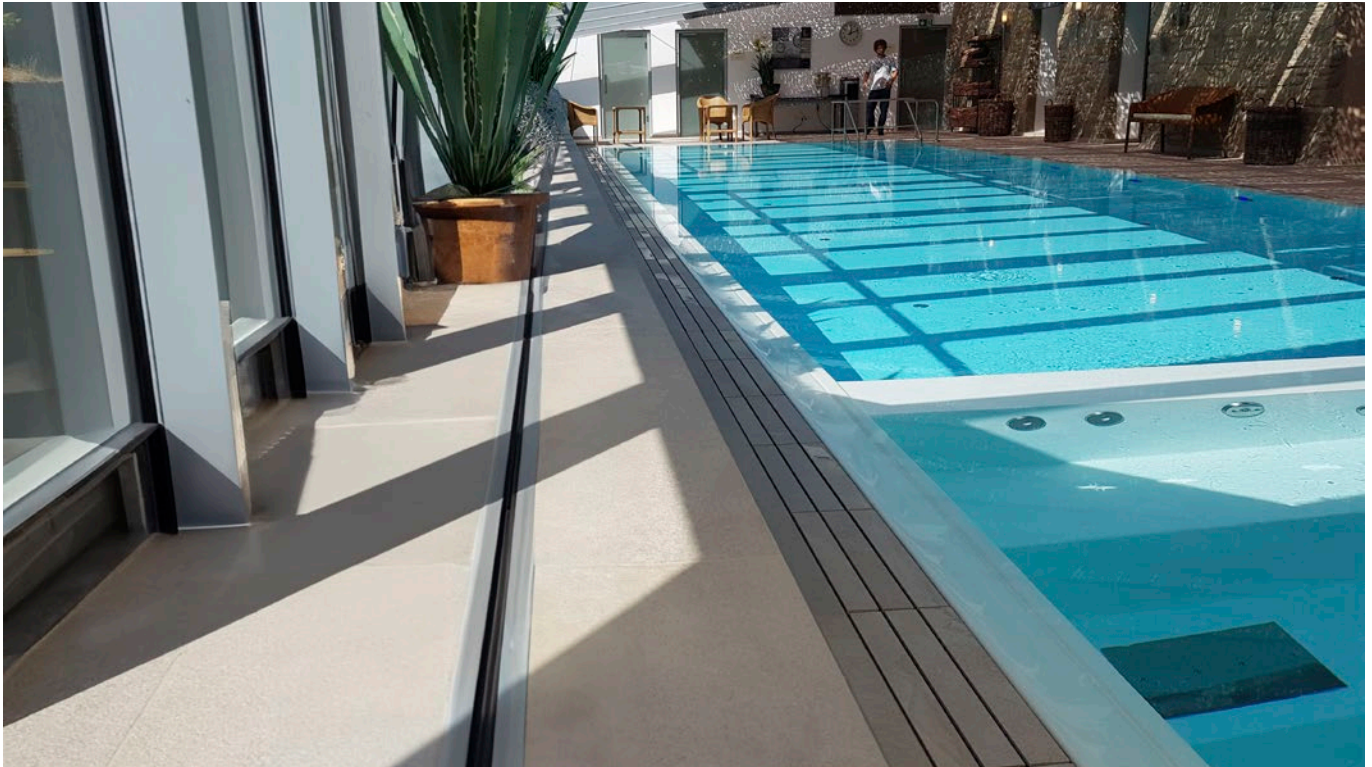


# IBDS

Slot diffuser with high infiltration depth for floor



## QUICK FACTS

- Linear slot diffuser with several consecutive air deflectors
- Suitable for creating air curtains to prevent cold draughts by large windows or provide anti-fog protection by pools
- 1, 2, 3 or 4 slots
- Can be installed as a single module or in continuous lengths
- Plenum box with a horizontal or vertical duct connection
- Standard colour natural anodised
- Air deflectors in standard colour Jet Black RAL 9005

		IBDS									
Number of slots	L <sub>PA</sub> = 20 dB		L <sub>PA</sub> = 25		L <sub>PA</sub> = 30 dB		L <sub>PA</sub> = 35 dB		L <sub>PA</sub> = 40 dB		
	V (l/s)	V (m <sup>3</sup> /h)	V (l/s)	V (m <sup>3</sup> /h)	V (l/s)	V (m <sup>3</sup> /h)	V (l/s)	V (m <sup>3</sup> /h)	V (l/s)	V (m <sup>3</sup> /h)	
1	37	134	48	171	61	219	78	280	99	356	

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# Technical description

## Design

IBDS is a linear slot diffuser with air deflectors intended for floor installation. The diffuser is available with 1 to 4 slots, and can be installed as a single module or in a continuous linear arrangement. End plates and end angles allow for versatile use of the slot diffuser, these can either be mounted on the right, left or both sides of the diffuser.

The diffuser is available with or without support profiles.



## Functionality

The design of the air deflectors allows for high air velocities, enabling long throw distances even with significant temperature differences, all while keeping noise levels very low. This makes the diffuser ideal for creating air curtains, cold air shielding for large window fronts, or anti-fog protection near swimming pools. Its ball-impact resistance also makes it suitable for use in sports halls.

The recommended specific air flow is 120–150 m<sup>3</sup>/hm.

## Material and surface treatment

### Slot diffuser

- Made of extruded aluminium profiles.
- Standard colour:
  - Natural anodised
- Alternative standard colours:
  - RAL 9003, signal white, gloss 70
  - RAL 9010, pure white, gloss 30
  - RAL 9006, white aluminium, gloss 70
  - RAL 9005, jet black, gloss 70
  - RAL 7035, light grey, gloss 70

### End angles and end pieces

- Made of aluminium.
- Painted in the same colour as the slot diffuser.

### Air deflectors

- Made of impact-resistant plastic.
- Standard colour (similar to):
  - RAL 9005, jet black
- Alternative standard colours (similar to):
  - RAL 9003, signal white

## Adaptation

- Other colours available on request.

## Accessories

### Plenum box

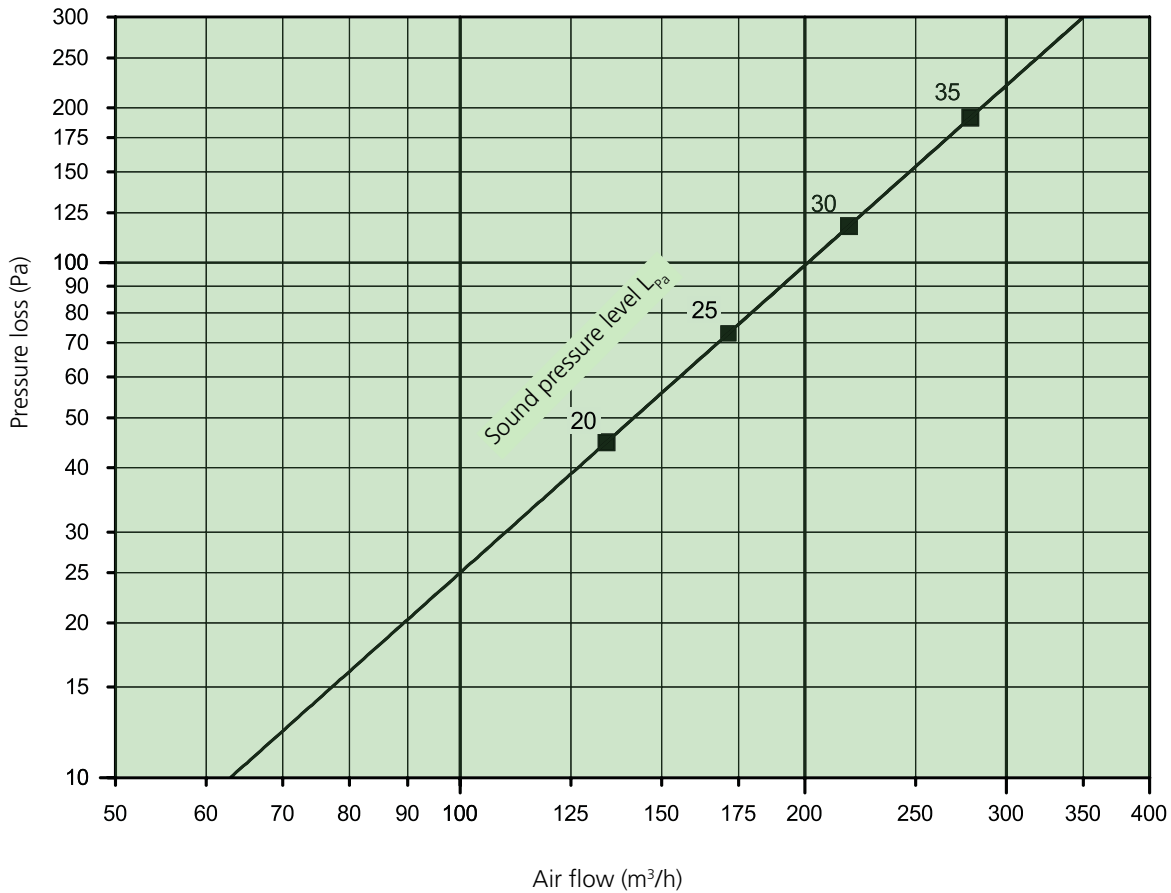
Plenum box for floor slot diffuser IBDS.

- Horizontal or vertical duct connection.
- Made of galvanized sheet steel.
- Perforated commissioning damper in the spigot, actuated by pull cable.

# Technical data

## Sizing diagram

IBDS-1 length: 1000 mm



If the desired slot length deviates from 1000 mm or there is more than one slot, the specific load per 1000 mm slot length must be determined. The flow-related data can then also be taken from the diagram above.

Calculation example:

Desired version: 2-slots, length 1000 mm

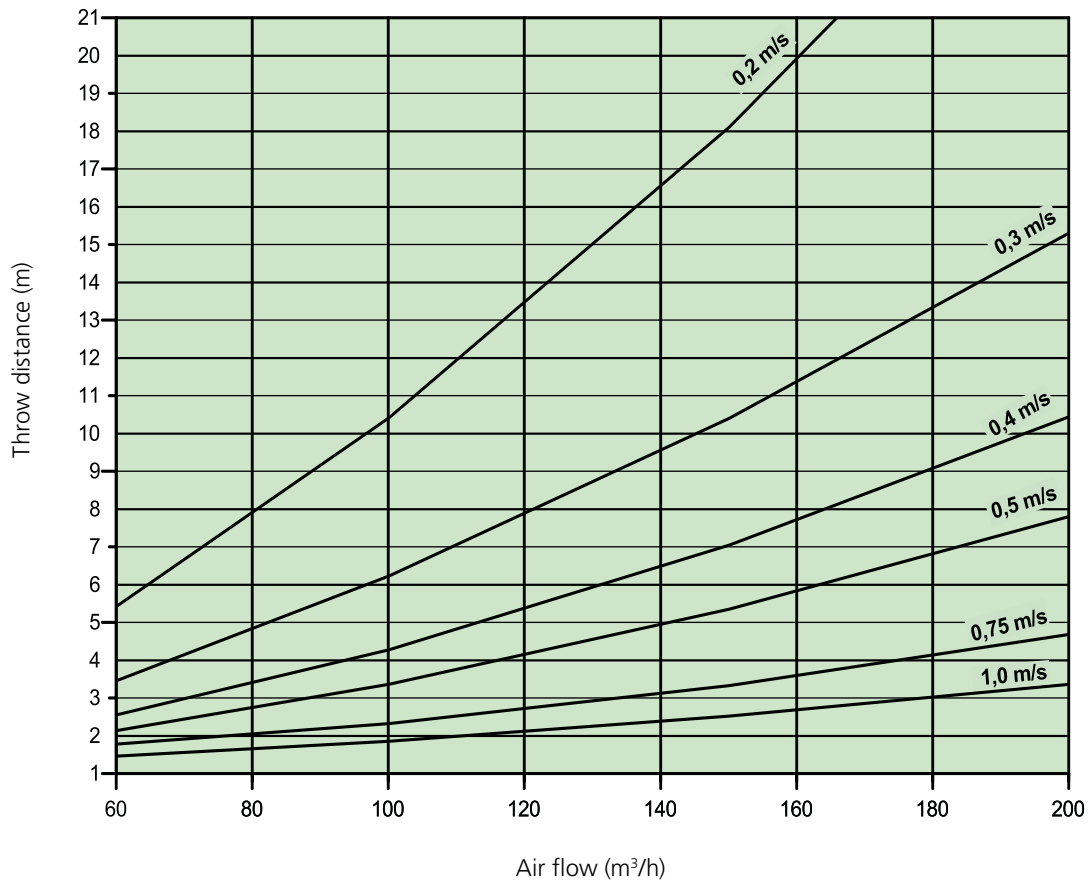
Desired air flow: 280 m<sup>3</sup>/h

⇒ Specific load per metre slot: 140 m<sup>3</sup>/h (approximate value for above diagram)

⇒  $\Delta p \approx 50$  Pa;  $L_{pa} \approx 24$  dB(A)\*

\* For more than one slot, the logarithmic addition of several sound sources for the sound pressure level must be taken into account.

IBDS throw distance



# Dimensions

Number of slots	B (mm)	C (mm)	H (mm)	h (mm)
1	57	300	180	100
		300	180	100
2	79	300	180	100
		300	180	100
3	101	300	180	100
		300	180	100
4	123	300	180	100
		300	180	100

The specified measurements refer to the external dimensions (mm). These can be adjusted within functional limits to meet specific requirements.

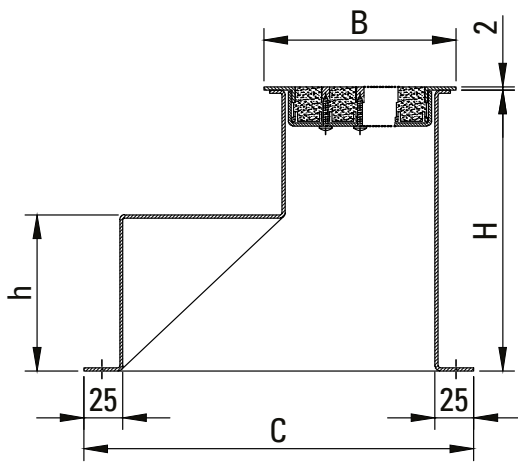


Figure 1. Dimensions, IBDS with plenum box (mm).

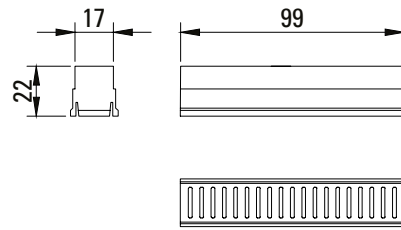


Figure 2. Dimensions, air deflector (mm).

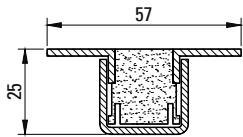


Figure 3. Dimensions, IBDS with 1 slot (mm).

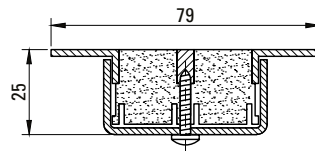


Figure 4. Dimensions, IBDS with 2 slots (mm).

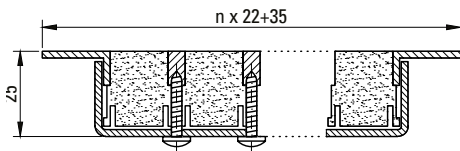


Figure 5. Dimensions, IBDS with multiple slots (mm).

# Specification

For ordering, contact your local Swegon sales office.

# Specification text

Linear slot diffuser IBDS for floor installation with the following features:

- Available with 1 to 4 slots.
- Can be installed as a single module or in a continuous linear arrangement.
- Extruded aluminium profiles, standard colour white (RAL 9003).
- Air deflectors made of plastic, standard colour black.