



Gulf Grilles Company (GGC)

شركة الخليج لفتحات التكييف المركزي

Volume Control Dampers



Catalog ID: Gulf Grilles Company (GGC),
Volume Control Dampers, Model: VDR35-HP
March, 2026



Product Description

- **Frame**: 16-gauge galvanized steel.
- **Blades**: 16-gauge galvanized steel.
- **Axles**: ½" steel square bar "U" bolted to blade.
- **Bushings**: Self oiling bronze bushings, plastic bushing is optional.
- **Hand Quadrant**: For manual operation.
- **Finish**: Mill galvanized.
- **Seal**: Neoprene, sponge or rubber gasket at blades edges.
- **Size Ranges**:
Round Type:
A) Minimum Size: 4".
B) Maximum Size: 36".
C) Other Sizes are available and provided on request.

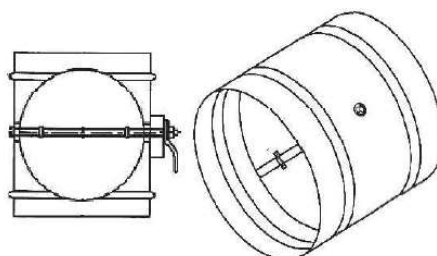
Notes:-

- 1) **VCDs** are fabricated in stainless steel or aluminum sheets construction on request (frame & blades).
- 2) **VCDs** are provided with motors for automatic operation on request (Brands: Belimo, Siemens, or others...).
- 3) **VCDs** are provided with multiple connection options
A) Standard design without Flange.
B) With flange - Angle Bar.
- 4) **VCDs** are provided with Fire Rated Paint or additional accessories on request.

Listed Models

- **VDR35-HP** : Volume Control Damper - Round Type.

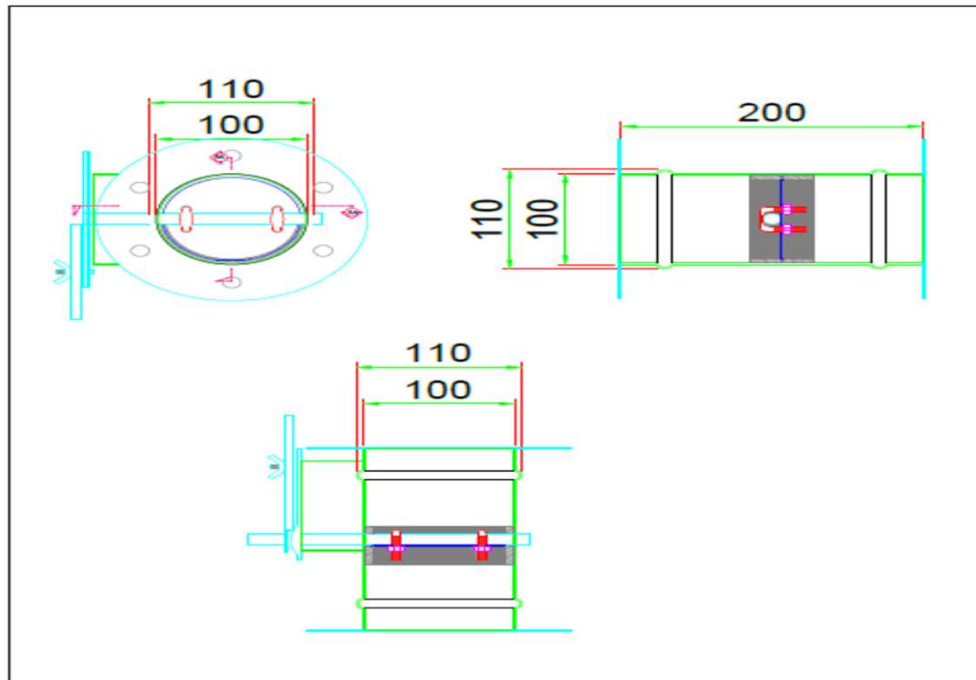
VDR35-HP



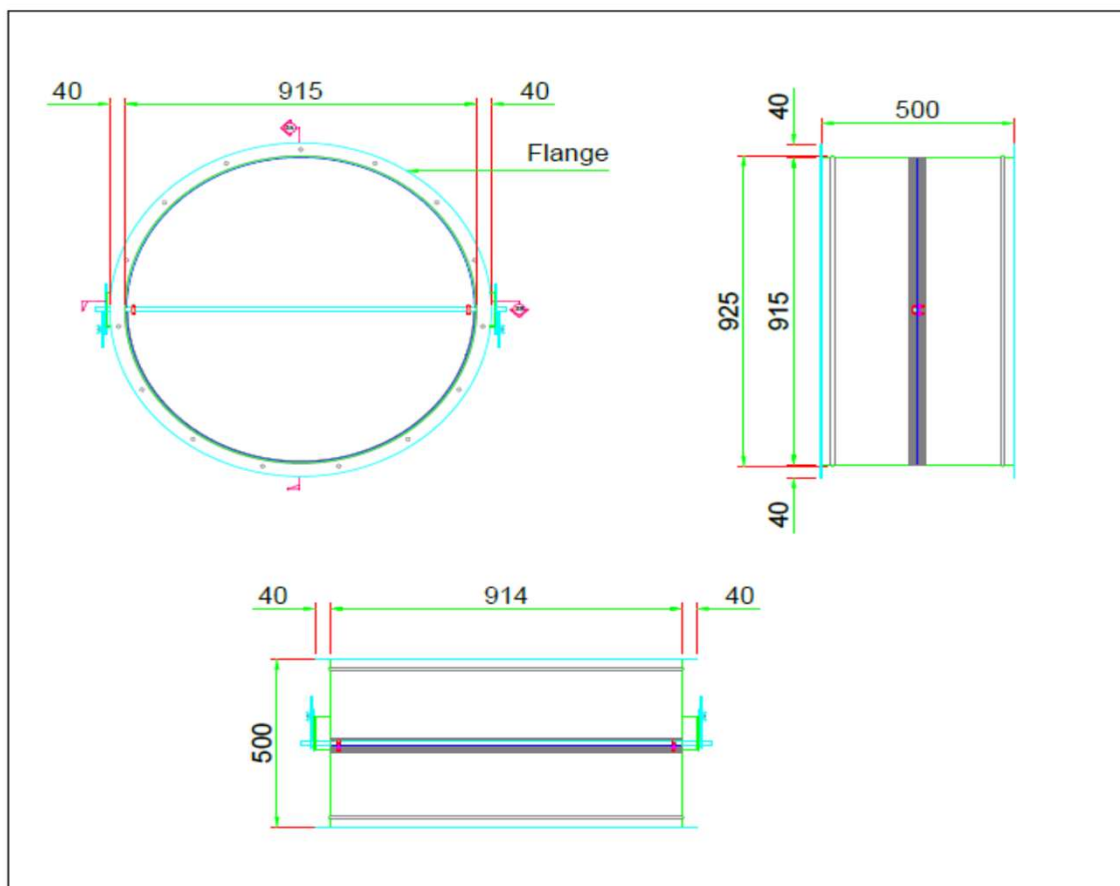
DESIGN DETAILS AND SIZE RANGES

- **VDR35-HP** : Volume Control Damper - Round Type.

Minimum Size (Dia.): 4 inches



Maximum Size (Dia.): 36 inches





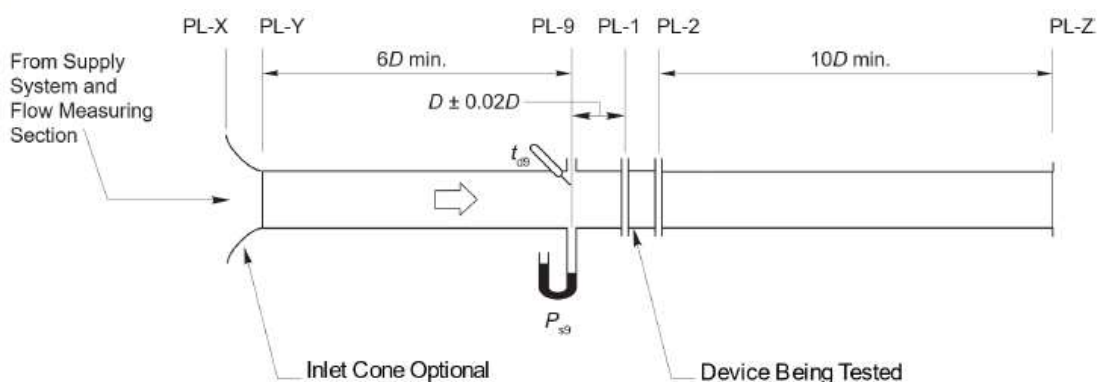
PERFORMANCE

Test Information:

- Tested in accordance to ANSI/AMCA 500-D-18 (Pressure Drop), Figure 5.3.
- Tested in accordance to ANSI/AMCA 500-D-18 (Leakage), Figure 5.4 Alternate.
- All data has been corrected to represent standard air at a density of 1.2250 kg/m³ (0.076 lb./ft³).
- Air leakage is based on operation between 0°C-49°C (32°F-120°F).
- Dampers are tested for pressure drop with fully open blades position.

Pressure Drop (Figure 5.3)

A) INTAKE: Unit tested in the direction of airflow.



Velocity (fpm)	ΔP (in.wg)
Size 12"	
185	0.000
569	0.001
954	0.003
1337	0.005
1729	0.02

Velocity (fpm)	ΔP (in.wg)
Size 24"	
441	0.002
1255	0.01
1892	0.02
2528	0.03
3160	0.05

Velocity (fpm)	ΔP (in.wg)
Size 36"	
403	0.003
1395	0.01
1960	0.02
2521	0.02
2943	0.05



Gulf Grilles Company (GGC) certifies that the Volume Control Damper shown herein is licensed to bear the AMCA Seal for Model **VDR35-HP**. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Program Seal applies to Air Performance/Leakage Ratings.

Test Information

Tested for air performance in accordance with ANSI / AMCA Standard 500-D-18 (Pressure Drop), Figure 5.3.

Tested for air leakage in accordance with ANSI / AMCA Standard 500-D-18 (Leakage), Figure 5.4 Alternate.

Data are based on a torque of 28.7 in. lb/ft² applied to close and seat the damper during the test (for size 36"). Data are based on a torque of 70.1 in. lb/ft² applied to close and seat the damper during the test (for size 12").



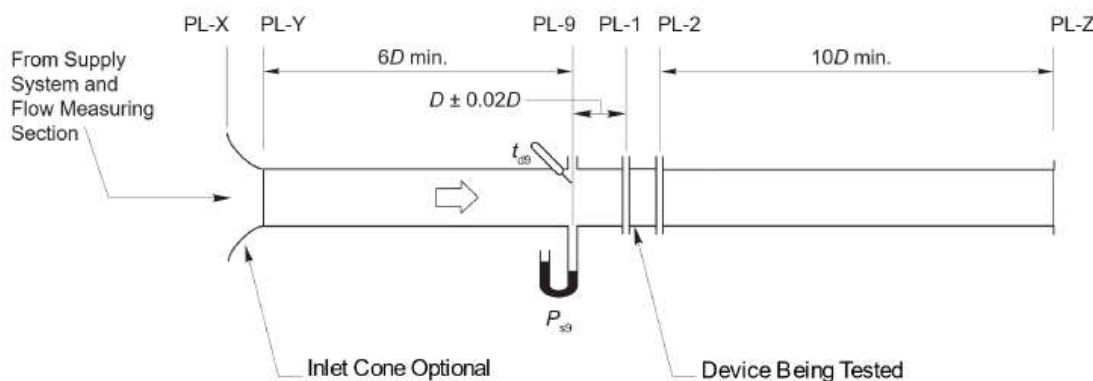
PERFORMANCE

Test Information:

- Tested in accordance to ANSI/AMCA 500-D-18 (Pressure Drop), Figure 5.3.
- Tested in accordance to ANSI/AMCA 500-D-18 (Leakage), Figure 5.4 Alternate.
- All data has been corrected to represent standard air at a density of 1.2250 kg/m³ (0.076 lb./ft³).
- Air leakage is based on operation between 0°C-49°C (32°F-120°F).
- Dampers are tested for pressure drop with fully open blades position.

Pressure Drop (Figure 5.3)

B) EXHAUST: Unit tested in opposite direction of airflow.



Velocity (fpm)	ΔP (in.wg)
Size 12"	
188	0.000
570	0.001
955	0.003
1335	0.003
1731	0.009

Velocity (fpm)	ΔP (in.wg)
Size 24"	
441	0.002
1257	0.009
1890	0.02
2527	0.03
3160	0.05

Velocity (fpm)	ΔP (in.wg)
Size 36"	
392	0.001
1398	0.005
1964	0.02
2524	0.02
2948	0.06



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Test Information

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Tested for air leakage in accordance with ANSI / AMCA Standard 500-D-18 (Leakage), Figure 5.4 Alternate.

Data are based on a torque of 28.7 in. lb/ft² applied to close and seat the damper during the test (for size 36"). Data are based on a torque of 70.1 in. lb/ft² applied to close and seat the damper during the test (for size 12").



PERFORMANCE

Air Leakage (Figure 5.4 Alternate)

Allowable Air Leakage to Achieve Classification						
Class	Maximum Allowable Leakage cfm/ft2					
	at 0.5 in.wg	at 1 in.wg	at 1.5 in.wg	at 2 in.wg	at 2.5 in.wg	at 4 in.wg
1A	N/A	3	N/A	N/A	N/A	N/A
1	2.8	4	4.9	5.7	6.3	8
2	7.1	10	12.3	14.1	15.8	20
3	28.3	40	48.9	56.6	63.3	80

A) Air Leakage – Intake: unit tested in the direction of airflow.

GGC VCD Leakage Class							
Damper Size (in)	Model	ΔP (in.wg)					
		at 0.5 in.wg	at 1 in.wg	at 1.5 in.wg	at 2 in.wg	at 2.5 in.wg	at 4 in.wg
36"	VDR35-HP	1	1A	/	1	2	2
12"	VDR35-HP	1	1A	1	1	1	/

B) Air Leakage – Exhaust: unit tested against the direction of airflow.

GGC VCD Leakage Class							
Damper Size (in)	Model	ΔP (in.wg)					
		at 0.5 in.wg	at 1 in.wg	at 1.5 in.wg	at 2 in.wg	at 2.5 in.wg	at 4 in.wg
36"	VDR35-HP	1	2	/	3	3	3
12"	VDR35-HP	1	1A	1	1	1	/



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Test Information

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Tested for air leakage in accordance with ANSI / AMCA Standard 500-D-18 (Leakage), Figure 5.4 Alternate.

Data are based on a torque of 28.7 in. lb/ft2 applied to close and seat the damper during the test (for size 36"). Data are based on a torque of 70.1 in. lb/ft2 applied to close and seat the damper during the test (for size 12").