

## CB Ball Spout Jet Diffuser

### Description

CB ball spout jet diffuser provides ventilation to places where distribution of air via ceiling diffuser is not possible or practical. In a big open space area where ceiling outlets are not able to supply air uniformly to the corners, CB will be a solution. Air is supplied into the space at high velocity with high induction causes the supply air to mix with the room air effectively. Due to its pleasant appearance, it can be used in the large room such as concert, airport, theatre, museum etc.

### Materials

- Nozzle: Aluminum.
- Face : Aluminum.

### Surface Finish

- White powder coat.

### Features

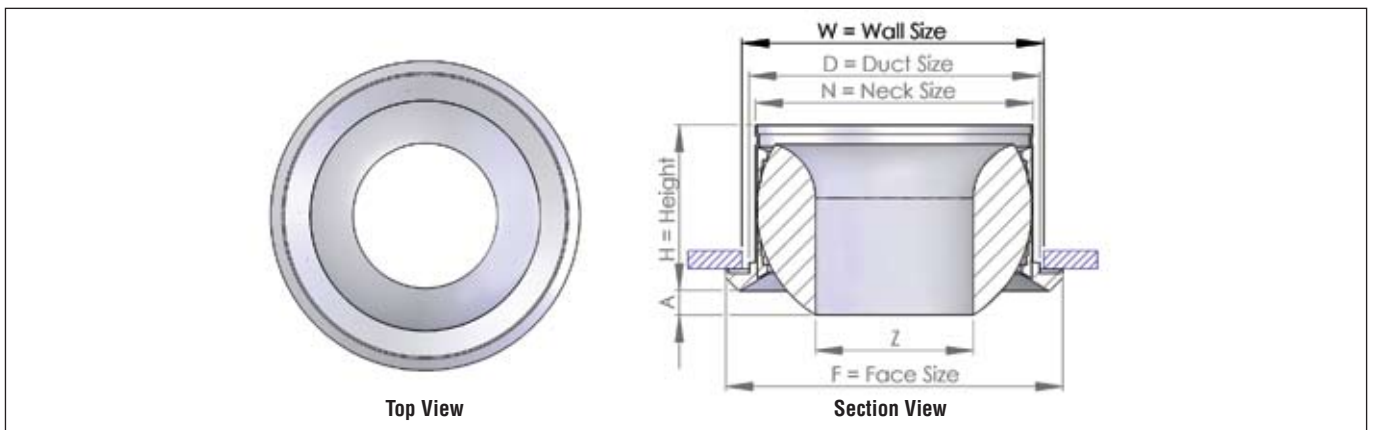
- Easy adjustment.
- Directional air flow pattern: +/- 30° deflection, 360° rotation.
- Suitable for exposed ductwork or surface mounted.
- Suitable for wall installation.
- Low noise levels.
- Low pressure requirement.
- Provides high terminal velocity, long distance throw and supply air into inaccessible area.



### Standard Sizes

- 160, 200, 250, 315, 400, 630 (mm)

### CB Construction Illustrations



### CB Physical Dimension Unit:mm

Size	N	F	Z	H	A	D	W
160	158	216	82	106	10	168	178
200	198	273	108	127	14	208	218
250	248	318	136	159	23	258	268
315	313	400	174	189	29	323	333
400	398	483	230	223	47	408	418
630	628	715	403	260	148	638	648

## CB Ball Spout Jet Diffuser

### ■ CB Air Flow Performance Data

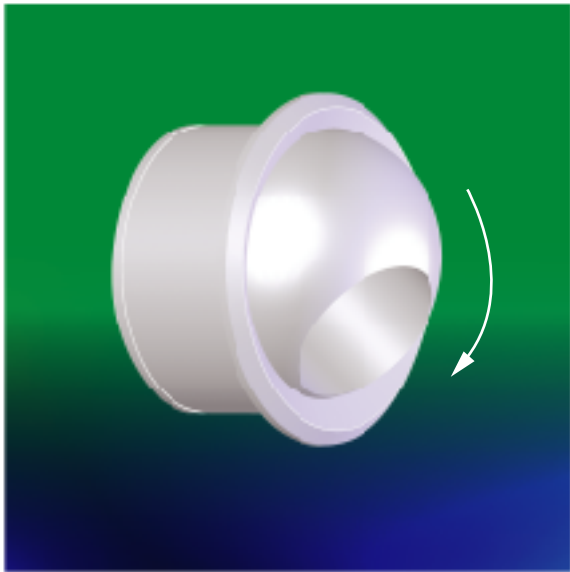
Neck Size (mm)	Nozzle Vel. (m/s)	3	5	7	10	13	15	17	20
		Tot. Press (mmAq)	0.5	1.7	3.0	6.5	10.5	13.5	17.0
160	CMH	57	95	133	190	247	285	323	380
	Throw (m)	3.0-7.5	5.5-11.0	6.0-13.0	11.5-24.0	14.0-30.0	18.0-39.0	20.0-45.0	21.5-51.0
	NC	-	-	-	20	25	30	34	37
200	CMH	99	165	231	330	429	495	561	660
	Throw (m)	5.0-10.0	7.5-16.0	11.0-22.5	16.0-31.0	20.0-40.0	22.5-45.0	25.0-50.0	30.0-57.0
	NC	-	-	-	22	29	33	37	42
250	CMH	157	261	366	523	680	784	889	1046
	Throw (m)	6.0-12.0	10.0-20.0	14.0-27.0	19.0-40.0	25.0-50.0	30.0-55.0	32.0-57.0	36.0-62.0
	NC	-	-	-	23	30	35	40	44
315	CMH	257	428	599	856	1113	1284	1455	1712
	Throw (m)	8.0-16.0	12.0-25.0	16.0-35.0	23.0-47.0	30.0-55.0	35.0-60.0	40.0-65.0	45.0-70.0
	NC	-	-	-	27	35	40	44	47
400	CMH	449	748	1047	1496	1944	2244	2543	2991
	Throw (m)	10.0-20.0	16.0-32.0	22.0-45.0	32.0-58.0	40.0-66.0	47.0-73.0	51.0-77.0	57.0-83.0
	NC	-	-	25	36	42	46	48	52
630	CMH	1378	2296	3214	4592	5970	6888	7806	9184
	Throw (m)	15.6-31.1	24.4-49.3	34.5-71.8	49.3-91.6	76.1-105.0	73.7-113.3	81.1-118.0	89.7-124.0
	NC	27	33	38	44	53	56	59	63

- Throw is based on terminal velocities of 0.5m/s – 0.25m/s respectively.
- NC value is based on room absorption of 10dB, re 10<sup>-12</sup> watts.
- Dash (-) in space indicates NC value less than 20.
- All values are tested at 0° angle of air discharge.
- Corrected values with different angle of discharge.
- The above performance data generated are tested with axial installation.

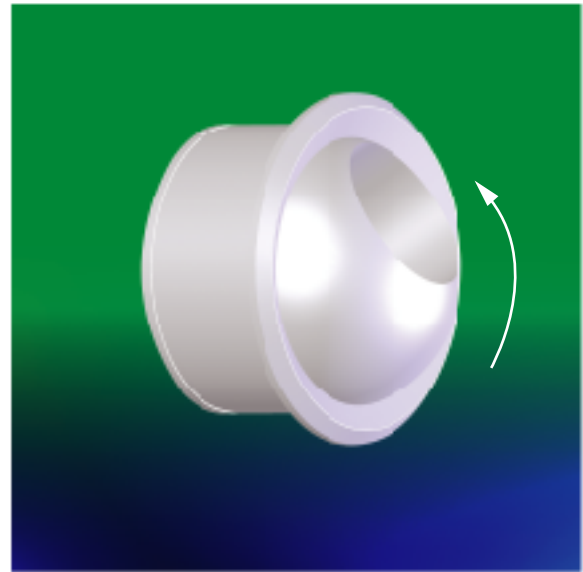
Angle of Discharge	0°	30°
Tot. Press	1	1.2
Throw	1	0.85
NC	0	2

**Example:** If angle of discharge is 30°, to obtain the total pressure drop, use a multiplier of 1.2, for throw use a multiplier of 0.85, for NC values, it will be NC plus 2.

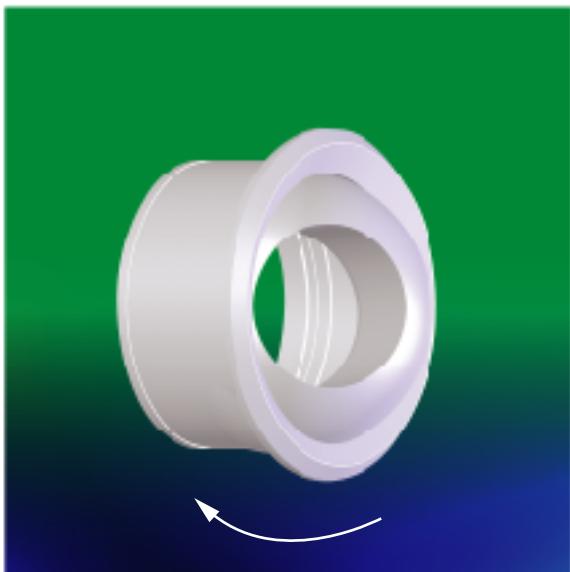
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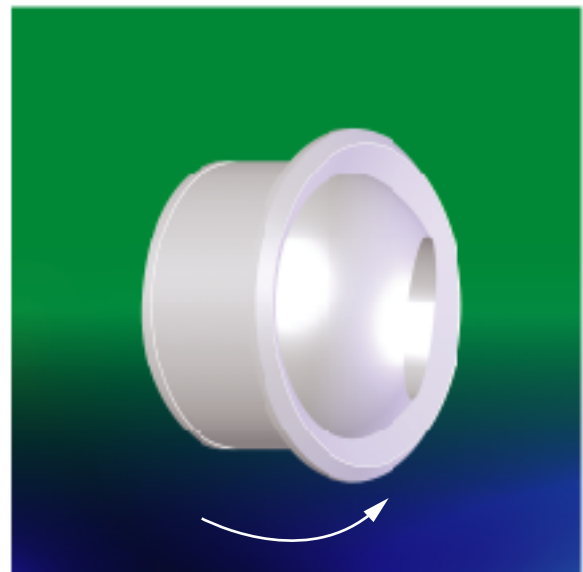
Directing air downwards



Directing air upwards



Directing air towards left



Directing air towards right

### ■ CB Suggested Specification

CB-A Ball Spout Diffuser shall be suitable for throw of 20 meters distance with optimum acoustic properties. The nozzle shall consist of a face circular-mounting flange with aerodynamically shaped nozzle formed in one piece and no obstacle in the airflow pathway. The rear connection element shall have a peripheral gasket for mounting on to the duct wall. The flange shall be detachable from the nozzle with simple tools. The nozzle shall be adjustable with 30-degree deflection in all direction and 360 degree rotation from the face of the diffuser without using any tools. The nozzle and installation flange shall be aluminum. The diffuser shall be epoxy coated and furnished to architectural requirement.

### ■ CB Order Code

Model	Material	Neck Size (mm)
CB	A (Aluminum)	160, 200, 250, 315, 400, 630

Example: CB-A-400mm