

The Nailor Model 1990 is a heavy duty, butterfly type damper designed for use in medium pressure industrial HVAC or process air systems. The model offers precise airflow control or shut-off in applications involving 6" w.g. (1.5 kPa) or higher pressure differentials and velocities up to 6000 fpm (30 m/s), depending on unit size. The heavy duty flanged frame, with optional bolt holes, connects easily to flanged duct for fast, secure installation. Model 1990 may be used for two-position or modulating control utilizing a variety of electric or pneumatic actuators, or can be operated manually with the optional locking hand quadrant.

**STANDARD CONSTRUCTION:**

- Frame:** Steel channel. See chart below for thickness, depth and flange dimensions.
- Blade:** Steel, reinforced as required. See chart below for thickness.
- Bearings:** Stainless steel sleeve type.
- Axle:** Plated steel, continuous, reinforced as required. See chart below for diameter.
- Drive Shaft:** Continuous axle extends approx. 6" (152) beyond frame.
- Blade Stop:** Full perimeter steel bar.
- Finish:** Grey epoxy paint.
- Available Sizes:** 4" (102) through 60" (1524) diameter.

Model 1990 Maximum Performance Ratings	
Maximum Velocity	6000 fpm (30 m/s)
Maximum Pressure	10 in. w.g. (2.5 kPa)
Maximum Temperature	250°F (121°C)

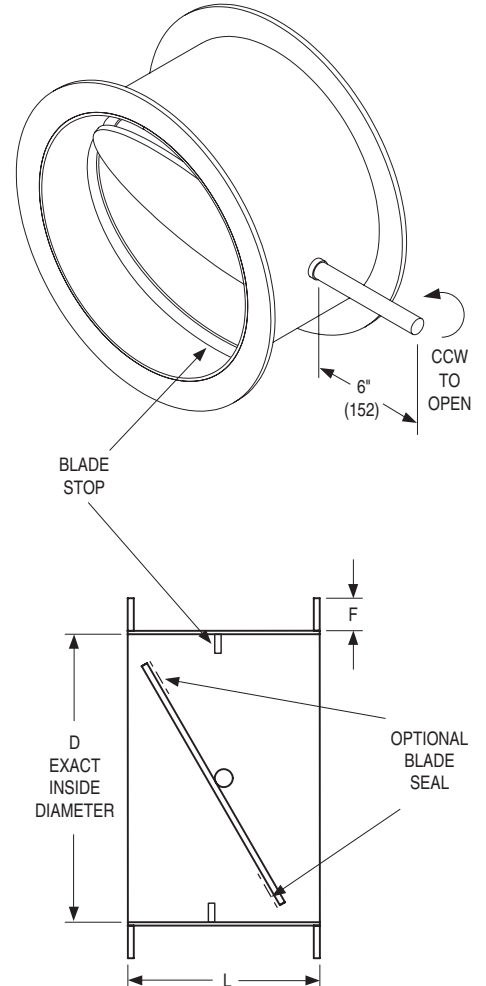
**Note:** For higher operating temperatures, contact factory.

**OPTIONS:**

- 304 Type 304 Stainless Steel construction
- 316 Type 316 Stainless Steel construction
- AS50/75/10 Type 304 Stainless Steel axles only
- BEB External bolt-on bearings
- BEBS External bolt-on bearings with seal
- BOS Outboard bearings with seal
- BSN Neoprene blade seal (up to 250°F [121°C])
- BSS Silicone blade seal (up to 400°F [204°C])
- BH1 Bolt holes in one flange
- BH2 Bolt holes in both flanges
- HDLQ Heavy duty hand locking quadrant
- FMXX Factory mounted actuator. Specify \_\_\_\_\_.
- Special Features: \_\_\_\_\_.

**Note:** For variations not shown, contact factory.

Size (Inside Diameter 'D')	Frame Depth (L) x Thickness	Flange Width (F) x Thickness	Blade Thickness	Axle Diameter
4" (102) to < 8" (203)	6" (152) x 10 ga.	1 1/4" (32) x 10 ga.	10 ga.	1/2" (13)
8" (203) to < 12" (305)	8" (203) x 10 ga.	1 1/4" (32) x 10 ga.	10 ga.	1/2" (13)
12" (305) to < 16" (406)	8" (203) x 10 ga.	1 1/2" (38) x 10 ga.	10 ga.	1/2" (13)
16" (406) to < 24" (610)	8" (203) x 10 ga.	1 1/2" (38) x 1/4" (6)	10 ga.	3/4" (19)
24" (610) to < 42" (1067)	8" (203) x 10 ga.	2" (51) x 1/4" (6)	3/16" (5)	3/4" (19)
42" (1067) to < 48" (1219)	8" (203) x 10 ga.	2" (51) x 1/4" (6)	3/16" (5)	1" (25)
48" (1219) to 60" (1524)	8" (203) x 3/16" (5)	2 1/2" (64) x 5/16" (8)	1/4" (6)	1" (25)



**SCHEDULE TYPE:**

**PROJECT:**

**ENGINEER:**

**CONTRACTOR:**

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 Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
8 - 18 - 20	1990	6 - 30 - 14	1990



# HEAVY DUTY INDUSTRIAL CONTROL DAMPER

## ROUND • STEEL

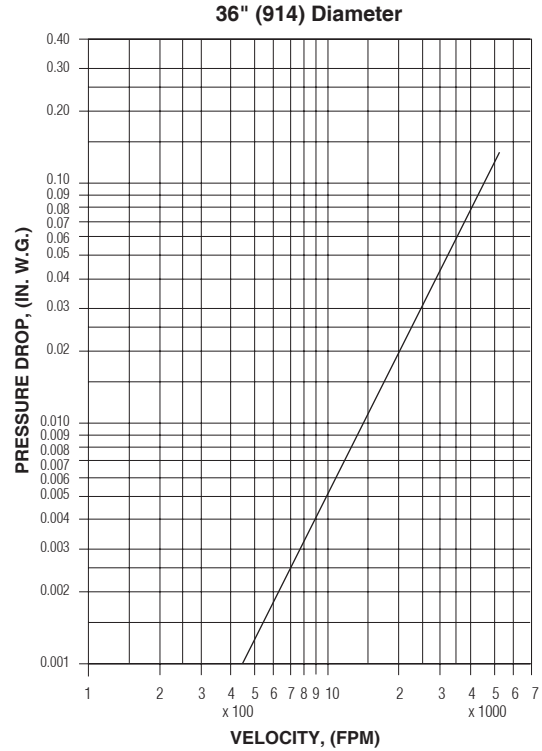
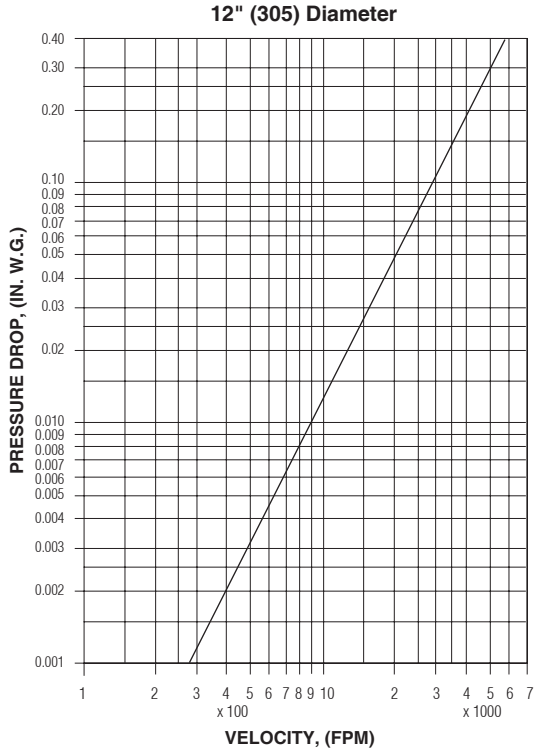
### PERFORMANCE DATA

#### MODEL: 1990

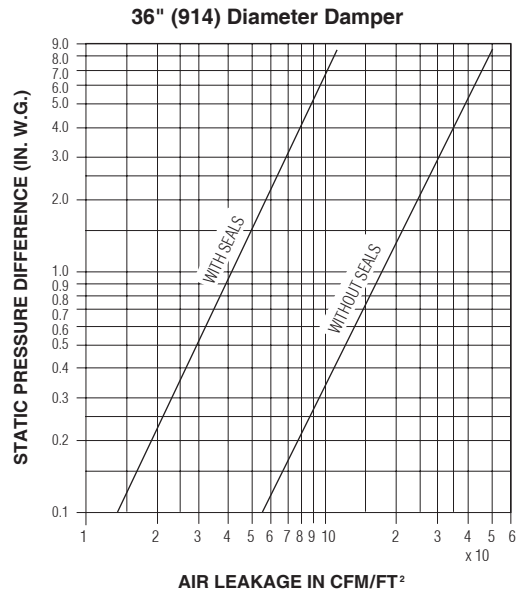
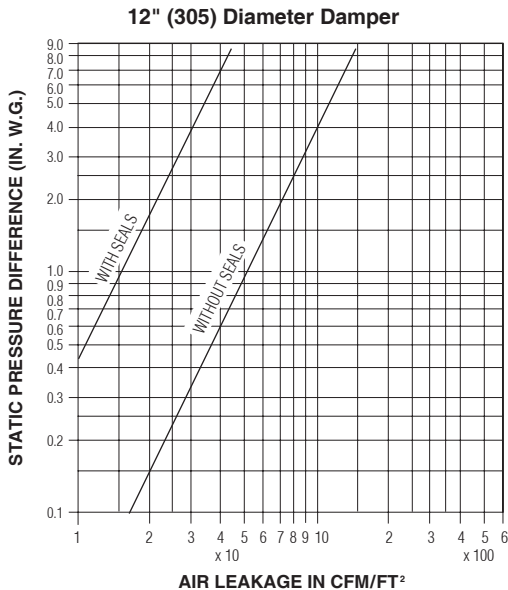
#### PERFORMANCE LIMITATIONS:

Diameter	12" (305)	24" (610)	36" (914)	48" (1219)	60" (1529)
Maximum System Pressure	10.0" w.g.	8.0" w.g.	8.0" w.g.	6.0" w.g.	6.0" w.g.
Maximum System Velocity	6000 fpm	6000 fpm	5000 fpm	4000 fpm	4000 fpm

#### PRESSURE DROP:



#### LEAKAGE:



SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 2 of 2  
Dimensions are in inches (mm).

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