

DRUM JET DIFFUSERS

TYPE: DJA • DJB • DJAP • DJBP

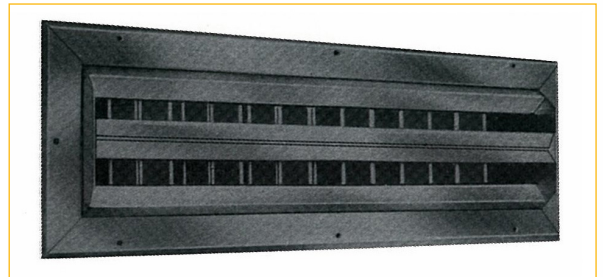
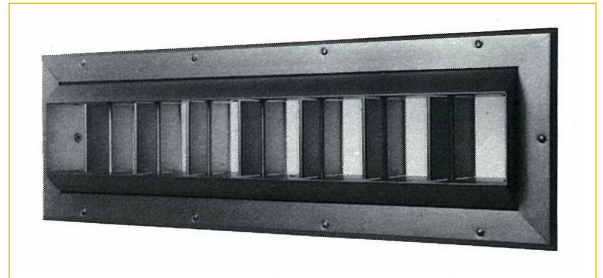
APPLICATION

Type DJ

As with type AJ diffusers, this product is also designed to project large volumes of air over long distances, but particularly lends itself to sidewall or duct-mounting, applications (horizontal or vertical).

Type DJB

Similar to appearance to type DJ, but with the addition of adjustable diffuser blades to facilitate more rapid air diffusion.



FEATURES

The "higher volume long throw" concept of type DJ diffusers means that distribution ductwork is kept to a minimum.

Provides a very neat aesthetic appearance when semi-flush mounted on walls or exposed ducts.

Fully adjustable airflow direction control by means of rotating drum (30° above or below horizontal) and individually adjustable, vertical internal blades.

Type DJB has two horizontal, adjustable blades at the rear of the drum, which when the drum is rotated through 180° will produce a diffused air pattern. (Ideal for projects with varying throw requirements.)

Lever operated via the face of the diffuser, type V volume control dampers can be supplied fixed direct to the drum or for duct mounting immediately behind the drum.

Computer aided selections are available for heating systems where the possibility of stratification should be considered. (Please contact local area office.)

CONSTRUCTION

Manufactured to the highest standards, the drum, blades and frame are all of high grade aluminium construction as is the optional rear opposed blade volume control damper. Foam gasket as standard.

FINISH

Satin silver anodised as standard. Any stove enamel or polyester powder colour to BS or RAL specifications can be supplied upon request.

FIXING

Screw fixing through countersunk flange holes is standard.

ACCESSORIES

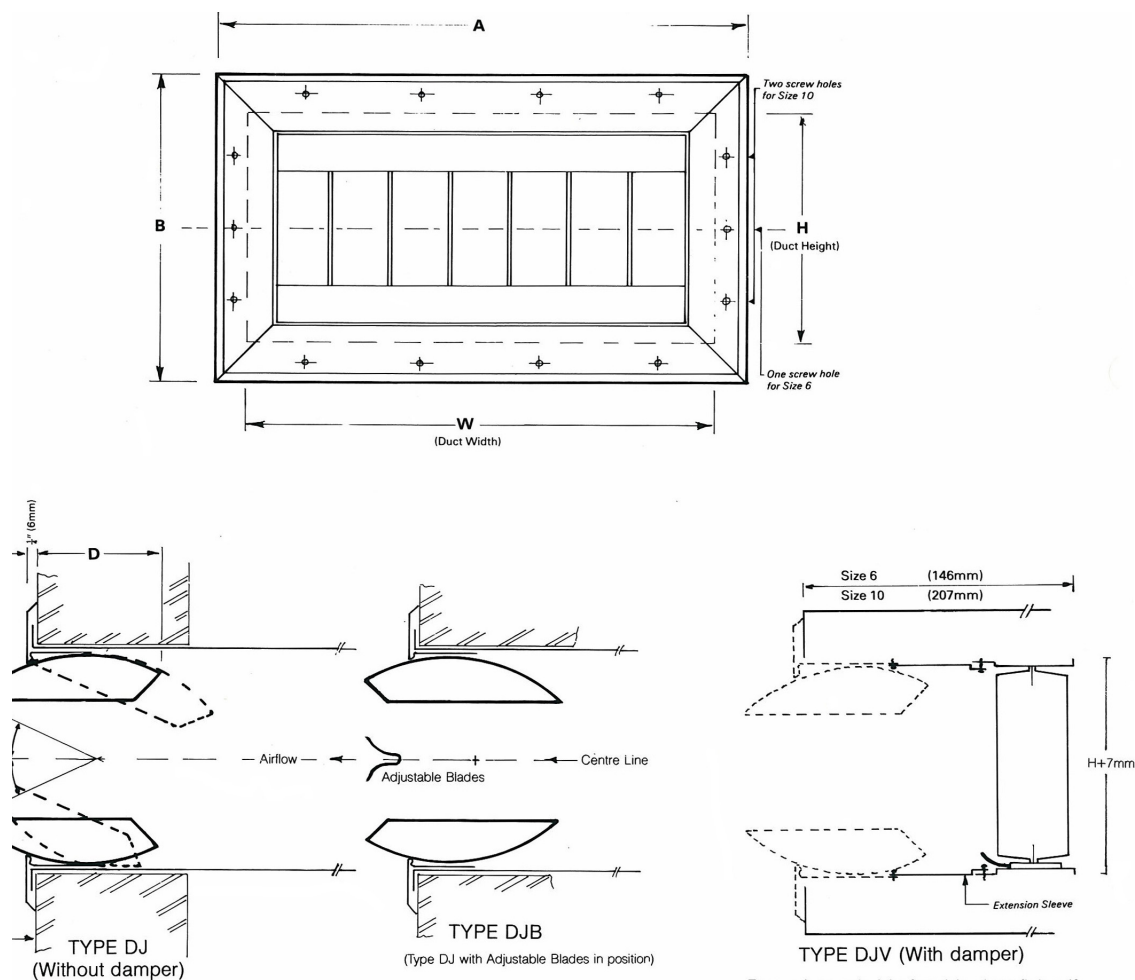
Type V opposed blade volume control dampers.
Type D "Deflectair" air turning device.

OPTIONS

Horizontal adjustable diffuser blades on type DJB to provide even more rapid air diffusion. (Cannot be fitted after manufacture.)

DRUM JET DIFFUSERS DIMENSIONAL DATA **TYPE: DJ**

TYPE DJ/DJB



Drum Jets suitable for side duct fixing if velocity in duct does not exceed 6.0 m/s otherwise short spigot required.

DIMENSIONS MM

SIZE	A	B	D	W	H
906	307	220	90	261	170
1206	383	220	90	337	170
1806	536	220	90	490	170
2406	688	220	90	642	170
2010	586	324	108	540	271
2510	713	324	108	667	271
3010	840	324	108	794	271
3510	967	324	108	921	271

DRUM JET DIFFUSERS

PERFORMANCE DATA TYPE: DJ

GENERAL INFORMATION

All performance data is based upon the following terms of reference and definitions:-

1. THROW

Data relating to the "Throws" indicated in Table A are based on a "Free Field" horizontal discharge of supply air at isothermal conditions. For heating or cooling applications, the rise or fall may be established by reference to Table B and subsequent angular drum settings to counteract the rise or fall may be established from Table C. Should the airstream come into contact with any surface which is likely to create a "Coanda" effect (ie walls, ceilings etc) then the portion of the throw over which contact is made will be increased by 35%.

2. TERMINAL VELOCITY

Throw data given in Table A is the distance from the diffuser to the point at which the Mean Jet Velocity has reduced to 0.25m/s.

3. PERFORMANCE DATA

Performance data is based on a side-wall mounted diffuser with drum horizontal and all vertical blades set at 0° deflection. Throw will decrease with angular adjustment of the vertical blades. Table D shows the percentage decrease in throw for varying blade angle settings.

4. WARM AIR APPLICATIONS

To facilitate the design of systems where a warm air supply is an option to be considered, please consult your local area office for computer aided selection.

TABLE A

VOL (M ³ /Sec)	UNIT SIZE	THROW (M)	ΔPs (Pa)	NC
.60	906	2	6	-
.80	906	3	14	-
	1206	2	8	-
.10	906	4	24	15
	1206	3	12	-
	1806	2	6	-
.125	906	5	28	16
	1206	3	18	-
	1806	2	10	-
.15	906	10	50	22
	1206	8	25	16
	1806	4	15	-
	2406	2	6	-
.175	906	14	65	25
	1206	8	38	20
	1806	5	16	14
	2406	3	8	-
.20	906	16	96	27
	1206	10	48	23
	1806	6	20	15
	2406	4	10	-
.25	906	24	130	34
	1206	16	72	28
	1806	12	40	22
	2406	7	18	15
	2010	3	8	-

VOL (M ³ /Sec)	UNIT SIZE	THROW (M)	ΔPs (Pa)	NC
.30	1206	24	120	33
	1806	16	60	25
	2406	10	25	20
	2010	5	12	14
.35	1806	20	70	27
	2406	14	30	22
	2010	6	15	16
	2510	5	10	14
.40	1806	26	80	32
	2406	17	40	25
	2010	9	22	19
	2510	6	12	15
	3010	4	6	-
.45	1806	32	110	34
	2406	22	50	27
	2010	11	25	22
	2510	7	15	18
	3010	6	10	14
	3510	4	8	-
.50	2406	28	72	30
	2010	24	32	25
	2510	10	18	20
	3010	7	12	16
	3510	6	10	-

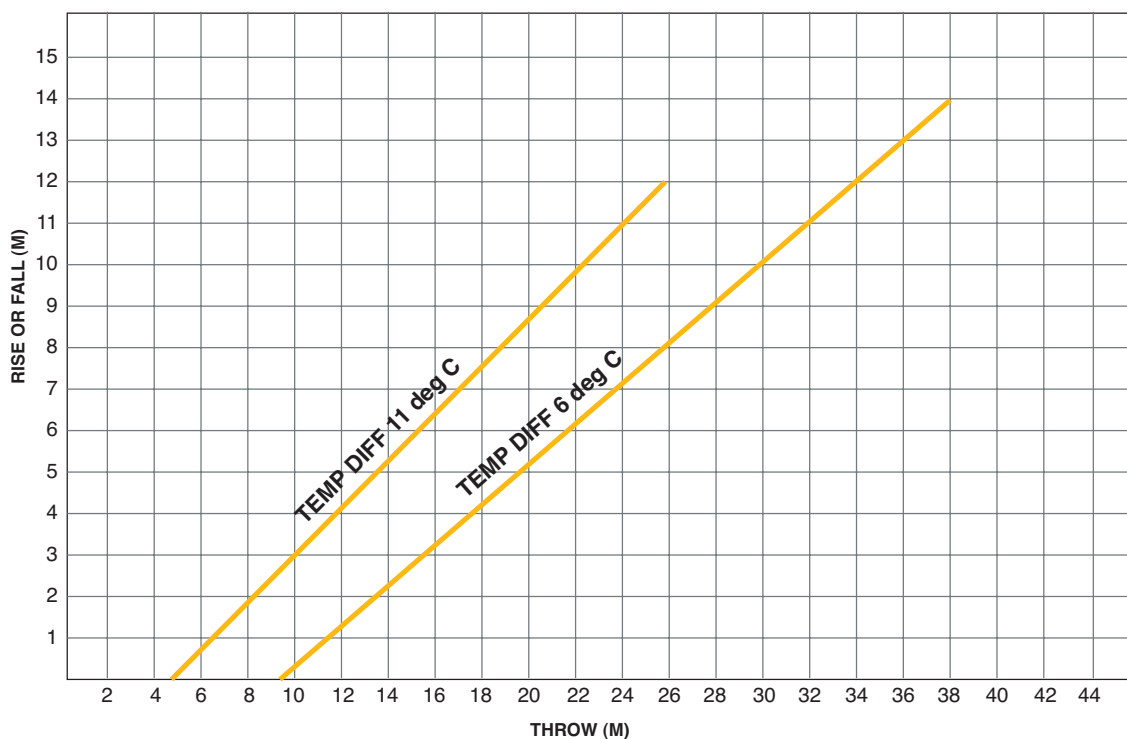
DRUM JET DIFFUSERS

PERFORMANCE DATA TYPE: DJ

TABLE A

VOL (M ³ /Sec)	UNIT SIZE	THROW (M)	ΔPs (Pa)	NC
.60	2406	38	100	34
	2010	17	36	24
	2510	14	26	23
	3010	10	18	20
	3510	8	14	17
.70	2010	26	60	31
	2510	19	40	26
	3010	15	25	24
	3510	11	18	21
.80	2020	33	90	34
	2510	24	50	30
	3010	18	27	26
	3510	15	24	24
.90	2010	40	100	36
	2510	30	62	32
	3010	24	38	28
	3510	18	28	26

VOL (M ³ /Sec)	UNIT SIZE	THROW (M)	ΔPs (Pa)	NC
1.00	2510	35	75	33
	3010	28	46	30
	3510	22	38	28
1.10	2510	41	85	36
	3010	35	60	34
	3510	28	45	30
1.20	3010	40	70	35
	3510	34	50	32
1.30	3010	44	85	36
	3510	38	65	34
1.40	3510	42	75	36
1.50	3510	44	90	38

TABLE B RISE & FALL DUE TO TEMPERATURE DIFFERENTIAL


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PERFORMANCE DATA TYPE: DJ

TABLE C ANGULAR CORRECTION OF DRUM TO COMPENSATE FOR RISE OR FALL

	THROW (M)																					
	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42		
RISE OR FALL (M)	0.5	8	5	4	3	3	3	2	2													
	1	15	10	8	6	6	5	4	4	3	3											
	2	27	19	15	12	10	9	8	7	6	6	5	5									
	3		28	22	18	15	13	11	10	9	8	7	7	6								
	4			28	23	19	17	14	13	12	11	10	9	9	8							
	5				28	24	20	18	16	15	14	13	12	11	10	9						
	6					28	24	21	19	17	16	15	13	12	12	11	10					
	7						29	24	21	19	18	17	16	15	14	13	12	11				
	8							30	26	23	22	20	19	18	17	16	15	14	13	12		
	9								30	26	24	22	21	20	19	17	16	16	15	14	14	13
	10									29	27	25	23	22	20	19	18	17	16	15	15	14
	12										30	28	26	25	24	22	20	19	18	17	15	14
	14											30	29	27	25	23	22	21	21	20	19	
	16														30	27	25	24	23	22	21	
	CORRECTION IN DEGREES																					

TABLE D DECREASE IN THROW FOR INCREASE IN BLADE ANGLE

VERTICAL BLADE ANGLE SETTING (DEGREES)	2	4	6	8	10	15	20	25	30	40	60
PERCENTAGE DECREASE IN THROW (%)	5	9	12	15	18	25	30	35	40	50	60

DRUM JET DIFFUSERS

TYPE: DJ-S

Specifications

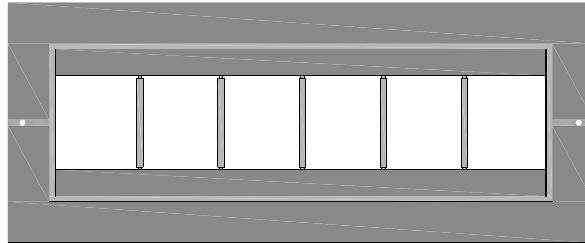


Stock drum jet diffuser,
RAL 9010 finish

Overview

Exceptional throw Throw completely adjustable

Drum jet diffusers offer high levels of adjustability & an exceptionally long throw. The stock range is available in eight standard sizes, in RAL 9010 or satin anodised finish.



Exceptional throw

With a large free area when blades are fully open, drum jets are able to handle large volumes of air with minimal noise and pressure drop generation. This makes them perfect for large open plan areas where large throws are required to ventilate the whole area.

Adjustability

The rotating drum and individually adjustable deflector blades creates a unit which adjusts in both planes. Enabling targeted throws to be created at specific areas, or wide throw patterns for maximum affected area.

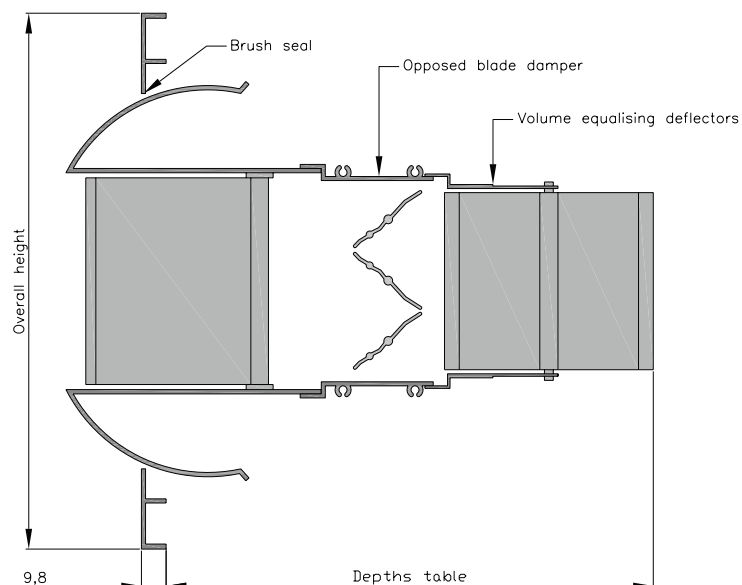
Please note:

Position of fixing holes will vary with size.

Materials:	Extruded aluminium throughout. Brush seals surround drum for smooth adjustment.
Construction:	Frames have punched in corners. Drum bolted into frame. Blades held in drum with screws.
Fixings:	Countersunk face fixing holes & RAL 9010 painted screws.
Sizes:	8 standard sizes - See table.
Finish:	Standard - Satin anodised (AA5). RAL 9010.

DRUM JET DIFFUSERS

TYPE: DJ-S



Sizes								
Size	Nominal (mm)		Overall (mm)		Blade pitch	Depth	Depth c/w OBD	Depth c/w OBD & VED
	W	H	W	H				
A	244	164	297	208	76	62	106	194
B	321		373					
C	473		525					
D	625		678					
E	524	259	576	303	127	100	144	232
F	651		703					
G	778		830					
H	905		957					

