

SMARTEMP LJC-AD

Linear Multi-Jet Ceiling Diffuser

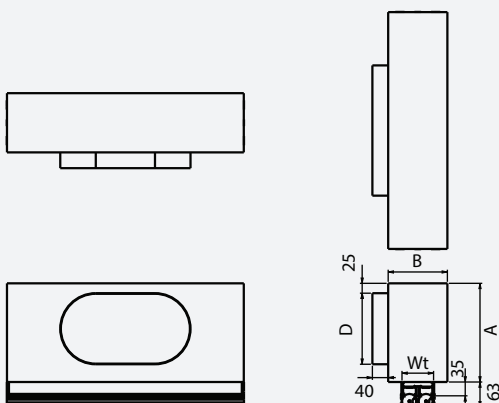
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OVERVIEW

High capacity, high induction, 1-way blow or 2-way blow linear ceiling diffuser with 1-to-6 slots, each with barrel nozzles discharging alternating multi-jets, suitable for high discharge heights and large volume spaces. Multi-jets adjustable through 90° (manually as standard; optionally by thermal or electric actuator for diffusers with 2 or more slots) to alter the air pattern from horizontal (cooling) through diagonal to vertical (heating). Nozzle barrels may be rotated to shut off airflow in segments. Suitable for low temperature supply air ($\geq 5^{\circ}\text{C}$) and CAV or VAV systems with extended turndown. Installation flush with ceiling or free-hanging.












Features:

- 1 - 6 slot configurations.
- Adjustable horizontal, diagonal or vertical discharge direction.
- High induction alternating mini-jet discharge.
- Side and end profiles of aluminium, natural anodised or powder coated.
- Adjustment manual (default); optionally electric or thermal (2 or more slots only).
- 1 or 2 way discharge patterns.
- Barrel nozzles individually adjustable through 90°.
- Barrel nozzles of plastic, black (standard), white (optional).
- Installation flush with ceiling or free hanging.
- Flanged or flangeless side and end profiles.







Number of slots(n)	n
Width flangeless face Wn (mm)	42xn+1.5
Width flanged face Wf (mm)	42xn+30
Width of diffuser throat Wt(mm)	42xn-4
Recommended internal plenum height A (mm)*	D+76
Recommended internal plenum height B (mm)*	Wn+50

PROPERTIES

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Location - above Integrated flush with a closed ceiling or freely suspended.
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Mixed flow 2-way blow or 1-way blow high aspiration alternating multi-stream discharge intensely mixes supply air with room air, producing high induction and creating strong supply air dilution with rapid discharge velocity decay. Low velocity, high momentum supply air motion of substantially uniform temperature distribution over short or long throws is achieved. Ideal for enhanced thermal comfort (ADPI \geq 90%).
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Return air Suitable for use as a return air inlet.
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Low Temperature supply May be used for low temperature (cold air) supply systems ($T_{\text{supply}} \leq 10 \text{ }^{\circ}\text{C}$), where $\Delta T_{\text{supply-room}} \geq -16 \text{ K}$.
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VAV dependent throw VAV throw dependent upon airflow rate. Minimum airflow dependent upon $\Delta T_{\text{supply-room}}$ (eg turndown to 25% and $\approx 1 \text{ L/s/m}^2$ @ $\Delta T_{\text{supply-room}} \approx -16 \text{ K}$).
- 
Adjustable direction Air pattern adjustable through 90° , from horizontal (cooling) through diagonal to vertical (heating). Maximum recommended discharge height: Cooling: $\approx 20 \text{ m}$ Heating: $\approx 10 \text{ m}$
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Manual adjustment Default airflow direction adjustment is manual.
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Linear face shape Modular or continuous linear aesthetic, each with flanged or flangeless edge profiles.
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Slotted face pattern Barrel nozzles create linear slot appearance with 1 to 6-slot options.
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Plastic Face Adjustable black (default) or white (optional) plastic barrel nozzles.
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Metal Face Anodised or powder coated linear aluminium profiles.

OPTIONS

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Mounting frame Suitable for rendering into plaster board ceiling. Diffuser clips in from below.
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Electric adjustment Available for 2 or more slots only. Air pattern direction adjustment by means of electric actuator with 24V AC/DC power supply and 2-10 V analogue control input. Well suited to supply-to-room temperature differential control for demanding heating applications or substantial room air temperature variations.
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Thermal adjustment Available for 2 or more slots only. Air pattern direction adjustment by means of a self-acting, thermally powered, wax-bulb actuator in the supply air stream (no controls or wiring required). Manually adjustable bias with temperature scale and horizontal and vertical discharge end-stops.
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Plenum Side-entry connection boxes with concealed diffuser fastenings.

For additional information, please contact info@smartemp.com

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