

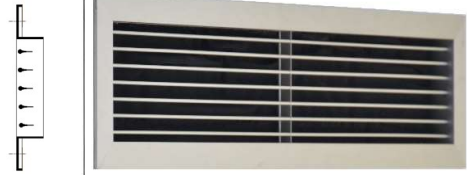


EMAIR

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SG1

Single deflection grille with adjustable blades
Sizes from 100 x 100mm to 2000 x 1000mm
Powder coated or natural anodised finish
Suitable for duct or spigot mounting
Manufactured from extruded aluminium sections
19mm blade spacing (12mm blade spacing on request)
Available with opposed blade damper SG10
Frame size 32mm - 16mm available on request



SG2

Double deflection grille with adjustable blades
Sizes from 100 x 100mm to 2000 x 1000mm
Powder coated or natural anodised finish
Suitable for duct or spigot mounting
Manufactured from extruded aluminium sections
19mm blade spacing (12mm blade spacing on request)
Available with opposed blade damper SG20
Frame size 32mm - 16mm available on request



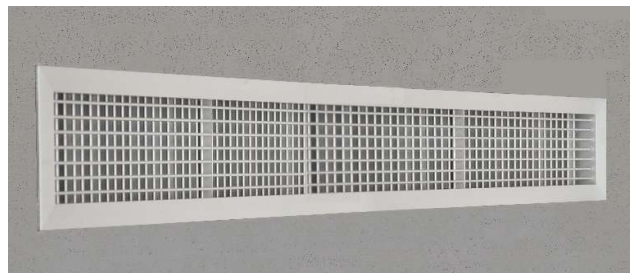
SF1

Single deflection grille with fixed 0° or 15° blades
Sizes from 100 x 100mm to 2000 x 600mm
Powder coated or natural anodised finish
Suitable for duct or spigot mounting
Manufactured from extruded aluminium sections
12mm blade spacing
Available with opposed blade damper SF10
Frame size 32mm - 16mm available on request



SF2

Double deflection grille with fixed frontal 0° or 15°
Sizes from 100 x 100mm to 2000 x 600mm
Powder coated or natural anodised finish
Suitable for duct or spigot mounting
Manufactured from extruded aluminium sections
12mm blade spacing
Available with opposed blade damper SF20
Frame size 32mm - 16mm available on request



| Size (mm) | | 150 x 125 | 200 x 150 250 x 125 | 250 x 150 350 x 100 | 300 x 150 350 x 125 | 250 x 200 350 x 125 | 300 x 300 450 x 150 | 400 x 200 500 x 150 | 400 x 250 660 x 150 | 450 x 250 560 x 200 | 500 x 250 830 x 150 | 450 x 350 710 x 200 | 450 x 350 600 x 250 |
|--------------|----------------|-----------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Air Vol. l/s | | | | | | | | | | | | | |
| 25 | Throw Min m | 1.8 | 1.5 | | | | | | | | | | |
| | Max m | 3.0 | 2.4 | | | | | | | | | | |
| | Stat. Press Pa | - | - | | | | | | | | | | |
| | NC - (max) | 20 | 20 | | | | | | | | | | |
| 35 | Throw Min m | 2.7 | 2.4 | 2.1 | 1.8 | | | | | | | | |
| | Max m | 4.6 | 3.7 | 3.0 | 2.7 | | | | | | | | |
| | Stat. Press Pa | 5 | - | - | - | | | | | | | | |
| | NC - (max) | 20 | 20 | 20 | 20 | | | | | | | | |
| 45 | Throw Min m | 3.7 | 3.0 | 2.7 | 2.4 | 2.1 | | | | | | | |
| | Max m | 5.8 | 4.9 | 4.3 | 3.7 | 3.4 | | | | | | | |
| | Stat. Press Pa | 8 | 3 | - | - | - | | | | | | | |
| | NC - (max) | 20 | 20 | 20 | 20 | 20 | | | | | | | |
| 70 | Throw Min m | 5.8 | 4.6 | 4.0 | 3.7 | 3.4 | 2.7 | 2.4 | | | | | |
| | Max m | 8.5 | 7.3 | 6.4 | 5.5 | 5.2 | 4.6 | 4.0 | | | | | |
| | Stat. Press Pa | 18 | 8 | 5 | 3 | - | - | - | | | | | |
| | NC - (max) | 25 | 20 | 20 | 20 | 20 | 20 | 20 | | | | | |
| 95 | Throw Min m | 7.6 | 6.1 | 5.5 | 4.9 | 4.3 | 3.7 | 3.4 | 3.0 | | | | |
| | Max m | 11.9 | 9.8 | 8.2 | 7.6 | 6.7 | 5.8 | 5.2 | 4.9 | | | | |
| | Stat. Press Pa | 23 | 13 | 8 | 5 | 3 | - | - | - | | | | |
| | NC - (max) | 35 | 25 | 20 | 20 | 20 | 20 | 20 | 20 | | | | |
| 120 | Throw Min m | | 7.6 | 6.7 | 6.1 | 5.5 | 4.9 | 4.3 | 4.0 | 3.7 | 3.4 | | |
| | Max m | | 11.9 | 10.4 | 9.4 | 8.5 | 7.3 | 6.7 | 6.1 | 5.5 | 5.2 | | |
| | Stat. Press Pa | | 15 | 10 | 8 | 5 | 3 | - | - | - | - | | |
| | NC - (max) | | 30 | 25 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | | |
| 140 | Throw Min m | | | 7.9 | 7.3 | 6.4 | 5.3 | 5.2 | 4.6 | 4.3 | 4.0 | 3.7 | 3.7 |
| | Max m | | | 12.5 | 11.3 | 10.4 | 8.8 | 7.9 | 7.3 | 6.7 | 6.4 | 5.8 | 5.5 |
| | Stat. Press Pa | | | 18 | 10 | 8 | 5 | 3 | - | - | - | - | - |
| | NC - (max) | | | 30 | 25 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| 165 | Throw Min m | | | | | 8.5 | 6.7 | 5.8 | 5.5 | 4.9 | 4.6 | 4.6 | 4.3 |
| | Max m | | | | | 13.7 | 10.4 | 9.1 | 8.5 | 7.9 | 7.3 | 7.0 | 6.7 |
| | Stat. Press Pa | | | | | 10 | 5 | 5 | 3 | - | - | - | - |
| | NC - (max) | | | | | 30 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| 190 | Throw Min m | | | | | 9.8 | 7.6 | 6.7 | 6.1 | 5.8 | 5.5 | 5.2 | 4.9 |
| | Max m | | | | | 15.2 | 11.9 | 10.7 | 9.8 | 8.8 | 8.2 | 7.9 | 7.6 |
| | Stat. Press Pa | | | | | 18 | 8 | 5 | 3 | 3 | - | - | - |
| | NC - (max) | | | | | 30 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| 210 | Throw Min m | | | | | | 8.5 | 7.6 | 7.0 | 6.4 | 6.1 | 5.8 | 5.5 |
| | Max m | | | | | | 13.4 | 11.9 | 11.0 | 10.1 | 9.4 | 8.8 | 8.5 |
| | Stat. Press Pa | | | | | | 8 | 5 | 5 | 3 | 3 | - | - |
| | NC - (max) | | | | | | 25 | 20 | 20 | 20 | 20 | 20 | 20 |
| 235 | Throw Min m | | | | | | 9.5 | 8.5 | 7.6 | 7.0 | 6.7 | 6.4 | 6.1 |
| | Max m | | | | | | 14.6 | 13.1 | 12.2 | 11.3 | 10.4 | 9.8 | 9.4 |
| | Stat. Press Pa | | | | | | 10 | 8 | 5 | 5 | 3 | 3 | - |
| | NC - (max) | | | | | | 25 | 20 | 20 | 20 | 20 | 20 | 20 |
| 280 | Throw Min m | | | | | | 11.3 | 10.1 | 9.1 | 8.5 | 7.9 | 7.6 | 7.3 |
| | Max m | | | | | | 17.7 | 15.8 | 14.6 | 13.4 | 12.5 | 11.9 | 11.3 |
| | Stat. Press Pa | | | | | | 15 | 10 | 8 | 5 | 5 | 3 | 3 |
| | NC - (max) | | | | | | 30 | 25 | 20 | 20 | 20 | 20 | 20 |
| 330 | Throw Min m | | | | | | | 11.9 | 11.0 | 10.1 | 9.4 | 8.8 | 8.2 |
| | Max m | | | | | | | 18.6 | 16.8 | 15.5 | 14.6 | 13.7 | 13.1 |
| | Stat. Press Pa | | | | | | | 13 | 10 | 8 | 5 | 5 | 5 |
| | NC - (max) | | | | | | | 30 | 25 | 20 | 20 | 20 | 20 |
| 380 | Throw Min m | | | | | | | | 12.5 | 11.6 | 10.7 | 10.1 | 9.4 |
| | Max m | | | | | | | | 19.2 | 17.7 | 16.8 | 15.5 | 14.9 |
| | Stat. Press Pa | | | | | | | | 13 | 8 | 8 | 5 | 5 |
| | NC - (max) | | | | | | | | 30 | 25 | 20 | 20 | 20 |
| 425 | Throw Min m | | | | | | | | 14.0 | 12.8 | 11.9 | 12.3 | 10.7 |
| | Max m | | | | | | | | 21.9 | 20.1 | 18.9 | 17.7 | 16.8 |
| | Stat. Press Pa | | | | | | | | 15 | 10 | 8 | 8 | 5 |
| | NC - (max) | | | | | | | | 35 | 30 | 25 | 20 | 20 |
| 475 | Throw Min m | | | | | | | | | 14.3 | 13.4 | 12.5 | 11.9 |
| | Max m | | | | | | | | | 22.6 | 20.7 | 19.8 | 18.6 |
| | Stat. Press Pa | | | | | | | | | 13 | 10 | 8 | 8 |
| | NC - (max) | | | | | | | | | 30 | 30 | 25 | 25 |
| 570 | Throw Min m | | | | | | | | | | 16.2 | 15.2 | 14.3 |
| | Max m | | | | | | | | | | 25.0 | 23.5 | 22.6 |
| | Stat. Press Pa | | | | | | | | | | 15 | 13 | 10 |
| | NC - (max) | | | | | | | | | | 35 | 30 | 30 |
| 660 | Throw Min m | | | | | | | | | | | | 16.8 |
| | Max m | | | | | | | | | | | | 26.2 |
| | Stat. Press Pa | | | | | | | | | | | | 13 |
| | NC - (max) | | | | | | | | | | | | 30 |

Minimum throw based on V, 0.6m/s terminal velocity - 0° deflection
 Maximum throw based on V, 0.4m/s terminal velocity - 0° deflection
 NC Noise Criteria of sound pressure levels with 8dB room absorption (L_w ref:10⁻¹² watts)
 All data for isothermal conditions

| Size (mm) | | 915 x 250 450 x 400 | 500 x 450 910 x 300 | 610 x 500 910 x 400 | 910 x 600 1120 x 350 | 915 x 610 1120 x 400 | 1320 x 450 915 x 660 | 1220 x 610 1015 x 760 | 1220 x 760 1525 x 610 | 1220 x 1000 1525 x 910 | 1425 x 1000 1210 x 1210 | 1425 x 1220 | |
|-----------|----------------|------------------------|------------------------|------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|---------------------------|----------------------------|-------------|------|
| 285 | Throw | Min m | 2.7 | 1.8 | 1.5 | | | | | | | | |
| | | Max m | 4.3 | 3.0 | 2.4 | | | | | | | | |
| | Stat. Press Pa | 8 | - | - | | | | | | | | | |
| | NC - (max) | 20 | 20 | 20 | | | | | | | | | |
| 330 | Throw | Min m | 4.0 | 2.7 | 2.4 | 2.1 | 1.8 | | | | | | |
| | | Max m | 6.4 | 4.6 | 3.7 | 3.0 | 2.7 | | | | | | |
| | Stat. Press Pa | 13 | 5 | - | - | - | | | | | | | |
| | NC - (max) | 25 | 20 | 20 | 20 | 20 | | | | | | | |
| 380 | Throw | Min m | 5.2 | 3.7 | 3.0 | 2.7 | 2.4 | 2.1 | | | | | |
| | | Max m | 8.2 | 5.8 | 4.9 | 4.3 | 3.7 | 3.4 | | | | | |
| | Stat. Press Pa | 23 | 8 | 3 | - | - | | | | | | | |
| | NC - (max) | 35 | 20 | 20 | 20 | 20 | 20 | | | | | | |
| 425 | Throw | Min m | | 5.8 | 4.6 | 4.0 | 3.7 | 3.4 | 2.7 | 2.4 | | | |
| | | Max m | | 8.5 | 7.3 | 6.4 | 5.5 | 5.2 | 4.6 | 4.0 | | | |
| | Stat. Press Pa | | 18 | 8 | 5 | 3 | - | - | - | - | | | |
| | NC - (max) | | 25 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | | | |
| 470 | Throw | Min m | | 7.6 | 6.1 | 5.5 | 4.9 | 4.3 | 3.7 | 3.4 | 3.0 | | |
| | | Max m | | 11.9 | 9.8 | 8.2 | 7.6 | 6.7 | 5.8 | 5.2 | 4.9 | | |
| | Stat. Press Pa | | 23 | 13 | 8 | 5 | 3 | - | - | - | | | |
| | NC - (max) | | 35 | 25 | 20 | 20 | 20 | 20 | 20 | 20 | | | |
| 565 | Throw | Min m | | | 7.6 | 6.7 | 6.1 | 5.5 | 4.9 | 4.3 | 4.0 | 3.7 | 3.4 |
| | | Max m | | | 11.9 | 10.4 | 9.4 | 8.5 | 7.3 | 6.7 | 6.1 | 5.5 | 5.2 |
| | Stat. Press Pa | | | | 15 | 10 | 8 | 5 | 3 | - | - | - | - |
| | NC - (max) | | | | 30 | 25 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| 660 | Throw | Min m | | | | 7.9 | 7.3 | 6.4 | 5.3 | 5.2 | 4.6 | 4.3 | 4.0 |
| | | Max m | | | | 12.5 | 11.3 | 10.4 | 8.8 | 7.9 | 7.3 | 6.7 | 6.4 |
| | Stat. Press Pa | | | | | 18 | 10 | 8 | 5 | 3 | - | - | - |
| | NC - (max) | | | | | 30 | 25 | 20 | 20 | 20 | 20 | 20 | 20 |
| 755 | Throw | Min m | | | | | | 8.5 | 6.7 | 5.8 | 5.5 | 4.9 | 4.6 |
| | | Max m | | | | | | 13.7 | 10.4 | 9.1 | 8.5 | 7.9 | 7.3 |
| | Stat. Press Pa | | | | | | | 10 | 5 | 5 | 3 | - | - |
| | NC - (max) | | | | | | | 30 | 20 | 20 | 20 | 20 | 20 |
| 850 | Throw | Min m | | | | | | 9.8 | 7.6 | 6.7 | 6.1 | 5.8 | 5.5 |
| | | Max m | | | | | | 15.2 | 11.9 | 10.7 | 9.8 | 8.8 | 8.2 |
| | Stat. Press Pa | | | | | | | 18 | 8 | 5 | 3 | 3 | - |
| | NC - (max) | | | | | | | 30 | 20 | 20 | 20 | 20 | 20 |
| 945 | Throw | Min m | | | | | | | 8.5 | 7.6 | 7.0 | 6.4 | 6.1 |
| | | Max m | | | | | | | 13.4 | 11.9 | 11.0 | 10.1 | 9.4 |
| | Stat. Press Pa | | | | | | | | 8 | 5 | 5 | 3 | 3 |
| | NC - (max) | | | | | | | | 25 | 20 | 20 | 20 | 20 |
| 1415 | Throw | Min m | | | | | | | 9.5 | 8.5 | 7.6 | 7.0 | 6.7 |
| | | Max m | | | | | | | 14.6 | 13.1 | 12.2 | 11.3 | 10.4 |
| | Stat. Press Pa | | | | | | | | 10 | 8 | 5 | 5 | 3 |
| | NC - (max) | | | | | | | | 25 | 20 | 20 | 20 | 20 |
| 1890 | Throw | Min m | | | | | | | 11.3 | 10.1 | 9.1 | 8.5 | 7.9 |
| | | Max m | | | | | | | 17.7 | 15.8 | 14.6 | 13.4 | 12.5 |
| | Stat. Press Pa | | | | | | | | 15 | 10 | 8 | 5 | 5 |
| | NC - (max) | | | | | | | | 30 | 25 | 20 | 20 | 20 |
| 1360 | Throw | Min m | | | | | | | | 11.9 | 11.0 | 10.1 | 9.4 |
| | | Max m | | | | | | | | 18.6 | 16.8 | 15.5 | 14.6 |
| | Stat. Press Pa | | | | | | | | | 13 | 10 | 8 | 5 |
| | NC - (max) | | | | | | | | | 30 | 25 | 20 | 20 |
| 2830 | Throw | Min m | | | | | | | | | 12.5 | 11.6 | 10.7 |
| | | Max m | | | | | | | | | 19.2 | 17.7 | 16.8 |
| | Stat. Press Pa | | | | | | | | | | 13 | 8 | 8 |
| | NC - (max) | | | | | | | | | | 30 | 25 | 20 |
| 3300 | Throw | Min m | | | | | | | | | 14.0 | 12.8 | 11.9 |
| | | Max m | | | | | | | | | 21.9 | 20.1 | 18.9 |
| | Stat. Press Pa | | | | | | | | | | 15 | 10 | 8 |
| | NC - (max) | | | | | | | | | | 35 | 30 | 25 |
| 3775 | Throw | Min m | | | | | | | | | | 14.3 | 13.4 |
| | | Max m | | | | | | | | | | 22.6 | 20.7 |
| | Stat. Press Pa | | | | | | | | | | | 13 | 10 |
| | NC - (max) | | | | | | | | | | | 30 | 30 |
| 4250 | Throw | Min m | | | | | | | | | | | 16.2 |
| | | Max m | | | | | | | | | | | 25.0 |
| | Stat. Press Pa | | | | | | | | | | | | 15 |
| | NC - (max) | | | | | | | | | | | | 35 |
| 4725 | Throw | Min m | | | | | | | | | | | 19.0 |
| | | Max m | | | | | | | | | | | 29.3 |
| | Stat. Press Pa | | | | | | | | | | | | 20 |
| | NC - (max) | | | | | | | | | | | | 35 |

Minimum throw based on V, 0.6m/s terminal velocity - 0° deflection
 Maximum throw based on V, 0.4m/s terminal velocity - 0° deflection
 NC Noise Criteria of sound pressure levels with 8dB room absorption (L_w ref:10⁻¹² watts)
 All data for isothermal conditions

QUICK SELECTION SGF SF2

SUPPLY AIR FOR 0° AND 15° BLADE

| | | | | | | | | | |
|--------------------|---|---|----|----|----|----|----|----|----|
| Pressure drop (Pa) | 3 | 5 | 10 | 13 | 18 | 23 | 30 | 35 | 43 |
|--------------------|---|---|----|----|----|----|----|----|----|

| | | | | | | | | | |
|--------------------------|-----|---|-----|---|-----|---|-----|---|-----|
| Effective velocity (m/s) | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 |
|--------------------------|-----|---|-----|---|-----|---|-----|---|-----|

Height 50mm

| | | | | | | | | | |
|--------------|-----|-----|-----|----|-----|-----|-----|-----|-----|
| Volume (l/s) | 31 | 42 | 53 | 64 | 73 | 84 | 95 | 106 | 116 |
| NC | <20 | <20 | <20 | 22 | 24 | 26 | 29 | 31 | 33 |
| Throw (m) | 2.2 | 2.8 | 3.4 | 4 | 4.9 | 5.5 | 6.1 | 6.5 | 6.8 |

Height 75mm

| | | | | | | | | | |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Volume (l/s) | 70 | 94 | 119 | 142 | 166 | 188 | 212 | 235 | 257 |
| NC | <20 | <20 | 21 | 24 | 27 | 30 | 32 | 34 | 36 |
| Throw (m) | 3.1 | 4 | 5.2 | 6.1 | 7.1 | 8 | 8.9 | 9.5 | 9.8 |

Height 100mm

| | | | | | | | | | |
|--------------|-----|-----|-----|-----|-----|------|-----|------|------|
| Volume (l/s) | 109 | 146 | 181 | 219 | 255 | 291 | 327 | 363 | 398 |
| NC | <20 | <20 | 22 | 26 | 29 | 32 | 34 | 36 | 38 |
| Throw (m) | 3.7 | 4.9 | 6.5 | 7.7 | 8.9 | 10.1 | 11 | 11.6 | 12.2 |

Height 125mm

| | | | | | | | | | |
|--------------|-----|-----|-----|-----|------|------|------|------|------|
| Volume (l/s) | 148 | 198 | 246 | 296 | 3678 | 394 | 444 | 494 | 541 |
| NC | <20 | 21 | 24 | 27 | 30 | 33 | 35 | 38 | 39 |
| Throw (m) | 4.3 | 5.8 | 7.4 | 8.9 | 10.4 | 11.6 | 12.9 | 13.8 | 14.4 |

Height 150mm

| | | | | | | | | | |
|--------------|-----|-----|-----|-----|------|------|------|------|------|
| Volume (l/s) | 187 | 249 | 339 | 374 | 159 | 498 | 560 | 621 | 684 |
| NC | <20 | 22 | 25 | 28 | 31 | 34 | 36 | 39 | 40 |
| Throw (m) | 4.9 | 6.8 | 8.3 | 9.8 | 11.6 | 13.2 | 14.4 | 15.3 | 16.2 |

Height 200mm

| | | | | | | | | | |
|--------------|-----|-----|-----|------|------|------|------|------|------|
| Volume (l/s) | 264 | 352 | 441 | 528 | 616 | 705 | 792 | 881 | 967 |
| NC | <20 | 22 | 26 | 30 | 33 | 36 | 38 | 40 | 42 |
| Throw (m) | 5.8 | 8 | 9.8 | 11.9 | 13.8 | 15.6 | 17.4 | 18.3 | 18.9 |

Height 250mm

| | | | | | | | | | |
|--------------|-----|-----|------|------|------|------|------|------|------|
| Volume (l/s) | 342 | 456 | 570 | 684 | 796 | 910 | 1024 | 1139 | 1252 |
| NC | 20 | 23 | 25 | 31 | 34 | 37 | 39 | 41 | 43 |
| Throw (m) | 6.8 | 8.9 | 11.3 | 13.5 | 15.6 | 17.7 | 19.6 | 20.8 | 21.7 |

Height 300mm

| | | | | | | | | | |
|--------------|-----|-----|------|-----|------|------|------|------|------|
| Volume (l/s) | 419 | 559 | 699 | 839 | 978 | 1119 | 1257 | 1396 | 1537 |
| NC | 21 | 24 | 28 | 32 | 35 | 38 | 40 | 42 | 44 |
| Throw (m) | 7.4 | 9.8 | 12.2 | 15 | 17.4 | 19.9 | 21.7 | 22.9 | 24.1 |

DATA BASED ON THE FOLLOWING

Nominal size grille 1200mm long

Throw at 0.5m/s terminal velocity with ceiling effect

NC Noise Criteria of sound pressure levels with 8dB room absorption (L_w ref: 10^{-12} watts)

Grille without OBD

All data for isothermal conditions

CORRECTION FACTORS -

For grilles installed more than 150mm from ceiling multiply throw by 0.7

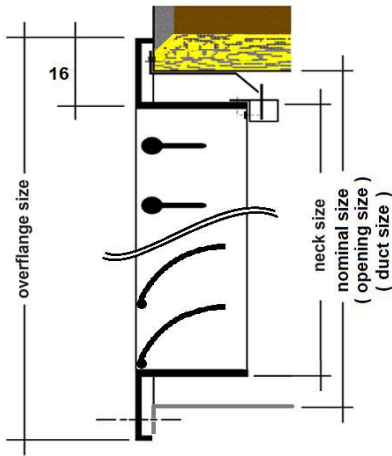
| | | | | | |
|---------------------|------|------|------|------|------|
| If grille length is | 600 | 1200 | 1800 | 2500 | 3000 |
| NC level | -3 | 0 | +2 | +3 | +4 |
| Throw | 0.71 | 0 | 1.22 | 1.41 | 1.58 |

For grilles with OBD

Pressure drop x 1.2

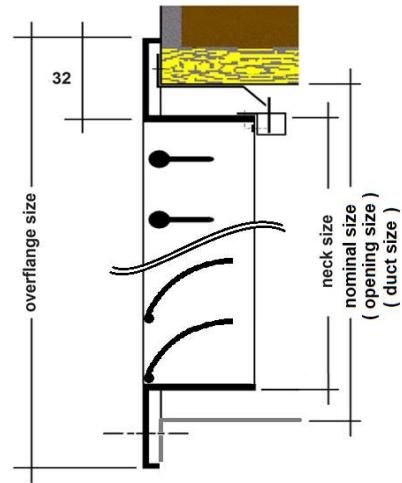
Noise level +5dB

STANDARD GRILLES - 16mm FRAME



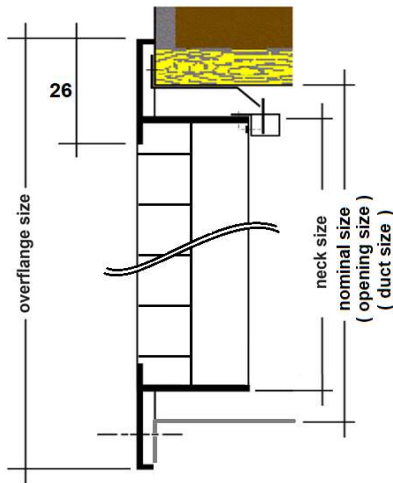
NOMINAL SIZE = OPENING SIZE = DUCT SIZE
NECK SIZE = NOMINAL SIZE - 14mm
O/FLANGE SIZE = NOMINAL + 15mm

STANDARD GRILLES - 32mm FRAME



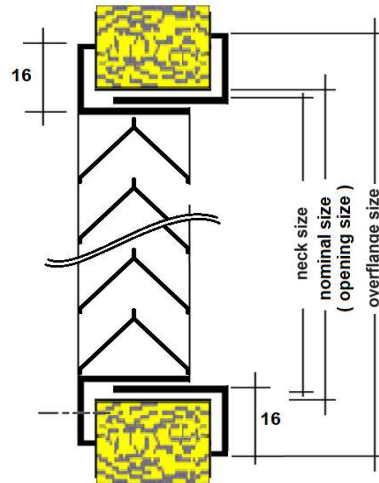
NOMINAL SIZE = OPENING SIZE = DUCT SIZE
NECK SIZE = NOMINAL SIZE - 14mm
O/FLANGE SIZE = NOMINAL + 47mm

EGG CRATE GRILLES



NOMINAL SIZE = OPENING SIZE = DUCT SIZE
NECK SIZE = NOMINAL SIZE - 7mm
O/FLANGE SIZE = NOMINAL + 30mm

DOOR GRILLES 16mm FRAME



NOMINAL SIZE = OPENING SIZE
NECK SIZE = OPENING SIZE - 7mm
OVER FLANGE SIZE = OPENING SIZE + 22mm