPOSED BLADE



MANUAL BALANCING DAMPERS



MODELS: 1810/1820

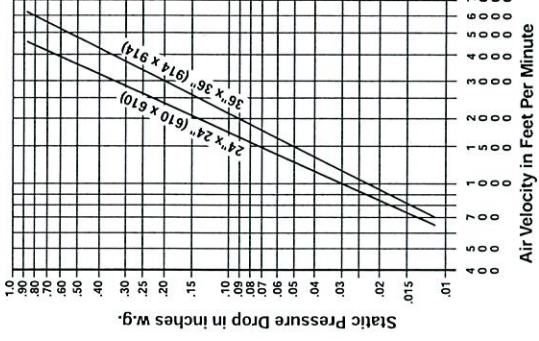
PERFORMANCE DATA:

Maximum System Pressure: 2.5" wg. (625 Pa)

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

Temperature Range: -50°F to 180°F (-45°C to 82°C)

PRESSURE DROP (damper fully open)



Imperial figures shown.
To convert to SI (metric) system:
 Multiply:
 inches w.g. x .2486 = kilopascals
 fpm x .00508 = meters per second

CONTROL DAMPERS

AVAILABLE OPTIONS / ACCESSORIES:

The following construction options and accessories are available on Models 1810 / 1820. See page B55 for detailed description of options/accessories.

	CODE	DESCRIPTION
MATERIAL:	304	Stainless Steel Construction
BEARINGS:	BO BS	Oilite® Bronze Bearings Stainless Steel Bearings
ROUND/OVAL TRANSITION:	CR CO	Transition Casing for Round Duct Transition Casing for Oval Duct
OPERATOR ACCESSORIES:	HLQ HL2	Hand Locking Quadrant Hand Locking Quadrant w/2" Stand-off Bracket

At Nailor Industries, we take pride in our flexibility to meet the needs of your specific applications. The options listed above provide a variety of commonly used modifications to satisfy the majority of today's diverse requirements. Should your application require a more unique configuration, please consult your authorized Nailor Representative or the Nailor Industries office nearest you for assistance.

MANUAL BALANCING DAMPERS



HOW TO SPECIFY OR TO ORDER

MODELS: 1810/1820

HOW TO ORDER:

Standard construction is shown in highlighted box. Option codes are listed below. See previous page for description of options.

MODEL	SIZE (W X H)	MATERIAL	DRIVE LOCATION	BEARINGS	ROUND/OVAL	TRANSITION	OPERATOR	ACCESSORIES	
					DR/DL	BC	BO	BS	CR
1810	ie: 48 x 24	GLV							
1820		304							

B

CONTROL DAMPERS

- Notes:
1. Frame Type Options are only available on standard galvanized steel frame.
 2. Right hand driveshaft is standard. For left hand driveshaft simply rotate the damper so that driveshaft is on left hand side. Two section wide units will have driveshaft on both sides.
 3. If Option CR Round Transition casing (or CO) is selected please order by duct size diameter ie: 36"ø.

SUGGESTED SPECIFICATION:

Provide and install, as shown on plans and/or schedules, manual balancing dampers meeting or exceeding the following criteria: Frame shall be constructed of 16 ga. (1.6) galvanized steel hat channel with mitered corners and die-formed corner gussets for rigidity and structural strength equivalent to 13 ga. (2.4) channel type frames. Blades shall be of triple-vee design, 16 ga. (1.6) galvanized steel, on maximum 6" (152) centers, in parallel or opposed (please select) configuration. Blade axes shall be 1/2" (13) dia. plated steel, double thru-bolted to blade at each end. Hex or square friction-fit, or press-fit axes are not acceptable. Bearings shall be Celcon® molded synthetic type. Blade linkage shall be zero-maintenance, out of airstream and totally concealed within the frame. Provide each damper section with a hand locking quadrant for positive setting of blades at any position. Standard of acceptance: Nailor Industries Model 1810 (parallel blade) or Model 1820 (opposed blade).

For CR Round Transitional Option, add the following:

Damper shall be provided with a 20 ga. (1.0) galvanized steel casing for sizes up to 36" (914) dia., 18 ga. (1.31) for larger sizes, complete with round collar on both sides. Casing shall be welded and caulked against leakage. Standard of acceptance: Nailor Industries Model 1810CR (parallel blade) or Model 1820CR (opposed blade).