



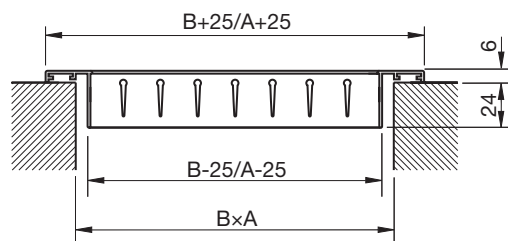
# Ventilation grille

## C20/C21

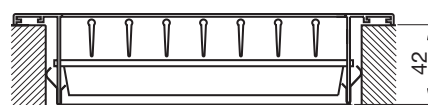


### Dimensions

#### C20



#### C21



### Description

C20 is a rectangular aluminium grille with adjustable horizontal bars. C21 is also equipped with vertical directional bars for regulation of dispersal patterns. C20/C21 should be used for supply air. C20/C21 are supplied as standard with springs for installation in plenum boxes type VBA, WB or mounting frame type GGR. C20/C21 can also be used with volume regulator GAT.

### Maintenance

The grille should be removed to gain access to the plenum box or duct. The external parts should be wiped with a damp cloth.

### Accessories

Plenum box: VBA, WB  
 Mounting frame: GGR  
 Volume regulator: GAT

| A x B<br>mm | Free area<br>F(m <sup>2</sup> ) | Weight<br>kg |
|-------------|---------------------------------|--------------|
| 200 X 100   | 0,0105                          | 0,3          |
| 300 X 100   | 0,0164                          | 0,4          |
| 400 X 100   | 0,0225                          | 0,5          |
| 500 X 100   | 0,0283                          | 0,7          |
| 300 X 150   | 0,0275                          | 0,6          |
| 400 X 150   | 0,0375                          | 0,7          |
| 500 X 150   | 0,0475                          | 1,0          |
| 600 X 150   | 0,0574                          | 1,2          |
| 400 X 200   | 0,0525                          | 0,9          |
| 500 X 200   | 0,0664                          | 1,4          |
| 600 X 200   | 0,0804                          | 1,6          |

Other sizes and types can be supplied - see special grille C.

### Ordering example

|             |         |     |     |
|-------------|---------|-----|-----|
| Product     | C20/C21 | aaa | bbb |
| Type        | _____   |     |     |
| A - measure | _____   |     |     |
| B - measure | _____   |     |     |

### Materials and finish

Grille: Aluminium  
 Standard finish: Natural anodised  
 On request: RAL 9010, gloss 30

The grille is available in other colours. Please contact Lindab's sales department for further information.



# Special grille

C



## Description

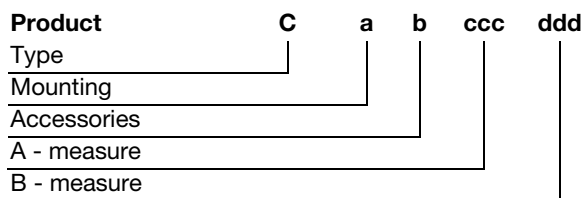
Special grille type C is a range of aluminium grilles with adjustable horizontal bars for supply air systems. The grille can be configured on the basis of the summary. As part of the configuration you can select the type of mounting and accessories. Finally, A x B dimensions are specified. These have certain limitations, which are shown under the order code.

## Materials and finish

Grille and accessories: Aluminium  
 Mounting frame: Galvanised steel  
 Standard finish: Natural anodised  
 On request: RAL 9010 Gloss 30

The grille is available in other colours. Please contact Lindab's sales department for further information.

## Ordering example



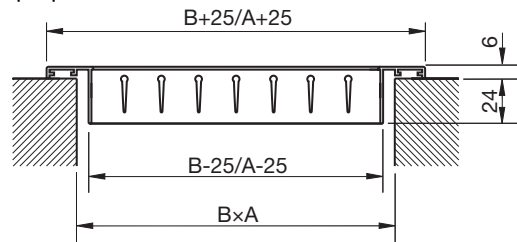
A x B: Duct/cutout  
 A dimension: along the bars  
 B dimension: across the bars  
 Can be supplied in all dimensions.

Max. A x B = 1200 x 500  
 Min. A x B = 100 x 60  
 Free area F [m<sup>2</sup>] = (A-25) x (B-25) x 0.8 x 10<sup>-6</sup>

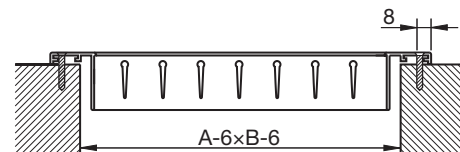
Mounting frame and volume regulator - see GGR/GAT.

## Mounting

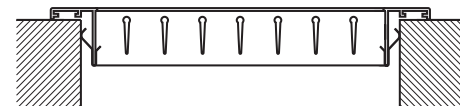
0. Not prepared for installation



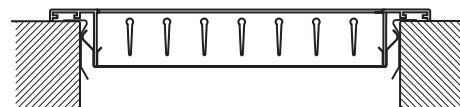
1. With screw holes



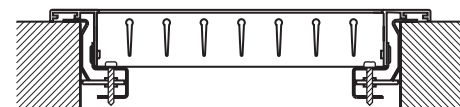
2. With springs only for installation in box



3. With springs and mounting frame



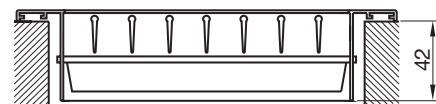
8. With concealed screw fitting and mounting frame



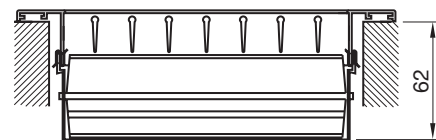
## Accessories

0. Without accessories

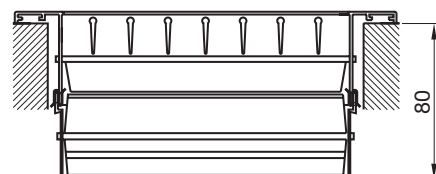
1. With direction regulation



2. With volume regulator



3. With direction and volume regulator



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18



# Ventilation grille/special grille C20/C21/C

## Technical data

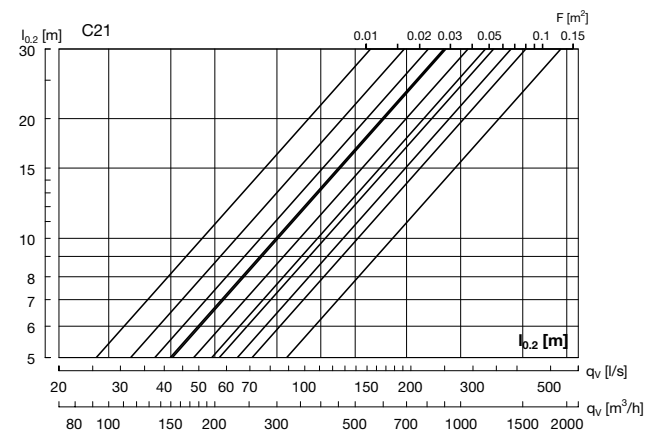
### Capacity

Volume flow  $q$  [l/s] and [m<sup>3</sup>/h], total pressure loss  $p_t$  [Pa], throw  $l_{0,2}$  [m] and sound level  $L_{WA}$  [dB(A)] can be seen in the diagrams.

### Throw $l_{0,2}$

Throw  $l_{0,2}$  [m] at an average speed of 0.2 m/s, 0° bar setting without ceiling effect (distance from diffuser to grille over 800 mm) can be seen in the diagrams. Correction for dispersal - see table below.

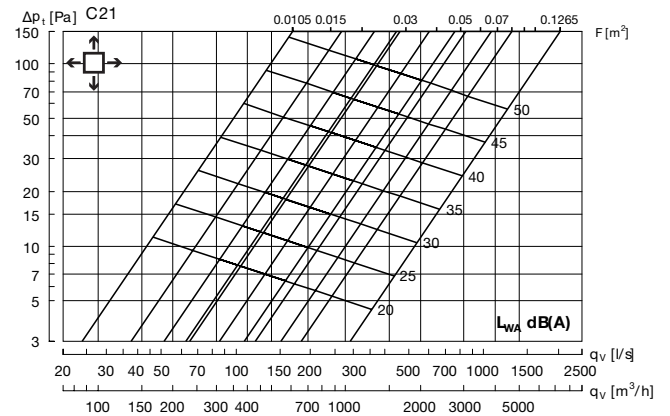
| Bar setting       | 45° | 90° |
|-------------------|-----|-----|
| Correction factor | 0,8 | 0,5 |



## Sound level $L_{WA}$

Sound effect level  $L_{WA}$  [dB(A)] at 0° bar setting can be seen in the diagrams. The sound levels apply for grilles without volume regulator. See the table below for correction of sound level for dispersal [dB].

| Bar setting       | 45° | 90° |
|-------------------|-----|-----|
| Correction factor | +3  | +10 |



## Frequency-related sound effect level

The sound effect level in the frequency band is defined as  $L_{WA} + K_{ok}$ .  $K_{ok}$  values are given in chart. See table below.

|            | Centre frequency Hz |     |     |     |    |     |     |     |
|------------|---------------------|-----|-----|-----|----|-----|-----|-----|
|            | 63                  | 125 | 250 | 500 | 1K | 2K  | 4K  | 8K  |
| Supply air | 1                   | -4  | -2  | 0   | -6 | -10 | -14 | -19 |

## Volume regulator

Correction of total pressure  $p_t$  [Pa] and sound effect level  $L_{WA}$  [dB(A)] with volume regulator. See table below.

| Supply air              | Open | 45° | Closed |
|-------------------------|------|-----|--------|
| Pressure [Pa]           | x1,3 | x3  | x18    |
| Sound power level dB(A) | +5   | +12 | +37    |