

## Model: JD

The Holyoake JD range of Jet Diffusers have been designed to provide an attractive option for air conditioning large areas. JD diffusers are perfect for situations where large supply air quantities and throw distances are required. All JD diffusers are constructed from three cones that provide a uniformity of appearance through the range.

The JD has two separate modes. Firstly there is diffuse mode where the supply air is spread and diffused into the room over a relatively short distance. The second mode is Jet Mode that throws a high velocity jet of air over a long distance. In Jet mode the direction of throw can be adjusted by up to 15° from the centre line of the diffuser. Switching between the two modes is achieved by rotating the cone set through 180°.

Sizes range from 200mm to 350mm in 50mm increments. JD diffusers can be mounted directly into the end of circular duct, or can be mounted into a plenum box, which may supply air to a number of JD diffusers. Alternatively the JD diffuser may be mounted into a wall, or angled ceiling.

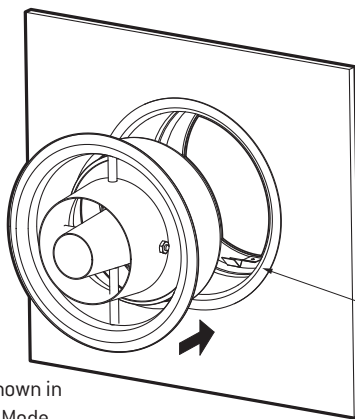
### Construction

JD Jet Diffusers are constructed from aluminium spinings and are held together using threaded rods and aluminium spacers.

The diffuser comes complete with an installation system that is also of spun aluminium construction.

### Installation - Mounting System

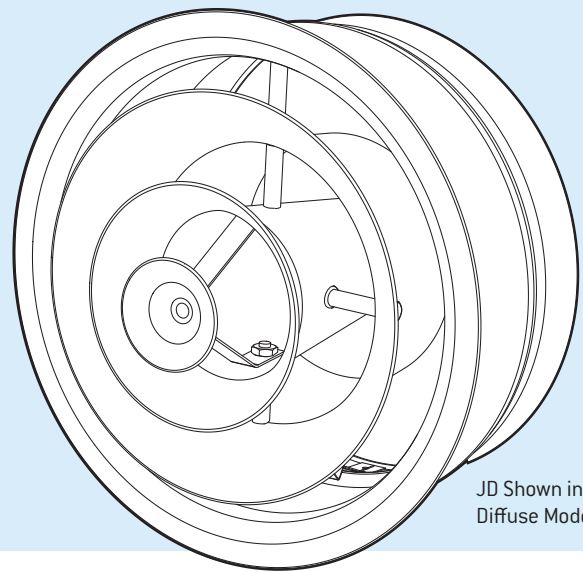
The JD comes complete with a patented mounting system designed to provide a perfect finish, regardless of the wall, or ceiling construction. The mounting plate can be fitted after the wall, or ceiling is in place and then the JD simply pushed into place when all finishing work is complete. The JD is held securely in place with spring steel retaining clips.



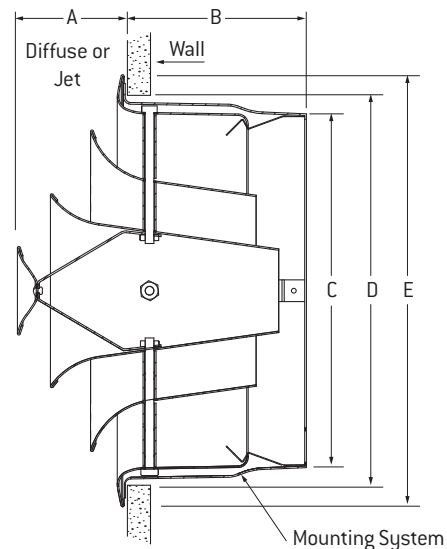
JD Shown in Jet Mode

Simply Clip the Jet Diffuser into the Supplied Mounting System

## Jet Diffuser



JD Shown in Diffuse Mode



Size	Dimensions (mm)				
	A	B	C	D	E
JD-200	58	126	184	205	234
JD-250	74	126	244	268	298
JD-300	92	140	294	319	348
JD-350	94	140	344	369	398

### Optional Mounting Plates

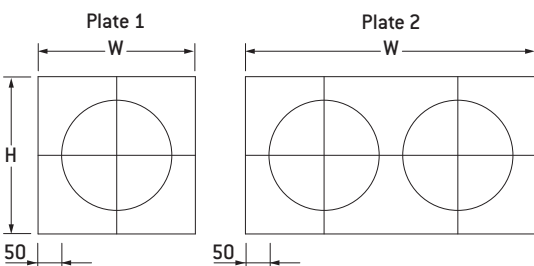


Plate constructed from aluminium sheet mounted in a Style No. 1 Frame surround, see page 51B. W and H dimensions listed are neck sizes.

JD Size	Number of JD Mounting Holes			
	1 W x H	2 W x H	3 W x H	4 W x H
JD-200	334x334	618x334	902x334	1186x334
JD-250	398x398	746x398	1094x398	1442x398
JD-300	448x448	846x448	1244x448	1642x448
JD-350	498x498	946x498	1394x498	1842x498

Nominal Size	Mode		Air Flow Rate (l/s)									
			100	150	200	250	300	400	500	600	800	1000
JD-200	Diffuse Mode	Throw (m)	3.4	4.9	7.0	9.0						
		Static Pressure (Pa)	9	18	29	42						
		NC	26	29	35	44						
	Jet Mode	Throw (m)	7.0	9.8	13.8	18.0						
		Static Pressure (Pa)	46	99	154	240						
		NC	30	40	50	59						
JD-250	Diffuse Mode	Throw (m)	1.5	2.5	4.0	5.3	7.0	9.7				
		Static Pressure (Pa)	4	9	14	22	32	55				
		NC	-	24	31	39	44	51				
	Jet Mode	Throw (m)	5.7	8.0	10.0	13.0	15.6	21.5				
		Static Pressure (Pa)	24	56	103	152	220	390				
		NC	16	25	28	39	45	54				
JD-300	Diffuse Mode	Throw (m)		3.0	4.1	5.2	5.9	7.8	9.6	12.0	16.0	
		Static Pressure (Pa)		2	3	4	6	10	16	22	37	
		NC		-	20	27	34	41	47	52	70	
	Jet Mode	Throw (m)		6.0	8.2	10.2	11.8	15.6	19.2	24.0	31.2	
		Static Pressure (Pa)		17	28	44	60	110	170	235	418	
		NC		-	29	37	38	45	55	63	75	
JD-350	Diffuse Mode	Throw (m)			3.2	4.1	4.8	6.4	8.4	9.8	13.2	16.8
		Static Pressure (Pa)			3	4	6	9	12	17	33	57
		NC			18	22	23	34	38	45	51	68
	Jet Mode	Throw (m)			6.5	8.2	9.6	12.6	16.8	19.7	26.4	33.6
		Static Pressure (Pa)			18	28	40	67	104	147	258	396
		NC			30	34	36	41	46	52	61	70

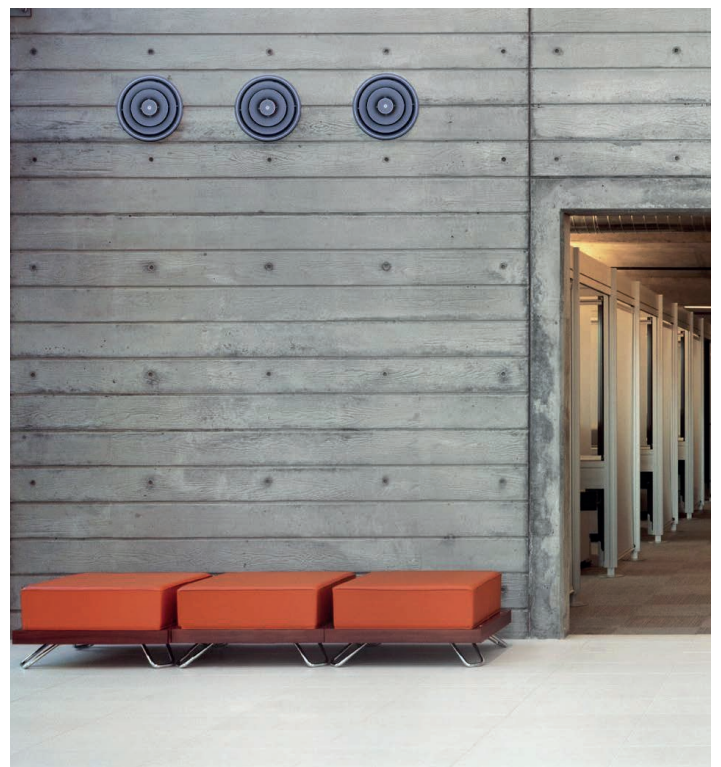
Heating Throw Factors			
Size	Heating Differential		
	5°C	10°C	20°C
JD-200	1.30	0.90	0.65
JD-250	1.20	0.85	0.60
JD-300	1.10	0.75	0.55
JD-350	1.00	0.65	0.45

To estimate maximum vertical projection under heating conditions multiply jet throw data by the relevant factor.

## Performance Notes

- Listed throw distances are to a terminal velocity (Vt) of 0.5 m/s for isothermal conditions.
- The NC values are based on a room absorption of 10dB re 10<sup>-12</sup> Watts.
- To estimate vertical projection under cooling conditions multiply throw factors as follows:-  
10°C cooling x 1.15, 5°C cooling by 1.10.
- Caution is advised if combining 'diffuse' mode and 'jet' mode off the same supply air system.  
There are considerable static pressure differences between both modes.
- Seismic Restraints required, but not supplied.

Due to a policy of continuous development and improvement the right is reserved to supply products which may differ slightly from those illustrated and described in this publication.



Nominal Duct Size	Approximate Weight in Kg.
JD - 200	1.10
JD - 250	1.20
JD - 300	1.50
JD - 350	1.80