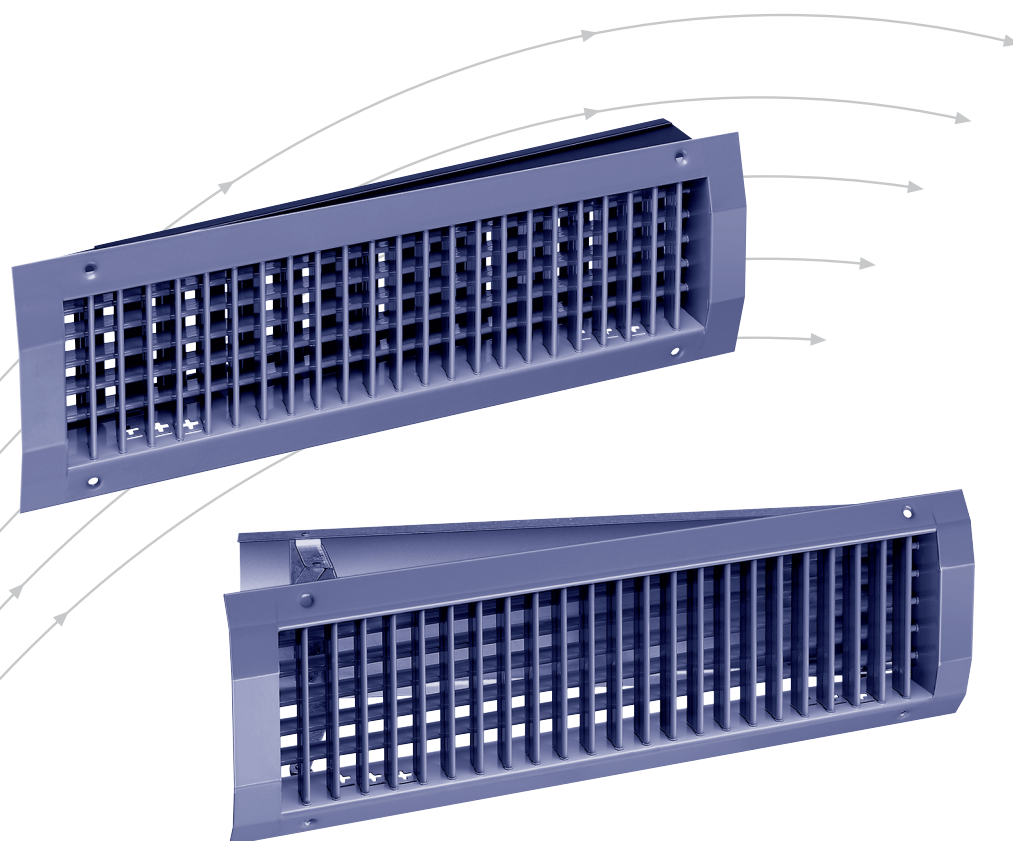


Diffusion grilles for installation in ducts

Type DGR / DGRA



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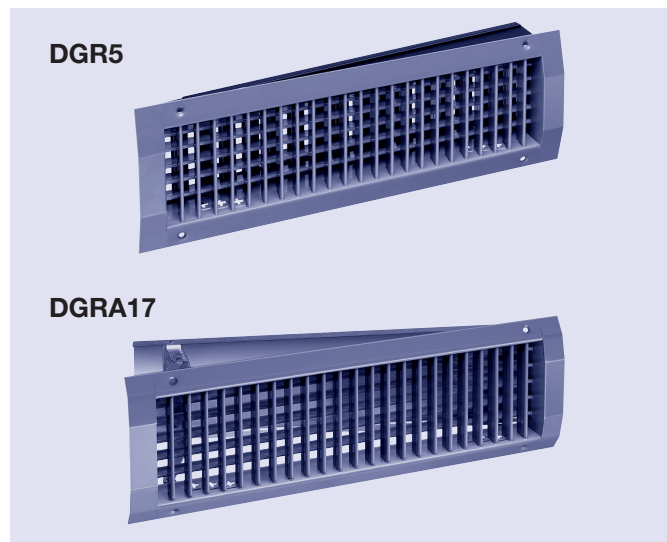
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Application

The diffusion grilles are used as air supply or exhaust grilles in visible ducts.

They are suitable for industrial plants, shopping centers, warehouses, etc.

Due to the different types and sizes available, an optimum solution is ensured for each individual application.



The well-designed diffusion grilles of steel are made for installation in ducts with circular cross sections.

Realisation

The diffusion grilles type DGR are made of special angular frames, steel, powder coated, galvanised silver, which are designed for the corresponding duct diameter segments. Individually adjustable blades as for DG1 and DG3 (prospectus L-02-1-01e). Glued-on foam gasket. The recessed bolt holes **and** the slotted holes for the clamping springs are stamped in the angular frames of the assortment on stock (standard).

Special models

- Other sizes are limited to the dimensions of the normal steel diffusion grilles.
- Diffusion grilles of stainless steel, made for installation in ducts, types DGRX1, DGRX3, DGRX7, DGRX17 see prospectus L-02-1-13e.
- Diffusion grille of stainless steel **with** sliding damper, made for installation in ducts, type DGRX5 is **not** available.

For further details see individual documents of steel diffusion grilles.

For supply air: DGR1, DGR5, DGR6, DGR17
For exhaust air: DGR3, DGR7, DGR8

Dimensions / Quick selection

Stock assortment DGR and DGRA (in bold types)
nominal width B x nominal height H mm

| Nom. length B [mm] | Nominal height | | | | | | | | | | | | | | |
|--------------------|----------------|---------------|-----------|-----------|---------------|-----------|-----------|---------------|-----------|-----------|---------------|-----------|------|-----|------|
| | ZL [m³/h] | H [mm] | AL [m³/h] | ZL [m³/h] | H [mm] | AL [m³/h] | ZL [m³/h] | H [mm] | AL [m³/h] | ZL [m³/h] | H [mm] | AL [m³/h] | | | |
| 200 | 83 | 50 | 97 | | | | | | | | | | | | |
| 300 | 125 | 50 | 146 | 250 | 100 | 292 | | | | | | | | | |
| 400 | 167 | 50 | 195 | 334 | 100 | 390 | | | | | | | | | |
| 500 | 208 | 50 | 243 | 417 | 100 | 487 | 625 | 150 | 730 | 834 | 200 | 974 | | | |
| 600 | 250 | 50 | 292 | 500 | 100 | 584 | 750 | 150 | 876 | 1000 | 200 | 1168 | 1250 | 250 | 1460 |
| 750 | 313 | 50 | 365 | 625 | 100 | 730 | 938 | 150 | 1095 | 1250 | 200 | 1460 | 1563 | 250 | 1825 |

Base: DGR(A)5 mounted directly in the duct
(run over by air with 3 m/s)

ZL = supply air, $v_{\text{eff}} = 3.0 \text{ m/s}$, $\Delta p_s = 28 \text{ Pa}$

AL = exhaust air, $v_{\text{eff}} = 3.5 \text{ m/s}$, $\Delta p_s = 34 \text{ Pa}$

L_w for nominal dimension 600 x 100 mm:

$L_{wZL} = 43 \text{ dB(A)}$, $L_{wAL} = 46 \text{ dB(A)}$

Legend

v_{eff} = velocity of effective air

Δp_s = static pressure drop

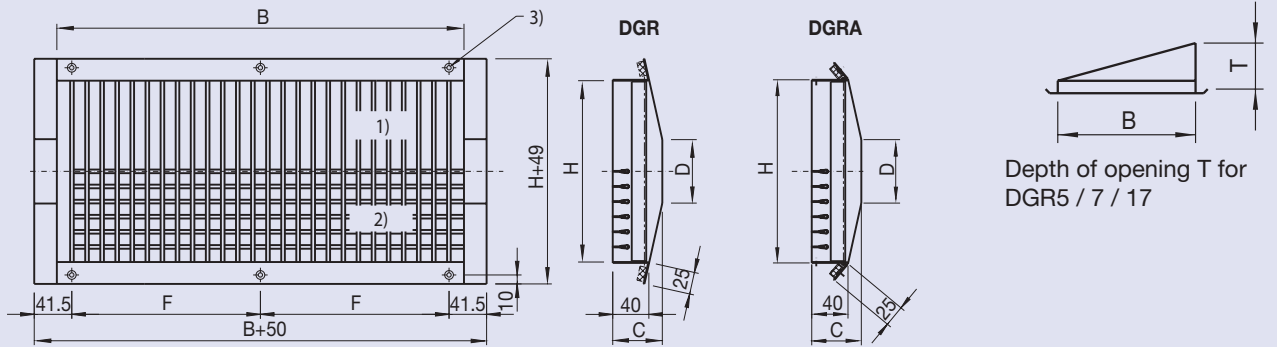
L_w = sound power level

| B [mm] | H [mm] | | | | C/D | H [mm] | | | | | |
|--------|--------|-----|-----|-----|-----|--------|-----|-----|-----|-----|-----|
| | 50 | 100 | 150 | 200 | | 50 | 100 | 150 | 200 | 250 | |
| 200 | 50 | | | | C | | | | | | |
| 300 | 50 | 100 | | | | 40 | 44 | 50 | 55 | 55 | |
| 400 | 50 | 100 | | | | | | | | | |
| 500 | 50 | 100 | 150 | 200 | D | | | | | | |
| 600 | 50 | 100 | 150 | 200 | | 250 | 50 | 65 | 65 | 70 | 110 |
| 750 | 50 | 100 | 150 | 200 | | 250 | | | | | |

| F [mm] | | | |
|---------|---------|---------|---------|
| B = 400 | B = 500 | B = 600 | B = 750 |
| - | - | 283.5 | 358.5 |
| - | - | 283.5 | 358.5 |
| - | - | 283.5 | 358.5 |
| - | - | 283.5 | 358.5 |
| - | - | 283.5 | 358.5 |

Dimensions · Installation · Range of application

DGR1 / DGR3



- 1) DGR3 + DGR7 + DGR8
- 2) DGR1 + DGR5 + DGR6 + DGR17
- 3) recessed bold holes $\varnothing 4.8 \times 90^\circ$ and slotted holes for clamping springs

Installation DGR7/DGRA7, for exhaust air

Installation

1. Draw opening onto the duct using a stencil
Size $B + 15_0^{+2}$ mm x $H + 10_0^{+2}$ mm
(B x H) = nominal grille dimension
2. Drill the rabbets tangent to the opening 10 mm outside of these marked openings and rivet them (blind rivet) to prevent the duct from decoiling when it is cut open.
3. Use a compass saw or shears to cut the openings.

4. Install the DGR using sheet metal screws at the patented invisible spring clips (SL)

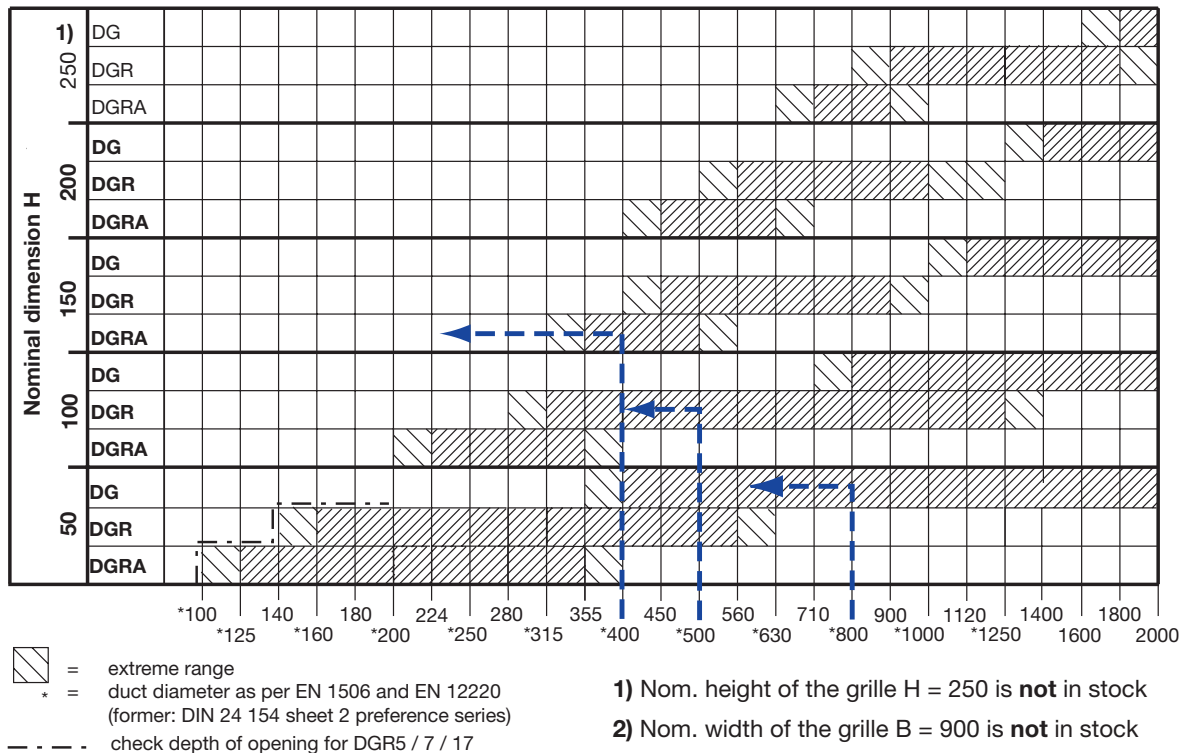
Dimensioning

You find the technical data of the air velocity, throw, quantity of air and pressure drop in the leaflet 'Diffusion grilles type DG..., Dimensioning' L-02-5-01e.

Surface proportion : free surface / nominal surface = 0.77

Range of application

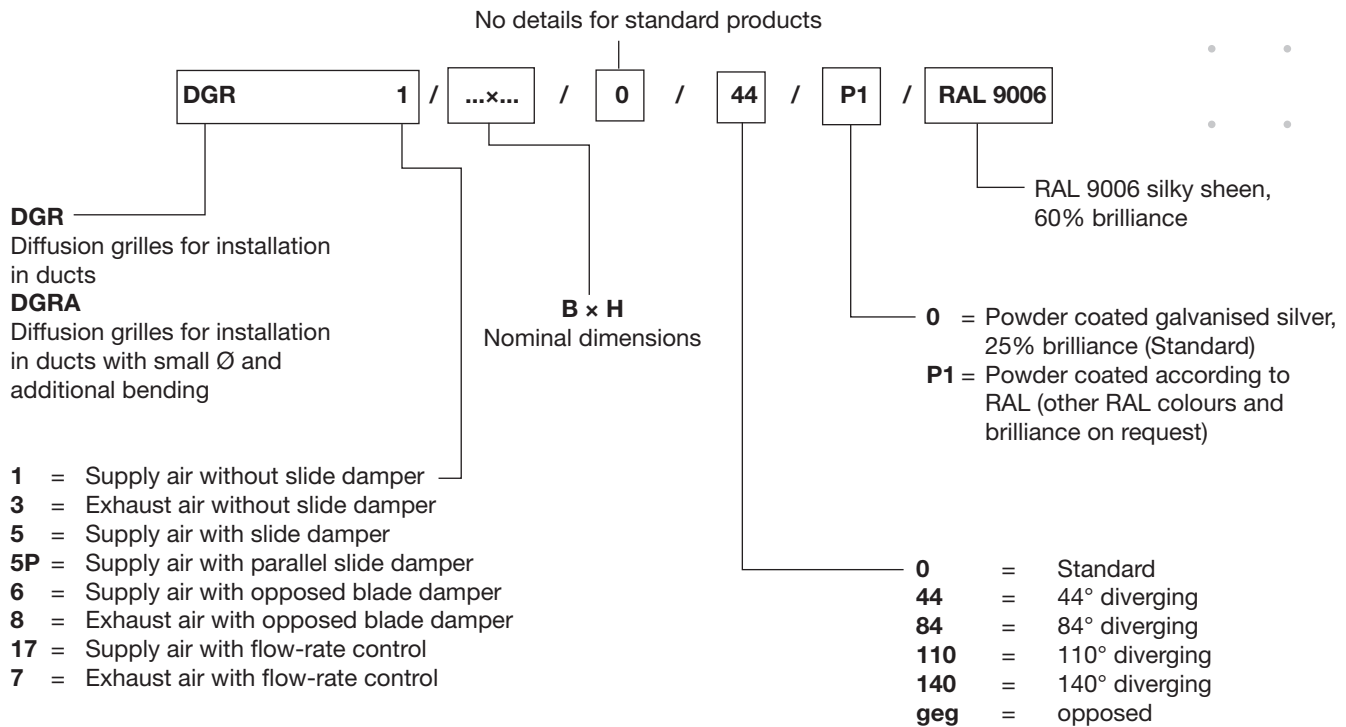
The following table shows for which duct diameter range the appropriate nominal grille height H may be used.



| B = Nominal width | | 200 | 300 | 400 | 500 | 600 | 750 | 900 ²⁾ | mm |
|-------------------|-----------|---------------------|-----|-----|-----|-----|-----|-------------------|----|
| T | DGR5 | 90 | 100 | 110 | 115 | 125 | 145 | 170 | mm |
| | DGR7 / 17 | max.155 (100% open) | | | | | | | |

Order Details

Order codes



Order examples

38 off DGR 5 / 600 × 100
 20 off DGRA 7 / 500 × 150 / P1 / RAL 9006

Text for tendering purposes

Type DGR1 for supply air
 Diffusion grille with individually adjustable **vertical** (in front) and **horizontal** (behind) blades, designed for favorable flow, **for direct duct installation**.
 Angular frame with countersunk screw holes and foam gaskets.

Material
 Diffusion grilles of steel, powder coated, galvanised silver, 25% brilliance.

Type DGR3 for exhaust air
 Realisation as DGR1, but with individually adjustable **vertical** blades only.

Type DGR5 for supply air
 Realisation as DGR1, with damper of light metal mounted on rear side, consisting of an inclined flap, black powder coated.

Type DGR6 for supply air
 Realisation as DGR1, with opposed blade damper of galvanised steel mounted on rear side, blades of untreated alu.

Type DGR7 for exhaust air
 Realisation as DGR3, with damper mounted on rear side, consisting of tiltable flap and baffle plate, galvanised steel.

Type DGR8 for exhaust air
 Realisation as DGR3 with opposed blade damper of galvanised steel mounted on rear side, blades of untreated alu.

Type DGR17 for supply air
 Realisation as DGR1 with damper mounted on rear side, consisting of tiltable flap and baffle plate, galvanised steel.