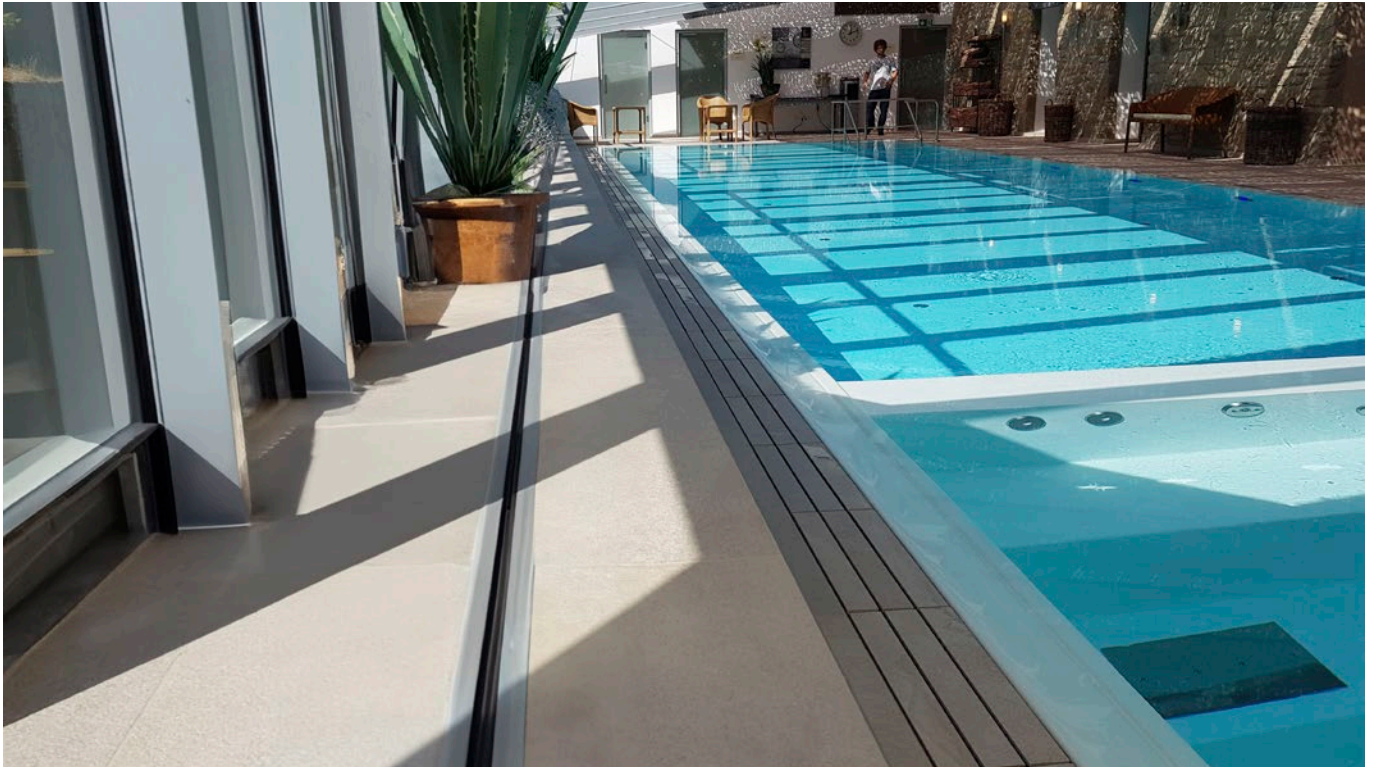


# VZ-IBD

Adjustable slot diffuser with high infiltration depth for ceiling



## 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 anodized
- Air deflectors in standard colour Jet Black RAL 9005

VZ-IBD										
Number of slots	$L_{PA} = 20 \text{ dB}$		$L_{PA} = 25 \text{ dB}$		$L_{PA} = 30 \text{ dB}$		$L_{PA} = 35 \text{ dB}$		$L_{PA} = 40 \text{ dB}$	
	V (l/s)	V ( $\text{m}^3/\text{h}$ )	V (l/s)	V ( $\text{m}^3/\text{h}$ )	V (l/s)	V ( $\text{m}^3/\text{h}$ )	V (l/s)	V ( $\text{m}^3/\text{h}$ )	V (l/s)	V ( $\text{m}^3/\text{h}$ )
1	37	134	48	171	61	219	78	280	99	356

# Contents

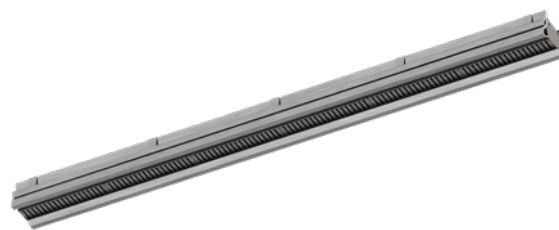
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# Technical description

## Design

VZ-IBD is a linear slot diffuser with air deflectors for ceiling 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 pieces 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.

## Material and surface treatment

### Slot diffuser

- Made of extruded aluminium profiles.
- Standard colour:
  - Natural anodized
- 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

### 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 slot diffusers with a profile width of 41 mm.

- Horizontal or vertical duct connection.
- Perforated commissioning damper in the spigot, actuated by pull cable.
- Rubber seal.

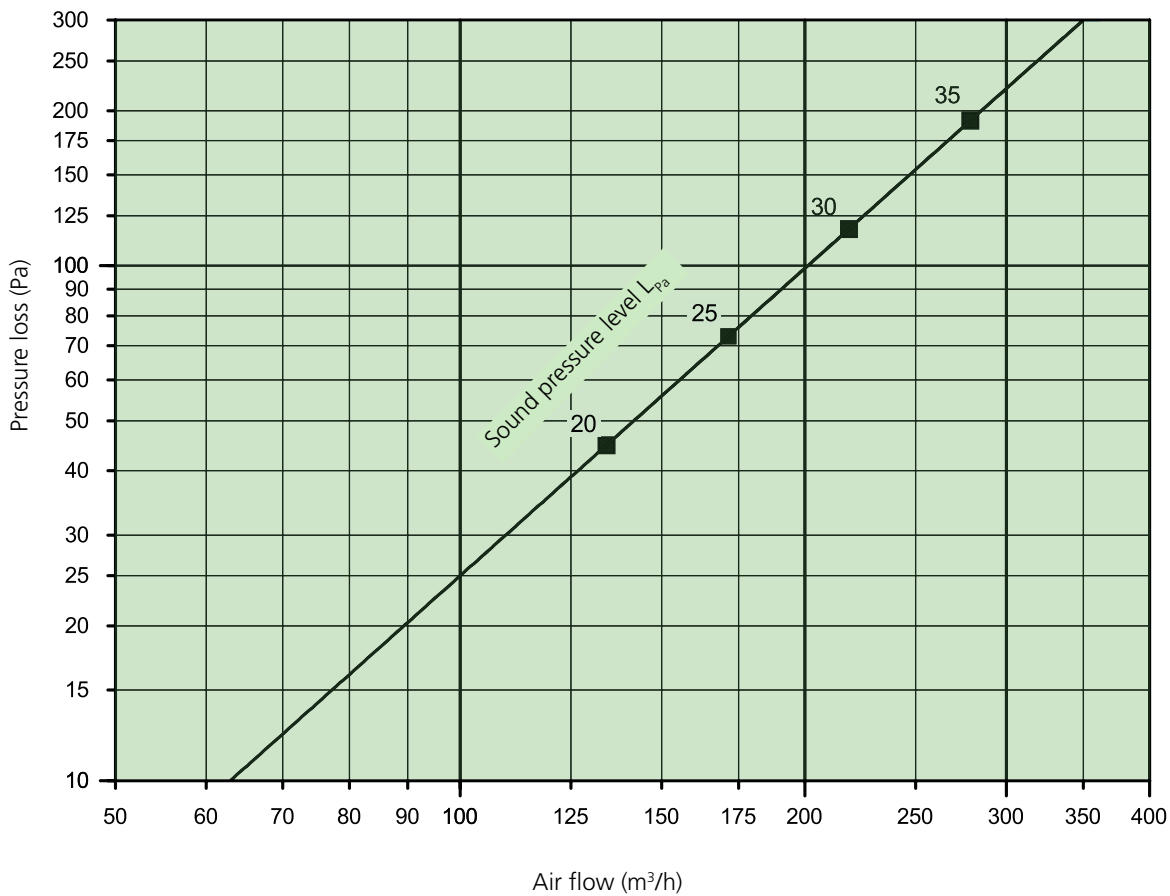
## Planning

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

# Technical data

## Sizing diagram

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

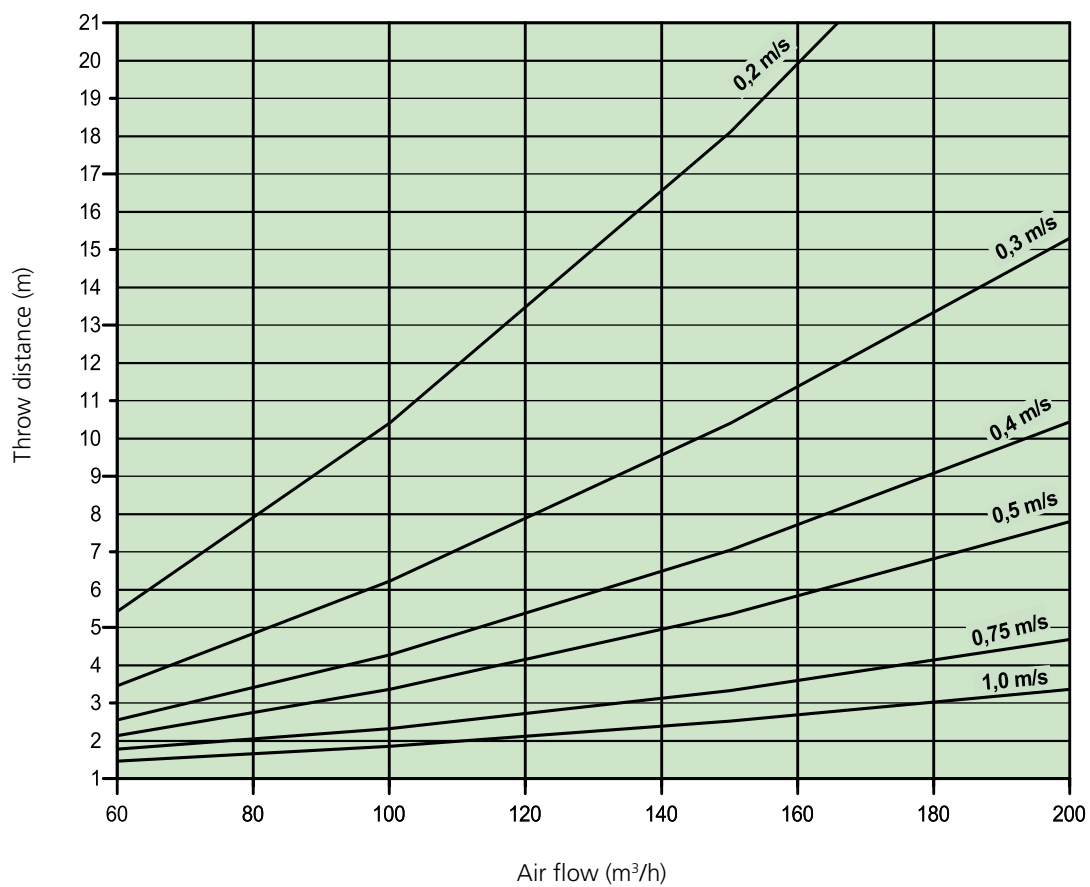
Desired air flow: 280 m<sup>3</sup>/h

⇒ 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.

## Throw distance



# Dimensions

Number of slots	B (mm)	ø d (mm)	C (mm)	H (mm)	h (mm)	B1 (mm)	L <sup>1)</sup> (mm)
1	41	98	116	190	120	154	80
		123	116	215	145	166.5	105
2	81	123	156	215	145	166.5	105
		138	156	230	160	175	115
3	121	138	196	230	160	189	115
		158	196	250	180	195	140
4	161	158	236	250	180	229	140
		198	236	290	220	235	160

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

<sup>1)</sup>Spigot length without commissioning damper is always 50 mm.

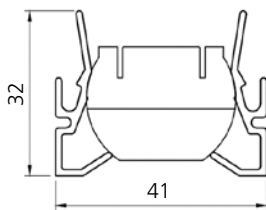


Figure 1. Without support profiles (mm).

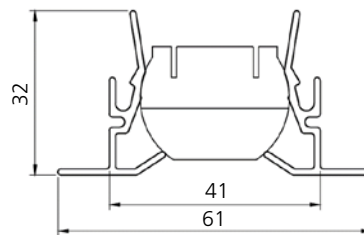


Figure 4. With support profiles (mm).

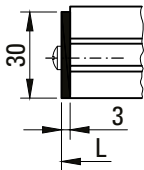


Figure 2. With end piece (mm).

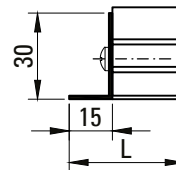


Figure 5. With end angle (mm).

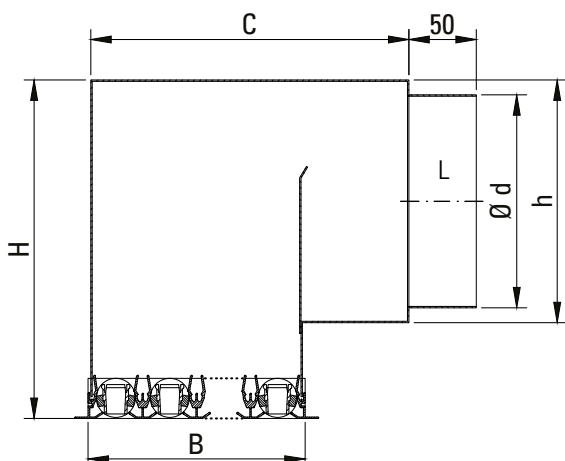


Figure 3. VZ-IBD with plenum box, horizontal connection (mm).

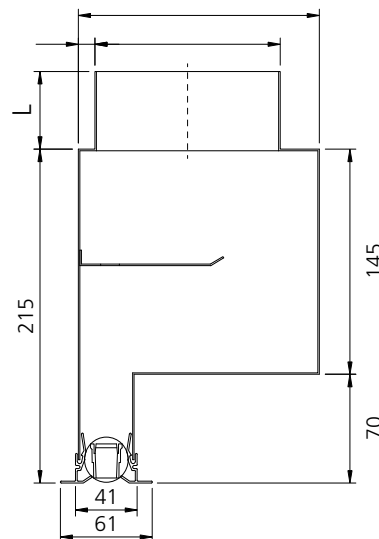


Figure 6. VZ-IBD with plenum box, vertical connection (mm).

## Specification

For ordering, contact your local Swegon sales office.

## Specification text

Linear slot diffuser VZ-IBD for ceiling 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.