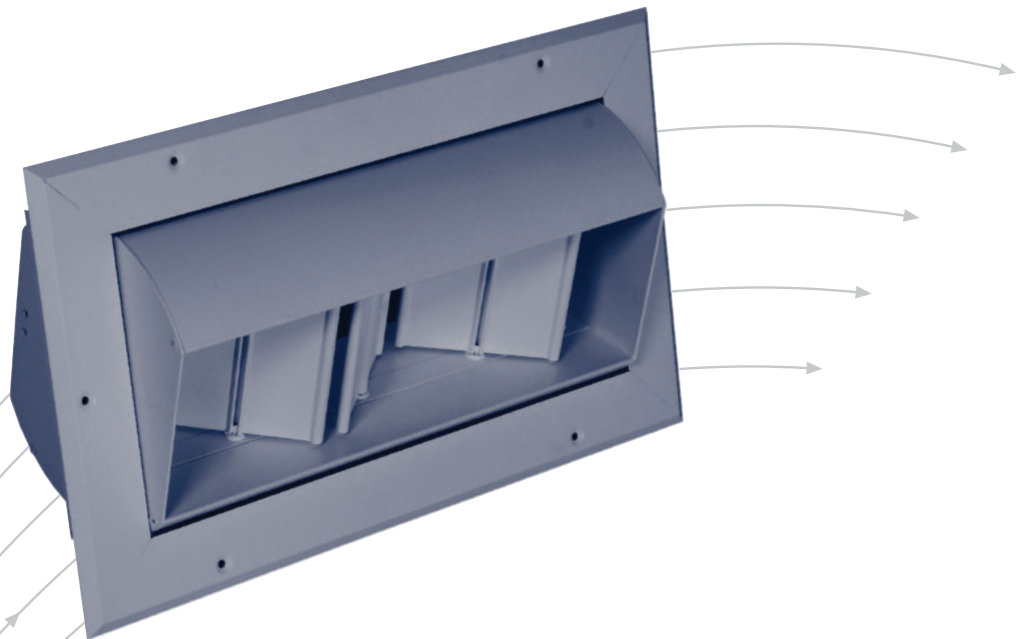


Drum Jet Diffuser

- Type DJ
- for applications requiring a long jet throw



TROX[®] TECHNİK

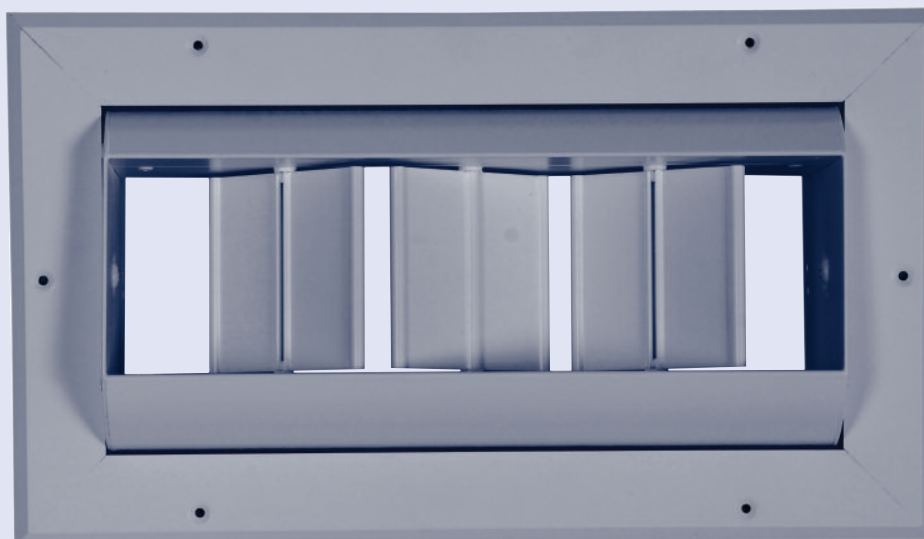
TROX UK Ltd
Caxton Way
Thetford
Norfolk IP24 3SQ

Telephone +44 (0) 1842 754545
Telefax +44 (0) 1842 763051
e-mail trox@troxuk.co.uk
www.troxuk.co.uk

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The TROX range of Drum Jet Diffusers are high air capacity terminals designed for applications where air has to travel a large distance to the occupied zone. They are ideally suited for exposed duct or sidewall installations in large spaces such as sport complex, atria, factory workshops and warehouses. The drum and guide 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).



Construction · Ancillaries · Materials · Installation

Construction

The diffuser drum and frame are robustly constructed in aluminium extrusions and incorporate brush strips to provide a low friction air tight seal.

Ancillaries

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 type VED 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.

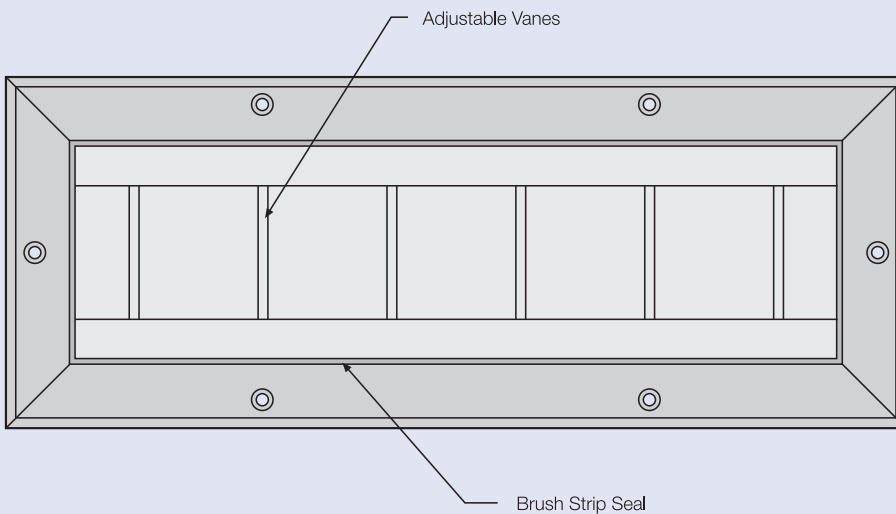
Materials

The type DJ Drum Jet Diffuser aluminium construction is supplied as standard in natural anodised finish (A3). Powder coat finishes are also available in either RAL or BS colour ranges.

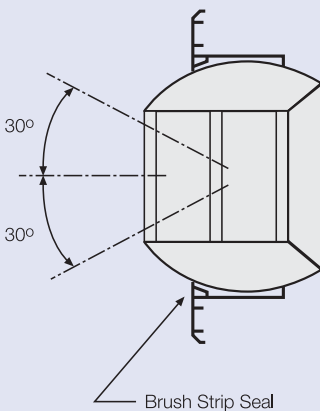
Installation

The standard fixing method is by a countersunk screw through the diffuser flange.

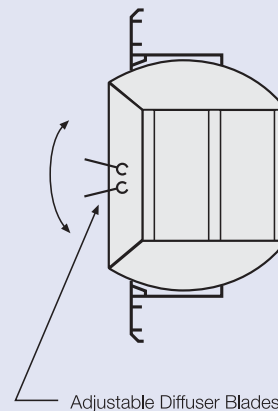
Construction



Type DJ



Type DJD



Dimensions · Rear Assemblies

Opposed blade damper – OB

General purpose damper for installations with a reasonable length of stub duct.

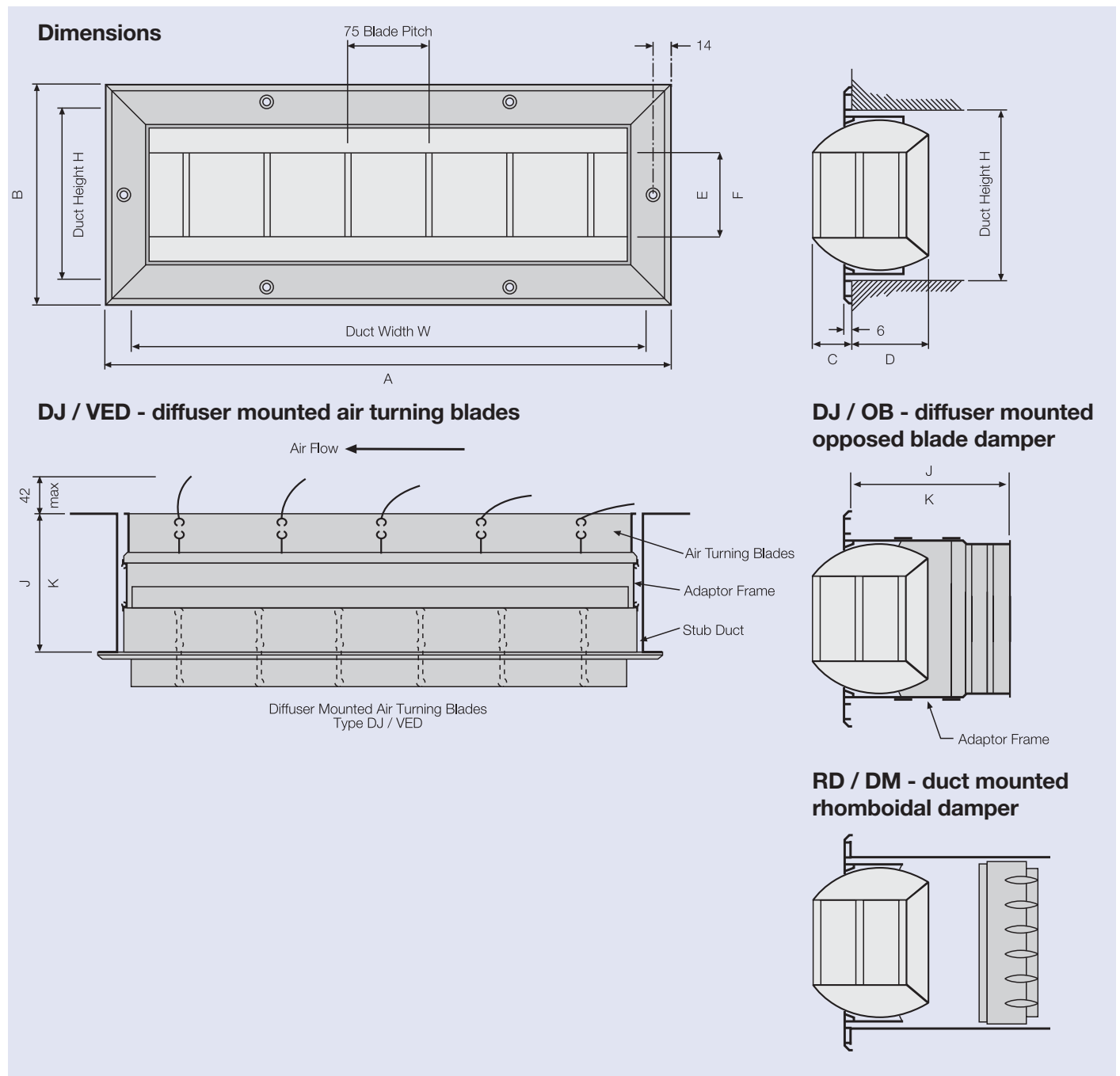
Rhomboidal damper – RD

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.

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.

Drum Jet Dimensions (mm)											
Size	A	B	W	H	C	D	E	F	J	K	Weight (Kg)
906	300	217	261	170	36	87	85		146		1.5
1206	376	217	337	170	36	87	85		146		1.7
1806	529	217	490	170	36	87	85		146		2
2406	681	217	642	170	36	87	85		146		2.5
2010	579	319	540	271	63	138		150		207	5.5
2510	706	319	667	271	63	138		150		207	6.5
3010	833	319	794	271	63	138		150		207	7.0
3510	960	319	921	271	63	138		150		207	7.5



Nomenclature · Performance Data

Nomenclature

- \dot{V} in l/s : Volume flow rate
- \dot{V} in m³/h : Volume flow rate
- L in m : Throw to terminal velocity V_L of 0.25 m/s
- L_{PNR} : NR rating of room sound pressure level includes 8dB room correction
- Δp in Pa : Static pressure drop

Throw

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

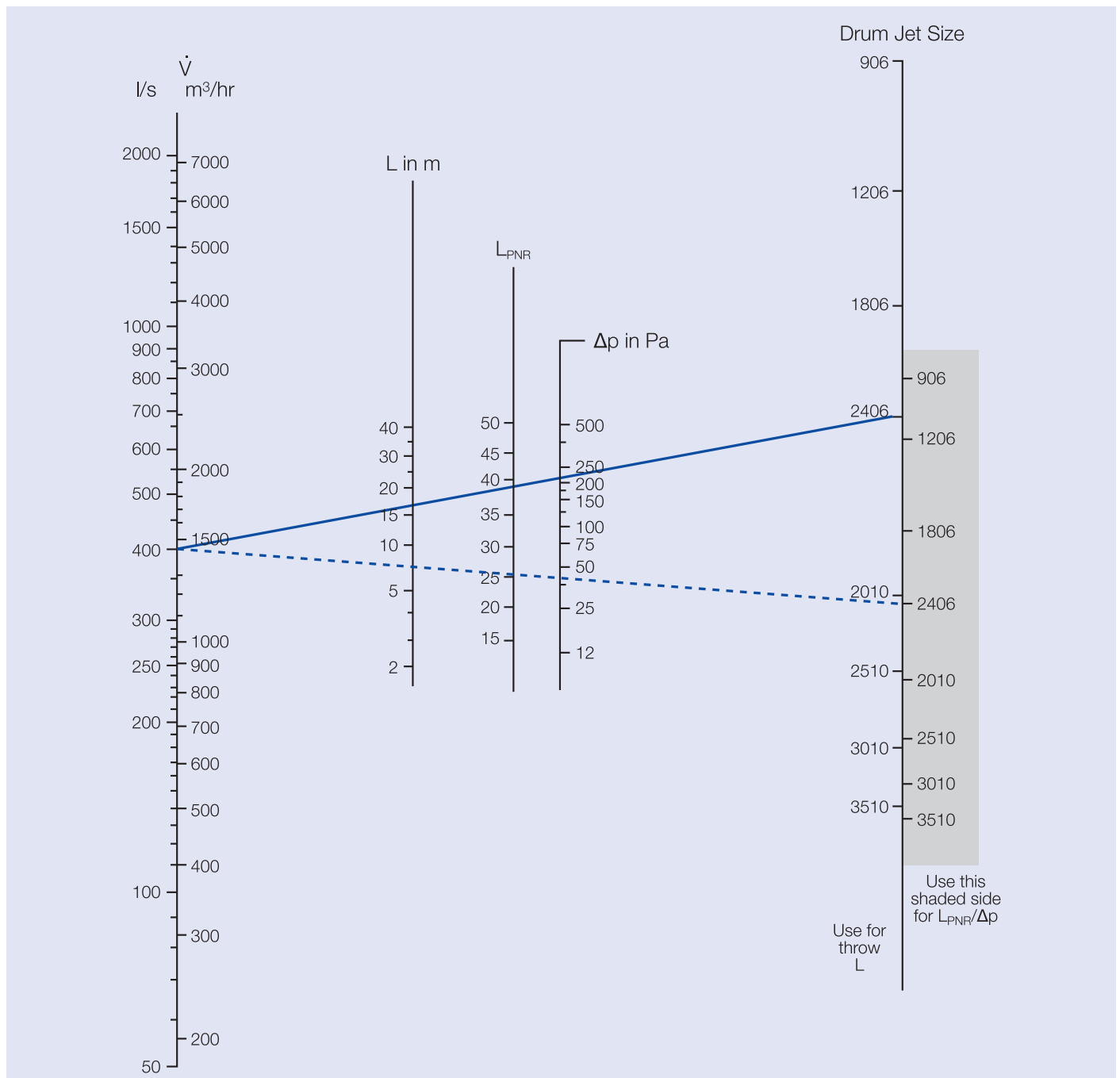
Correction Factors

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

Example

Data given:
Flow rate 400 l/s
Throw required 17m
Maximum noise level NR30

Selection:
Size 2406 (Solid Line)
Sound pressure level = NR26 (dotted line)
Static pressure drop = 45Pa (dotted line)



Order Details

Specification

Type DJ Drum Jet diffusers high capacity terminals for long throw distances, manually adjustable guide vanes to give full jet spread and directional control to provide optimum discharge for both heating and cooling modes.

To promote rapid diffusion of vertical discharge and reduce the throws further adjustable blades can be provided (type DJD).

For installation in main duct wall or a stub duct equalising deflector can be fitted to equalise discharge velocity, alternatively a rhomboidal damper can also combine flow rate control and equalisation.

Materials

Drum and frame from aluminium extrusions. Brush sealing strips. Standard finish natural anodise, optional powder coat finish to RAL or BS colour ranges.

Order Code

	DJ - OB / DM	/	906	/	PC	/	RAL 9010	/	20% Gloss
Type			Size			Finish	Finish/colour		
DJ			906			A3 - Natural Anodised (Standard)			
DJD - DJ C/W Adjustable Blades			1206			PC - Powder Coated to RAL.... BS....			
Ancillaries			1806						
OB - Diffuser Mounted Opposed Blade Damper			2406						
OB/DM - Duct Mounted OBD (Supplied loose)			2010						
VED - Diffuser Mounted Volume Equalising Deflector			2510						
VED/DM - Duct Mounted VC (Supplied loose)			3010						
OB/VED - Diffuser Mounted Volume Equalising Deflector with opposed blade damper (add 50mm to required stub duct length)			3510						
OB/VED/DM - Duct Mounted Volume Equalising Deflector with opposed blade damper (add 50mm to required stub duct length) (Supplied loose).									
No entry - No ancillaries									

Order Example

Make: TROX
 Diffuser Type: DJ-OB/DM-906/PC/RAL9010/20%