



Ceiling mounted Airshower, AS-XL



Airshower, type AS-XL, is a roof-mounted air supply diffuser intended for the supply of a vertically displacing, thermally controlled air flow. The diffusers provide for an exceptionally high ventilation efficiency with its minimal pitch length and low turbulence degree.

Product advantages:

- Low noise level
- Good air comfort
- Low energy consumption
- Unique ability to create zones of treated air with very low in mixing of ambient air

The diffusers are especially suited for comfort cooling of industrial premises when high ventilation efficiency is required to reduce the spread of infections, particle levels, or similar concerns

Product info

Ceiling mounted vertically displacing, low turbulent, diffuser with minimal impulse for temperature controlled air flow.

AS-XL is a ceiling mounted diffuser with hidden channel connection, made by AirSon, model AS-C. Duct connection: $\varnothing 315$

Accessory

Flange for connection, universal flange AS-F-XL is available as an accessory. When connecting to a duct, part ILU-315 from Lindab (or similar) is used. Observe, this duct component is not included in our delivery.

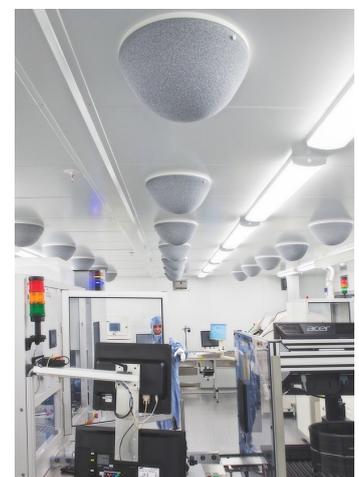


Figure 1: AS-XL in cleanroom

Positioning

For best performance a positioning directly above a heat source should be avoided. In rooms with large temperature differences between floor and ceiling level, the diffusers should be positioned beneath the hottest air layers. At subset temperatures above 1 °C, avoid positioning directly above deskbound (or inactive) people. If replacing a high impulse (mixing) ventilation system it should be ensured that the room heating is readjusted. Otherwise the energy savings from the higher ventilation efficiency will be reduced.

In case you want to use the ability to create controlled zones with the air device, placed the devices so that their distribution pattern (d1, figure 3) encloses the desired surface. They should preferably be placed side by side if the surface is greater than a single enclosing means.

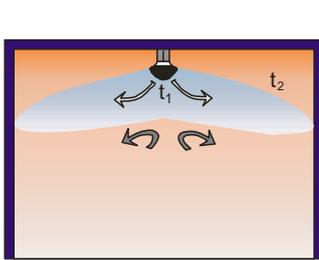


Figure 2: Air distribution at isothermal air supply ($t_2-t_1=0$ °C)

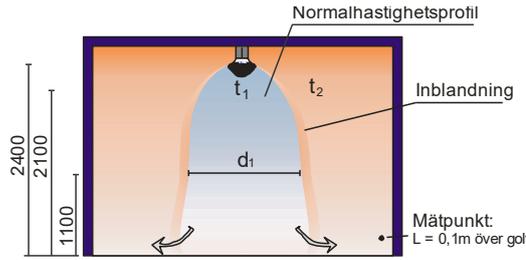


Figure 3: Air distribution at subset air supply ($t_2-t_1 \geq 1$ °C)

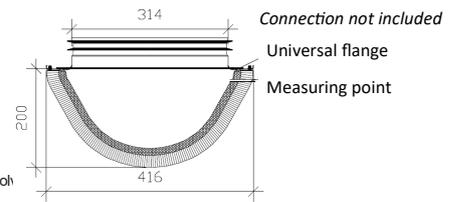


Figure 4: Measurements AS-XL, $\phi 315$

Technical specification

The right hand diagram (figure 5) shows pressure drop for AS-XL.

For air flow adjustment use the formula for air flow ($Q = l/s$) in relation to pressure ($P = Pa$) as measured at the measurement nipple:

$$\text{AS-XL } \phi 315: Q = P_s^{1,1146} \times 2,239$$

The error margin is ± 10 % due to variation in diffuser porosity.

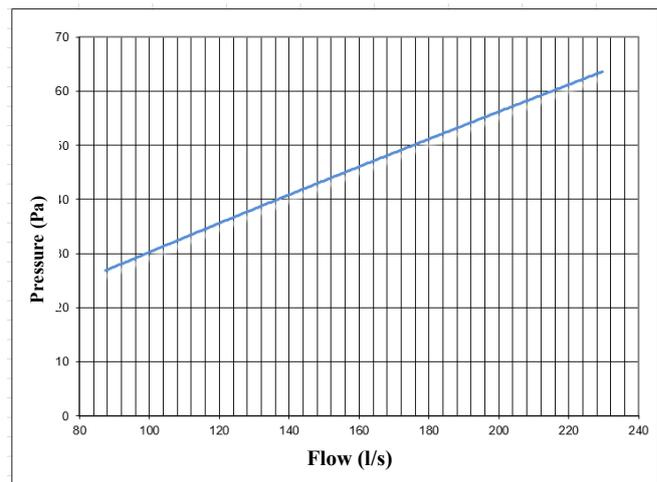


Figure 5: Pressure drop for AS-XL, $\phi 315$

Materials

Assembly ring:	Aluminium
Foam:	Bulpren
Coating:	White powder lacquering
Fire class:	Non-flammable

Choice of Colour

Colour	Code
Light grey, RAL 9010 (Standard)	White
Airshower can be supplied in any colour, to a surcharge, specify RAL code	RAL XXX

Mounting and maintenance

Information about mounting and maintenance can be found in the document "Mounting and maintenance".

Measurements

See figure 4.