

Product Data

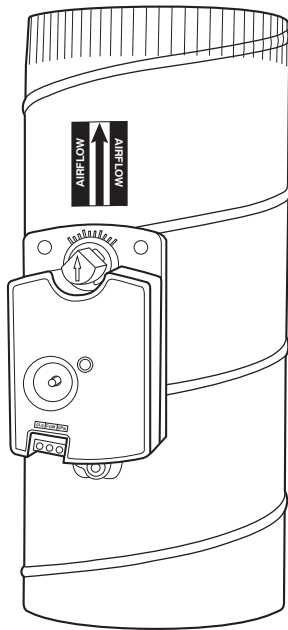


Fig. 1 - Round Damper

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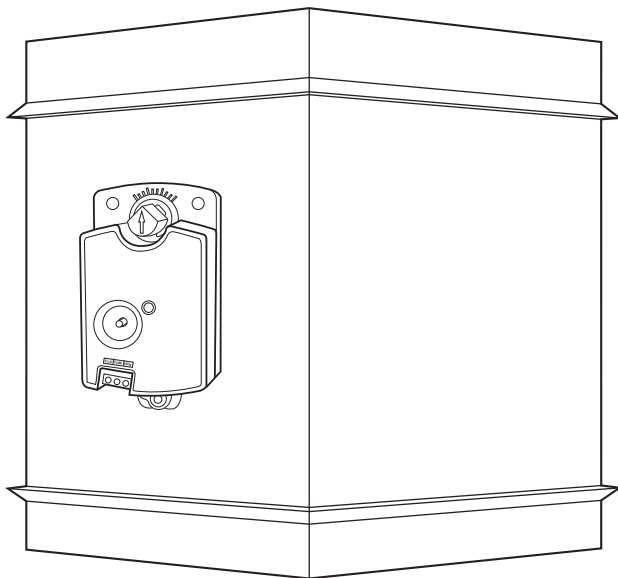
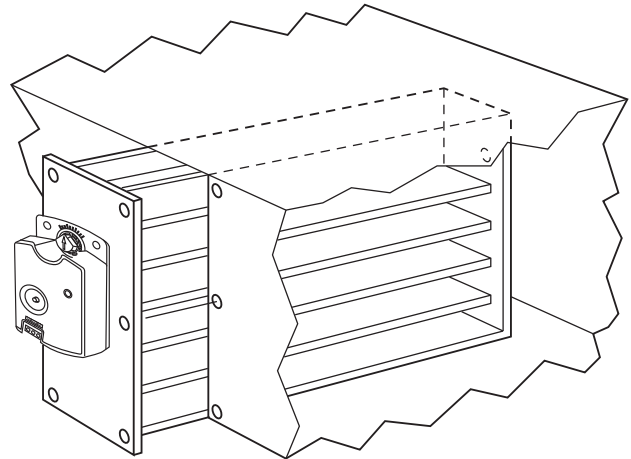


Fig. 2 - Rectangular Damper

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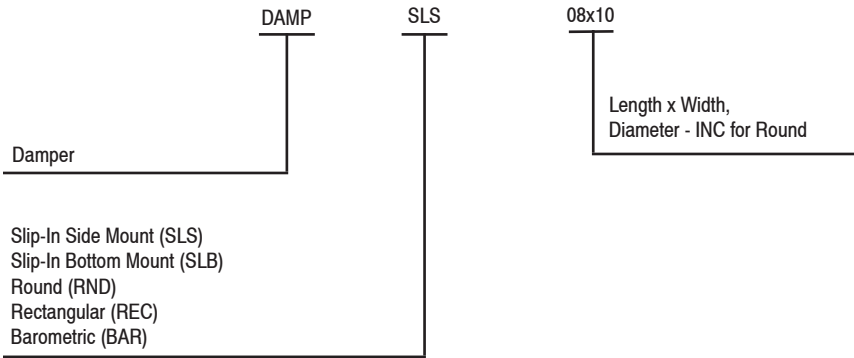
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Fig. 3 - Slip-In Damper

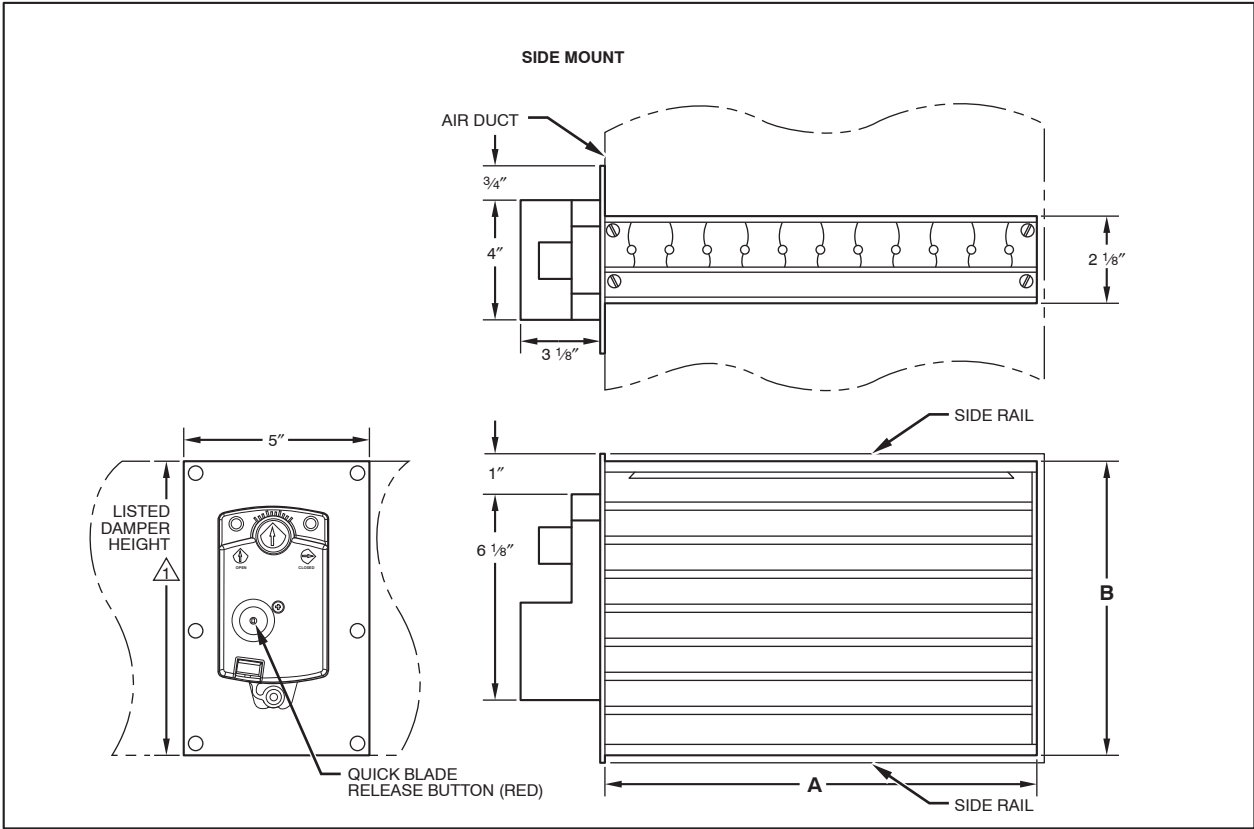
FEATURES/BENEFITS

Carrier zone dampers are the latest in design and were developed to fit field requirements for a variety of duct work shapes and sizes. These dampers use 24 VAC direct drive actuators for smooth, quiet performance. There is a 1/2-in. direct-drive mounting hub for securing the damper blade and shaft to the actuator housing. A position indicator and angular rotation stop for viewing or manually setting minimummaximum damper positions facilitate ease of installation. A spring loaded disengagement button to momentarily release main gear and damper blade allows for manual positioning of installed dampers. The damper motor and terminal block wiring are protected by a plastic cover with a removable door. Permanently lubricated bushings, with a split shaft design for round and rectangular style dampers, secure the damper blade to the shaft for efficient reliable service.

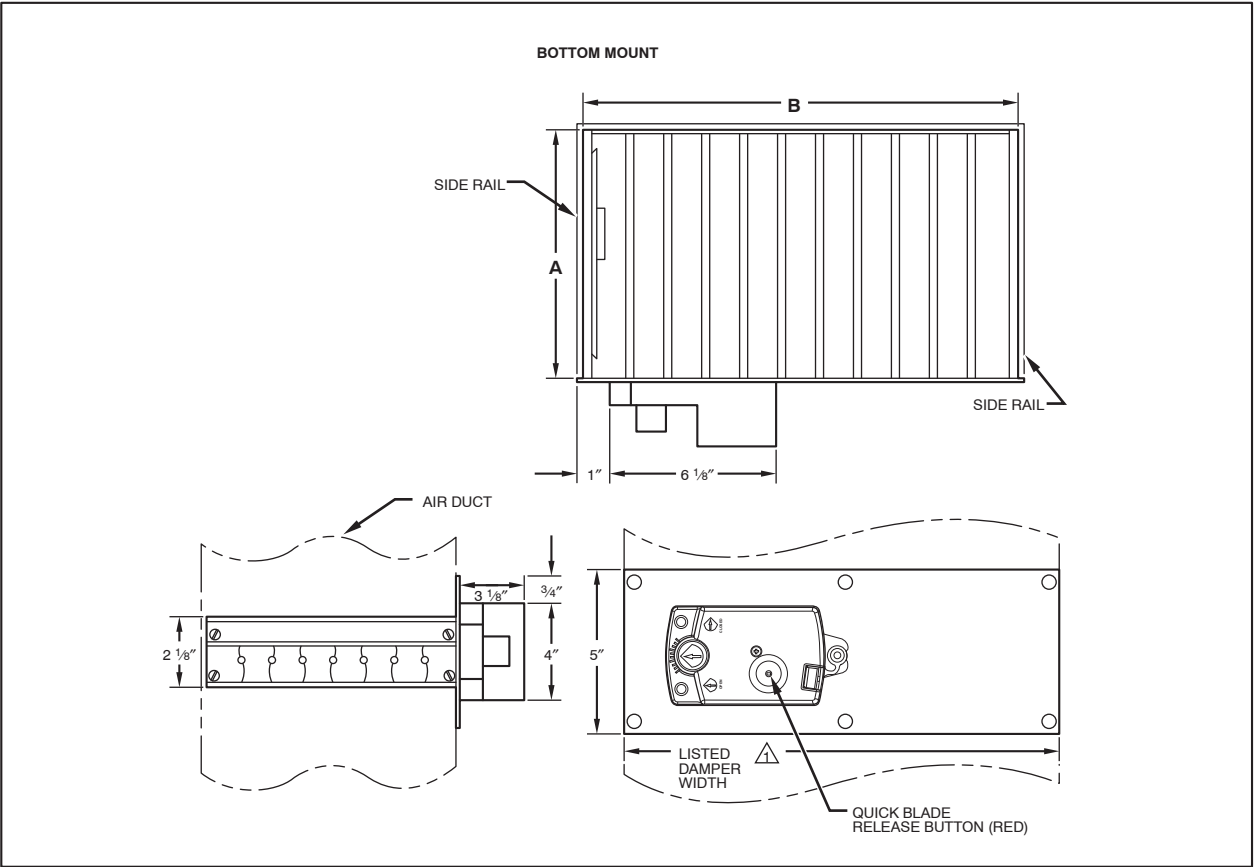
MODEL NUMBER NOMENCLATURE



DIMENSIONS



DAMP



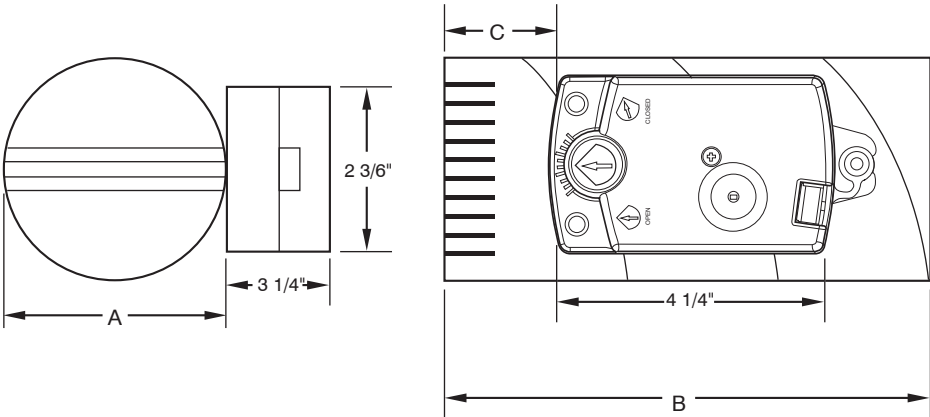
See dimensions on next page.

DIMENSIONS CONTINUED

SLIP-IN DAMPER DIMENSIONS

DAMP

PART NO.	POSITION	A	B
DAMP SLS08x10	side mount	9-7/8	7-13/16
DAMP SLB08x10	bottom mount	7-13/16	9-7/8
DAMP SLS08x12	side mount	11-7/8	7-13/16
DAMP SLB08x12	bottom mount	7-13/16	11-7/8
DAMP SLS08x14	side mount	13-7/8	7-13/16
DAMP SLB08x14	bottom mount	7-13/16	13-7/8
DAMP SLS08x16	side mount	15-7/8	7-3/16
DAMP SLB08x16	bottom mount	7-13/16	15-7/8
DAMP SLS08x18	side mount	17-7/8	7-13/16
DAMP SLB08x18	bottom mount	7-13/16	17-7/8
DAMP SLB08x20	bottom mount	7-13/16	19-7/8
DAMP SLB08x22	bottom mount	7-13/16	21-7/8
DAMP SLB08x24	bottom mount	7-13/16	23-7/8
DAMP SLS10x10	side mount	9-7/8	9-13/16
DAMP SLB10x10	bottom mount	9-13/16	9-7/8
DAMP SLS10x12	side mount	11-7/8	9-13/16
DAMP SLB10x12	bottom mount	9-13/16	11-7/8
DAMP SLS10x14	side mount	13-7/8	9-13/16
DAMP SLB10x14	bottom mount	9-13/16	13-7/8
DAMP SLS10x16	side mount	15-7/8	9-13/16
DAMP SLB10x16	bottom mount	9-13/16	15-7/8
DAMP SLS10x18	side mount	17-7/8	9-13/16
DAMP SLB10x18	bottom mount	9-13/16	17-7/8
DAMP SLB10x20	bottom mount	9-13/16	19-7/8
DAMP SLB10x22	bottom mount	9-13/16	21-7/8
DAMP SLB10x24	bottom mount	9-13/16	23-7/8
DAMP SLB14x20	bottom mount	13-13/16	19-7/8

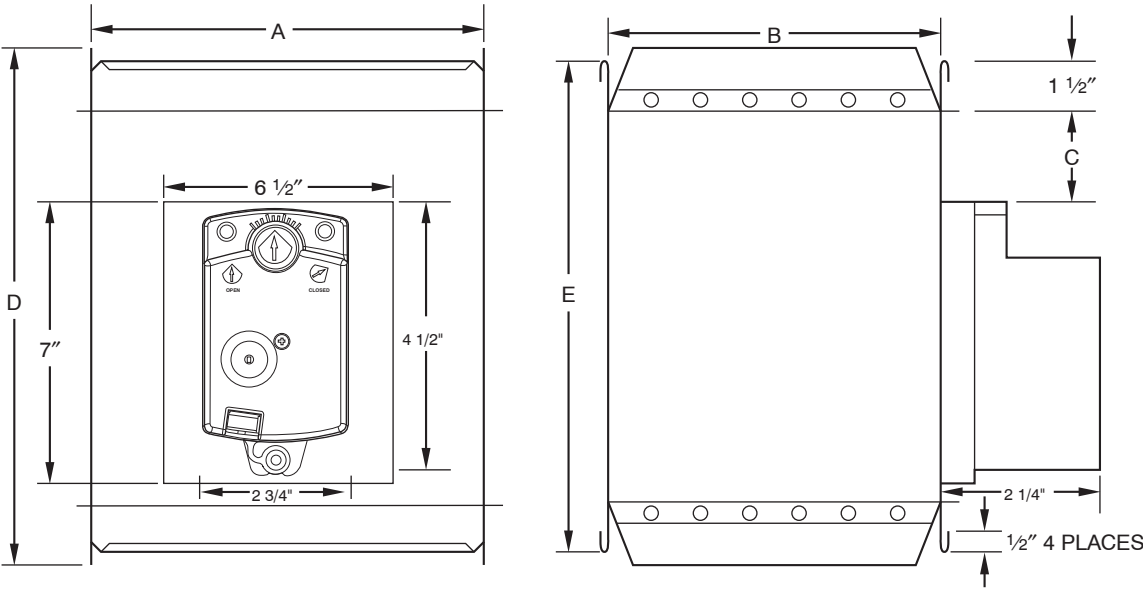


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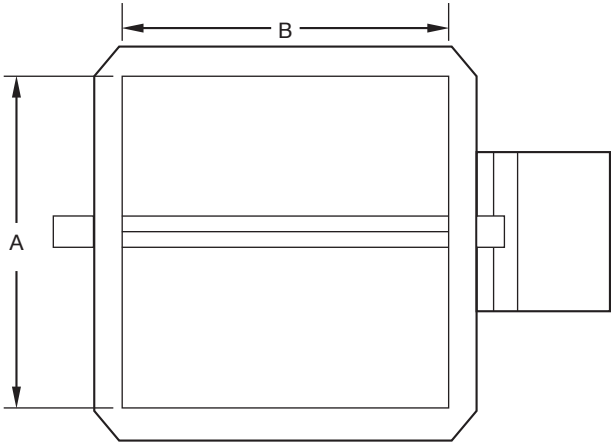
ROUND DAMPER DIMENSIONS (IN.)

PART NO.	A	B	C
DAMP RND06INC	6	12	4-1/4
DAMP RND08INC	8	14	6-1/4
DAMP RND10INC	10	16	7-1/4
DAMP RND12INC	12	18	8-1/4
DAMP RND14INC	14	20	9-1/4
DAMP RND16INC	16	24	11-1/4

DIMENSIONS CONTINUED



DAMP



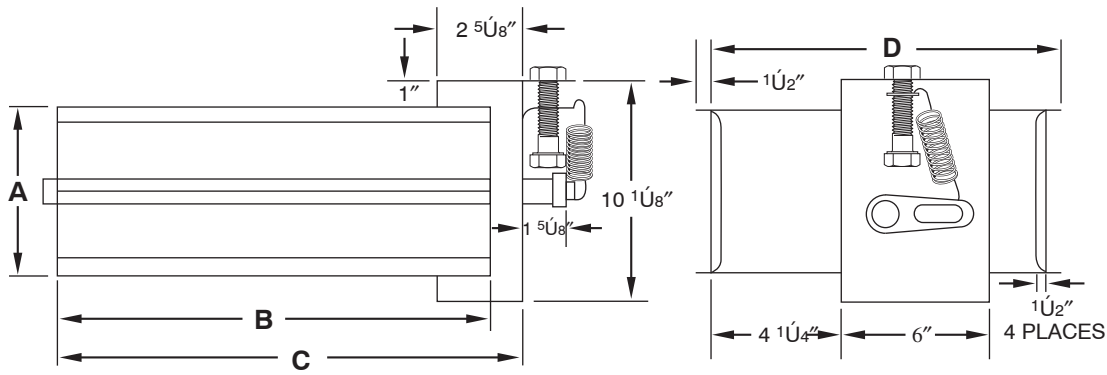
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RECTANGULAR DAMPER DIMENSIONS (IN.)

PART NO.	A	B	C	D	E
DAMPREC08x10	8	10	2-1/4	13-1/2	12-1/4
DAMPREC08x14	8	14	2-1/4	13-1/2	12-1/4
DAMPREC08x18	8	18	2-1/4	13-1/2	12-1/4
DAMPREC08x24	8	24	2-1/4	13-1/2	12-1/4
DAMPREC10x10	10	10	3-1/4	15-1/2	14-1/4
DAMPREC10x14	10	14	3-1/4	15-1/2	14-1/4
DAMPREC10x18	10	18	3-1/4	15-1/2	14-1/4
DAMPREC10x24	10	24	3-1/4	15-1/2	14-1/4

DIMENSIONS CONTINUED

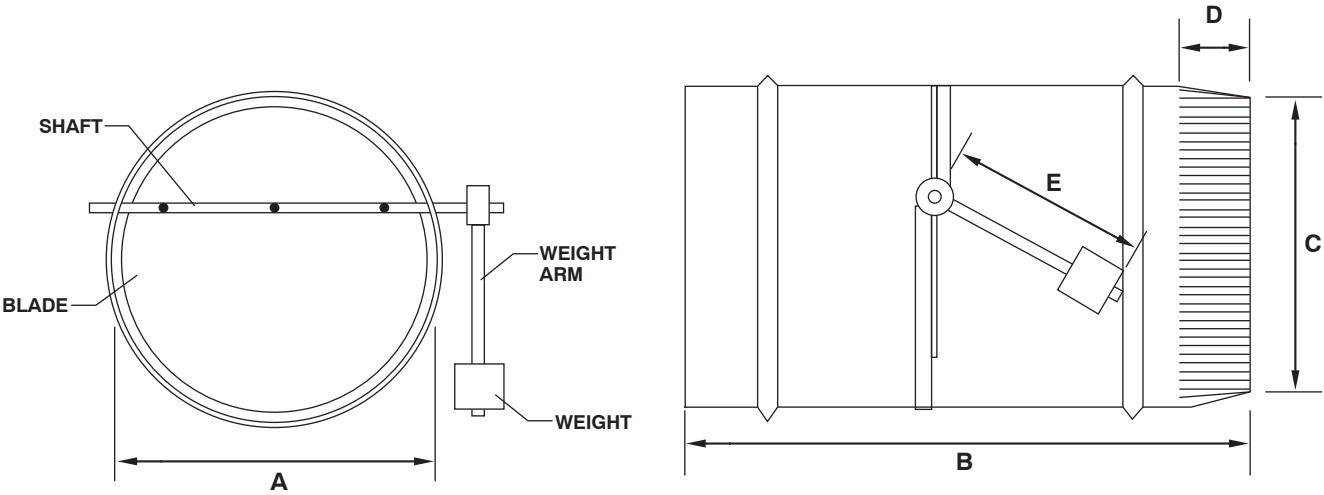
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RECTANGULAR BAROMETRIC BYPASS DAMPER DIMENSIONS (IN.)

PART NO.	A	B	C	D	MAX AIRFLOW
DAMPBAR08x14	8	14	15-1/4	13-1/2	1200 CFM
DAMPBAR08x24	8	24	25	13-1/2	1800 CFM



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ROUND BAROMETRIC BYPASS DAMPER DIMENSIONS (IN.)

PART NO.	A	B	C	D	E	NUMBER OF WEIGHTS	MAX AIRFLOW
DAMPBAR08INC	8	9	7-15/16	1-1/2	6	1	400
DAMPBAR10INC	10	11-1/8	9-15/16	1-1/2	8	2	650
DAMPBAR12INC	12	13-1/8	11-15/16	1-1/2	10	2	900
DAMPBAR14INC	14	15-3/8	13-15/16	1-1/2	10	4	1200
DAMPBAR16INC	16	17-5/8	15-15/16	1-1/2	12	5	1600

PHYSICAL DATA

Input Voltage	24 vac
Nominal Input Power	2 va
Damper Output Torque	10 in. – Lb.
Ambient Temperatures	0°F to 158°F or –18°C to 70°C
Wire Connections	Common, Open, Close
Wire Connectors	Plated Screw Terminals For 14–22 AWG
Stroke Time	Angular Rotation per Sec
DAMPACT45DEG	3° per Sec
DAMPACT90DEG	6° per Sec
Travel Time	15 Sec
Barometric Bypass Pressure Range	0.2–0.8 in. wc

DAMP

DAMPER PRESSURE DROP AIRFLOW DATA

DAMP

DAMPER	400 FPM	600 FPM	800 FPM	DESIGN UNIT (CFM)	MAXIMUM (CFM)
	In.	In.	In.		
DAMPSLB08X10	0.03	0.05	0.08	430	645
DAMPSLS08X12	0.03	0.05	0.08	430	645
DAMPSLB08X12	0.03	0.05	0.08'	520	780
DAMPSLS08X12	0.03	0.05	0.08	520	780
DAMPSLB08X14	0.03	0.05	0.08	610	915
DAMPSLS08X14	0.03	0.05	0.08	610	915
DAMPSLB08X16	0.03	0.05	0.08	700	1050
DAMPSLS08X16	0.03	0.05	0.08	700	1050
DAMPSLB08X18	0.03	0.05	0.08	780	1170
DAMPSLS08X18	0.03	0.05	0.08	780	1170
DAMPSLB08X20	0.03	0.05	0.08	870	1305
DAMPSLB08X22	0.03	0.05	0.08	960	1440
DAMPSLB08X24	0.03	0.05	0.08	1050	1575
DAMPSLB10X10	0.03	0.05	0.08	540	820
DAMPSLS10X10	0.03	0.05	0.08	540	810
DAMPSLB10X12	0.03	0.05	0.08	650	975
DAMPSLS10X12	0.03	0.05	0.08	650	975
DAMPSLB10X14	0.03	0.05	0.08	760	1140
DAMPSLS10X14	0.03	0.05	0.08	760	1140
DAMPSLB10X16	0.03	0.05	0.08	870	1305
DAMPSLS10X16	0.03	0.05	0.08	870	1305
DAMPSLB10X18	0.03	0.05	0.08	980	1470
DAMPSLS10X18	0.03	0.05	0.08	980	1470
DAMPSLB10X20	0.03	0.04	0.06	1090	1635
DAMPSLB10X22	0.03	0.04	0.06	1200	1800
DAMPSLB10X24	0.03	0.04	0.06	1300	1950
DAMPSLB14X20	0.02	0.04	0.06	1530	2295
DAMPRND06INC	0.02	0.04	0.06	120	180
DAMPRND08INC	0.02	0.03	0.05	220	330
DAMPRND10INC	0.02	0.03	0.04	490	650
DAMPRND12INC	0.02	0.03	0.04	700	1050
DAMPRND14INC	0.02	0.03	0.03	960	1440
DAMPRND16INC	0.02	0.03	0.03	1250	1875
DAMPREC08X10	0.02	0.03	0.04	500	750
DAMPREC08X14	0.02	0.03	0.04	700	1050
DAMPREC08X18	0.02	0.03	0.04	900	1350
DAMPREC08X24	0.02	0.03	0.04	1200	1800
DAMPREC10X10	0.02	0.02	0.02	620	930
DAMPREC10X14	0.02	0.02	0.02	870	1305
DAMPREC10X18	0.02	0.02	0.02	1120	1680
DAMPREC10X24	0.02	0.02	0.02	1500	2250

Note: As the design airflow for dampers is exceeded, the potential for airflow noise problems increases.

HOW TO USE PRESSURE DROP DATA

1. Calculate airflow for each zone based on load and number of zones.
2. As duct system is designed, calculate pressure losses in each duct run and in the air handler (filter and cooling coil).
3. Based on the duct size and amount of airflow required in each zone, calculate a duct velocity for the air through the damper.
4. Use the chart to find the pressure drop for the damper and the calculated velocity in each duct run.
5. Put the damper pressure drop data into the duct losses for each run and calculate a total system pressure loss.
6. Make sure that the unit specified for the application will supply the required amount of air for the calculated system pressure loss.
7. Make sure that the maximum airflow for each damper is not exceeded.

Example:

Assume an installation requires a maximum airflow of 600 CFM per zone.

If 8-in. x 18-in. ducts are used in the house the duct area is 8-in. x 18-in. /(144 sq in. per sq ft) gives 1.0 sq ft of duct area.

Dividing the airflow for each zone (600 CFM) by the duct area (1.0 sq ft) gives 600 fpm.

DAMPREC08X18: 0.03-in.

DAMPSLS08X18: 0.05-in.

DAMPSLB08x18: 0.05-in.

Bottom mount slip-in dampers were chosen for this installation. Therefore 0.05-in. of pressure drop should be added to each duct run.

SERVICE TRAINING

Packaged Service Training programs are an excellent way to increase your knowledge of the equipment discussed in this manual, including:

- Unit Familiarization • Maintenance
- Installation Overview • Operating Sequence

A large selection of product, theory, and skills programs is available, using popular video-based formats and materials. All include video and/or slides, plus companion book.

Classroom Service Training plus "hands-on" the products in our labs can mean increased confidence that really pays dividends in faster troubleshooting, fewer callbacks. Course descriptions and schedules are in our catalog.

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