# Standard Industrial Round Relief Damper



VentilationComponents.com's round relief dampers are durable and cost effective.

## Application

- Relieves excessive vacuum or pressure in a duct or vessel
- Various sizes available, built to suit round ducts and equipment
- Differential pressure ratings ranging from 15inWC to 50inWC available, with higher pressure ratings up to 100inWC available upon request

#### Features

- Flanged inlet and outlet connections
- Tight sealing positive stop blade
- Anti friction bearings
- Available in a variety of materials
- The blade will open to relieve pressure when the pressure differential exceeds a predetermined level

## Benefits

- Protects equipment from high vacuum or pressure due to upset conditions which allows for the use of lower cost equipment
- Short flange to flange connection
- Simple, reliable, and easy to maintain
- Heavy duty construction

## Function

- The shaft is off center and has an adjustable counter weight
- The blade seals as it touches a perimeter seal, which is also known as a positive stop, while in the normally closed position
- If the pressure differential exceeds a predetermined level, the blade will open to relieve the pressure and allow air to pass through

## Options

#### Size

Sizes ranging from 8.00in to 48.00in inside flange are available. Larger sizes are available upon request.

#### Pressure rating

Three different pressure ratings are offered: up to 15inWC, up to 30inWC, and up to 50inWC. Custom pressure ratings up to 100inWC are available upon request.

#### Safety guard

A safety guard can be added to the lever counter balance.

#### Flange bolt pattern

The flange bolt patterns follow our standard. Different patterns are available upon request.

#### Materials

A variety of materials are offered to suit different applications.

Primary material

- 304 stainless steel
- 316 stainless steel
- Corten steel
- Carbon steel painted, moderate exposure

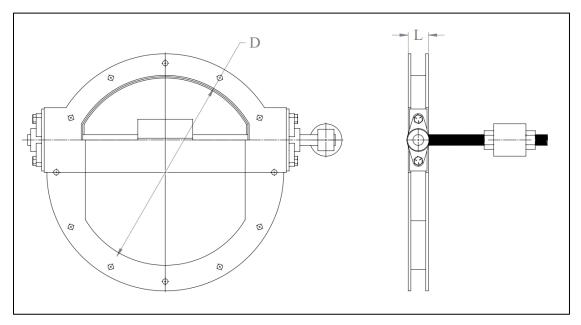
Bearing type

- Regular
- High temperature

Hardware material

- 304 stainless steel
- 316 stainless steel
- Type 18-8 stainless steel
- Zinc chromate grade 5
- Carbon steel grade 5

Other materials not listed are available upon request.



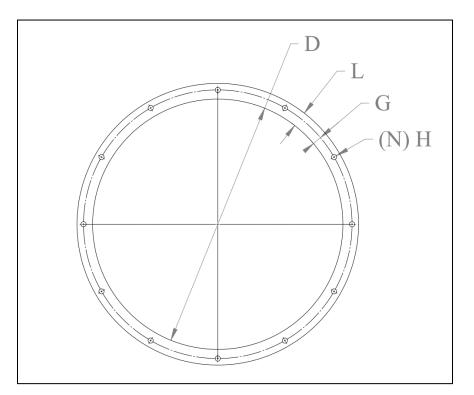
## Data and dimensions

Item Number	''I Nomin	·	Nominal Pressure Rating	''L'' Length
	D <sub>LOWER</sub>	D <sub>UPPER</sub>		
	inches	inches	inWC	inches
DA-01-[8.00 to 16.00]-15	8.00	16.00	15	1.50
DA-01-[8.00 to 16.00]-30	8.00	16.00	30	2.00
DA-01-[8.00 to 16.00]-50	8.00	16.00	50	2.50
DA-01-[16.01 to 24.00]-15	16.01	24.00	15	2.00
DA-01-[16.01 to 24.00]-30	16.01	24.00	30	2.50
DA-01-[16.01 to 24.00]-50	16.01	24.00	50	3.00
DA-01-[24.01 to 31.00]-15	24.01	31.00	15	2.00
DA-01-[24.01 to 31.00]-30	24.01	31.00	30	3.00
DA-01-[24.01 to 31.00]-50	24.01	31.00	50	3.50
DA-01-[31.01 to 39.00]-15	31.01	39.00	15	2.00
DA-01-[31.01 to 39.00]-30	31.01	39.00	30	3.00
DA-01-[31.01 to 39.00]-50	31.01	39.00	50	3.50
DA-01-[39.01 to 46.00]-15	39.01	46.00	15	2.50
DA-01-[39.01 to 46.00]-30	39.01	46.00	30	3.00
DA-01-[39.01 to 46.00]-50	39.01	46.00	50	3.50
DA-01-[46.01 to 48.00]-15	46.01	48.00	15	2.50
DA-01-[46.01 to 48.00]-30	46.01	48.00	30	3.00
DA-01-[46.01 to 48.00]-50	46.01	48.00	50	3.50

Notes

- 1. Nominal Size to be specified by customer.
- 2. 3D model files and general arrangement drawings with installation details available upon order.

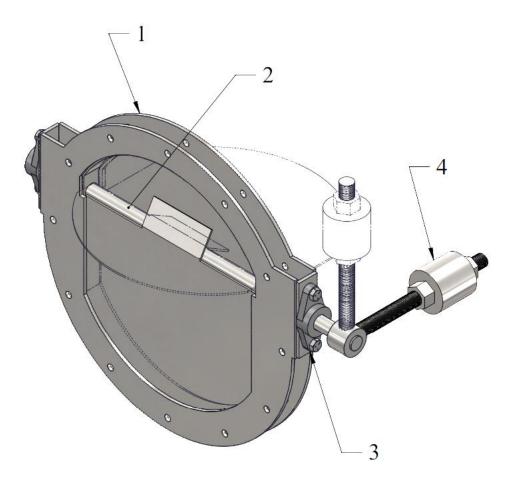
# Standard round flange details



"D"		"L"	"G"	''N''	"H"	Bolt Size
Nominal Size		Flange Leg	Gauge	Number of	Hole	
<b>D</b> <sub>LOWER</sub> <b>D</b> <sub>UPPER</sub>				Holes	Diameter	
inches	inches	inches	inches	quantity	inches	inches
0	8.00	1.50	0.875	4	0.500	3/8
8.01	16.00	1.50	0.875	8	0.500	3/8
16.01	24.00	1.50	0.875	12	0.500	3/8
24.01	31.00	1.50	0.875	16	0.500	3/8
31.01	39.00	2.00	1.125	20	0.500	3/8
39.01	46.00	2.50	1.375	24	0.625	1/2
46.01	54.00	2.50	1.375	28	0.625	1/2
54.01	62.00	2.50	1.375	32	0.625	1/2
62.01	70.00	2.50	1.375	36	0.625	1/2
70.01	78.00	2.50	1.375	40	0.625	1/2
78.01	86.00	3.00	1.750	44	0.625	1/2
86.01	94.00	3.00	1.750	48	0.625	1/2
94.01	101.00	3.00	1.750	52	0.625	1/2
101.01	108.00	4.00	2.250	56	0.625	1/2
108.01	120.00	4.00	2.250	60	0.625	1/2

Notes

1. Holes always land on centerlines.



## Parts list

Number	Quantity	Description
1	1	Main weldment
2	1	Blade weldment
3	2	Bearing
4	1	Relief adjustment

Notes

1. All hardware provided, unit is assembled when delivered.

## How to order

To fully specify the DA-01 Round Relief Damper, make a selection from the code boxes below.

**Example**: DA-01-C-2-R-3-30-2-S, shown below, is a round relief damper with 316 stainless steel as the primary material, regular bearings, type 18-8 stainless steel hardware, a 30inWC pressure rating, and our standard bolt pattern. A safety guard is not supplied. The customer has specified that the damper be 32.00in diameter.

1	2	3	4	5	6	7	8	9
DA	01	С	2	R	3	30	2	S
Specifications								
Please provide a drawing for our approval of a 32.00in diameter round relief damper, as specified.								

Image: Term Sub-type				
2   Equipment sub-type     01   Round Relief Damper     3   Nominal size     C   Customer Specified Size     4   Primary material     1   304 Stainless Steel   4     2   316 Stainless Steel   C     2   316 Stainless Steel   C     2   316 Stainless Steel   C     3   Corten Steel   C     5   Bearing type   R     R   Regular   C   Customer Specified Type     H   High Temperature   High Temperature   High Temperature     6   Hardware material   1   304 Stainless Steel   4   Zinc Chromate Grade 5     2   316 Stainless Steel   5   Carbon Steel Grade 5   3   Type 18-8 Stainless Steel   C   Customer Specified Material     7   Pressure rating   50   50inWC, Up to 6000fpm   30   30inWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8   Safety guard   1   Supplied   2   Not Supplied     9   Flange bolt pattern   Image Solit Pattern   Image S	1	Equipment type		
01   Round Relief Damper     3   Nominal size     C   Customer Specified Size     4   Primary material     1   304 Stainless Steel   4     2   316 Stainless Steel   C     3   Corten Steel   C     5   Bearing type     7   Regular   C     1   304 Stainless Steel   C     6   Hardware material   5     1   304 Stainless Steel   4     1   304 Stainless Steel   4     1   304 Stainless Steel   5     2   316 Stainless Steel   4     1   304 Stainless Steel   5     2   316 Stainless Steel   5     3   Type 18-8 Stainless Steel   5     3   Type 18-8 Stainless Steel   C     7   Pressure rating   7     7   Pressure rating   50     1   SinWC, Up to 4500fpm   50   50inWC, Up to 6000fpm     30 30inWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8   Safety gua	DA	Damper		
01   Round Relief Damper     3   Nominal size     C   Customer Specified Size     4   Primary material     1   304 Stainless Steel   4     2   316 Stainless Steel   C     3   Corten Steel   C     5   Bearing type     7   Regular   C     1   304 Stainless Steel   C     6   Hardware material   5     1   304 Stainless Steel   4     1   304 Stainless Steel   4     1   304 Stainless Steel   5     2   316 Stainless Steel   4     1   304 Stainless Steel   5     2   316 Stainless Steel   5     3   Type 18-8 Stainless Steel   5     3   Type 18-8 Stainless Steel   C     7   Pressure rating   7     7   Pressure rating   50     1   SinWC, Up to 4500fpm   50   50inWC, Up to 6000fpm     30 30inWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8   Safety gua				
3   Nominal size     C   Customer Specified Size     4   Primary material     1   304 Stainless Steel   4     2   316 Stainless Steel   C     3   Corten Steel   C     4   Painted Carbon Steel, Moderate Exposure     2   316 Stainless Steel   C     3   Corten Steel   C     5   Bearing type   C     7   Regular   C     7   Pressure rating   1     15   15 inWC, Up to 4500fpm   50     30 SinWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8   Safety guard   1     1   Supplied   2   Not Supplied	2	Equipment sub-type		
C   Customer Specified Size     4   Primary material     1   304 Stainless Steel   4     2   316 Stainless Steel   C     3   Corten Steel   C     4   Painted Carbon Steel, Moderate Exposure     2   316 Stainless Steel   C     3   Corten Steel   C     5   Bearing type   E     7   Regular   C     7   Pressure rating   5     15   15inWC, Up to 4500fpm   50     30inWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8   Safe ty guard   2     1   Supplied   2	01	Round Relief Damper		
C   Customer Specified Size     4   Primary material     1   304 Stainless Steel   4     2   316 Stainless Steel   C     3   Corten Steel   C     4   Painted Carbon Steel, Moderate Exposure     2   316 Stainless Steel   C     3   Corten Steel   C     5   Bearing type   E     7   Regular   C     7   Pressure rating   5     15   15inWC, Up to 4500fpm   50     30inWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8   Safe ty guard   2     1   Supplied   2				
4   Primary material     1   304 Stainless Steel   4   Painted Carbon Steel, Moderate Exposure     2   316 Stainless Steel   C   Customer Specified Material     3   Corten Steel   C   Customer Specified Material     3   Corten Steel   C   Customer Specified Type     R   Regular   C   Customer Specified Type     H   High Temperature   C   Customer Specified Type     6   Hardware material   I   304 Stainless Steel   4     1   304 Stainless Steel   4   Zinc Chromate Grade 5     2   316 Stainless Steel   5   Carbon Steel Grade 5     3   Type 18-8 Stainless Steel   C   Customer Specified Material     7   Pressure rating   50   50inWC, Up to 6000fpm     30   30inWC, Up to 5000fpm   50   50inWC, Up to 6000fpm     30   30inWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8   Safety guard   1   Supplied   2   Not Supplied     9   Flange bolt pattern   E   E   Not Supplied   2	3	Nominal size		
1   304 Stainless Steel   4   Painted Carbon Steel, Moderate Exposure     2   316 Stainless Steel   C   Customer Specified Material     3   Corten Steel   C   Customer Specified Material     5   Bearing type   C   Customer Specified Type     R   Regular   C   Customer Specified Type     H   High Temperature   C   Customer Specified Type     6   Hardware material   C   Customer Specified Type     1   304 Stainless Steel   4   Zinc Chromate Grade 5     2   316 Stainless Steel   5   Carbon Steel Grade 5     3   Type 18-8 Stainless Steel   C   Customer Specified Material     7   Pressure rating   C   Customer Specified Pressure Rating     8   Safe ty guard   2   Not Supplied     9   Flange bolt pattern   2   Not Supplied	С	Customer Specified Size		
1   304 Stainless Steel   4   Painted Carbon Steel, Moderate Exposure     2   316 Stainless Steel   C   Customer Specified Material     3   Corten Steel   C   Customer Specified Material     5   Bearing type   C   Customer Specified Type     R   Regular   C   Customer Specified Type     H   High Temperature   C   Customer Specified Type     6   Hardware material   C   Customer Specified Type     1   304 Stainless Steel   4   Zinc Chromate Grade 5     2   316 Stainless Steel   5   Carbon Steel Grade 5     3   Type 18-8 Stainless Steel   C   Customer Specified Material     7   Pressure rating   C   Customer Specified Pressure Rating     8   Safe ty guard   2   Not Supplied     9   Flange bolt pattern   2   Not Supplied				
2   316 Stainless Steel   C   Customer Specified Material     3   Corten Steel      5   Bearing type     R   Regular   C     H   High Temperature      6   Hardware material      1   304 Stainless Steel   4     2   316 Stainless Steel   5     2   316 Stainless Steel   5     3   Type 18-8 Stainless Steel   5     7   Pressure rating     15   15inWC, Up to 4500fpm   50     30   30inWC, Up to 5000fpm   C     2   Not Supplied   2     8   Safety guard   2     1   Supplied   2     9   Flange bolt pattern	4	Primary material		
3   Corten Steel     5   Bearing type     R   Regular   C     High Temperature   C   Customer Specified Type     H   High Temperature   C     6   Hardware material   Image: Constant of the system	1	304 Stainless Steel	4	Painted Carbon Steel, Moderate Exposure
5   Bearing type     R   Regular   C   Customer Specified Type     H   High Temperature   C   Customer Specified Type     6   Hardware material   C   Customer Specified Type     1   304 Stainless Steel   4   Zinc Chromate Grade 5     2   316 Stainless Steel   4   Zinc Chromate Grade 5     3   Type 18-8 Stainless Steel   C   Customer Specified Material     7   Pressure rating   50   SoinWC, Up to 6000fpm     30   30inWC, Up to 4500fpm   50   SoinWC, Up to 6000fpm     30   Safety guard   C   Customer Specified Pressure Rating     8   Safety guard   2   Not Supplied     9   Flange bolt pattern   2   Not Supplied	2	316 Stainless Steel	С	Customer Specified Material
R   Regular   C   Customer Specified Type     H   High Temperature   C   Customer Specified Type     6   Hardware material   Zinc Chromate Grade 5     1   304 Stainless Steel   4   Zinc Chromate Grade 5     2   316 Stainless Steel   5   Carbon Steel Grade 5     3   Type 18-8 Stainless Steel   C   Customer Specified Material     7   Pressure rating   50   S0inWC, Up to 6000fpm     15   15inWC, Up to 4500fpm   50   S0inWC, Up to 6000fpm     30   30inWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8   Safety guard   2   Not Supplied     9   Flange bolt pattern   2   Not Supplied	3	Corten Steel		
R   Regular   C   Customer Specified Type     H   High Temperature   C   Customer Specified Type     6   Hardware material   Zinc Chromate Grade 5     1   304 Stainless Steel   4   Zinc Chromate Grade 5     2   316 Stainless Steel   5   Carbon Steel Grade 5     3   Type 18-8 Stainless Steel   C   Customer Specified Material     7   Pressure rating   50   S0inWC, Up to 6000fpm     15   15inWC, Up to 4500fpm   50   S0inWC, Up to 6000fpm     30   30inWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8   Safety guard   2   Not Supplied     9   Flange bolt pattern   2   Not Supplied				
H   High Temperature     6   Hardware material     1   304 Stainless Steel   4   Zinc Chromate Grade 5     2   316 Stainless Steel   4   Zinc Chromate Grade 5     2   316 Stainless Steel   5   Carbon Steel Grade 5     3   Type 18-8 Stainless Steel   C   Customer Specified Material     7   Pressure rating   50   50inWC, Up to 6000fpm     30   30inWC, Up to 4500fpm   50   50inWC, Up to 6000fpm     30   30inWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8   Safety guard   2   Not Supplied     9   Flange bolt pattern   2   Not Supplied	5	Bearing type		
6   Hardware material     1   304 Stainless Steel   4   Zinc Chromate Grade 5     2   316 Stainless Steel   5   Carbon Steel Grade 5     3   Type 18-8 Stainless Steel   C   Customer Specified Material     7   Pressure rating   1   SinWC, Up to 4500fpm   50   50inWC, Up to 6000fpm     30   30inWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8   Safety guard   2   Not Supplied     9   Flange bolt pattern   1	R	Regular	С	Customer Specified Type
1   304 Stainless Steel   4   Zinc Chromate Grade 5     2   316 Stainless Steel   5   Carbon Steel Grade 5     3   Type 18-8 Stainless Steel   C   Customer Specified Material     7     Pressure rating     15   15inWC, Up to 4500fpm   50   50inWC, Up to 6000fpm     30   30inWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8     Safety guard   2     1   Supplied   2     Not Supplied	Н	High Temperature		
1   304 Stainless Steel   4   Zinc Chromate Grade 5     2   316 Stainless Steel   5   Carbon Steel Grade 5     3   Type 18-8 Stainless Steel   C   Customer Specified Material     7     Pressure rating     15   15inWC, Up to 4500fpm   50   50inWC, Up to 6000fpm     30   30inWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8     Safety guard   2     1   Supplied   2     Not Supplied				
2   316 Stainless Steel   5   Carbon Steel Grade 5     3   Type 18-8 Stainless Steel   C   Customer Specified Material     7   Pressure rating   50   50inWC, Up to 4500fpm     15   15inWC, Up to 4500fpm   50   50inWC, Up to 6000fpm     30   30inWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8   Safety guard	6	Hardware material		
3   Type 18-8 Stainless Steel   C   Customer Specified Material     7   Pressure rating   50   50inWC, Up to 6000fpm     15   15inWC, Up to 4500fpm   50   50inWC, Up to 6000fpm     30   30inWC, Up to 5000fpm   C   Customer Specified Pressure Rating     8   Safety guard   2   Not Supplied     9   Flange bolt pattern   Image bolt pattern   Image bolt pattern	1	304 Stainless Steel	4	Zinc Chromate Grade 5
7   Pressure rating     15   15inWC, Up to 4500fpm     30   30inWC, Up to 5000fpm     8   Safety guard     1   Supplied     2   Not Supplied	2	316 Stainless Steel	5	Carbon Steel Grade 5
15 15inWC, Up to 4500fpm 50 50inWC, Up to 6000fpm   30 30inWC, Up to 5000fpm C Customer Specified Pressure Rating   8 Safety guard 1   1 Supplied 2 Not Supplied   9 Flange bolt pattern	3	Type 18-8 Stainless Steel	С	Customer Specified Material
15 15inWC, Up to 4500fpm 50 50inWC, Up to 6000fpm   30 30inWC, Up to 5000fpm C Customer Specified Pressure Rating   8 Safety guard 1   1 Supplied 2 Not Supplied   9 Flange bolt pattern				
30 30inWC, Up to 5000fpm C Customer Specified Pressure Rating   8 Safety guard   1 Supplied 2 Not Supplied   9 Flange bolt pattern	7	Pressure rating		
8 Safety guard   1 Supplied   2 Not Supplied	15	15inWC, Up to 4500fpm	50	50inWC, Up to 6000fpm
1 Supplied 2 Not Supplied   9 Flange bolt pattern	30	30inWC, Up to 5000fpm	С	Customer Specified Pressure Rating
1 Supplied 2 Not Supplied   9 Flange bolt pattern				
9 Flange bolt pattern	8		-	
•	1	Supplied	2	Not Supplied
•				
S Standard C Customer Specified Flange Bolt Pattern	9	Flange bolt pattern		
	S	Standard	С	Customer Specified Flange Bolt Pattern

Many types of customizations are available upon request.

**Note**: There are various factors which should be considered when selecting a damper for a specific application. Some of these factors are outside of the scope of this data sheet. If you have any questions regarding the application, compatibility, or use of this damper, contact VentilationComponents.com for more information.

Contact@VentilationComponents.com