

TWISTED 850 SERIES - STEEL



Twisted 850
Air supply diffuser

USE

- Air supply or exhaust, high-induction fixed diffusion with swirl air jet.
- Wide airflow range from a single size of diffuser.
- Systems offer high mixing rate.
- Ideal for cold and hot air supply (air conditioning) with high T° differences under low ceiling heights.
- Ideal for variable-airflow systems (ducted convector fans).
- Ceiling diffuser designed to replace 600 x 600 mm, 625 x 625 mm or 675 x 675 mm suspended ceiling panels.
- Suited to Tbar and Fine-Line frames.
- Version compatible with non-removable plaster or BA13 plasterboard ceilings.

CONSTRUCTION

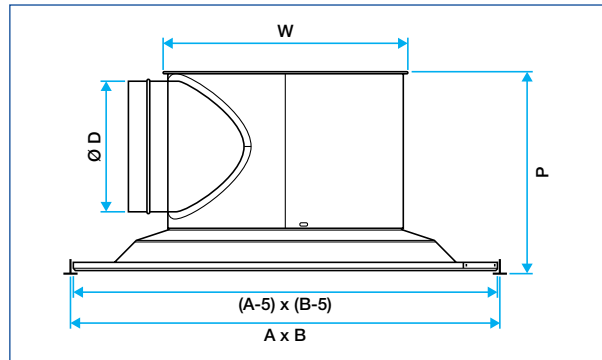
- Painted steel diffusion cone and central plate.
- Steel compensation plate suited to 600 x 600 mm, 625 x 625 mm or 675 x 675 mm ceiling panels, with Tbar or Fine-Line frames.
- Decorative mounting frame (white aluminium) for plaster ceiling version.
- Air supply model equipped with a fixed central plate serving as a deflector.
- Exhaust model equipped with removable central plate and elliptical filter. Access to filter by quick and easy opening of the central plate.
- Galvanised steel cylindrical plenum for direct connection to a 200 mm-diameter circular duct.
- Version without plenum available for direct exhaust or direct connection to D200 or D250 circular connection. Non-opening diffuser only.

NB: use for exhaust only.

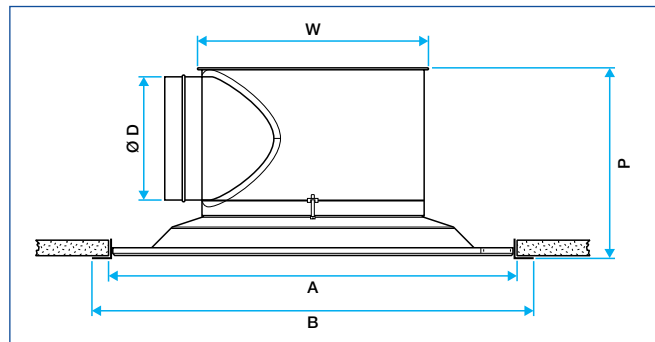
DESIGN

- High-induction air diffusion using air jet rotation inside plenum. By maintaining a sufficient discharge speed, the diffusion cone ensures a perfect Coanda effect (ceiling effect) and a swirl air jet. This swirl air jet will cause the ambient air to move, thereby mixing it with the air supply to ensure homogeneous temperatures in occupied areas.
- Aldes patent.

DIMENSIONS



Twisted 850 diffuser for square panels



Twisted 850 diffuser for plaster or BA13 plasterboard ceiling

STANDARD DIMENSIONS

Comfort airflow levels for Lw < NR 40 db(A) and dimensions							
Assembly	A x B* (mm)	Opening A (mm)	B (mm)	Ø W (mm)	Ø D (mm)	D (mm)	Airflow (m³/h)
Suspended ceilings	600 x 600	-	-	366	200	298	150 to 600
	625 x 625	-	-	366	200	298	150 to 600
	675 x 675	-	-	366	200	298	150 to 600
Plaster / BA13	-	600 x 600	651 x 651	366	200	298	150 to 600

* Nominal ceiling panel dimensions

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Twisted 850 air supply for plaster ceilings



Twisted 850 opening with exhaust filter

FINISH

- Epoxy paint finish RAL 9010 matt 30% brightness.
- Paint finish from RAL colour chart. View the list of available colours in the appendix.

ATTACHMENT

- Attachment to concrete ceiling using brackets on the plenum.
- Note: the weight of the diffuser must not be borne by the suspended ceiling frame.
- Attachment to plenum for F7 bridge on plaster version (optional).
 - Special finish on request.

ACCESSORIES

- G2 elliptical flat filter supplied with the exhaust diffuser. M1 fire protection rating.
- Acoustic insulation (15 mm-thick M1 melamine foam inside the plenum).
- Thermal insulation (5 mm-thick M1 polyurethane foam outside the plenum).
- Decorative white aluminium mounting frame for plaster ceilings.
- Bridge system to facilitate installation in non-removable ceilings (optional F7 attachment).

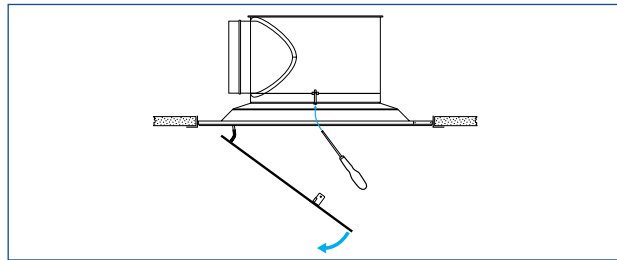
STANDARD DIMENSIONS

- Dimensions suited to standard suspended ceiling panels 600 x 600 mm, 625 x 625 mm or 675 x 675 mm.
- 200 mm diameter circular connection.
- For further information refer to the Range pages below.

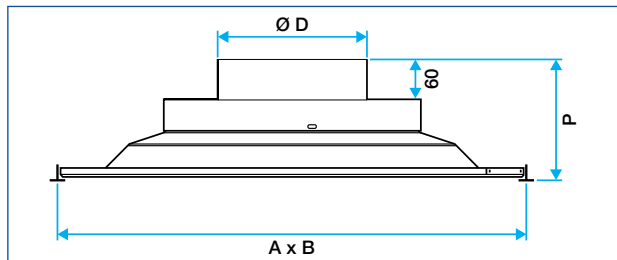
TECHNICAL DETAILS

- See selection tables on following pages.
- See induction rates at end of chapter.

DIMENSIONS



Installation of Twisted plaster ceiling version with F7 bridge



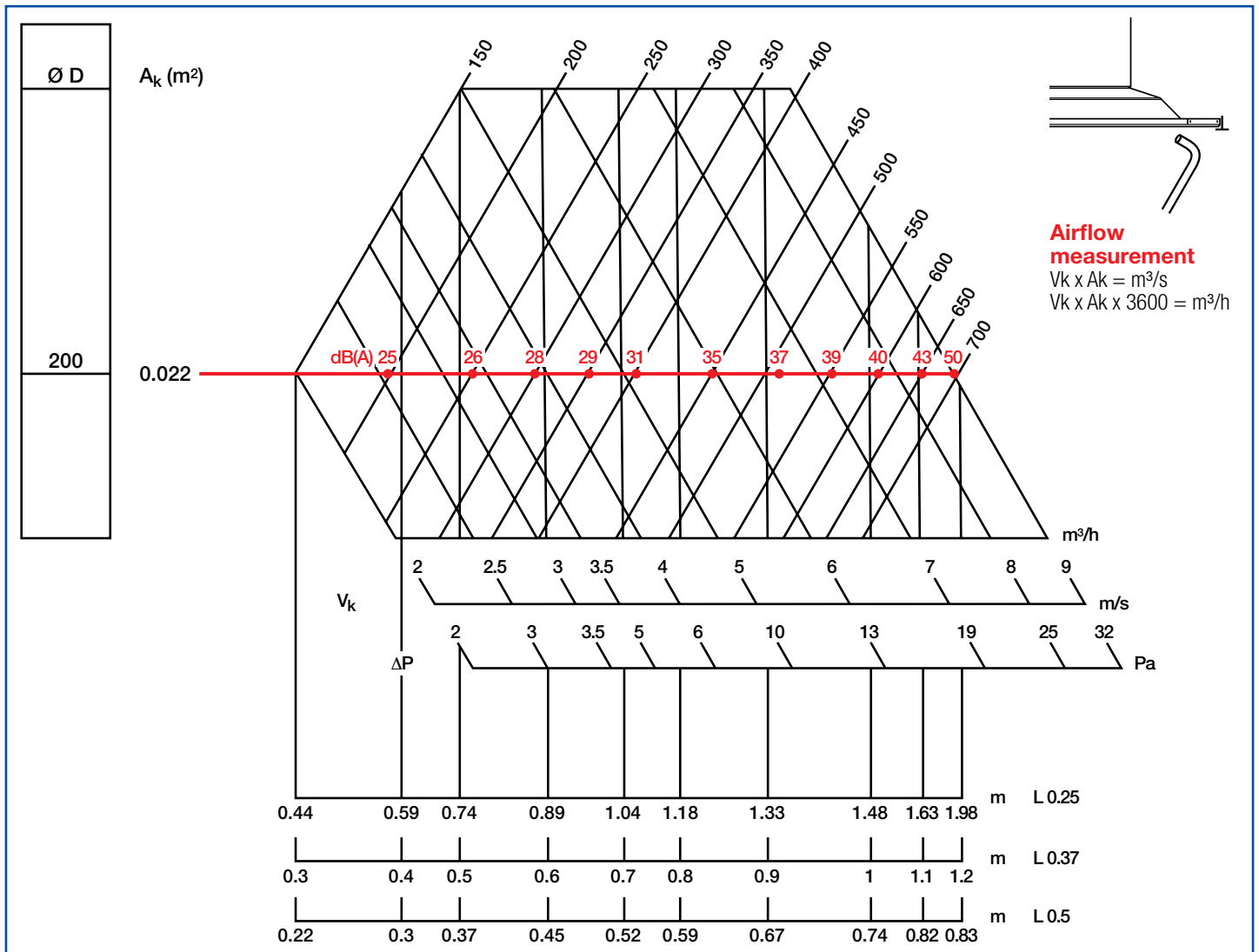
Twisted 850 direct exhaust for square panels

STANDARD DIMENSIONS

Dimensions A x B* (mm)	Ø D (mm)	P (mm)
600 x 600	200 or 250	170
625 x 625	200 or 250	170
675 x 675	200 or 250	170

* Nominal ceiling panel dimensions

TWISTED 850 SERIES

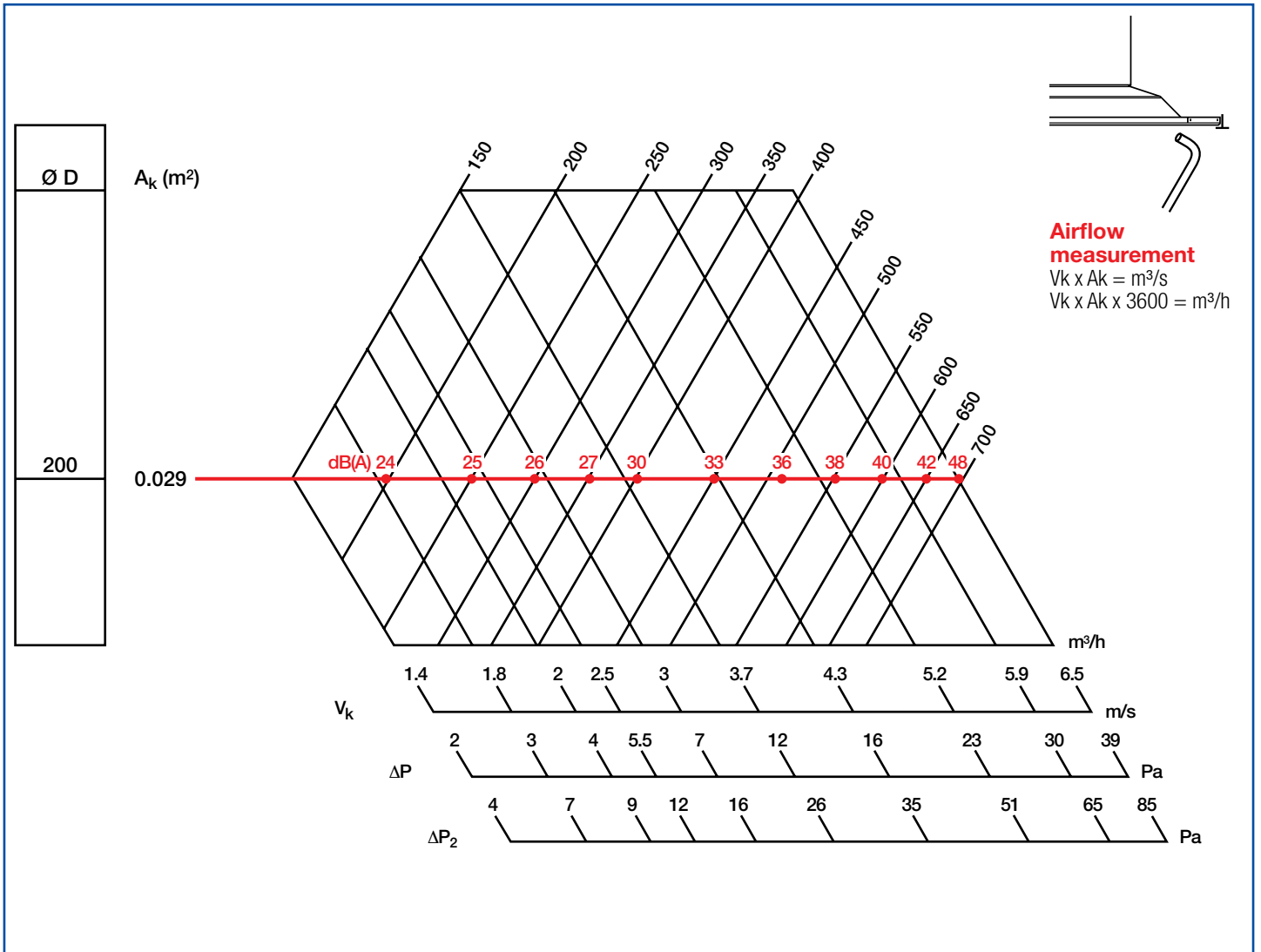


The L_w (dB(A)) values do not take into account any noise attenuation in the room
 Tests conducted with standard plenum

CORRECTIONS FOR OTHER VT

V _t (m/s)	0.25	0.375	0.5	0.625
L _t	x 1.5	x 1	x 0.75	x 0.6

TWISTED 850 SERIES - EXHAUST



The Lw (dB(A)) values do not take into account any noise attenuation in the room
 Tests conducted without plenum (direct model ø 250) and with the standard plenum (Pa₂)

PRESSURE DROP FILTER ONLY

