

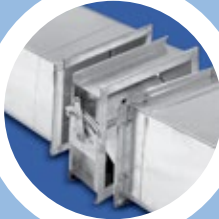


SHARQAWI

Air Distribution Systems Co. Factory

Delivering Excellence

LOW LEAKAGE VOLUME CONTROL DAMPER



- **On Time Delivery** • **According to Standard**
- **Customization** • **Quality** • **Cooperation**

Delivering Excellence



ABOUT US

Sharqawi Air Distribution Systems Co. Factory, has been in the market since 1995, as one leading manufacturer in the kingdom of Saudi Arabia in the field of fabrication of HVAC duct and its Accessories. Upon whose satisfaction we have been allowed to grow and prosper in this highly competitive marketplace.

As one of the leading HVAC ducts and its accessories manufacturers, our reason of 'being' is a combination of our vision, mission, and values.

Vision:

We aspire making Sharqawi the most trusted manufacturer of HVAC ducts and its accessories in the Kingdom of Saudi Arabia, region and the world.

Mission:

To aim for design perfection and expanding our market-share by enhancing our marketing, satisfying customer requirements, complying with the international quality standards and consistently sustaining our improvement program.

Values:

Our values reflect who we are and our reason for being.

Quality: We provide exquisite products that deliver exceptional values to our customer.

Integrity: We boost the highest integrity in all of our activities and operations.

Customer commitment: we develop positive relationships that make a beneficial influence on our client's business.

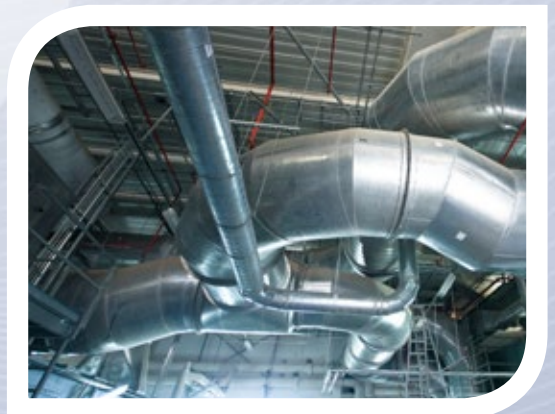
Teamwork: We work together across boundaries to meet the expectations of our customers and support the company to win.

A Will To Win: We exhibit a strong will to win in the marketplace and every aspect of our business.

Respect for people: We value our people, encourage their development and reward their performance.

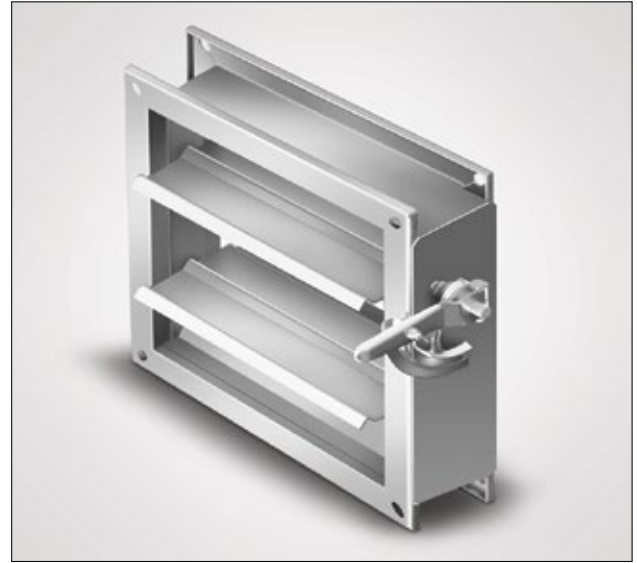
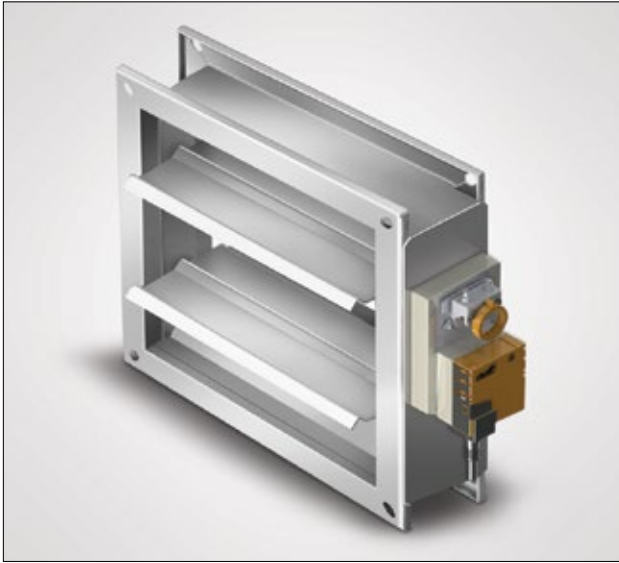
Good residents: We are good residents in the communities in which we live and work.

Personal Accountability: We are personally accountable for delivering on our commitment.





CONSTRUCTION



Description

Low Leakage Volume control damper are ruggedly designed to suit client individual requirements, for controlling airflow with motorized or manual operations, in low to medium pressure and velocity ventilation system.

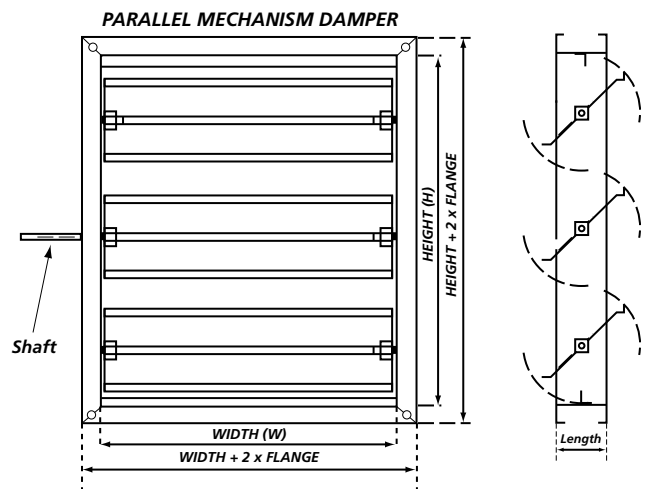
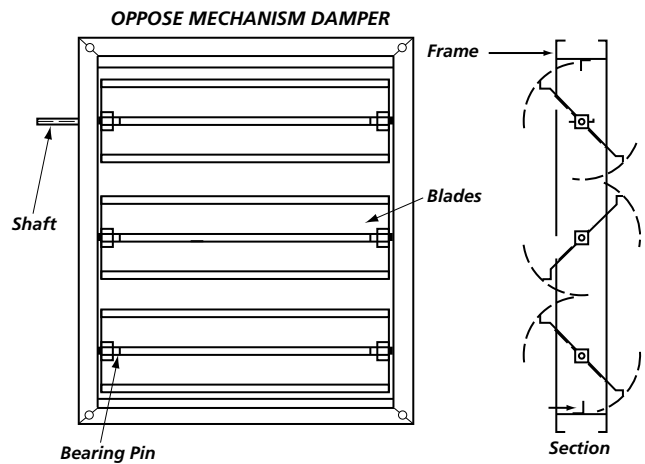
Specification

MATERIAL	Galvanized Steel
	Black Steel
	Stainless Steel
FRAME	1.5-3.0 mm
	1.2-3.0 mm
BLADE	3V GI / SS / BS
	AIRFOIL ALUMINUM
SHAFT	Zinc Coated Steel
	Round Dia. 1/2 Inch, 12.6 mm
	Square 3/8 Inch, 9.7 mm
BEARINGS	Self-Lubricating Bronze
LINKAGE	Side Mechanism
	Oppose/ Parallel
SEALING	Jamb Seal , to reduce leakage along the blade edges and damper frame.
	Blade Seal , to reduce leakage between damper blades.

Size Limitations

WIDTH X HEIGHT	SINGLE SECTION		MULTIPLE SECTION
	MIN	MAX	MAX
MM	100 x 100	1220 x 1825	7620 x 3048
INCH	4 x 4	48 x 72	300 x 120

* Damper up to 250 mm height are single blade construction (If not otherwise specified)



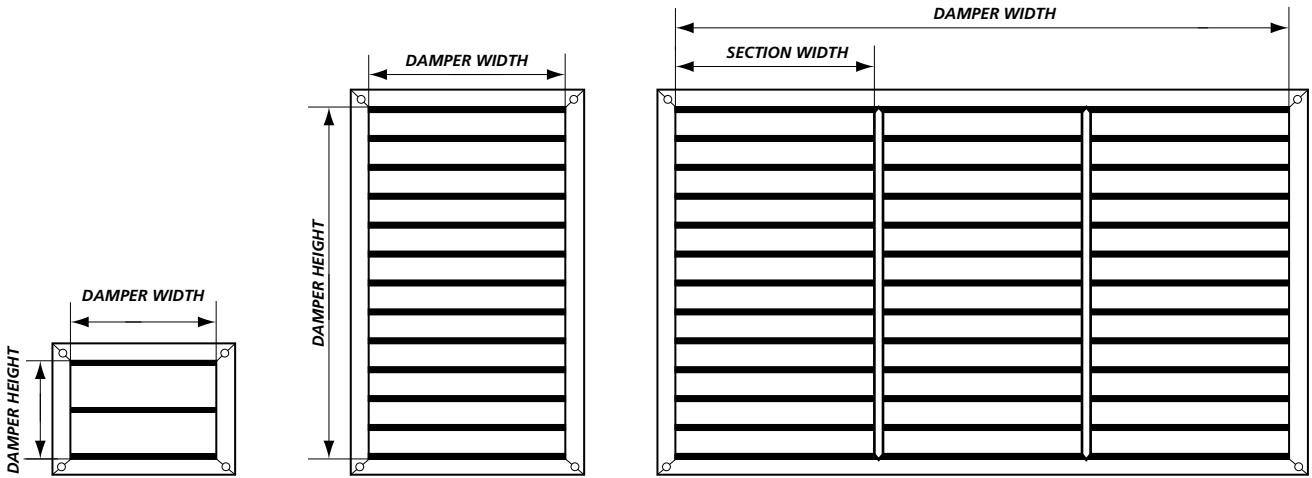
SHARQAWI certifies that the model DL Low Leakage Damper shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to air performance and air leakage ratings only.

Test Information: Tested for air leakage in accordance with ANSI / AMCA Standard 500-D-07, Data are based on a torque of 15 in-lbs./ft² (18.25 N-m/m²) for a 12" x 48" damper and 12.5 in-lbs./ft² (15.2 N-m/m²) for a 48" x 36" damper. Air leakage is based on operation between 0 °C - 49 °C (32 °F - 120 °F).



SINGLE / MULTIPLE SECTION CONFIGURATIONS

Dimensions



SINGLE SEC. & SINGLE BLADE

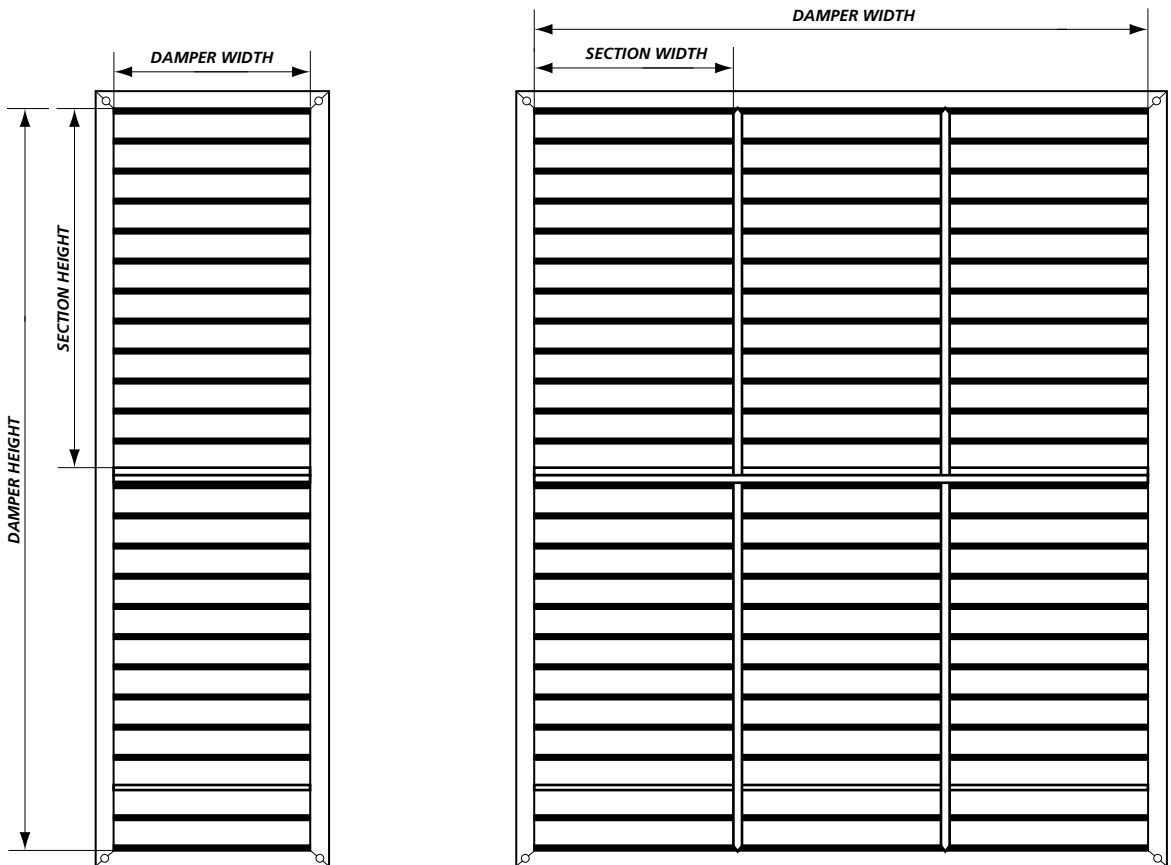
$W \leq 914$ and $H \leq 250$

SINGLE SEC. & MULTIPLE BLADE

$W \leq 914$ and $H \leq 1825$

(HEIGHT SINGLE SEC.) X (WIDTH MULTIPLE SEC.)

$W > 914$ and $H \leq 1825$



(HEIGHT MULTIPLE SEC.) X (WIDTH SINGLE SEC.)

$W \leq 914$ and $H \leq 1825$

(HEIGHT MULTIPLE SEC.) X (WIDTH MULTIPLE SEC.)

$W > 914$ and $H \leq 1825$

Notes:

1. All dimensions in millimeter (mm)
2. Multiple section number in the figures for indication only, for calculating the actual number check the following example for damper (W 2200 X H 2000)
 - *Number of section in width = $2200/914 = 2.41$, roundup to nearest integer = 3
 - *Number of section in height = $2000/1825 = 1.1$, roundup to nearest integer = 2

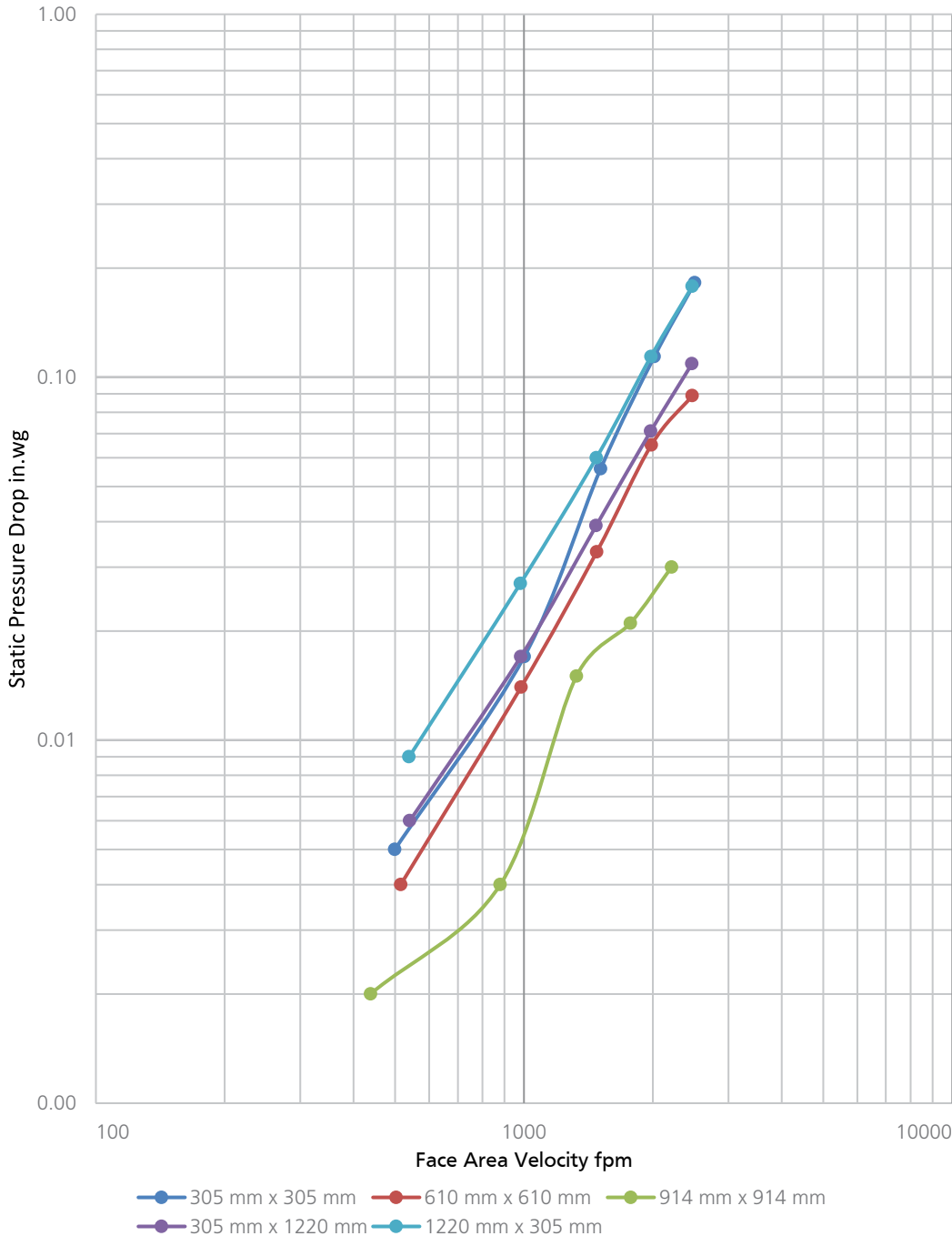


AIR PERFORMANCE

Pressure Drop

DL Air Performance testing is performed in accordance with Test Method as per ANSI / AMCA Standard 500-D-12 (Pressure Drop), Figure 5.3 Duct Upstream and Downstream.

Pressure Drop



305 mm x 305 mm	
Velocity (fpm)	ΔP (in. wg)
2504	0.18
2015	0.11
1510	0.06
1001	0.02
499	0.01

610 mm x 610 mm	
Velocity (fpm)	ΔP (in. wg)
2472	0.09
1982	0.06
1478	0.03
984	0.01
515	0.00

914 mm x 914 mm	
Velocity (fpm)	ΔP (in. wg)
2211	0.03
1771	0.02
1325	0.02
880	0.004
438	0.001

305 mm x 1220 mm	
Velocity (fpm)	ΔP (in. wg)
2468	0.11
1976	0.07
1474	0.04
983	0.02
541	0.01

1220 mm x 305 mm	
Velocity (fpm)	ΔP (in. wg)
2470	0.18
1978	0.11
1476	0.06
980	0.03
539	0.01

The pressure drop values for dampers with 3V blade type



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Test Information: Tested for air leakage in accordance with ANSI / AMCA Standard 500-D-07, Data are based on a torque of 15 in-lbs./ft² (18.25 N-m/m²) for a 12" x 48" damper and 12.5 in-lbs./ft² (15.2 N-m/m²) for a 48" x 36" damper. Air leakage is based on operation between 0 °C - 49 °C (32 °F - 120 °F).



AIR PERFORMANCE

Air Leakage

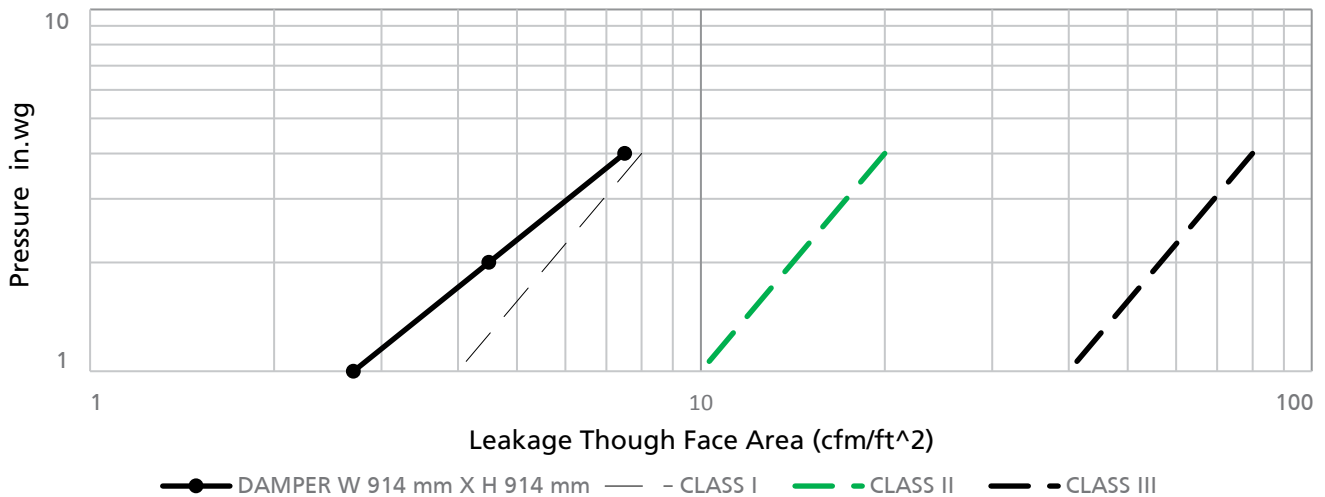
DL Air Leakage testing is performed in accordance with Test Method as per ANSI / AMCA Standard 500-D (Leakage), Figure 5.5 , Applied Torque 15 in-lbs./ft² for damper area ≤ 4 ft², Torque 12.5 in-lbs./ft² for damper area > 4 ft².

AMCA Leakage Class			
SHARQAWI DAMPER	1 inch. wg	2 inch. wg	4 inch. wg
	CLASS I	CLASS I	CLASS I

IP Class	Maximum Allowable Leakage, cfm/ft ²		
	1 inch. wg	2 inch. wg	4 inch. wg
1A	3	N/A	N/A
1	4	6	8
2	10	14	20
3	40	57	80

AMCA Leakage Class			
DAMPER SIZE	1 inch wg	2 inch wg	4 inch wg
305 mm x 305 mm (12 inch x 12 inch)	CLASS I	CLASS I	CLASS I
305 mm x 1220 mm (12 inch x 48 inch)	CLASS 1A	CLASS I	CLASS I
610 mm x 610 mm (24 inch x 24 inch)	CLASS 1A	CLASS I	CLASS I
1220 mm x 305 mm (48 inch x 12 inch)	CLASS 1A	CLASS I	CLASS I
914 mm x 914 mm (36 inch x 36 inch)	CLASS 1A	CLASS I	CLASS I
1220 mm x 914 mm (48 inch x 36 inch)	CLASS I	CLASS I	CLASS I

AIR LEAKAGE 914 mm x 914 mm



The air leakage values for dampers with 3V blade type



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ORDERING CODE

LOW LEAKAGE VOLUME CONTROL DAMPER DL - V S 2 G D 1 A 0 - 600 x 400 x 100

* All selection checkboxes highlighted in blue are the default selections (If not otherwise specified)

MODEL 1		1	2	3	4	5	6	7	8	9	10	11
<input checked="" type="checkbox"/> V 3V BLADE	<input type="checkbox"/> S AIRFOIL BLADE									DAMPER WIDTH (mm)	DAMPER HEIGHT (mm)	DAMPER LENGTH (mm)
WALL TYPE 2												
<input checked="" type="checkbox"/> S SINGLE WALL	<input type="checkbox"/> K DOUBLE WALL 2" 24 AF											
<input type="checkbox"/> E DOUBLE WALL 1" 24 AF	<input type="checkbox"/> L DOUBLE WALL 2" 24 KM											
<input type="checkbox"/> F DOUBLE WALL 1" 24 KM	<input type="checkbox"/> M DOUBLE WALL 2" 48 AF											
<input type="checkbox"/> G DOUBLE WALL 1" 48 AF	<input type="checkbox"/> N DOUBLE WALL 2" 48 KM											
<input type="checkbox"/> H DOUBLE WALL 1" 48 KM												
MECHANISM 3												
<input type="checkbox"/> 1 OPPOSE -SIDE	<input checked="" type="checkbox"/> 2 PARALLEL-SIDE											
MATERIAL 4												
<input checked="" type="checkbox"/> G G90	<input type="checkbox"/> V S316L/4											
<input type="checkbox"/> H G115	<input type="checkbox"/> W S316L/2B											
<input type="checkbox"/> J G90-JAPEN	<input type="checkbox"/> Z G90-ZERO SPANNLE											
<input type="checkbox"/> S S304	<input type="checkbox"/> B BS37											
<input type="checkbox"/> U S304/2B	<input type="checkbox"/> A ALUMINUM											
THICKNESS 5												
<input type="checkbox"/> D DEFAULT	<input type="checkbox"/> U 1.6 mm											
<input type="checkbox"/> W 2.0 mm	<input type="checkbox"/> X 2.4 mm											
<input type="checkbox"/> Z 3.0 mm												
CONNECTION 6												
<input checked="" type="checkbox"/> 1 FLANGE 35	<input type="checkbox"/> 2 FLANGE 50											
<input type="checkbox"/> 3 FLANGE 25	<input type="checkbox"/> 4 FLANGE 30											
<input type="checkbox"/> 5 FLANGE 40	<input type="checkbox"/> 6 FLANGE 45											
<input type="checkbox"/> 7 FLANGE 60	<input type="checkbox"/> 8 FLANGE 75											
<input type="checkbox"/> 9 SLIP & DRIVE												
DRIVE TYPE 7												
<input checked="" type="checkbox"/> A MANUAL	<input type="checkbox"/> F WITHOUT											
<input type="checkbox"/> B MOTORIZED 230V BELIMO	<input type="checkbox"/> D MOTORIZED 24V BELIMO											
<input type="checkbox"/> C MOTORIZED 230V SIEMENS	<input type="checkbox"/> E MOTORIZED 24V SIEMENS											
FINISHING 8												
<input checked="" type="checkbox"/> 0 NO PAINT NO PACKAGING	<input type="checkbox"/> 2 PACKAGING ONLY											
<input type="checkbox"/> 1 PAINT ONLY	<input type="checkbox"/> 3 PAINT & PACKAGING											

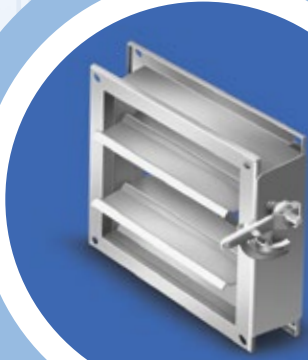
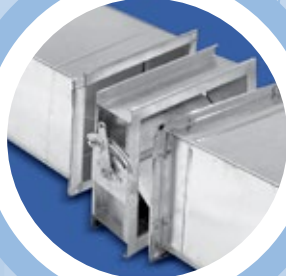
1) Default value, based on designer specs. Often blade 1.2 mm and frame 1.5 mm.
 2) Selction any other thickness blade and frame will have same selected thickness.

Code Description Example

DL-VS2G1A0-600x400x100

LOW LEAKAGE VOLUME CONTROL DAMPER, Rectangular Flanged Type, 3V Blade, Single Wall, Parallel Side Mechanism, Material Galvanized Steel (G90), Flange 35mm, Manual Drive, Without Packaging And Without Painting.

Damper Width = 600 mm
 Damper Height = 400 mm
 Damper Length = 100 mm



SHARQAWI Air Distribution Systems Co. Factory

Street 38, Industrial Area – Phase 3

P.O. Box 50353, Jeddah 21523, Kingdom of Saudi Arabia

Tel.: +966 12 6380683 / 6080896 / 6080082 Direct: 9200 06309

Fax: +966 12 6380684

Email: info@sharqawifactory.com

www.sharqawifactory.com

