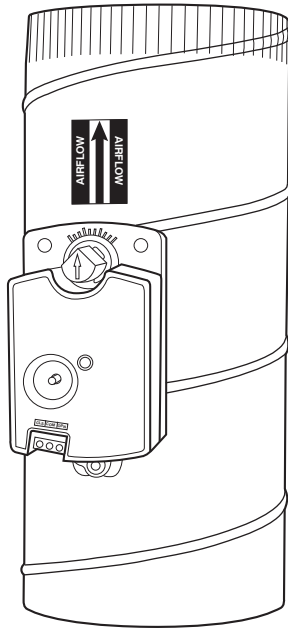
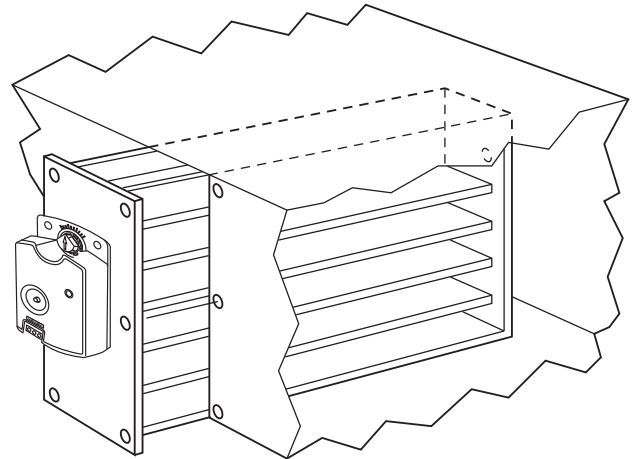


# Product Data



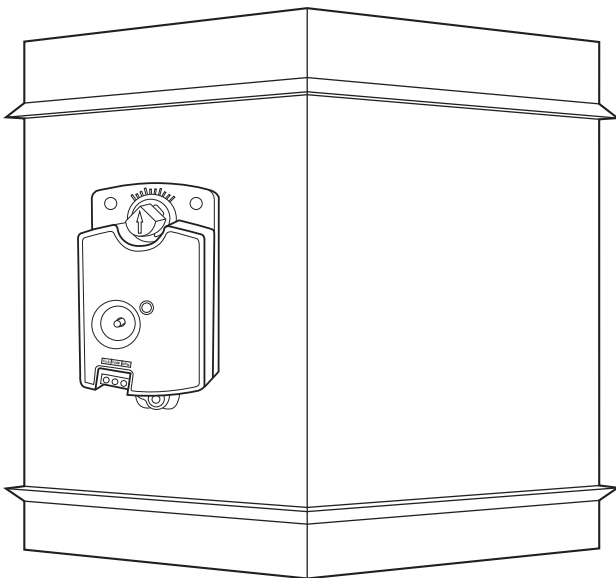
**Fig. 1 - Round Damper**

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**Fig. 3 - Slip-In Damper**

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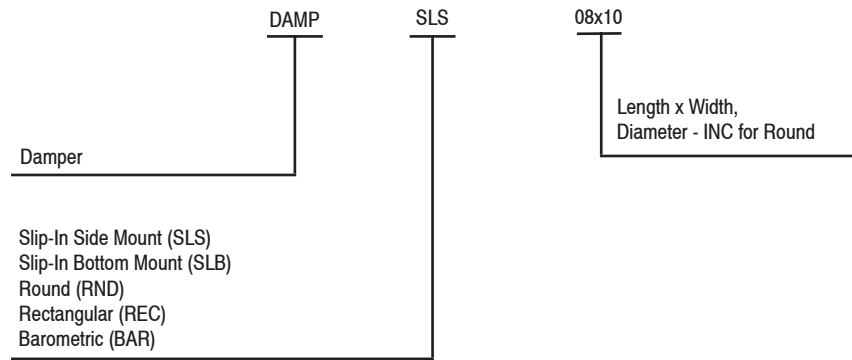
**Fig. 2 - Rectangular Damper**

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## FEATURES/BENEFITS

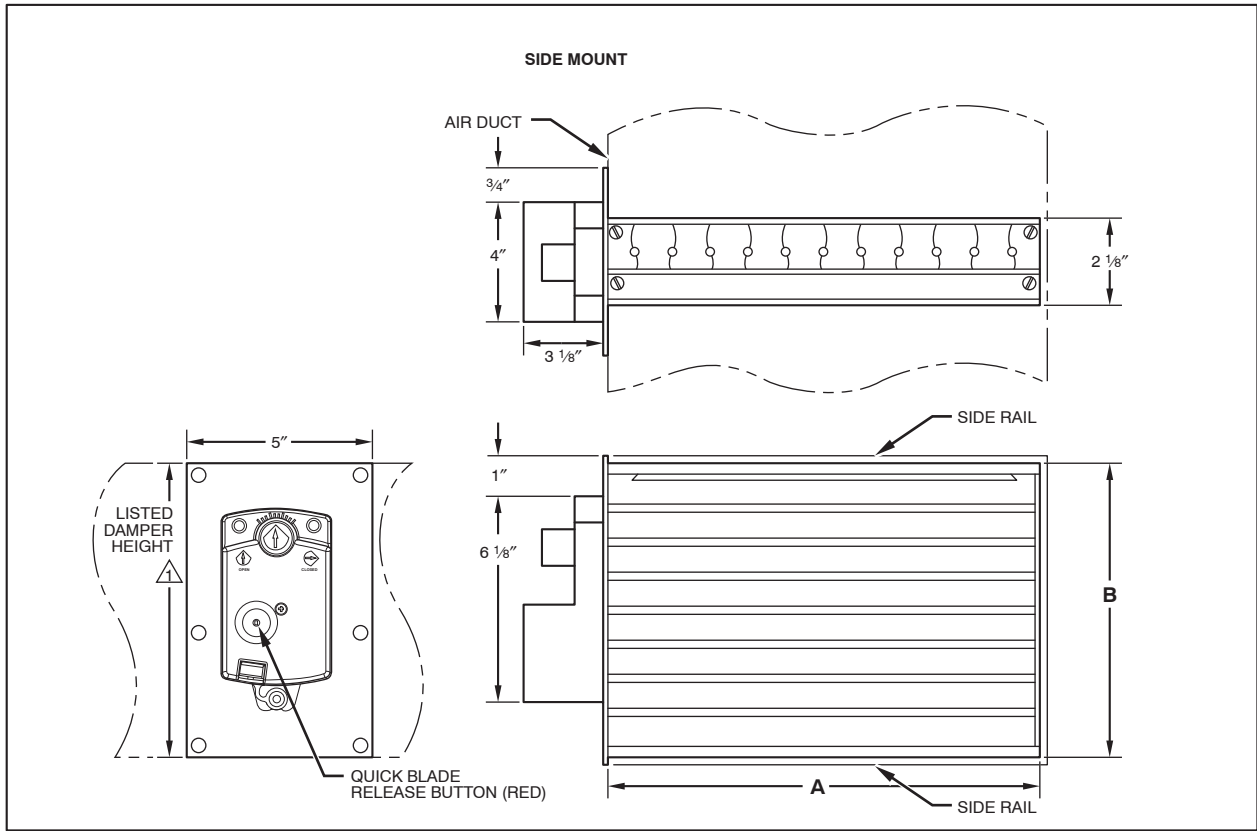
Carrier zone dampers are the latest in design and were developed to fit field requirements for a variety of duct work shapes and sizes. These dampers use 24 VAC direct drive actuators for smooth, quiet performance. There is a 1/2-in. direct-drive mounting hub for securing the damper blade and shaft to 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

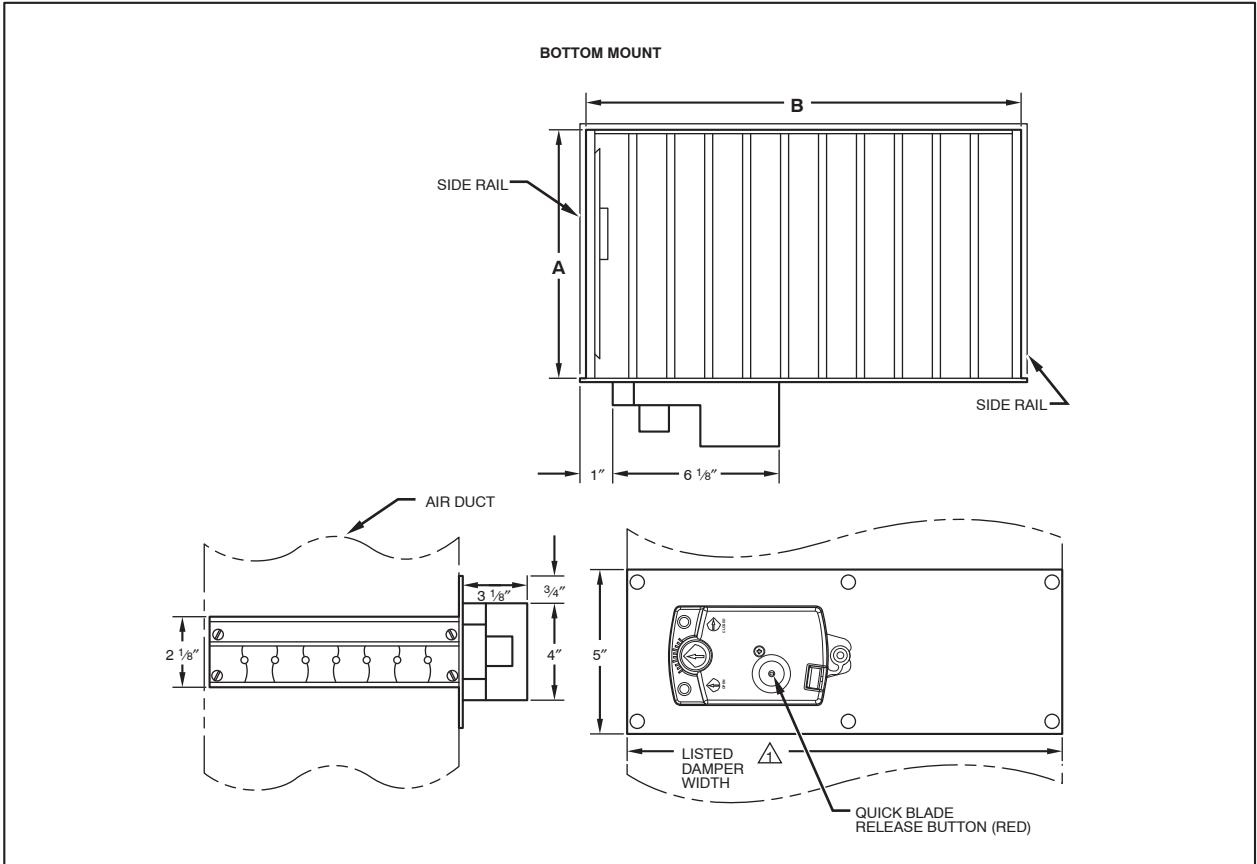


**DAMP**

# DIMENSIONS



**DAMP**

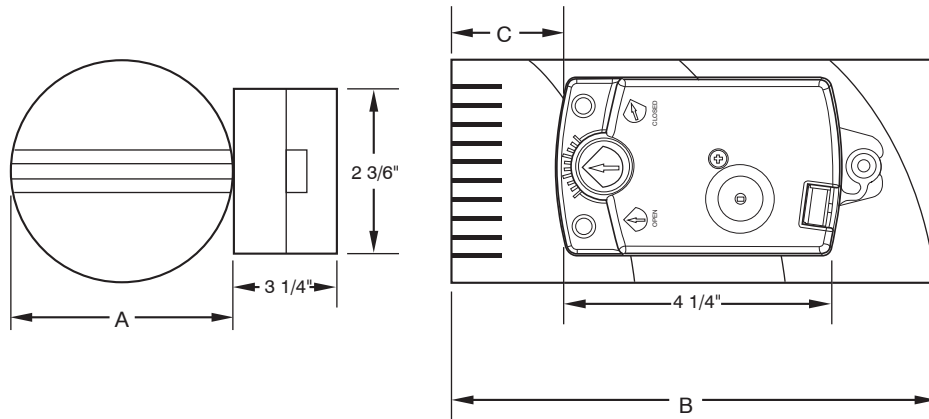


# DIMENSIONS CONTINUED

## 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

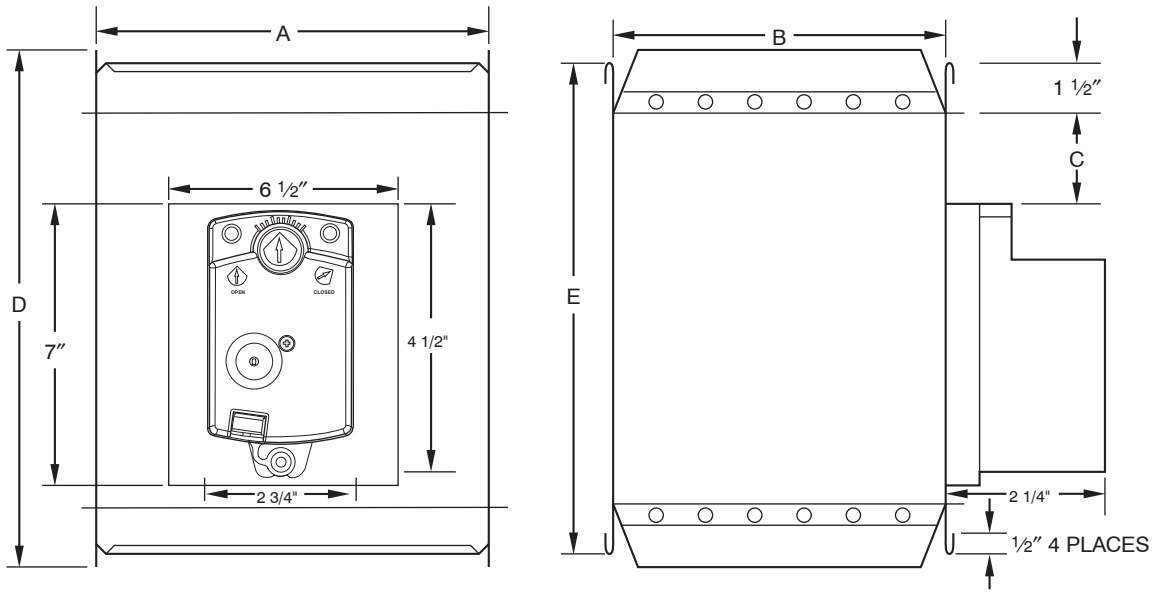


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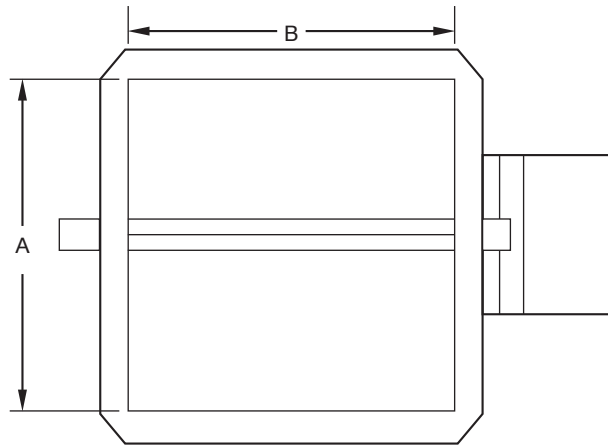
## ROUND DAMPER DIMENSIONS (IN.)

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**



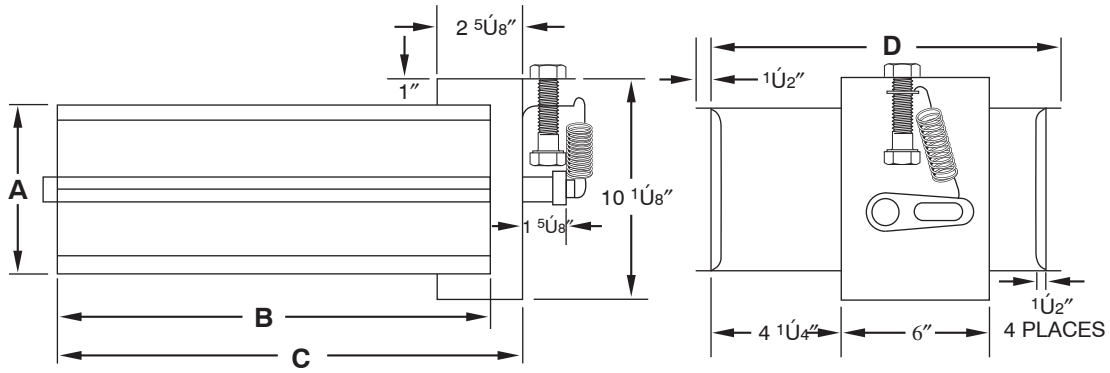
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## RECTANGULAR DAMPER DIMENSIONS (IN.)

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

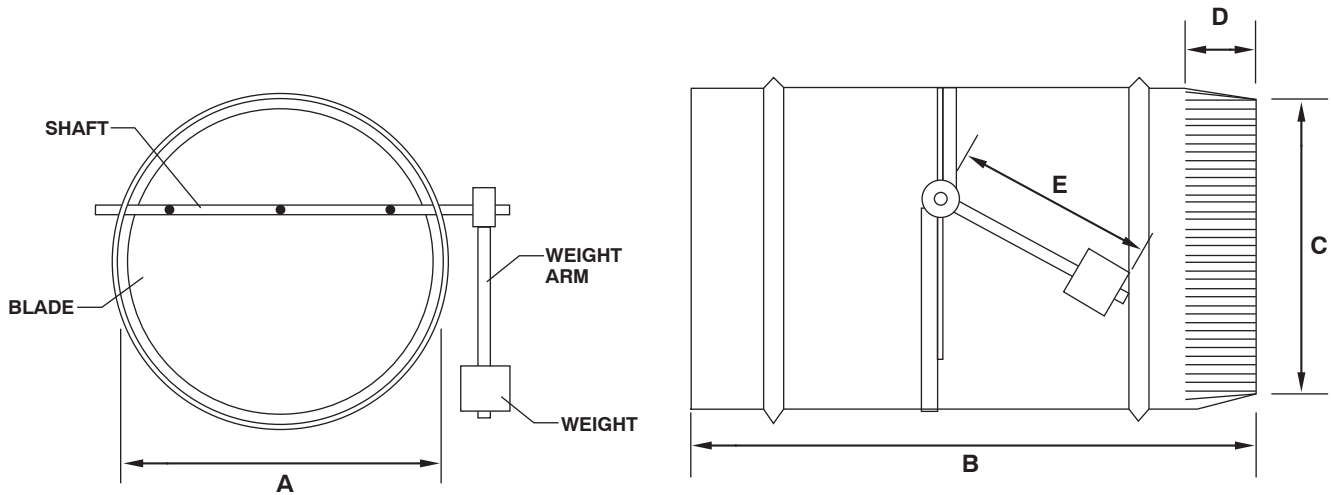
**DAMP**



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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

<b>Input Voltage</b>	24 vac
<b>Nominal Input Power</b>	2 va
<b>Damper Output Torque</b>	10 in. - Lb.
<b>Ambient Temperatures</b>	0°F to 158°F or -18°C to 70°C
<b>Wire Connections</b>	Common, Open, Close
<b>Wire Connectors</b>	Plated Screw Terminals For 14-22 AWG
<b>Stroke Time</b>	Angular Rotation per Sec
<b>DAMPACT45DEG</b>	3° per Sec
<b>DAMPACT90DEG</b>	6° per Sec
<b>Travel Time</b>	15 Sec
<b>Barometric Bypass Pressure Range</b>	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.		
DAMP SLB08X10	0.03	0.05	0.08	430	645
DAMP SLS08X12	0.03	0.05	0.08	430	645
DAMP SLB08X12	0.03	0.05	0.08	520	780
DAMP SLS08X12	0.03	0.05	0.08	520	780
DAMP SLB08X14	0.03	0.05	0.08	610	915
DAMP SLS08X14	0.03	0.05	0.08	610	915
DAMP SLB08X16	0.03	0.05	0.08	700	1050
DAMP SLS08X16	0.03	0.05	0.08	700	1050
DAMP SLB08X18	0.03	0.05	0.08	780	1170
DAMP SLS08X18	0.03	0.05	0.08	780	1170
DAMP SLB08X20	0.03	0.05	0.08	870	1305
DAMP SLB08X22	0.03	0.05	0.08	960	1440
DAMP SLB08X24	0.03	0.05	0.08	1050	1575
DAMP SLB10X10	0.03	0.05	0.08	540	820
DAMP SLS10X10	0.03	0.05	0.08	540	810
DAMP SLB10X12	0.03	0.05	0.08	650	975
DAMP SLS10X12	0.03	0.05	0.08	650	975
DAMP SLB10X14	0.03	0.05	0.08	760	1140
DAMP SLS10X14	0.03	0.05	0.08	760	1140
DAMP SLB10X16	0.03	0.05	0.08	870	1305
DAMP SLS10X16	0.03	0.05	0.08	870	1305
DAMP SLB10X18	0.03	0.05	0.08	980	1470
DAMP SLS10X18	0.03	0.05	0.08	980	1470
DAMP SLB10X20	0.03	0.04	0.06	1090	1635
DAMP SLB10X22	0.03	0.04	0.06	1200	1800
DAMP SLB10X24	0.03	0.04	0.06	1300	1950
DAMP SLB14X20	0.02	0.04	0.06	1530	2295
DAMP RND06INC	0.02	0.04	0.06	120	180
DAMP RND08INC	0.02	0.03	0.05	220	330
DAMP RND10INC	0.02	0.03	0.04	490	650
DAMP RND12INC	0.02	0.03	0.04	700	1050
DAMP RND14INC	0.02	0.03	0.03	960	1440
DAMP RND16INC	0.02	0.03	0.03	1250	1875
DAMP REC08X10	0.02	0.03	0.04	500	750
DAMP REC08X14	0.02	0.03	0.04	700	1050
DAMP REC08X18	0.02	0.03	0.04	900	1350
DAMP REC08X24	0.02	0.03	0.04	1200	1800
DAMP REC10X10	0.02	0.02	0.02	620	930
DAMP REC10X14	0.02	0.02	0.02	870	1305
DAMP REC10X18	0.02	0.02	0.02	1120	1680
DAMP REC10X24	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.

DAMP REC08X18: 0.03-in.

DAMP SLS08X18: 0.05-in.

DAMP SLB08x18: 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

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- Installation Overview • Operating Sequence

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