

DRUM JET DIFFUSERS



Available in
Aluminium & Stainless Steel

AIR IN MOTION

Drum Jet Diffuser

Model DJ

Introduction

The JPR range of Drum Jet diffusers are high air capacity terminals designed for applications requiring a long jet throw.

They are ideally suited for exposed duct or sidewall installations in sports complexes, atria, factory workshops and warehouses.

The drum and guide vanes can be adjusted to give full jet spread and directional control, enabling the diffuser to be set up for optimum conditions in both heating and cooling modes. In addition, to promote rapid diffusion in the vertical plane and reduce jet throws, a further set of adjustable blades can be fitted across the width of the drum outlet. (Type DJD) The diffuser drum and frame are robustly constructed from anodised aluminium extrusions and incorporate brush strips to provide a low friction air tight seal.



Model DJ

Controls

- For general flow control, the Drum Jet diffuser is available with a key operated opposed blade damper, either fitted to the frame (DJ/OB) or supplied loose for duct mounting (OB/DM). For installations where the diffuser is to be mounted in a main duct wall or a stub duct, the VED type equalising deflector with individually adjustable scoop and straightening blades can be fitted to equalise the discharge velocity. (Also available loose for duct mounting VED/DM). Alternatively, the duct mounted rhomboidal damper (RD/DM) can be specified for combined flow control and equalisation.

Finishes

- DJ diffusers are supplied as standard in silver anodised aluminium (SAA), but stove enamelled colours are also available in the BS or RAL ranges. Contact us for more information on these finishes.

NOTE:

- The powder coat finish is not recommended for Drum Jets. The standard fixing method is by countersunk screw through the diffuser flange - SC.

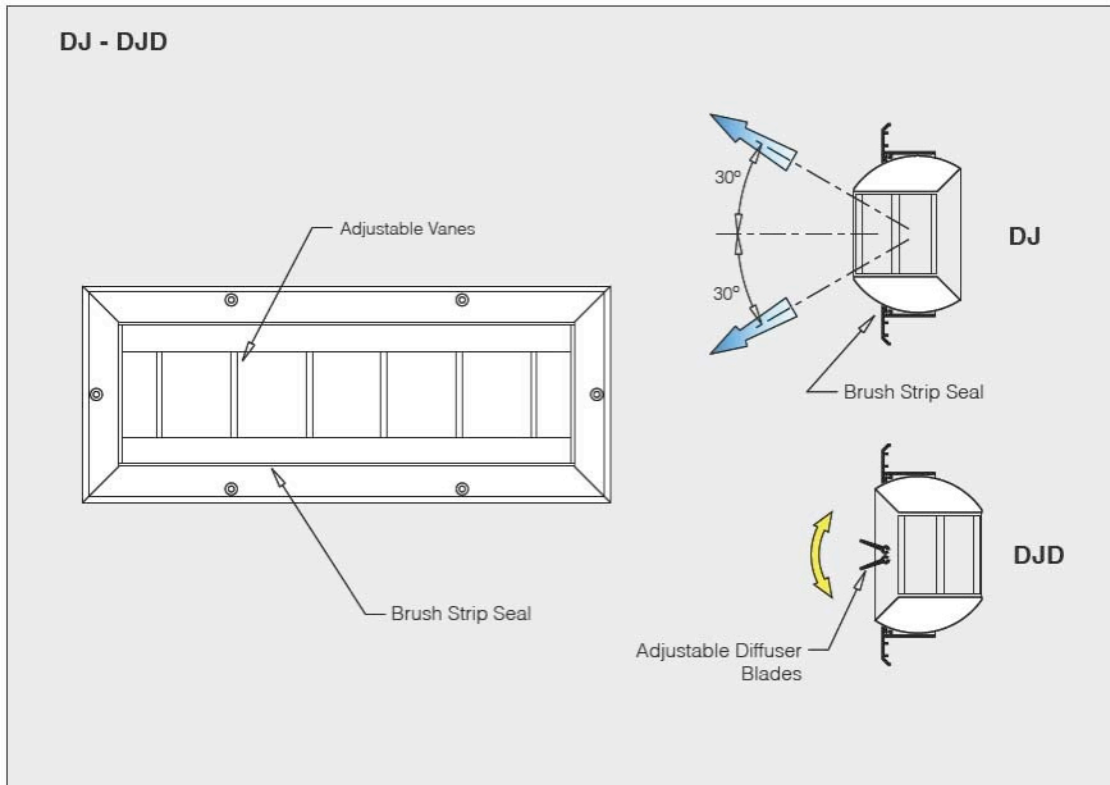
Ordering Data

EXAMPLE :

<u>type</u>	<u>control</u>	<u>finish</u>	<u>size</u>	<u>quantity</u>
DJ /	OB	/ SAA	/ 1806	/ 10

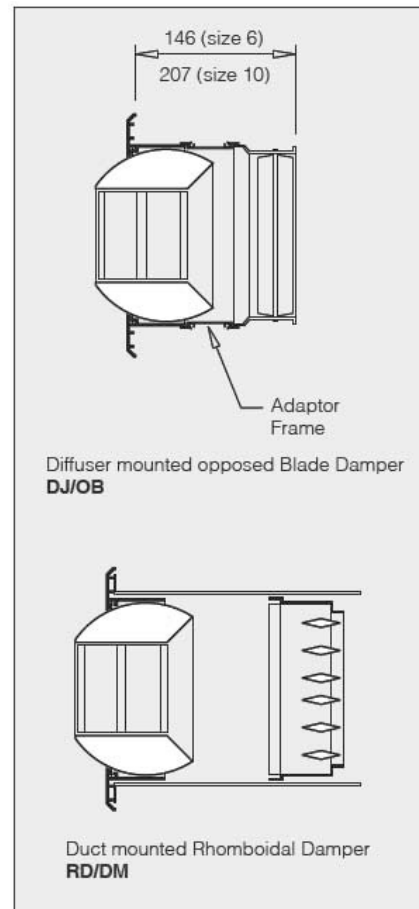
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Design Features



Control Options

- **OPPOSED BLADE DAMPER - OB**
General purpose damper for installations with a reasonable length of stub duct.
- **RHOMBOIDAL DAMPER - RD**
Suitable for installations with short or no stub ducts. The blade profiles can be progressively adjusted across the width of the diffuser to give an even velocity distribution at the outlet.

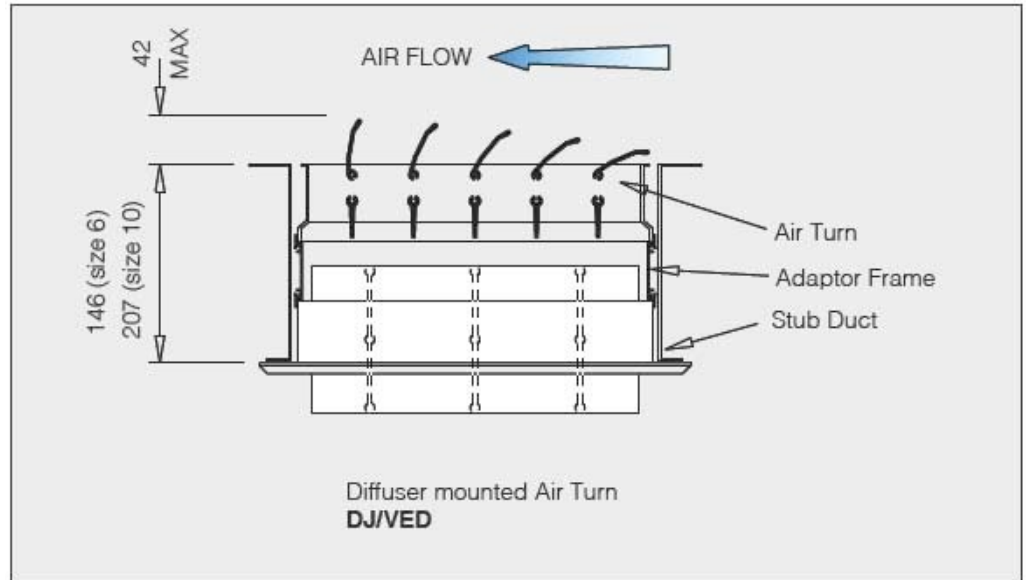


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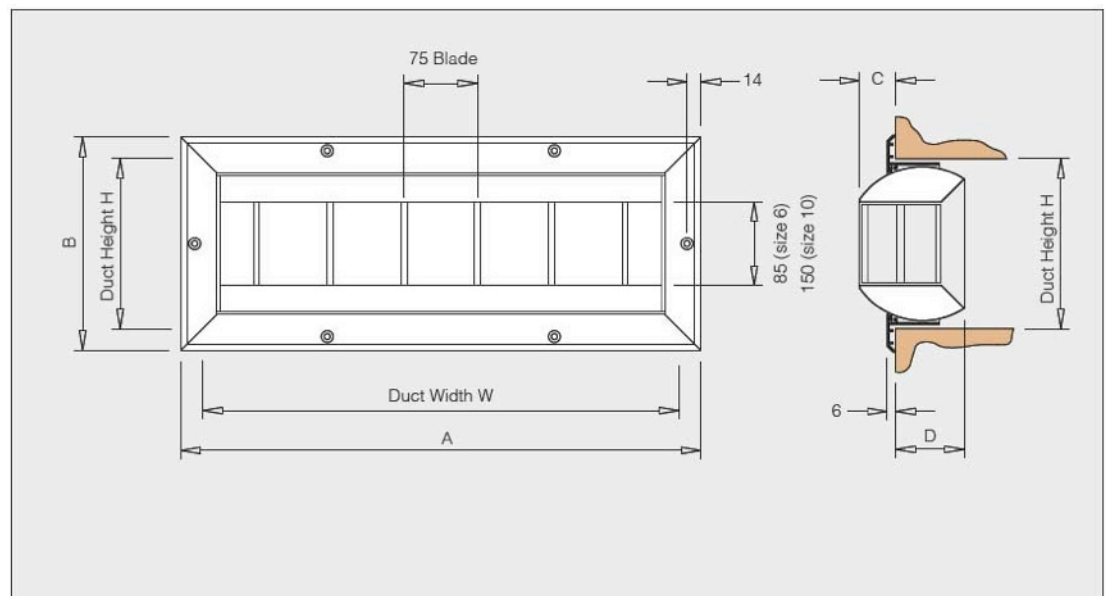
VOLUME EQUALISING

VOLUME EQUALISING DEFLECTOR - VED

Suitable for installations with short stub ducts and high air velocities in the main branch. The two sets of blades can be individually adjusted to give an even velocity distribution and can be adjusted for volume control. For easier volume control, an opposed blade damper can be supplied in addition to the VED.



Dimensions

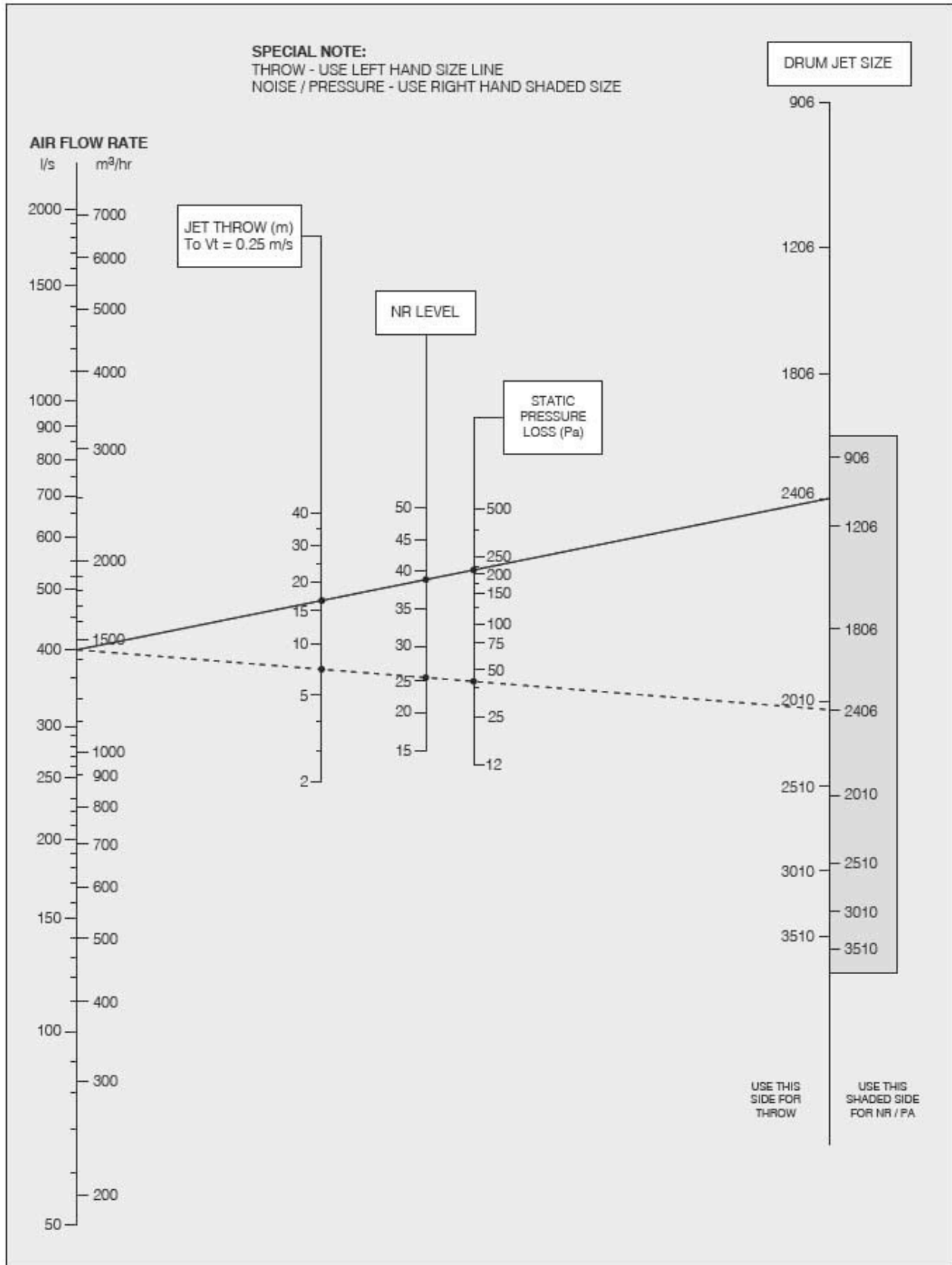


SIZE	DIMENSIONS (mm)						WEIGHT (Kg)
	A	B	W	H	C	D	
908	300	217	261	170	36	87	1.5
1206	376	217	337	170	36	87	1.7
1806	529	217	490	170	36	87	2
2406	681	217	642	170	36	87	2.5

SIZE	DIMENSIONS (mm)						WEIGHT (Kg)
	A	B	W	H	C	D	
2010	579	319	540	271	63	138	5.5
2510	706	319	667	271	63	138	6.5
3010	833	319	794	271	63	138	7.0
3510	960	319	921	271	63	138	7.5

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Selection Nomogram



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Basis of Data

THROWS - Jet throws are based on isothermal conditions to a terminal velocity of 0.25m/s with straight vanes. Throws should be corrected in accordance with the following table to compensate for vane angle adjustments.

VANE ANGLE	0°	5°	10°	20°	30°	40°	60°
THROW FACTOR	1.0	0.9	0.82	0.68	0.6	0.52	0.4

Noise Levels

Noise data is expressed in terms of NR level with a room absorption factor of 8db.

Example

Size 2406 Drum Jet supplying an air flow rate of 400 l/s
Throw - 17m (Solid Line)
Noise - NR26 (Dotted Line)
Pressure loss - 45Pa