



COSMOS[®]
Air Distribution Products

A wide range of High Quality Air Distribution Products



JET NOZZLE

JET NOZZLE



Model: JNZ

Jet nozzles are used for preference where the supply air from the diffuser has to travel a large distance to the occupied zone.

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. Here jet nozzles are arranged in the side wall areas. When the temperature difference between the supply air and the room air changes, the supply air stream is deflected upwards (warm air) or downwards (cold air). The direction of the supply air flow is also affected by other influences such as local convection effects or draughts within the room.

CosmosJet Nozzles are the ideal choice for distributing conditioned air from ceiling diffusers where distribution is not possible or practical.

Long throw jet nozzles provide optimum performance for air supply within large spaces such as in Connection Centre, Airport Terminals, Indoor Stadiums, Television and Movie Studios & Auditoriums. The nozzles are located within walls, Bulk Heads of columns to optimize supply air distribution.

COSMOS model JNZ supply nozzles are capable of delivering air to spaces where long distance penetration and low noise levels are required. Its nozzle type outlet suitable for spot cooling or heating, because its direction of air can be adjusted easily to suit one's requirement.

Jet Nozzles can be turned through ± 30 degree from its centre-line axis and rotated 360 degree. Thus provide universal directional throw.

SELECTION GUIDE

First determine the total supply air quantity to be delivered the air condition space, based on its heat load.

Then determine the number and location of the jet nozzles, based on the air distribution pattern and any constraints imposed by the building design.

Select suitable Jet Nozzles from tables below after determining Throw require (8m, 16m, 25m). Terminal air velocity at the end of throw shown in the last column low velocity are best in auditoriums, Television, Movie studios while medium to high velocities can be tolerated in the airport & exhibition centers where occupants are moving about.

FEATURES

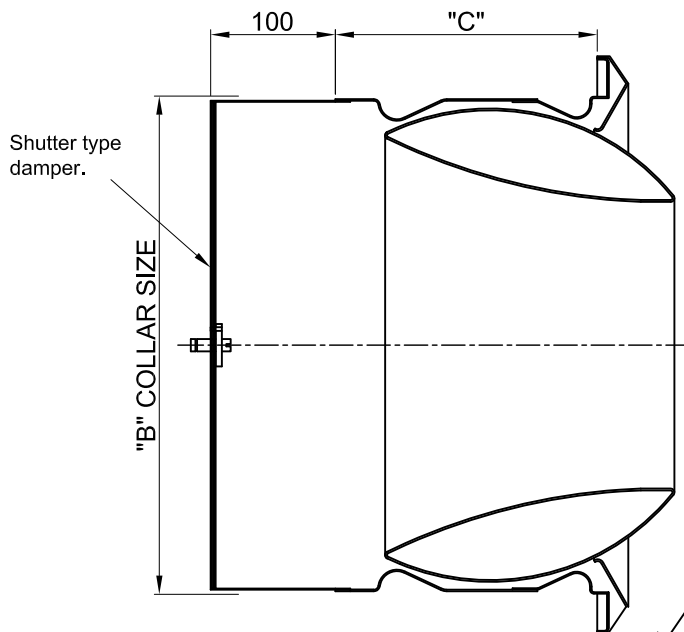
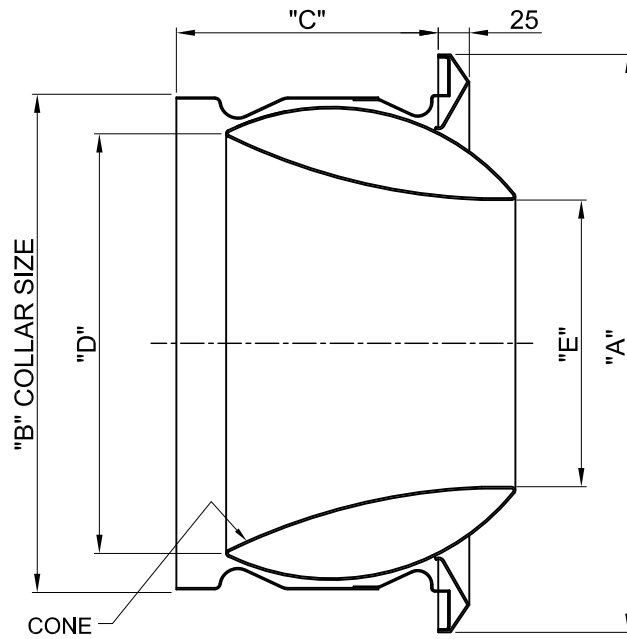
- Constructed of aluminum.
- 360 directional adjustment
- The maximum up or down adjustment angle of the outlet is $\pm 30^\circ$ in any direction.
- Excellent throw penetration
- High capacity
- Low noise levels and low pressure drop
- Shutter type damper for volume control purpose

FINISH

- Standard finish RAL 9016.
- Other finishes are available on request.

Dimensional data

JET NOZZLE



All dimensions are in mm

| MODEL | Ø - "A" | Ø - "B" | "C" | Ø "D" | Ø"E" |
|---------|---------|---------|-----|-------|------|
| JNZ-100 | 135 | 100 | 52 | 71 | 50 |
| JNZ-180 | 202 | 170 | 98 | 121 | 77 |
| JNZ-240 | 275 | 220 | 113 | 166 | 107 |
| JNZ-280 | 314 | 260 | 148 | 201 | 132 |
| JNZ-325 | 385 | 325 | 170 | 262 | 172 |
| JNZ-400 | 464 | 400 | 218 | 336 | 230 |

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Performance Data

| SIZE | 8M | | | | | | | 16M | | | | | | | 25M | | | | | | | Air Velocity m/s |
|------|----------|-------|-----|------------------|----|--------------------|----|----------|-------|------|------------------|----|--------------------|----|----------|-------|------|------------------|----|--------------------|-----|---------------------|
| | Air flow | | | Duct Installaion | | Axial Installation | | Air flow | | | Duct Installaion | | Axial Installation | | Air flow | | | Duct Installaion | | Axial Installation | | |
| | I/S | m3/hr | cfm | SP (Pa) | NC | SP (Pa) | NC | I/S | m3/hr | cfm | SP (Pa) | NC | SP (Pa) | NC | I/S | m3/hr | cfm | SP (Pa) | NC | SP (Pa) | NC | |
| 100 | 18 | 65 | 38 | 55 | 23 | 50 | 22 | 36 | 128 | 75 | 185 | 46 | 140 | 37 | 57 | 204 | 120 | 330 | 58 | 400 | 51 | 0.25 50 |
| 180 | 23 | 83 | 49 | - | - | 12 | | 46 | 166 | 97 | 45 | - | 47 | 22 | 69 | 248 | 146 | 85 | 35 | 105 | 35 | |
| 240 | 29 | 104 | 61 | - | - | | | 61 | 220 | 129 | 42 | - | 26 | - | 85 | 306 | 180 | 75 | 30 | 50 | 26 | |
| 280 | 37 | 133 | 78 | - | - | | | 76 | 274 | 161 | 35 | - | 16 | - | 106 | 382 | 225 | 46 | | 31 | 21 | |
| 325 | 50 | 180 | 106 | - | - | | | 98 | 353 | 208 | - | - | 11 | - | 150 | 540 | 318 | 38 | | 21 | - | |
| 400 | 65 | 234 | 138 | - | - | | | 129 | 464 | 273 | - | - | | - | 195 | 702 | 413 | | | 12 | | |
| 100 | 36 | 128 | 75 | - | - | 140 | 31 | 57 | 204 | 120 | - | - | 390 | 51 | | | | | | | | 0.5 100 |
| 180 | 46 | 166 | 97 | 45 | - | 41 | 22 | 92 | 331 | 195 | 165 | 44 | 175 | 43 | 138 | 497 | 292 | 230 | 49 | 350 | 53 | |
| 240 | 61 | 220 | 129 | 42 | - | 28 | - | 121 | 436 | 256 | 130 | 37 | 90 | 35 | 182 | 655 | 386 | 200 | 47 | 47 | 210 | |
| 280 | 76 | 274 | 161 | 35 | - | 11 | - | 152 | 547 | 322 | 57 | 23 | 70 | 33 | 229 | 824 | 485 | 140 | 38 | 122 | 42 | |
| 325 | 98 | 353 | 208 | - | | 1 | - | 195 | 702 | 413 | 52 | 22 | 40 | 22 | 293 | 1055 | 621 | 85 | 32 | 92 | 39 | |
| 400 | 129 | 464 | 273 | - | - | | | 258 | 929 | 547 | 35 | - | 22 | 21 | 387 | 1393 | 820 | 72 | 30 | 42 | 31 | |
| 100 | | | | | | | | | | | | | | | | | | | | | | 1 200 |
| 180 | 92 | 331 | 195 | 165 | 44 | 160 | 43 | | | | | | | | | | | | | | | |
| 240 | 121 | 436 | 256 | 130 | 37 | 80 | 33 | 242 | 871 | 513 | 300 | 52 | 400 | 57 | | | | | | | | |
| 280 | 152 | 547 | 322 | 57 | 23 | 55 | 29 | 305 | 1098 | 646 | 200 | 46 | 260 | 52 | | | | | | | | |
| 325 | 195 | 702 | 413 | 52 | 22 | 42 | 27 | 390 | 1404 | 826 | 145 | 39 | 148 | 47 | 585 | 2106 | 1240 | 280 | 52 | 315 | 58 | |
| 400 | 258 | 929 | 547 | 35 | - | 19 | - | 516 | 1858 | 1093 | 125 | 36 | 90 | 42 | 773 | 2783 | 1638 | 200 | 47 | 175 | 52 | |

Spectrum Industries began its journey in 1994 with the brand name Cosmos. Today, 17 years hence, Cosmos has delivered promise growing vertically and horizontally. The company has diversified into 3 brands :

- Spectrum Industries (Air Distribution Products Manufacturing)
- Space HVAC Systems Pvt. Ltd. (H.V.A.C.system design / planning / Execution and after sales)
- Savitru Aircon Pvt.Ltd. (Indian partner for various international brands)

Spectrum Industries

Spectrum Industries manufacture "Cosmos Air Distribution Products". Cosmos enjoys being a leading brand in India. It has a wide product range of Air Distribution Products. It is one of the most preferred air distribution products by HVAC consultants across India and is recommended for various projects.

Highlights

- 2 modern factories with a total area of 35000 sq.ft.
- One manufacturing facility is for Aluminum products
- The other for sheet metal products
- Both the factories are equipped with modern machines like CNC Turret punching presses, Press Breaks, Clinching machines and Welding (CMT) Robot
- The assembly shop is equipped with pneumatically operated tools.
- A third manufacturing facility is under construction with a total area of 25000 sq.ft.
- Sound reverberation room for noise testing is under construction. It is supported by Indian Institute of Science, Bengaluru
- The factory has a special wind tunnel for VAV calibration & testing. It is the only company in India to supply dynamically calibrated VAVs
- Team strength : 100 +
- The sales are handled by Head Office in Mumbai
- Clients are from across India and world.

CNC Turret punching



CNC Press Break



Clinching Machine



Welding Robot



Grilles • Diffusers • Dampers • Louvers • VAV Boxes • Sound Attenuators

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