

BQA

Floor displacement diffuser for comfort ventilation



QUICK FACTS

- Supplies conditioned supply air to the occupied zone
- Installation in double and cavity floors
- Installed on the subfloor using adjustable feet to ensure a flush surface with the floor
- Can be installed as a single module or in continuous lengths
- Adjustable air deflectors for individual adjustment of distribution pattern
- Supports variable air volumes (VAV)

Contents

Technical description	3
Design	3
Functionality	3
Material and surface treatment	3
Adaptation	3
Accessories	3
Installation	3
Maintenance.....	3
Dimensions.....	5
Specification.....	7
Product.....	7
Accessories	7
Specification text.....	7

Technical description

Design

BQA is a floor displacement diffuser for supplying air to occupied zones in rooms with double or cavity floors, based on the mixed/source ventilation principle. BQA can be installed as single module or in a continuous arrangement.

The diffuser features a casing with height-adjustable feet for precise installation on double or cavity floors. Inside the diffuser, an air distribution plate equipped with adjustable air deflectors ensures an even and adaptable air flow. The visible element in the room is the grille, which provides the diffuser with a discreet appearance.

Functionality

The treated supply air is supplied to the diffuser's floor duct through spigots. The adjustable air deflectors ensure even air flow distribution across the entire diffuser and allow the distribution pattern to be tailored as required.

In cooling mode, the cold supply air is discharged vertically into the room as mixed/source air near the façade. As it mixes with the ambient air, air flow with a low vertical temperature gradient and moderate air velocities is generated.

The resulting mixed air then spreads across the floor in accordance with the source-air principle, where it is warmed by internal heat loads such as people or electrical equipment. As the air is heated, it rises as a displacement flow, transporting pollutants and used air toward the extract air system.

Material and surface treatment

Casing

- Made of galvanized sheet-steel.
- Exterior surfaces painted.
- Standard colour:
 - Jet black, RAL 9005

Air deflectors

- Made of plastic.
- Standard colour (similar to):
 - Jet black, RAL 9005

Grille

- Made of aluminium.
- Standard colour:
 - Natural anodised

Adaptation

- Other colours available on request.
- Grille available as roll grille.
- Grille available in stainless steel, with linear or transverse front profiles.

Accessories

- Installed in continuous lengths with intermediate pieces, end pieces, mitre corners.
- Grilles in various designs.

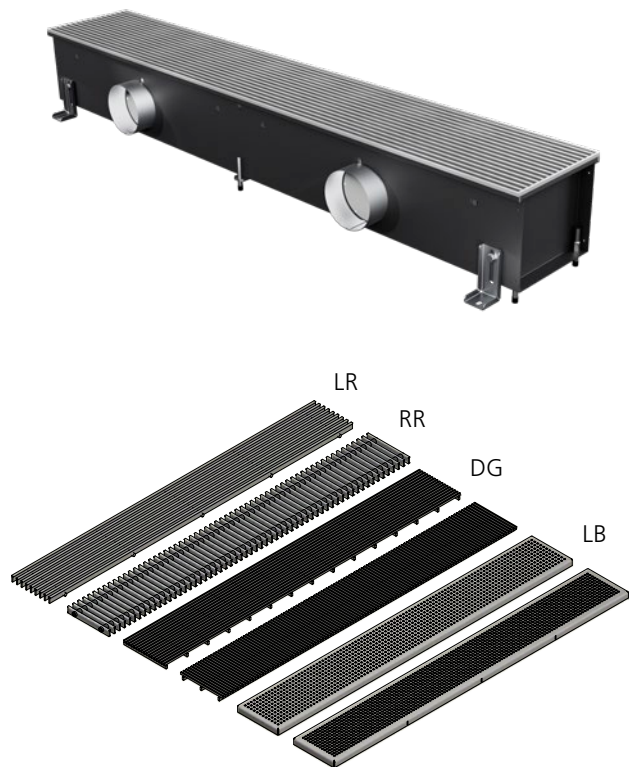


Figure 1. Grilles.

LR: Linear grille, aluminium 18x5

RR: Roll grille, aluminium 18x5

DG: DSM stainless steel longitudinal, transverse

LB: Perforated grille in various designs (e.g. Qg 4/10, Rg 5/8, etc.)

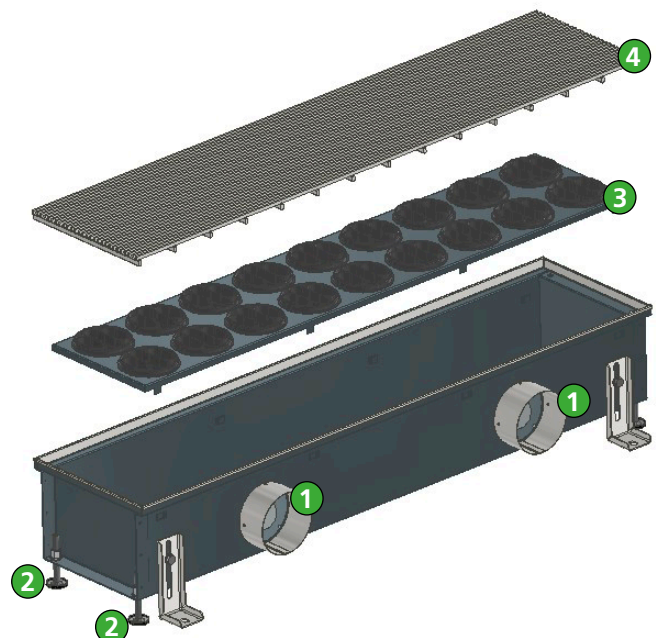


Figure 2. The structural design of BQA. The diffuser consists of the casing with:

1. Supply air duct connection.
2. Adjustable feet.
3. Air distribution plate with air deflectors.
4. Grille.

Installation

BQA is installed in raised and hollow-core floors, placed on the subfloor using adjustable feet for adapting to construction tolerances, and forms one level with the raised floor.

The product can be installed in continuous lengths, using the available accessories.

Maintenance

The floor diffuser is fully accessible and slip-resistant. Avoid placing heavy loads on the grille, e.g. by setting up ladders or scaffolding. Extreme stress, such as using a cleaning machine on the diffuser, should also be avoided.

In cases where high loads are required, special precautions must be taken for the floor diffuser, such as protecting it with a sufficiently stable and flat cover.

Safety:

Maintenance, servicing and repair work on the diffuser may only be carried out by trained and authorised specialists. Qualified personnel must observe all instructions in the operating manual and the regulation 'perforation grille' for glossarys and provisions applicable at the place of use of the diffuser.

The diffuser is largely maintenance-free. Maintenance work is therefore limited to regular cleaning. Please note the following when cleaning:

- Observe the cleaning cycles specified in VDI 6022.
- Clean surfaces with a damp cloth.
- Only use standard, non-aggressive cleaning agents for cleaning.
- The use of chlorine-based cleaning agents is prohibited.
- The use of cleaning aids to remove stubborn fouling, e.g.
- Scouring pads and scouring cream, may damage the surface and is prohibited.
- Never use force when cleaning.

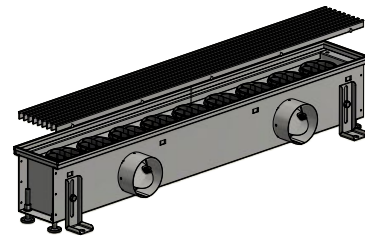


Figure 3. Installed as a single module.

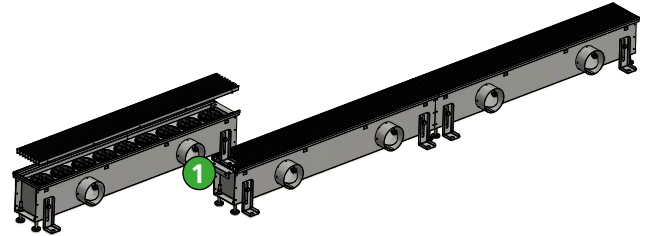


Figure 4. Installed in a continuous length.
1. Connecting plate.

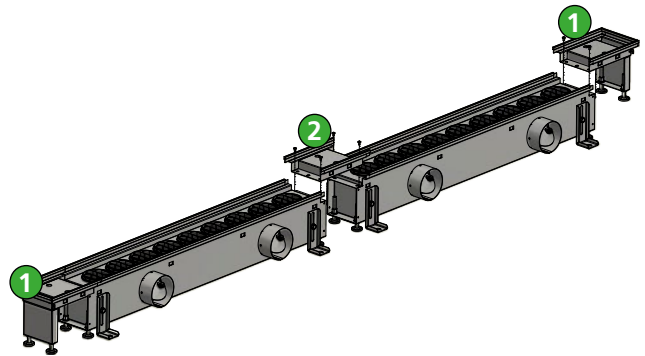


Figure 5. Installed in a continuous length with connecting pieces.
1. End pieces
2. Spacer

Dimensions

Length L, mm	Width W, mm	Height H, mm	Duct connection \varnothing d, mm
500, 1000, 1500, 2000	190, 290, 340, 390	200	100, 125, 140

Other dimensions on request.

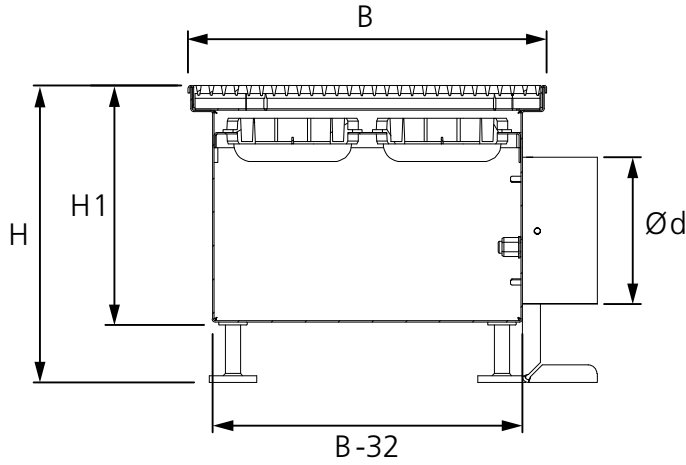


Figure 6. Dimensions, BQA.

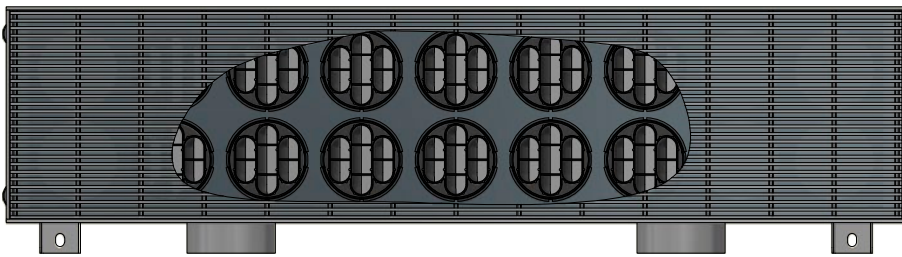


Figure 7. Air deflectors.

Specification

For ordering, contact your local Swegon sales office.

Specification text

Floor displacement diffuser BQA for a mixed/source flow, for installation in raised floors with the following features:

- Facilitated cleaning due to a sealed sheet metal surface beneath the grille, with integrated air deflectors.
- Can be installed as a single module or in continuous lengths.
- Uniform supply air flow across the entire grille surface.
- Casing made from finely galvanised sheet steel, external surfaces painted in black (RAL 9005).
- With adjustable feet for adapting to construction tolerances.
- Grille available as roll grille with double T-profiles made from naturally anodised aluminium, connection made from galvanised steel springs, with colour-coordinated plastic spacer sleeves, bar dimensions 18 x 5 mm, free cross-section around 70%.
- The linear grille consists of sturdy longitudinal profile bars, anodised in a natural colour, with a profile bar dimension of 18x5 mm, free cross-section around 60%.
- Other anodised colours available on request.