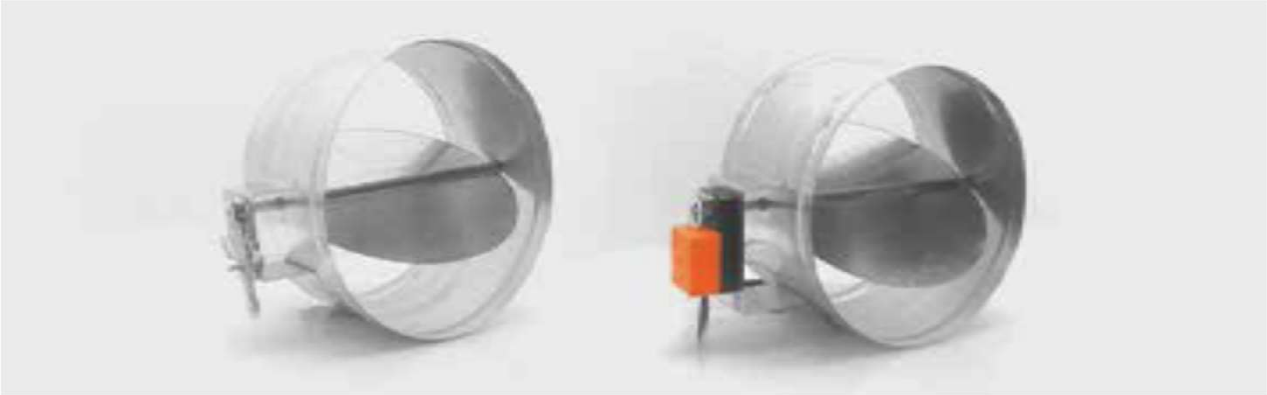
ROUND VOLUME CONTROL DAMPERS

SP 500

SP Series



Description

Body and blades are made from galvanized steel sheet. Adjustable damper blade mounted on brass bushes with manually operated quadrant and position indicator. The damper is used for regulating air flow or as shut off damper when complete sealing against air flow is not required.

Standard Construction

BODY:
Galvanized steel sheet.
Gauge 20 : from Dia. 80mm to 500mm.
Gauge 18 : above 500mm Dia.

BLADE:
Plain galvanized steel sheet.
Gauge 18 : from Dia. 80mm to 500mm.
Gauge 16: above 500mm Dia.
Galvanized steel perforated blade (optional).

FINISH:
Mill Galvanized

CASE BEARINGS:
Brass bearing as standard.
Sintered bronze oilite (optional).

CONTROL SHAFT:
12mm diameter zinc plated mild steel.

MINIMUM & MAXIMUM SIZE:
80mm Dia. damper up to 610mm Dia. are single blade construction.

NOTE:

SP 510
General construction as type SP 500 damper but blades, shafts and blade to shaft fixing in stainless steel (Grade 304).

SP 520
General construction as type SP 500 damper but with body, blades, shaft and blade to shaft fixing in stainless steel (Grade 304).

OPTIONAL VARIANTS:

Dampers can be manual with hand locking quadrant or motorized with a wide range of electrical actuators readily available.

SAFID certifies that the **ROUND VOLUME CONTROL DAMPERS Model SP 500** shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of AMCA Certified Ratings Program.
The AMCA Certified Ratings Seal applies to Air Performance Ratings only.

Test Information

Tested for Air Performance in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.3 and Figure 5.5.
AMCA certified Air Performance Ratings for Dia 80mm, 305mm and 610mm.

Right to alterations reserved

ROUND VOLUME CONTROL DAMPERS

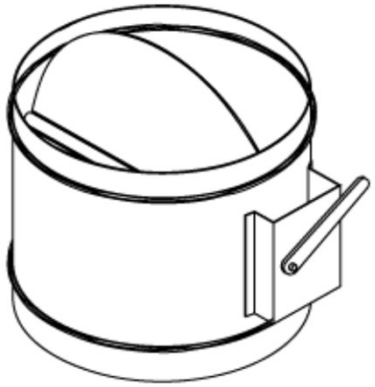
SP SERIES [SP 500, SP 510, SP 520]

Dimensions

1. Body **2. Blade** **3. Drive Shaft**

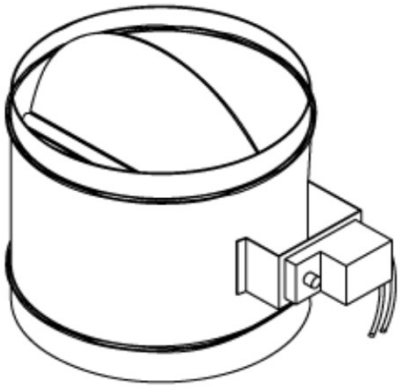
Standard Construction

SP 500, 510, 520

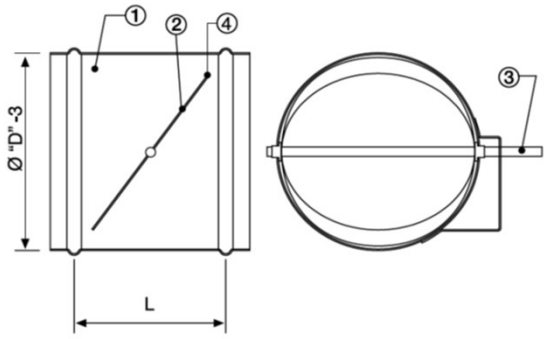


Mounting Bracket

Damper with Mounting Bracket and Motor



Section Details



Standard Sizes

Dia mm
80
100
125
140
150
160
180
200
224
250
280

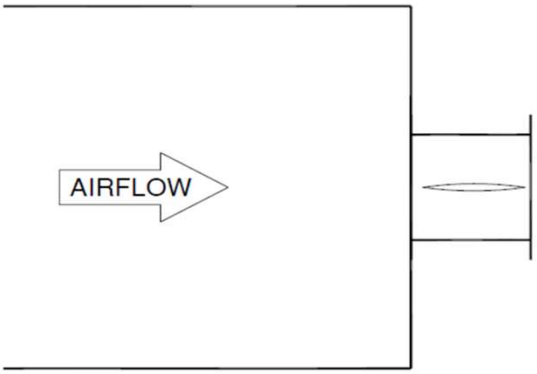
Dia mm
305
315
350
400
450
500
550
600
610

The end joints of damper are also available with factory applied self sealing gasket.

Air Performance

Pressure Drop

The tests for pressure drop of Round Volume Control Dampers were conducted as per ANSI/AMCA Standards 500-D-18, Figure 5.5 which simulate the actual site condition when installed in ventilation, supply and return air conditioning ductworks.



AMCA Test Figure 5.5

Pressure Drop at Face Area Velocity

Dia 3.15 inches (80mm)	
Velocity (FPM)	Pressure Drop (inch W.G.)
2916	1.013
1936	0.455
1158	0.166
770	0.076
481	0.026

Air Performance Test Results at specified airflow rates are based on standard air conditions.

SAFID certifies that the **ROUND VOLUME CONTROL DAMPERS Model SP 500** shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of AMCA Certified Ratings Program.
The AMCA Certified Ratings Seal applies to Air Performance Ratings only.

Test Information

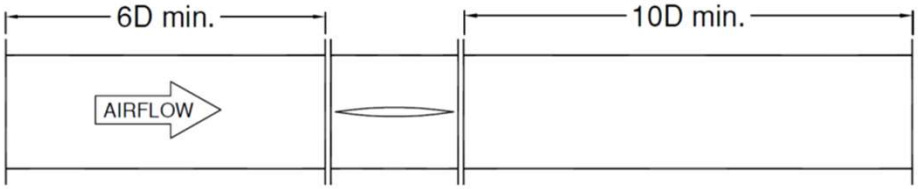
Tested for Air Performance in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.3 and Figure 5.5.
AMCA certified Air Performance Ratings for Dia 80mm, 305mm and 610mm.

Right to alterations reserved

Air Performance

Pressure Drop

The tests for pressure drop of Round Volume Control Dampers were conducted as per ANSI/AMCA Standards 500-D-18, Figure 5.3 which simulate the actual site condition when installed in ventilation, supply and return air conditioning ductworks.



AMCA Test Figure 5.3

Pressure Drop at Face Area Velocity

Dia 12 inches (305mm)	
Velocity (FPM)	Pressure Drop (inch W.G.)
3010	0.050
2000	0.019
1189	0.005
788	0.002
393	0.001

Dia 24 inches (610mm)	
Velocity (FPM)	Pressure Drop (inch. W.G.)
3203	0.050
1999	0.017
1193	0.004
762	0.002
443	0.001

Air Performance Test Results at specified airflow rates are based on standard air conditions.

SAFID certifies that the **ROUND VOLUME CONTROL DAMPERS Model SP 500** shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of AMCA Certified Ratings Program.
The AMCA Certified Ratings Seal applies to Air Performance Ratings only.

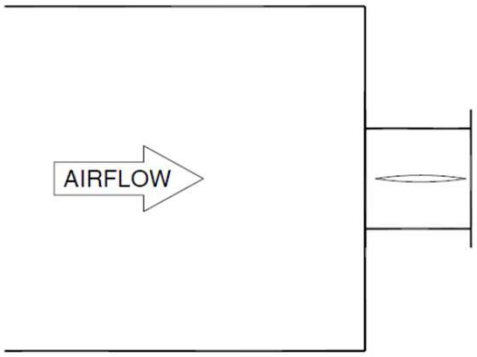
Test Information

Tested for Air Performance in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.3 and Figure 5.5.
AMCA certified Air Performance Ratings for Dia 80mm, 305mm and 610mm.

Right to alterations reserved

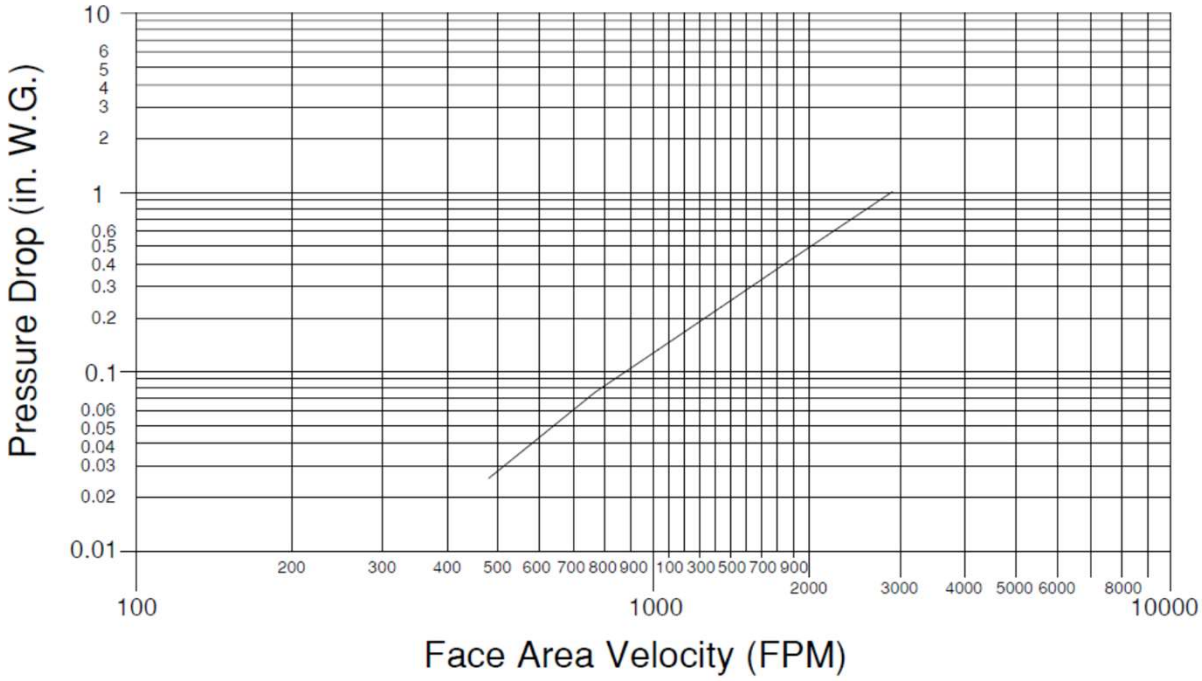
Air Performance

Pressure Drop



AMCA Test Figure 5.5

Pressure Drop at Face Area Velocity
Damper Size: Dia 3.15 inches (80mm)



SAFID certifies that the **ROUND VOLUME CONTROL DAMPERS Model SP 500** shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of AMCA Certified Ratings Program.
The AMCA Certified Ratings Seal applies to Air Performance Ratings only.

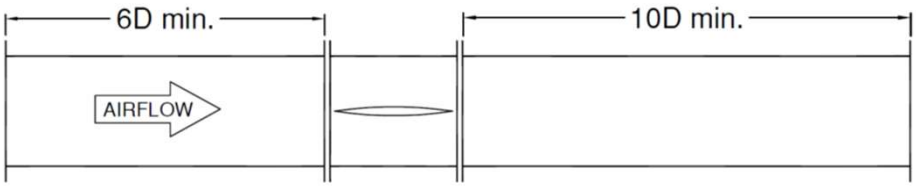
Test Information

Tested for Air Performance in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.3 and Figure 5.5.
AMCA certified Air Performance Ratings for Dia 80mm, 305mm and 610mm.

Right to alterations reserved

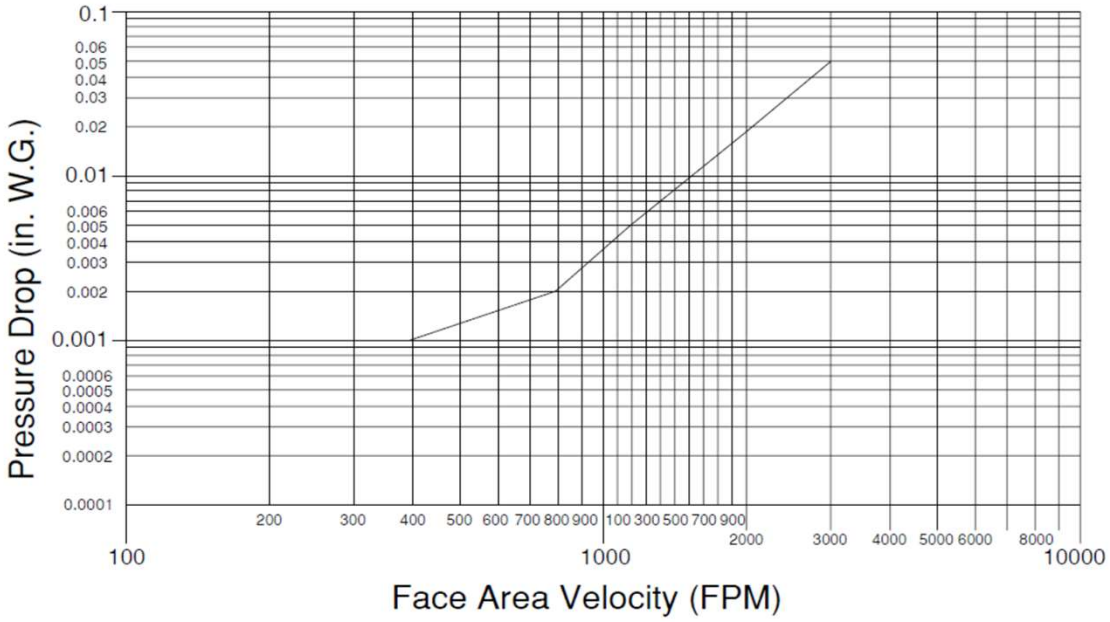
Air Performance

Pressure Drop



AMCA Test Figure 5.3

Pressure Drop at Face Area Velocity
Damper Size: Dia 12 inches (305mm)



SAFID certifies that the **ROUND VOLUME CONTROL DAMPERS Model SP 500** shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of AMCA Certified Ratings Program.
The AMCA Certified Ratings Seal applies to Air Performance Ratings only.

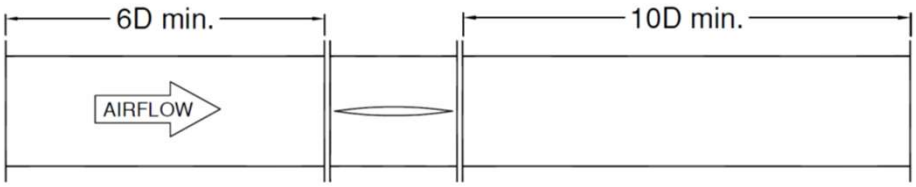
Test Information

Tested for Air Performance in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.3 and Figure 5.5.
AMCA certified Air Performance Ratings for Dia 80mm, 305mm and 610mm.

Right to alterations reserved

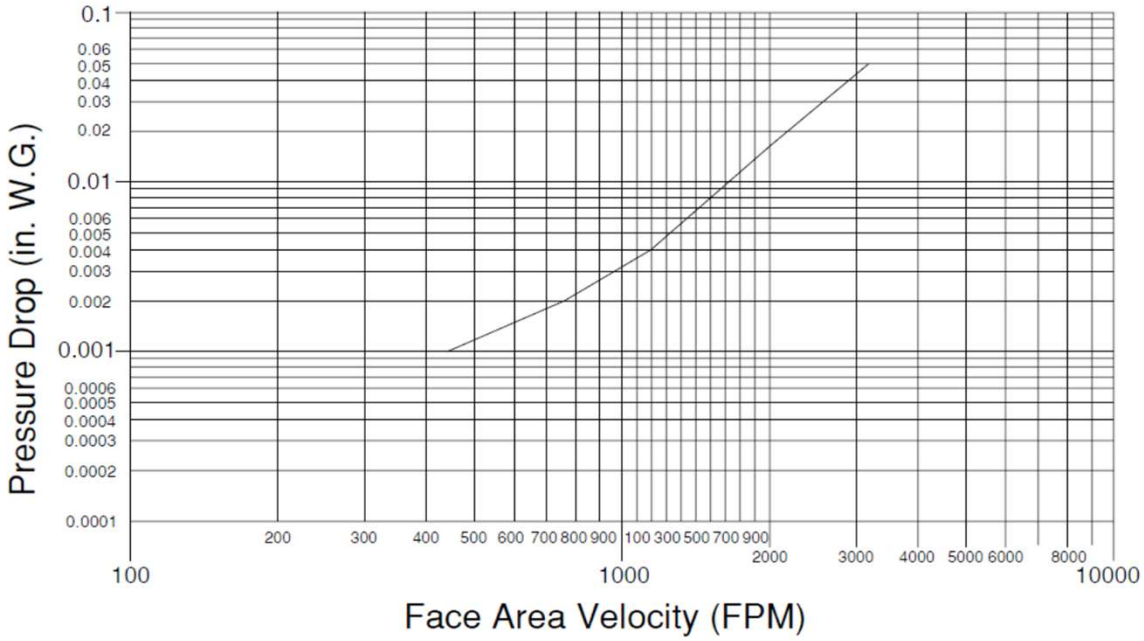
Air Performance

Pressure Drop



AMCA Test Figure 5.3

Pressure Drop at Face Area Velocity
Damper Size: Dia 24 inches (610mm)



SAFID certifies that the **ROUND VOLUME CONTROL DAMPERS Model SP 500** shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of AMCA Certified Ratings Program.
The AMCA Certified Ratings Seal applies to Air Performance Ratings only.

Test Information

Tested for Air Performance in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.3 and Figure 5.5.
AMCA certified Air Performance Ratings for Dia 80mm, 305mm and 610mm.

Right to alterations reserved

ROUND SHUT OFF DAMPERS

SP 600 SP Series



Description

Body and blades are made from galvanized steel sheet. Adjustable damper blade mounted on brass bushes with manually operated quadrant and position indicator. The damper is used for regulating air flow or as shut off damper when complete sealing against air flow is not required.

Standard Construction

BODY:
Galvanized steel sheet.
Gauge 20 : from Dia. 80mm to 500mm.
Gauge 18 : above 500mm Dia.

BLADE:
Plain galvanized steel sheet.
Gauge 18 : from Dia. 80mm to 500mm.
Gauge 16: above 500mm Dia.
Galvanized steel perforated blade (optional).

FINISH:
Mill Galvanized

CASE BEARINGS:
Brass bearing as standard.
Sintered bronze oilite (optional).

CONTROL SHAFT:
12mm diameter zinc plated mild steel.

MINIMUM & MAXIMUM SIZE:
80mm Dia. damper up to 610mm Dia. are single blade construction.

NOTE:

SP 610
General construction as type SP 500 damper but blades, shafts and blade to shaft fixing in stainless steel (Grade 304).

SP 620
General construction as type SP 500 damper but with body, blades, shaft and blade to shaft fixing in stainless steel (Grade 304).

OPTIONAL VARIANTS:

Dampers can be manual with hand locking quadrant or motorized with a wide range of electrical actuators readily available.

SAFID certifies that the **ROUND VOLUME CONTROL DAMPERS Model SP 600** shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of AMCA Certified Ratings Program.
The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance Ratings only.

Test Information
Tested for Air Leakage in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.6A.
Tested for Air Performance in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.3 and Figure 5.5.
AMCA certified Air Leakage Classifications for Dia 610mm maximum size.
AMCA certified Air Performance Ratings for Dia 80mm, 305mm and 610mm.

Right to alterations reserved

ROUND SHUT OFF DAMPERS

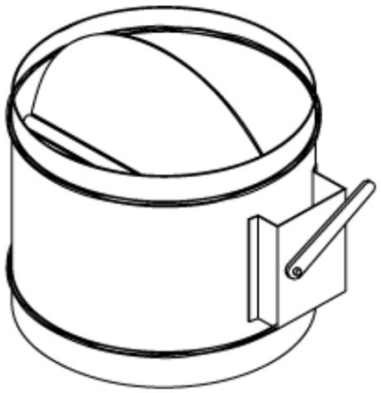
SP SERIES [SP 600, SP 610, SP 620]

Dimensions

1. Body **2. Blade** **3. Drive Shaft**

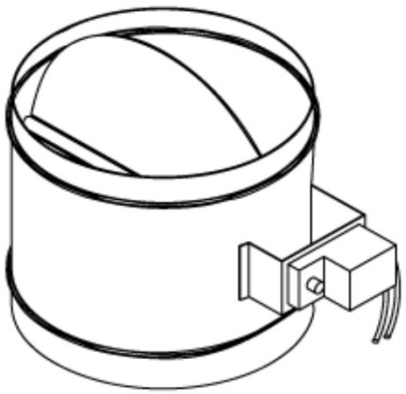
Standard Construction

SP 600, 610, 620

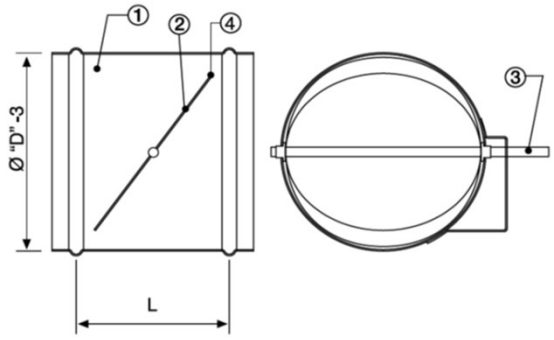


Mounting Bracket

Damper with Mounting Bracket and Motor



Section Detais



Standard Sizes

Dia mm
80
100
125
140
150
160
180
200
224
250
280

Dia mm
305
315
350
400
450
500
550
600
610

The end joints of damper are also available with factory applied self sealing gasket.

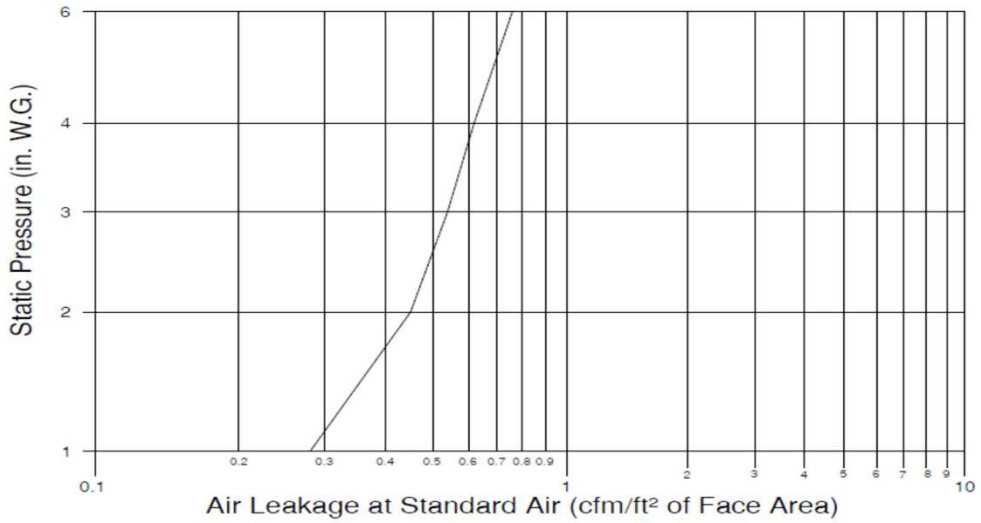
ROUND VOLUME CONTROL DAMPERS

SP 600 — SP Series

Class 1A & Class 1 Air Leakage Classification

Air Leakage Performance

Air Leakage Data



Dia 24 in. (610mm) Face Area=3.14ft²		
Static Pressure (in. W.G.)	Leakage (cfm/ft²)	Air Leakage Classification
1	0.283	Class 1A
2	0.453	Class 1
3	0.542	Class 1
4	0.620	Class 1
6	0.751	Class 1

Allowable Air Leakage to Achieve Leakage Classification (cfm/ft²)				
Leakage Class	at 1 in. W.G.	at 2 in. W.G.	at 4 in. W.G.	at 6 in. W.G
1A	3	N/A	N/A	N/A
1	4	5.6	8	9.8
2	10	14	20	24.5
3	40	56.5	80	98

The Air Leakage data is based on operation between 0 °C - 49 °C (32 °F-120 °F).
Data are based on a torque of 62.79 N.m/m² (555.78 in-lb/ft² applied to close and seal the damper during the test. The torque required to hold the damper in the closed position.

SAFID certifies that the **ROUND VOLUME CONTROL DAMPERS Model SP 600** shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of AMCA Certified Ratings Program.
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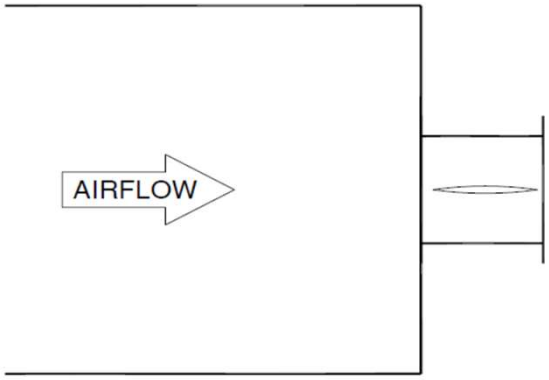
Test Information
Tested for Air Leakage in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.6A.
Tested for Air Performance in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.3 and Figure 5.5.
AMCA certified Air Leakage Classifications for Dia 610mm maximum size.
AMCA certified Air Performance Ratings for Dia 80mm, 305mm and 610mm.

Right to alterations reserved

Air Performance

Pressure Drop

The tests for pressure drop of Round Volume Control Dampers were conducted as per ANSI/AMCA Standards 500-D-18, Figure 5.5 which simulate the actual site condition when installed in ventilation, supply and return air conditioning ductworks.



AMCA Test Figure 5.5

Pressure Drop at Face Area Velocity

Dia 3.15 inches (80mm)	
Velocity (FPM)	Pressure Drop (inch W.G.)
2915	1.386
1933	0.622
1153	0.223
768	0.096
451	0.033

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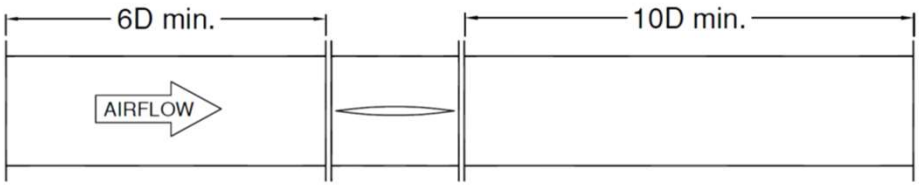
Test Information
Tested for Air Leakage in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.6A.
Tested for Air Performance in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.3 and Figure 5.5.
AMCA certified Air Leakage Classifications for Dia 610mm maximum size.
AMCA certified Air Performance Ratings for Dia 80mm, 305mm and 610mm.

Right to alterations reserved

Air Performance

Pressure Drop

The tests for pressure drop of Round Volume Control Dampers were conducted as per ANSI/AMCA Standards 500-D-18, Figure 5.3 which simulate the actual site condition when installed in ventilation, supply and return air conditioning ductworks.



AMCA Test Figure 5.3

Pressure Drop at Face Area Velocity

Dia 12 inches (305mm)	
Velocity (FPM)	Pressure Drop (inch W.G.)
3001	0.049
1985	0.018
1187	0.004
783	0.002
396	0.001

Dia 24 inches (610mm)	
Velocity (FPM)	Pressure Drop (inch. W.G.)
3203	0.051
1999	0.017
1192	0.005
932	0.004
445	0.001

SAFID certifies that the **ROUND VOLUME CONTROL DAMPERS Model SP 600** shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of AMCA Certified Ratings Program.
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Test Information
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Tested for Air Performance in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.3 and Figure 5.5.
AMCA certified Air Leakage Classifications for Dia 610mm maximum size.

Right to alterations reserved

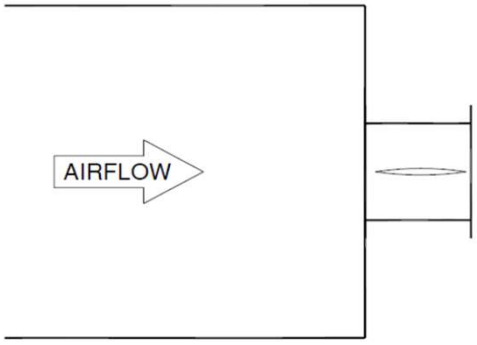
ROUND VOLUME CONTROL DAMPERS

SP 600

SP Series

Air Performance

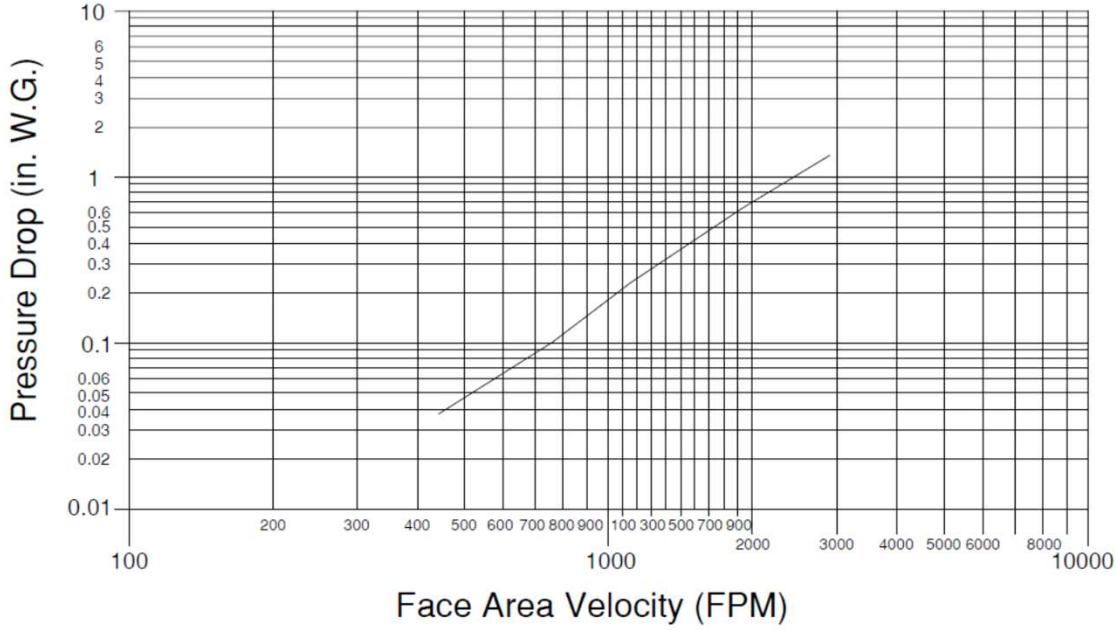
Pressure Drop



AMCA Test Figure 5.5

Pressure Drop at Face Area Velocity

Damper Size: Dia 3.15 inches (80mm)



SAFID certifies that the **ROUND VOLUME CONTROL DAMPERS Model SP 600** shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of AMCA Certified Ratings Program.
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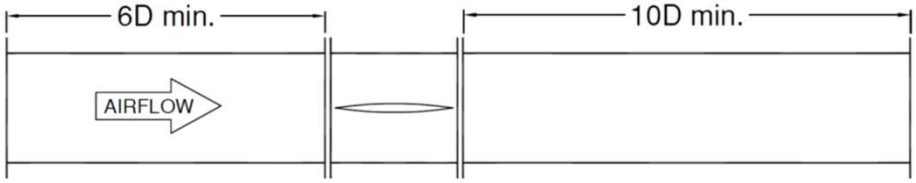
Test Information
Tested for Air Leakage in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.6A.
Tested for Air Performance in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.3 and Figure 5.5.
AMCA certified Air Leakage Classifications for Dia 610mm maximum.
AMCA certified Air Performance Ratings for Dia 80mm, 305mm and 610mm.

amca WORLDWIDE CERTIFIED RATINGS — AIR LEAKAGE — AIR PERFORMANCE — AIR MOVEMENT AND CONTROL ASSOCIATION INTERNATIONAL, INC.
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Air Performance

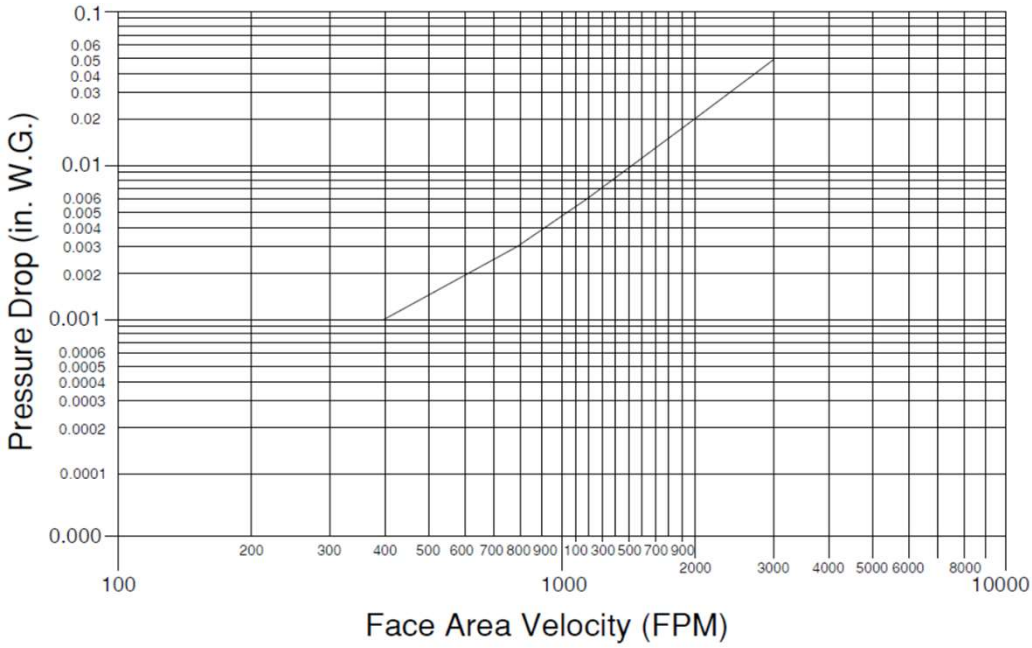
Pressure Drop



AMCA Test Figure 5.3

Pressure Drop at Face Area Velocity

Damper Size: Dia 12 inches (305mm)



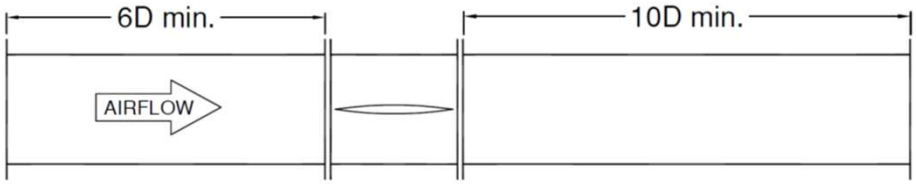
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The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance Ratings only.

Test Information
Tested for Air Leakage in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.6A.
Tested for Air Performance in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.3 and Figure 5.5.
AMCA certified Air Leakage Classifications for Dia 610mm maximum size.
AMCA certified Air Performance Ratings for Dia 80mm, 305mm and 610mm.

Right to alterations reserved

Air Performance

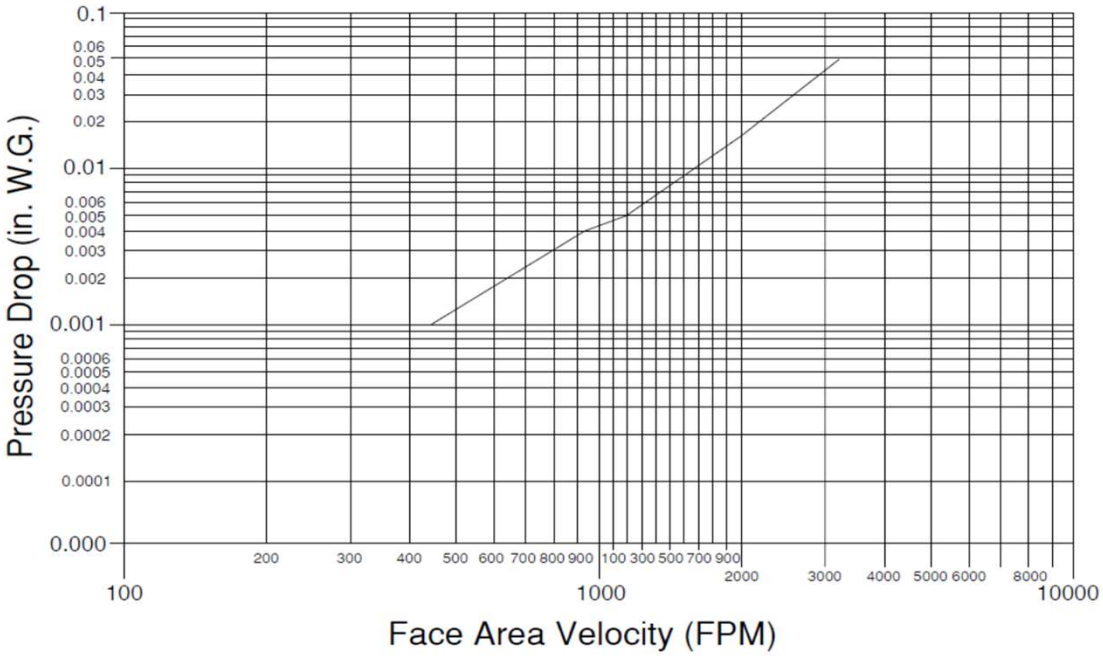
Pressure Drop



AMCA Test Figure 5.3

Pressure Drop at Face Area Velocity

Damper Size: Dia 24 inches (610mm)



SAFID certifies that the **ROUND VOLUME CONTROL DAMPERS Model SP 600** shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of AMCA Certified Ratings Program.
The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance Ratings only.

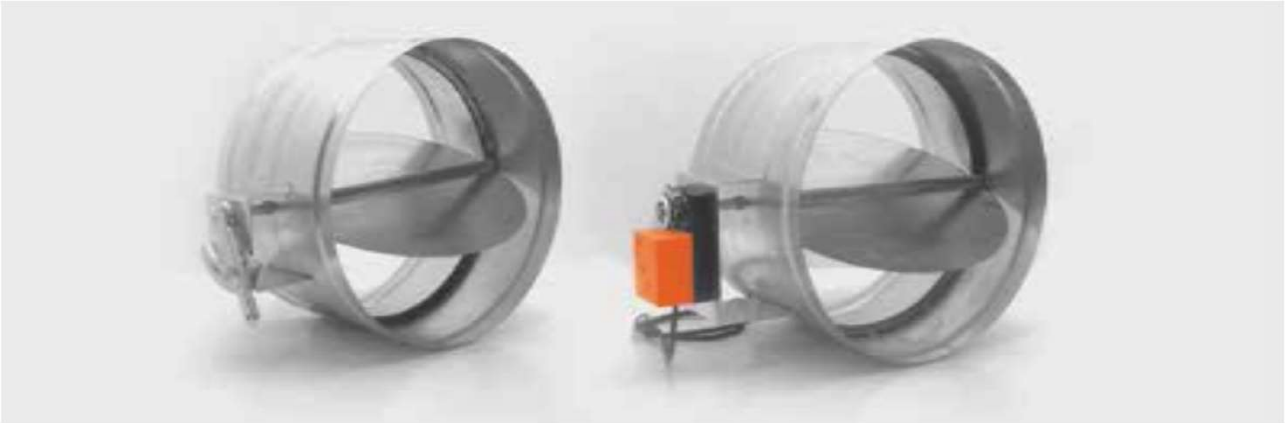
Test Information
Tested for Air Leakage in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.6A.
Tested for Air Performance in accordance with ANSI / AMCA Standard 500-D-18 Figure 5.3 and Figure 5.5.
AMCA certified Air Leakage Classifications for Dia 610mm maximum size.
AMCA certified Air Performance Ratings for Dia 80mm, 305mm and 610mm.

Right to alterations reserved

ROUND SHUT OF DAMPERS

SP 700

SP SERIES



Description

Body and blades are made from galvanized steel sheet. Adjustable damper blade mounted on brass bushes with manually operated quadrant and position indicator. The damper is used for regulating air flow or as shut off damper when complete sealing against air flow is not required.

Standard Construction

BODY:
Galvanized steel sheet.
Gauge 20 : from Dia. 80mm to 500mm.
Gauge 18 : above 500mm Dia.

BLADE:
Plain galvanized steel sheet.
Gauge 18 : from Dia. 80mm to 500mm.
Gauge 16: above 500mm Dia.
Galvanized steel perforated blade (optional).

FINISH:
Mill Galvanized

CASE BEARINGS:
Brass bearing as standard.
Sintered bronze oilite (optional).

CONTROL SHAFT:
12mm diameter zinc plated mild steel.

MINIMUM & MAXIMUM SIZE:
80mm Dia. damper up to 610mm Dia. are single blade construction.

NOTE:
Sizes above 610mm Dia are multipleblade type.

SP 710
General construction as type SP 500 damper but blades, shafts and blade to shaft fixing in stainless steel (Grade 304).

SP 720
General construction as type SP 500 damper but with body, blades, shaft and blade to shaft fixing in stainless steel (Grade 304).

OPTIONAL VARIANTS:

Dampers can be manual with hand locking quadrant or motorized with a wide range of electrical actuators readily available.

ROUND SHUT OFF DAMPERS

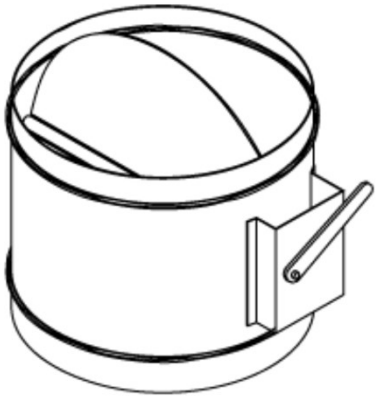
SP SERIES [SP 700, SP 710, SP 720]

Dimensions

1. Body **2. Blade** **3. Drive Shaft**

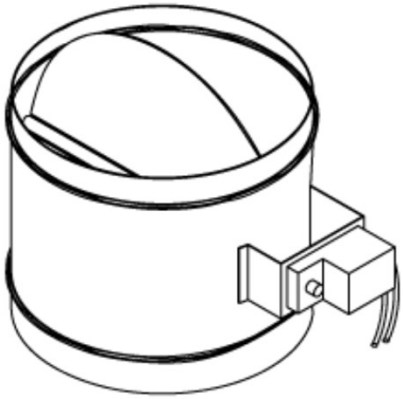
Standard Construction

SP 700, 710, 720

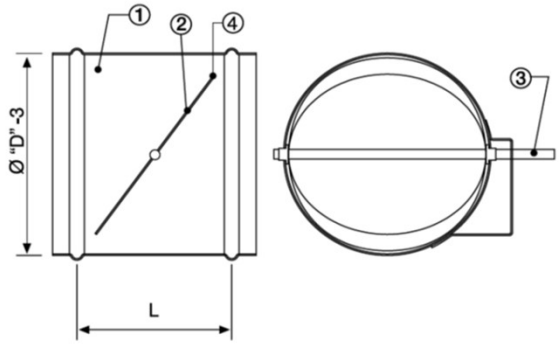


Mounting Bracket

Damper with Mounting Bracket and Motor



Section Details



Standard Sizes

Dia mm
80
100
125
140
150
160
180
200
224
250
280

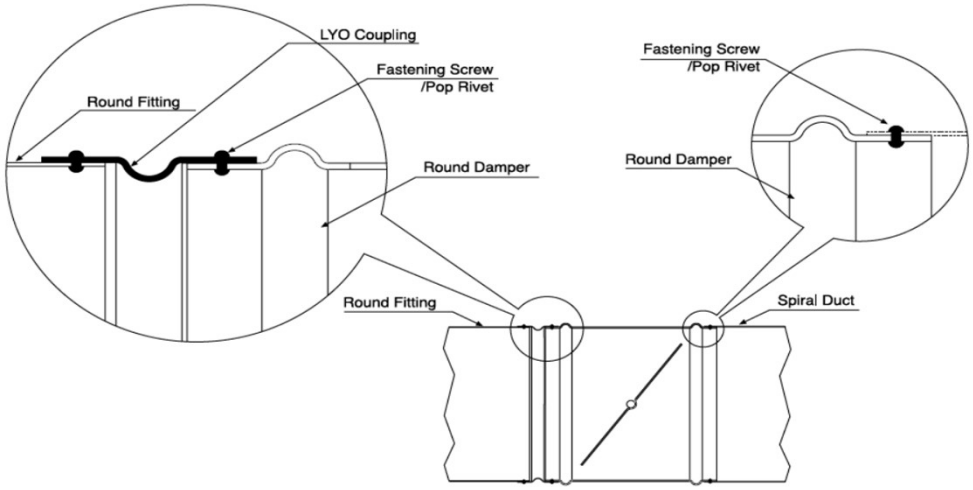
Dia mm
305
315
350
400
450
500
550
600
610

The end joints of damper are also available with factory applied self sealing gasket.

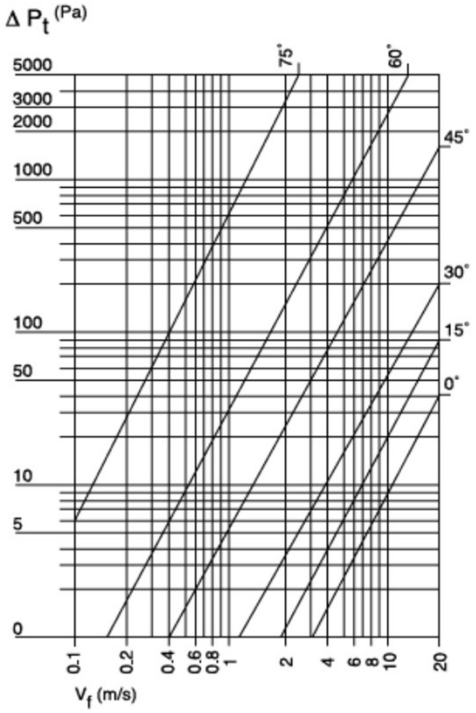
ROUND VOLUME CONTROL DAMPERS

Installation Details

SP Series



Pressure Loss



Order Details

Order Example:

Product code: SP500 - aaa

Type

SP500

SP600

SP700

Diameter

For Motorized Dampers:

Wide range of electrical actuators are readily available upon request.