

JET DIFFUSER



JD = Jet Diffuser

FAISAL JASSIM INDUSTRIES (L.L.C.)

P.O. Box: 1871 Dubai, U.A.E.

Tel: +971 4 2582640

Fax: +971 4 2582641

E-mail: flowtech@fjtco.com

Website: www.faisaljassim.ae

www.flowtechind.com

General

JD series Jet diffusers are used for air conditioner system in large rooms ,in general jet diffusers are arranged in the side wall areas .

This is the case in large rooms (halls,assembly rooms etc.)particularly when the distribution of air via ceiling diffusers is not possible or not practical ,as that it is better to choose Jet diffusers

Jet diffusers are arranged in the side wall areas to supply air .When the temperature difference between the supply air and the room air changes as the season changes ,making the supply air stream deflected upwards(cold air) or downwards(warm air) to mix the air stream symmetrical and fast.

The well-designed ,aerodynamically efficient shape of Flowtech jet diffusers results in low noise characteristics and sophisticated design . For above reasons ,they can be used in areas need high quality air such as concert halls ,theatre ,museum etc.

Characteristics

- Jet diffusers suitable for long throw distances with optimum acoustic properties ,easy to install ,adjust and so on . The direction of the supply air flow is also affected by other factors ,on this condition in order to change the discharge,we design revolving type of jet diffusers .To adapt the direction's change of air stream , the direction of Jet diffusers can be adjusted manually
- Jet nozzle consists of discharge nozzle with spherical outlet mounted in a housing,a mounting flange and in a circular duct rear connection spigot for direct connection to a circular duct .
- Standard color is RAL9010 or RAL9016 also can choose other RAL colors.

Jet Diffuser



Technical Parameter

Size	Effective air area of air supply (m ²)	Air volume (m ³ /h)	Pressure lost (Pa)	Noise dB (A)	Length of a air stream for isothermal conditions Ln(m)	End air velocity (m/s)		
160	0.005	100	18.5	26	10.7	0.25		
		125	22.8	30	13.5			
		160	56	34	17.4			
		20	82	39	22.2			
		250	116	43	27.3			
				125	22.8	30	6.7	0.5
				160	56	34	8.6	
				200	82	39	10.8	
				250	116	43	13.5	
				320	144	48	16.3	
200	0.009	160	10	30	12.7	0.25		
		200	21	33	16			
		250	54	38	20			
		320	82	41	25.7			
		400	116	45	32.2			
				200	21	33	7.9	0.5
				250	54	38	9.9	
				320	82	41	12.6	
				400	116	45	16	
				500	142	49	18.5	
250	0.0145	250	11	29	12.9	0.25		
		320	22	34	16.9			
		400	55	39	25.2			
		500	81	42	31.5			
		630	116	46	37.5			
				320	22	34	8.4	0.5
				400	55	39	12.5	
				500	81	42	15.6	
				630	116	46	18.6	
				800	142	50	21.4	
315	0.023	400	12.8	26	16	0.25		
		500	21	34	20			
		630	46	38	25			
		800	68	42	30.2			
		1000	94	46	37			
				500	21	34	9.9	0.5
				630	46	38	12.5	
				800	68	42	15	
				1000	94	46	18.4	
				1250	148	50	21.6	

Continues Table 1

Size	Effective air area of air supply (m ²)	Air volume (m ³ /h)	Pressure lost (Pa)	Noise dB (A)	Length of a air stream for isothermal conditions Ln(m)	End air velocity (m/s)
400	0.0415	630	8	32	17.6	0.25
		800	17	36	22.2	
		1000	31	39	28.4	
		1250	58	43	34	
		1600	80	46	40	
		800	17	28	10.9	0.5
		1000	31	39	14	
		1250	58	43	16.8	
		1600	80	48	19.7	
		2000	102	49	22.8	
500	0.0642	1000	5	30	18.3	0.25
		1250	12	36	22.8	
		1600	28.8	41	28.9	
		2000	51	44	34.8	
		2500	70	50	41.2	
		1250	12	36	11.3	0.5
		1600	28.8	41	14.3	
		2000	51	44	17.2	
		2500	48	50	20.4	
		3200	90	52	23.1	
630	0.127	2000	6	36	17.5	0.25
		2500	12.5	41	21.8	
		3200	29.4	43	27.6	
		4000	52	46	35.4	
		5000	78	49	44.3	
		2500	12.5	41	10.8	0.5
		3200	29.4	43	14	
		4000	52	46	18.2	
		5000	78	49	21.6	
6300	103	51	26			

Installation

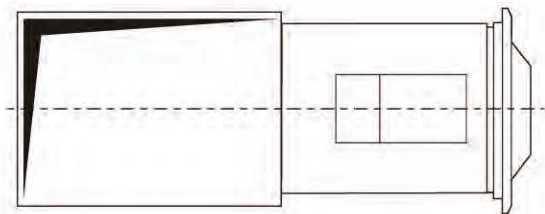
Flowtech jet diffuser are suitable for mounting on rectangular or circular ducts..

With both types of connection, there is a circular undrilled flange which can be used for either screw or rivet fixing, by others ,a sealing strip should preferable be fitted first.

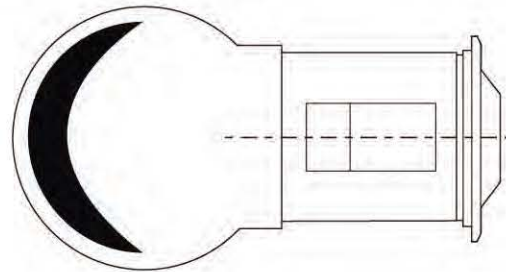
A spigot is provided for direct connection to spiral or flexible circular ducts . The spigot diameter accepts standard circular duct size.

Jet diffuser can be inserted into an connection spigot ,also can be screw fixed to the air duct .To hide the screws,a cover ring with a bayonetwist fixing can be fixed,which easy to knock down.

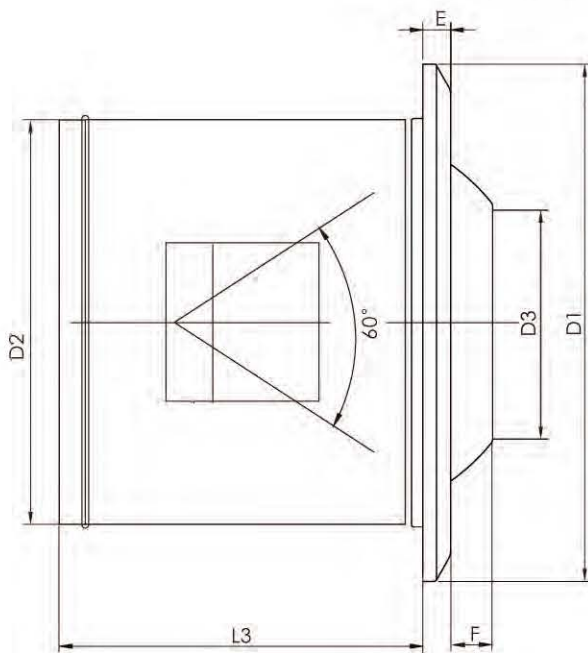
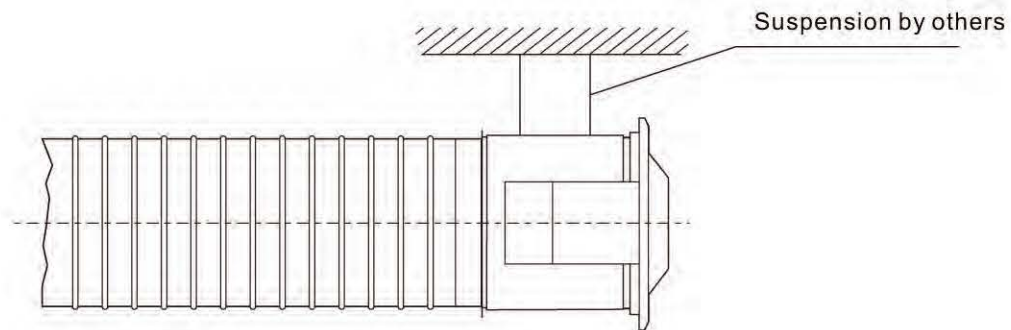
Example of rectangular duct connection



Example of circular duct connection



Example of duct or flexible duct connection



Size	D1	D2	D3	E	F
160	197.5	158	95	16	19
200	260	198	105	25	22
250	302.5	247	135	25	28
315	382	312	186	29	32
400	487	397	230	37	41
500	598	498	288	35	60
630	715	629	403	15	134

DRUM JET DIFFUSER



FLOWTECH DJ Series DrumJet Diffuser
are especially used when long throw are required



FAISAL JASSIM INDUSTRIES (L.L.C.)

P.O. Box: 1871 Dubai, U.A.E.

Tel: +971 4 2582640

Fax: +971 4 2582641

E-mail: flowtech@fjtco.com

Website: www.faisaljassim.ae

www.flowtechind.com

GENERAL DESCRIPTION

FT-DJ Series Drum Jet Diffusers are used for large rooms and are arranged in the side wall areas, e.g. airport waiting room, factory, theater, gymnasium, museum, meeting room etc.

FT-DJ Series Drum Jet Diffusers are designed for handling large air volumes and long throws. According to the difference for supply air (cold/warm) to adjust the direction of air stream, on summer the drum is deflected upwards (for cold air), on winter the drum is deflected downwards (for warm air). Drum Jet Diffusers are designed with adjustable blades in drum body to provide hot or cold air flow to any place.

FT-DJ Series Drum Jet Diffusers can be supplied with opposed blades damper (OBD), to facilitate for precise air volume control.

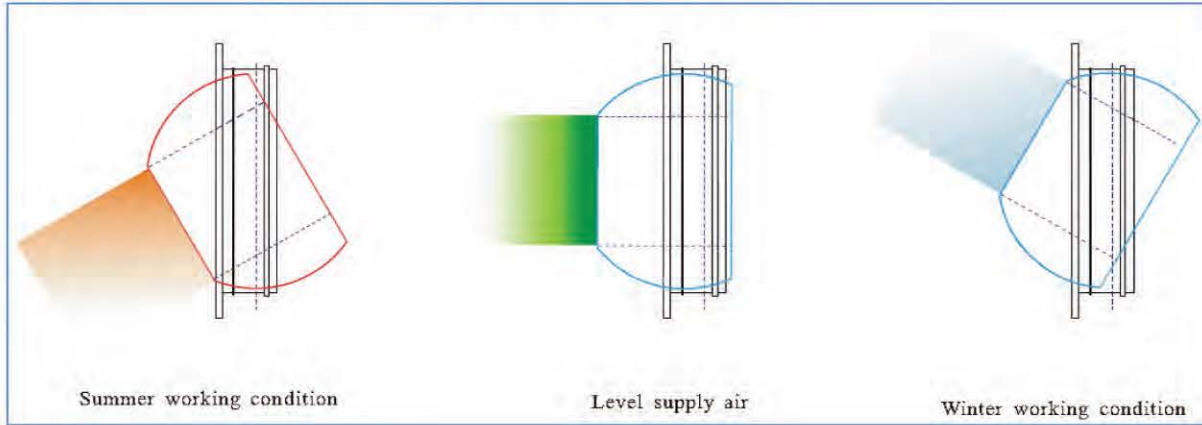
CHARACTERISTICS

Drum jet diffuser



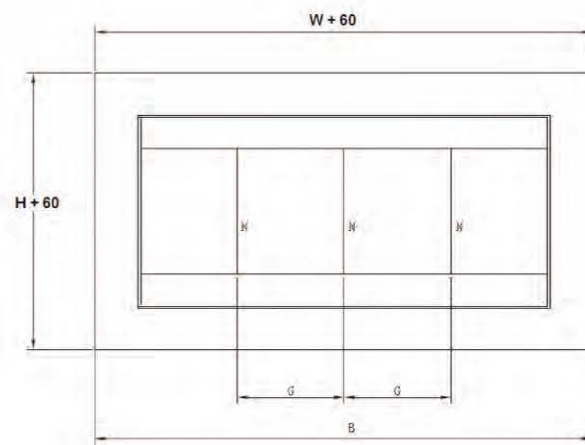
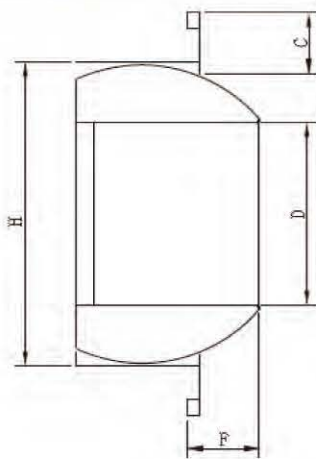
- To be used to long distance hot/cold air supply; The air supply angle can be adjusted to reach even temperature difference.
- The air-guiding blades can make hot/cold airflow distributed in all directions.
- The exterior frame and blade are made from aluminum and it looks nice and strong, various colors can be available to suit customer's requirements.
- There is a sealant in between the frame and the drum to prevent supply air flow leaking and to make the drum locate at any angle.
- Non standard dimensions and specifications can be provided if

OPERATING CONDITIONS OF AIR SUPPLY



DIMENSION TABLE:

Specs Size	W	H	G	D	F	C
250 X 150	250	150	75	90	40	30
300 X 150	300	150	75	90	40	30
475 X 150	475	150	75	90	40	30
625 X 150	625	150	75	90	40	30
642 X 170	612	170	80	90	40	30
500 X 250	500	250	125	150	60	50
650 X 250	650	250	125	150	60	50
750 X 250	750	250	125	150	60	50
900 X 250	900	250	125	150	60	50



Specification	<small>All Volume m³/h</small> <small>Flowing Distance</small>	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1	1.2	1.6
	Terminal Air Velocity M/S											
250	500	32.7	16.2	10.8	8	6.4	5.3	4.5	3.9	3.1	2.5	2
	630	>4	20.3	13.5	10.1	8	6.6	5.7	4.9	3.9	3.2	2.5
X	800	>4	26.1	17.3	13	10.3	8.6	7.3	6.4	5.1	4.2	3
	900	>4	29.4	19.5	14.6	11.7	9.7	8.2	7.2	5.7	4.7	3.7
150	1000	>4	32.6	21.7	16.2	13	10.7	9.2	8	6.3	5.3	4.2
	1250	>4	>4	27.2	20	16.1	13.5	11.5	10.1	8	6.6	5.3
300	1600	>4	>4	34.8	26.1	20.4	17.3	14.8	12.9	10.3	8.6	6.8
	630	38.4	19.1	12.6	9.47	7.7	6.25	5.33	4.6	3.6	3.04	2.4
X	700	>4	21	14	10.5	8.4	6.9	8.9	5.1	4.1	3.4	2.6
	800	>4	24.3	16.1	12	9.4	8	6.8	5.9	4.7	3.9	3
150	900	>4	27.3	18.2	13.6	9.9	9	7.7	6.7	5.3	4.4	3.5
	1000	>4	30.4	20.2	15.1	11.8	10	8.5	7.4	5.9	4.9	3.9
475	1250	>4	39	26	19.4	14.8	12.9	11	9.6	7.6	6.3	5
	1600	>4	>4	33.3	24.9	19.4	16.5	14.1	12.3	9.8	8.2	6.5
X	800	33.1	16.4	10.9	8.1	6.4	5.3	4.5	3.9	3.1	2.6	2
	900	37.3	18.5	12.3	9.1	7.3	6	5.1	4.5	3.5	2.9	2.3
150	1000	>4	20.6	13.7	10.2	8.1	6.7	5.7	5	3.9	3.2	2.6
	1250	>4	25.8	17.1	12.8	10.3	8.4	7.2	6.3	5	4.1	3.3
X	1600	>4	33.1	22	16.4	13.1	10.9	9.3	8.1	6.4	5.3	4.2
	2000	>4	>4	27.4	20.5	16.4	13.6	11.6	10.1	8	6.7	5.3
625	2500	>4	>4	34.4	25.7	20.6	17.1	14.6	12.8	10.2	8.4	6.7
	900	28	14.8	9.8	7.3	5.8	4.8	4.1	3.5	2.8	2.1	1.7
X	1000	33.3	16.5	10.9	8.1	6.5	5.4	4.6	4	3.1	2.6	2
	1250	>4	20.7	13.7	10.2	8.1	6.7	5.8	5	4	3.3	2.6
150	1600	>4	26.6	17.6	13.2	10.3	8.7	7.4	6.5	5.1	4.2	3.3
	2000	>4	33.3	22.1	16.5	12.9	10.9	9.3	8.1	6.5	5.4	4.2
X	2500	>4	>4	27.7	20.7	16.2	13.7	11.7	10.2	8.1	6.7	5.3
	3000	>4	>4	33.3	24.9	20	16.5	14.1	12.3	9.8	8.1	6.5

Continued

Table 2

Specification	Terminal Air Velocity M/S	All Volume m ³ /h Flowing Distance												
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1	1.3	1.5	2	2.5
500 X 250	1600	>40	21.5	14.3	10.6	8.4	7	6	5.2	4.1	3.4	2.6	1.9	1.5
	2000	>40	26.9	17.9	13.3	10.6	8.8	7.5	6.6	5.2	4.3	3.4	2.5	1.9
	2500	>40	33	22.4	16.7	13.3	11	9.5	8.2	6.5	5.4	4.3	3.1	2.5
	3000	>40	40	16.9	20.1	15.9	13.3	11.4	9.9	7.9	6.5	5.2	3.8	3
	3500	>40	>40	31.5	23.6	18.7	15.6	13.4	11.7	9.3	7.7	6.1	4.1	3.6
650 X 250	4000	>40	>40	35.9	26.9	21.4	17.8	16.2	13.3	10.6	8.8	7	6.2	4.1
	2000	38.2	19	12.6	9.4	7.5	6.2	5.2	4.6	3.6	3	2.3	1.72	1.3
	2500	>40	23.9	15.8	11.8	9.3	7.8	6.7	5.8	4.6	3.8	3	2.2	1.7
	3000	>40	28.7	19.1	14.2	11.3	9.4	8	7	5.6	4.6	3.6	2.7	2.1
	3500	>40	33.5	22.3	16.7	13.2	11	9.4	8.2	6.5	5.4	4.3	3.1	2.5
	4000	>40	38.4	25.5	19.1	15.1	12.6	10.8	9.4	7.5	6.2	4.9	3.6	2.8
750 X 250	4500	>40	>40	28.7	21.5	17.1	14.2	12.2	10.6	8.4	7	5.6	4.1	3.2
	5000	>40	>40	31.9	23.9	19	15.8	13.5	11.8	9.4	7.8	6.2	4.6	3.6
	2500	>40	24.3	16.1	12	9.5	7.9	6.7	5.9	4.6	3.8	3	2.2	1.7
	3000	>40	29.2	19.4	14.5	11.5	9.5	8.1	7.1	5.6	4.6	3.7	2.7	2.1
	3500	>40	34	22.6	16.9	13.5	11.2	9.6	8.3	6.6	5.5	4.3	3.2	2.5
	4000	>40	38.7	25.7	19.2	15.3	12.7	10.9	9.5	7.5	6.2	4.9	3.6	2.8
	4500	>40	>40	29.2	21.8	17.4	14.5	12.4	10.8	8.6	7.1	6.6	4.1	3.3
900 X 250	5000	>40	>40	32.9	24.3	19.2	16.1	13.8	12	9.5	7.9	6.3	4.6	3.7
	6000	>40	>40	>40	29.2	23.2	19.3	16.5	14.4	11.5	9.5	7.6	5.6	4.4
	3000	>40	24.8	16.5	12.3	9.8	8.1	6.9	6	4.8	3.9	3.1	2.2	1.7
	3500	>40	29	19.2	14.4	11.5	9.5	8.1	7	5.6	4.6	3.6	2.7	2.1
	4000	>40	37.1	24.6	19.4	14.7	12.2	10.4	9.1	7.2	6	4.7	3.5	2.75
	5000	>40	>40	27.6	20.6	16.5	13.7	11.7	10.2	8.1	6.7	5.3	3.9	3.1
250	5500	>40	>40	30.4	22.7	18.1	15.1	12.9	11.2	8.9	7.4	5.9	4.3	3.4
	6000	>40	>40	33	24.8	19.8	16.5	14.1	12.3	9.8	8.1	6.4	4.8	3.7
	7000	>40	>40	38.6	28.8	23.8	19.1	16.4	14.3	11.4	9.4	7.5	5.6	4.4

Specification	250X150		300X150		475X150		625X150		500X250		650X250		750X250		900X250	
Air Volume (m3/h)	Pressure loss(Pa)	Noise dB(A)	Pressure loss(Pa)	Noise dB(A)	Pressure loss(Pa)	Noise dB(A)	Pressure loss(Pa)	Noise dB(A)	Pressure loss(Pa)	Noise dB(A)	Pressure loss(Pa)	Noise dB(A)	Pressure loss(Pa)	Noise dB(A)	Pressure loss(Pa)	Noise dB(A)
500	25.1	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-
630	39.1	34	30.8	33.5	-	-	-	-	-	-	-	-	-	-	-	-
800	64.3	40	67	38	20	34	-	-	-	-	-	-	-	-	-	-
900	81.3	42	85	40	25	35	<10	26	-	-	-	-	-	-	-	-
1000	100	44	102	42	31.8	36	<20	30.3	-	-	-	-	-	-	-	-
1250	156	47.5	142	46.5	70	40.5	30	37	-	-	-	-	-	-	-	-
1600	256	51	180	50	108	45	61	41	26	37.5	-	-	-	-	-	-
2000	-	-	-	-	142	49	95	45	50	41	20	38	-	-	-	-
2500	-	-	-	-	180	53	130	49	74	44.5	38	41	20	29	<10	<32
300	-	-	-	-	-	-	160	52	100	47.5	66	43	40	42.5	25	40
3500	-	-	-	-	-	-	-	-	126	49.5	93	48	70	46.5	40	42.5
4000	-	-	-	-	-	-	-	-	142	53	123	52	102	50	68	47
4500	-	-	-	-	-	-	-	-	-	-	138	54	118	52	81	49
5000	-	-	-	-	-	-	-	-	-	-	152	55.5	133	54	96	51
6000	-	-	-	-	-	-	-	-	-	-	-	-	162	57.5	124	54.2
7000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	154	60