

LWD Linear Whirl Diffuser

■ Introduction

ASLI LWD linear whirl diffusers are designed to produce turbulent mixing air flow. It is suitable for rooms with high thermal comfort requirements such as offices, restaurants, assembly rooms, lobbies, halls, workshops and production centers in trade and industry. It can be installed in ceilings or walls.

■ Product Description

LWD construction is made up of upper plenum box and lower plenum box. Upper plenum box consists of a round inlet with perforated flip damper and a perforated sheet inside the box to allow the air flow to be distributed uniformly into the lower plenum box. The upper plenum box comes with P.E. foam internal insulation.

The lower plenum box consists of several discharge chambers with sliding damper. The air flow rate on each discharge chamber is adjustable by sliding the sliding damper inward or outward.

The dimension of the discharge chambers and discharge chambers inlet opening are designed to generate two air jets whirling against each other on discharge. The jet stability and the induction effect are high. Tangential air patterns with high penetration depth are formed.

■ Materials

- Upper plenum box: 0.5mm galvanized steel.
- Lower plenum box: 0.5mm galvanized steel.
- Discharge chamber: 0.5mm galvanized steel.
- Perforated sheet: 0.7mm galvanized steel.
- Acoustical insulation: 5mm P.E. foam.

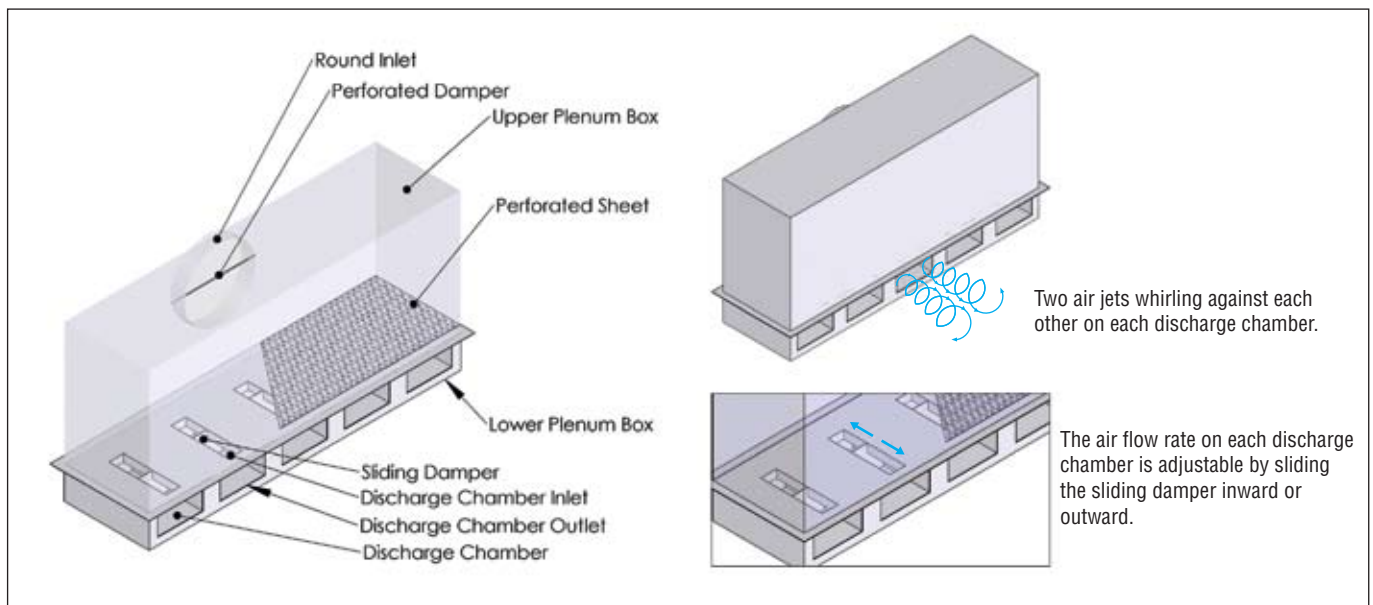
■ Surface Finish

- White powder coated as standard.

■ Features

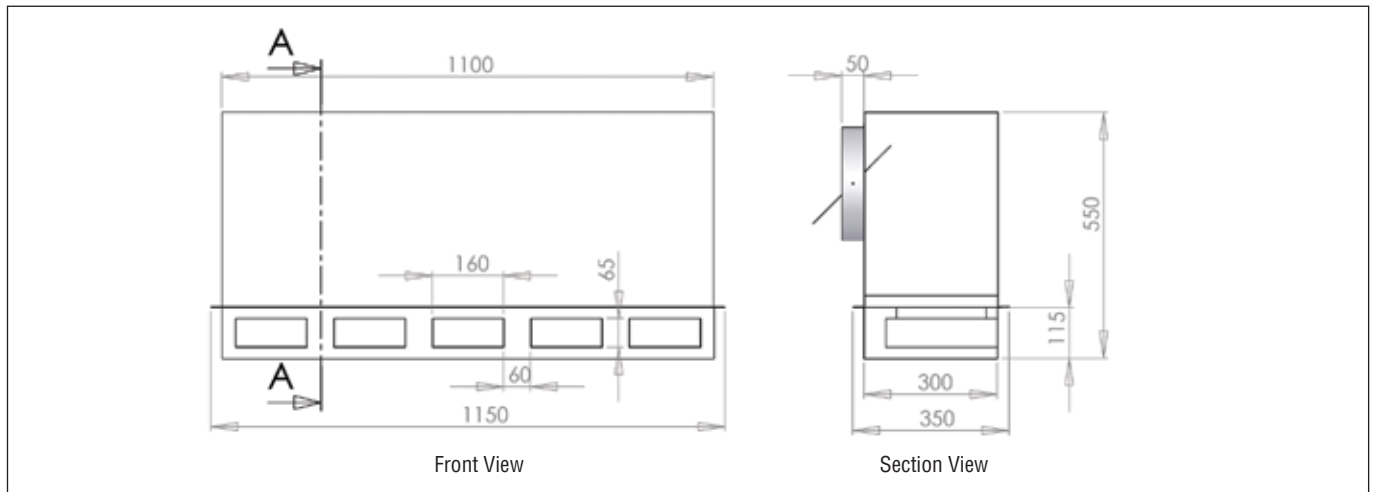
- High induction ratio.
- Turbulent mixing air flow.
- Two air jets whirling against each other on discharge.
- Air flow rate at each discharge chamber is adjustable via sliding damper.
- Suitable for ceiling and wall installation.
- Excellent aesthetic.

■ LWD Construction Illustrations



LWD Linear Whirl Diffuser

■ LWD Physical Dimension Unit:mm



■ LWD Performance Data

Size (mm)	Air Flow Performance								
	CMH	400	500	600	700	800	900	1000	1100
1100 x 300	Pt.	9	15	24	28	38	48	60	70
	Throw (m)	6.0	9.7	10.6	12.0	12.4	14.0	15.0	16.0
	Height (m)	2.0	2.5	3.0	3.5	4.0	4.5	5.2	6.0
	Lw, db(A)	20	26	30	34	38	41	44	46

- Pt. is the total pressure drop.
- Height is the discharge height of the diffuser from the floor.
- Lw is the sound power level in dB(A) ref. 10^{-12} Watts.
- Performance data are based on 250mm inlet diameter.

■ LWD Order Code

Model	Size (mm)	Inlet Diameter (mm)
LWD	1100 x 300	250

Example: LWD-1100mmX300mm-250mm