

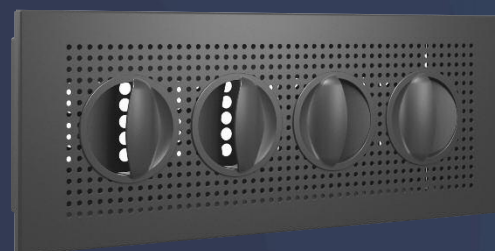
Catalogue

# air diffusion

Low Velocity  
Terminal for  
Small Airflows



Model DRG

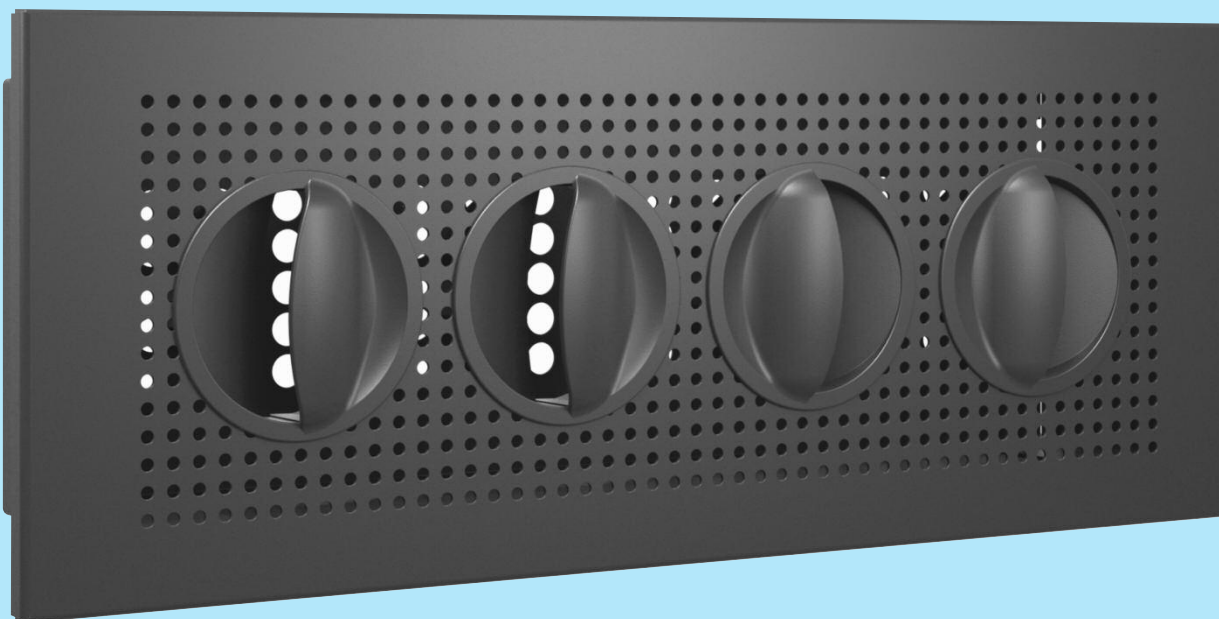


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# Features

- Adjustable spread pattern and affected area
- Simple installation
- Cleanable
- Available in a large number of special versions for optimum adaptation to the room
- Available in alternative colours on special order



# Technical Description

## Introduction

The DRG is a rectangular low velocity terminal consisting of two components, the front plate and the mounting frame. The rectangular mounting frame is manufactured with grooves in the short side which fit the springs on the front plate. The perforated front plate has aerodynamically shaped discs. The front plate is pressed into the mounting frame and is held in place by the spring clips. Figure 1.

## Materials and surface treatment

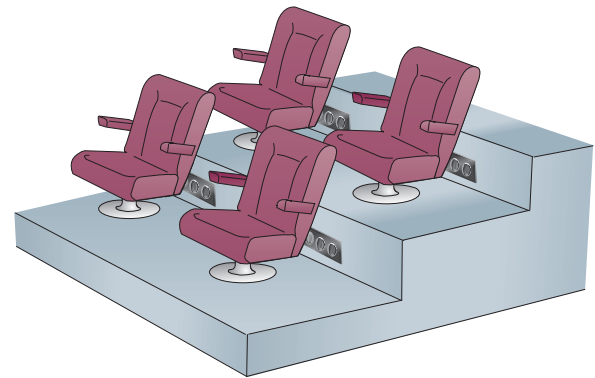
The mounting frame and the front plate are manufactured in galvanized sheet steel. The front plate is painted in the colour selected when the order is placed. The standard version is painted in jet black, RAL 9005. The unit is also available in other standard colours: dusty grey 7037, white aluminium RAL 9006, grey aluminium RAL 9007, pure white RAL 9010 and signal white RAL 9003 (NCS 0500).

## Customisation

In addition to the standard version, the DRG is available in special dimensions, with or without discs, in different shapes etc. Please contact your nearest sales office for further information.

## Planning

The spread pattern can be adjusted by turning the aerodynamic discs in the front panel.



DRG Typical Arrangement

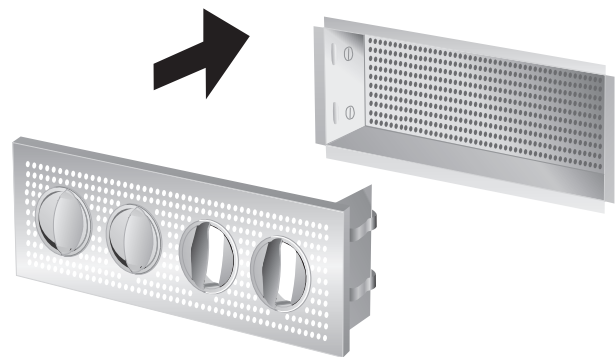


Figure 1 Components

## Installation

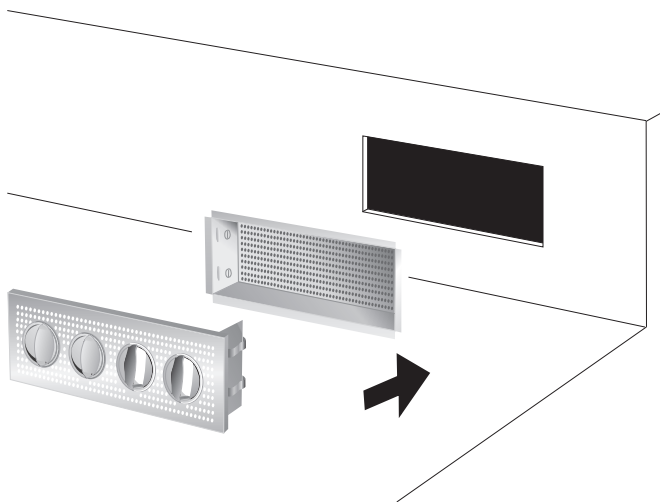


Figure 2. A 300 x 100mm predetermined hole is cut as illustrated.

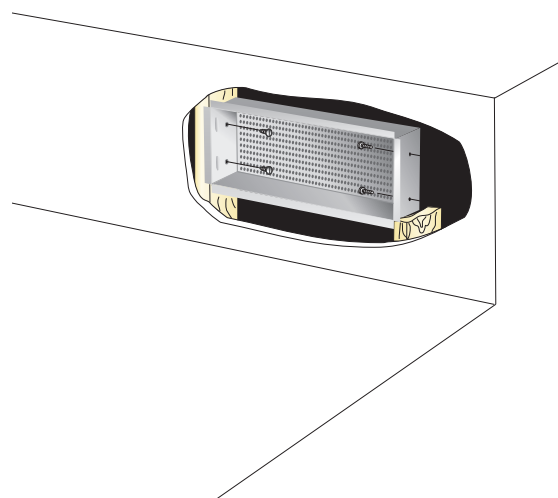
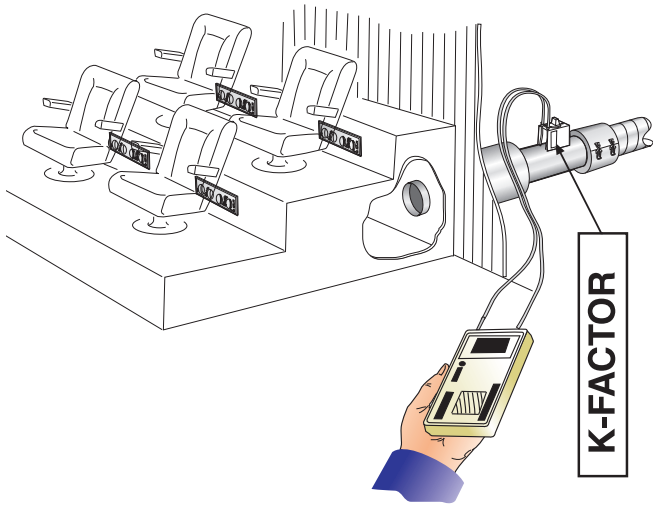


Figure 3. The mounting frame is placed in the hole and screwed to the framework through the short sides. The front plate is then pressed into place in the mounting frame.

# Technical Description Continued



**Figure 4** Commissioning

## Sizing

Sound level dB(A) applies to rooms of 10 m<sup>2</sup> equivalent absorption area.

The affected areas a at 0.2m/s and b at 0.2m/s are measured at  $\Delta t - 3$  K and refer to the maximum velocity independence of the distance from the floor.

$\Delta t$  is the difference between the room temperature at 1.2 m above the floor and the supply air temperature.

Recommended maximum under temperature 6 K.

For calculating the width of the spread pattern, air velocities in the zone of occupation or sound levels in rooms with other dimensions, please refer to our calculation programme ProAir web, which is available for download at [www.swegon.com](http://www.swegon.com).

## Sound Data – DRG

Sound Power Level L<sub>w</sub>(dB)

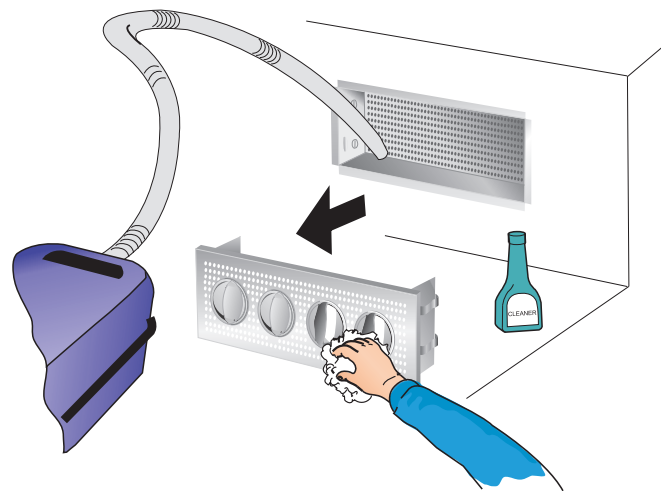
Table K<sub>OK</sub>

Size DRG	Mid-frequency (octave band) Hz							
	63	125	250	500	1000	2000	4000	8000
300 x 100	4	2	2	3	0	-6	-19	-25
Tol. ±	2	2	2	2	2	2	2	2

## Sound attenuation $\Delta L$ (dB)

Table  $\Delta L$

Size DRG	Mid-frequency (octave band) Hz							
	63	125	250	500	1000	2000	4000	8000
300 x 100	15	9	4	2	0	0	0	0
Tol. ±	2	2	2	2	2	2	2	2



**Figure 5** Maintenance

## Commissioning

We recommend that the space underneath/behind the terminal should function as a pressure chamber. The supply air duct to each pressure chamber is then equipped with a measuring and commissioning damper. Figure 4.

## Maintenance

The terminal can be cleaned when necessary using luke warm water with detergent added. Figure 5.

# Technical Description Continued

## DRG Engineering Graphs

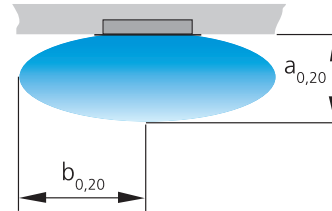
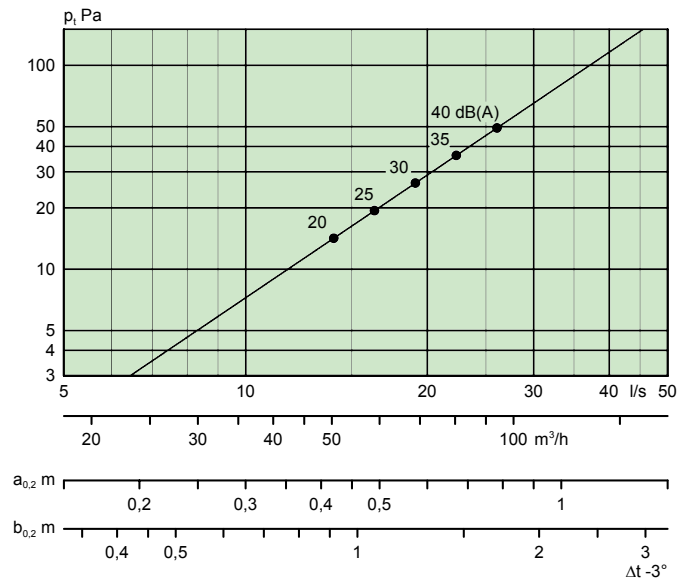


Figure 4 . Affected area.

## DRG 300 - 100

### Air flow – Pressure drop – Sound level – Affected area

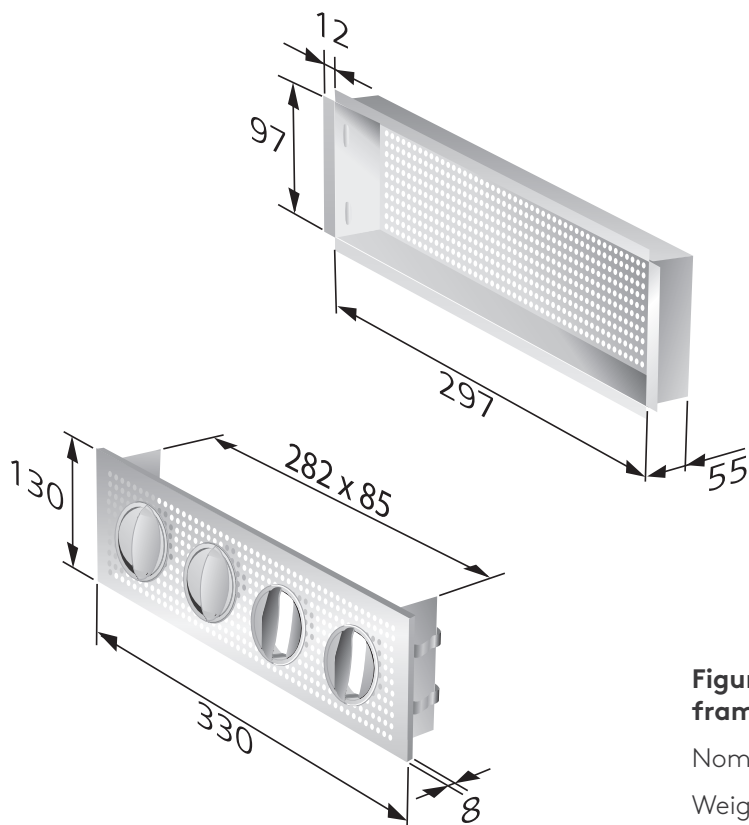
The above graphs illustrate data for a DRG terminal installed in the open space below the seats, that functions as a pressure chamber.

The affected areas a at 0.2m/s and b at 0.2m/s are measured at  $\Delta t -3$  K.

The graphs are not to be used for commissioning.

The dB(C) value is normally 6 - 9 dB higher than the dB(A) value.

# Dimensions Weights and Ordering Information



**Figure 5. DRG with mounting frame.**

Nominal hole size = 300 x 100 mm.

Weight: 1.1 kg

## Ordering Information

### Type DRG

Type	Version	Size
DRG	B	300 x 100

Rectangular low velocity terminal for small air flows.

### Specification example

#### SD XX

Swegon's rectangular low velocity terminal for small airflows of type DRG, with the following functions:

- Adjustable spread pattern and affected area
- Includes mounting frame
- Non-fouling
- Cleanable
- Painted in standard matt black, RAL 9005

Size: DRGb 300 x 100



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