



□ Horizontal or vertical blades and perforated sheet metal inserts

□ 6 different front frame geometries

□ 6 different installation variants

□ 3 different installation frames

## X-GRILLE MODULAR

### VENTILATION GRILLES, MADE OF ALUMINIUM, WITH MODULAR CONSTRUCTION – ALSO FOR CONTINUOUS HORIZONTAL RUNS

Individual design and simple configuration with more than 3000 variants

- Various designs allow installation from representative areas to warehouses
- Quick and simple installation under normal structural conditions through 6 mounting variants
- Air diffuser for supply and extract air with extensive dimensional variance
- Mesh band installation possible through special end and middle sections
- Can be combined with familiar TROX attachments
- Simple replacement of existing TROX ventilation grilles due to identical dimensions of the installation openings
- Design programme for technical sizing
- Data sets for BIM-based project processing

## General information

### Application

- Ventilation grille to be used for supply air or extract air
- Suitable for comfort and industrial areas
- Attractive design element for building owners and architects with demanding aesthetic requirements
- Mixed flow air distribution with directed supply air discharge
- Fixed or adjustable blades or perforated sheet fronts with different designs allow adaptation to meet different local requirements
- For variable and constant volume flows
- For supply air to room air temperature differences from -12 – +15 K
- For installation in walls, sills and rectangular ducts

### Special characteristics

- Energy-efficient and acoustically optimised air discharge
- 6 Front frame options: S, M, L, A, C, H
- Multiple Core options: Horizontal blades, Vertical blades and Pattern designs
- Blades made from extruded aluminium sections – adjustable, fixed straight (0°) or fixed slanted (15°) air outlet
- Perforated sheet construction with the option of circular or rectangular openings
- Easy installation with concealed screw fixing with and without installation subframe, visible screws, terminals or hidden-plaster border
- Aesthetic border construction, almost completely flush with the installation surface
- Linear look, with fixed blades, ideal for continuous horizontal runs
- Use of existing attachments
- Easy replacement of existing TROX grilles due to standard installation dimensions

### Nominal sizes

#### Single grille

- Nominal length: 225, 325, 425, 525, 625, 825, 1025, 1225, 1425, 1625, 1825, 2025 mm
- Nominal height: 75, 125, 225, 325, 425, 525 mm

#### Horizontal run section

- Nominal length of end section: 950 – 2025 mm
- Nominal length of middle section: 2000 mm
- Nominal height: 75, 125, 225, 325, 425, 525 mm
- Other dimensions upon request

## Variants

### Single grille

- X-GRILLE modular

### Horizontal run section

- X-GRILLE modular-E-R: End section right
- X-GRILLE modular-E-L: End section left
- X-GRILLE modular-M: Middle section

### Core design

- H: horizontal blades
- V: vertical blades
- P: Pattern design

### Inset construction:

#### Blade inserts

- F0: fixed blades 0°, blade pitch 12.5 mm
- F15: fixed blades 15°, blade pitch 12.5 mm
- P0: fixed blades 0°, blade pitch 16.7 mm
- P15: fixed blades 15°, blade pitch 16.7 mm
- MO: adjustable blades

#### Perforated sheet metal inserts

- R: circular holes
- EG: rectangular holes

#### Border frame

- S: 7 mm wide (flat)
- M: 14 mm wide (flat)
- L: 20 mm wide (flat)
- A: 27 mm wide (angled)
- C: 27 mm wide (curved)
- H: 20 mm wide (hidden, 4.7 mm visible)

#### Fixing

- No entry: without fixing variant
- VS: concealed screw fixing
- SP: concealed screw fixing without installation subframe
- A11: visible screw fixing
- HS: Hidden screw fixing
- CF: Clamp fixing

#### Attachments

- A: without attachment, only ventilation grilles
- AG, D, DG: rear assembly with damper unit for volume flow rate balancing and / or second set of blades to control the air direction control of ventilation grilles
- EF: Coarse filter media casing

#### Accessories

Installation subframe: For the fast and simple installation of ventilation grilles

- No entry: without installation subframe
- A1: Installation subframe with 12.5 mm support (for front frame A, C)
- B1: Installation subframe with 5.5 mm support (for front frame L)
- C1: Installation subframe without support (for front frame M)

#### Materials and surfaces

- Border and blades made of aluminium
- Perforated sheet inserts of galvanised sheet steel
- Grille core with rectangular openings made of aluminium
- Linkage and end pieces for adjustable blades made of highly temperature resistant special plastic, flame retardant to UL 94, V-0
- Vertical connecting bars made of aluminium
- Installation subframe made of galvanised sheet steel
- Border and blades anodised, E6-C-0, natural colour
- Anodised surround and perforated rectangular hole insert, E6-C-0, natural colour
- Perforated plate inserts powder-coated, RAL9010 GE50
- P1: Border and inserts powder-coated, RAL CLASSIC colour

#### Standards and guidelines

- Sound power level of the air-regenerated noise measured according to EN ISO 5135

#### Maintenance

- Low-maintenance as construction and materials are not subject to wear
- Inspection and cleaning to VDI 6022

## TECHNICAL INFORMATION

### Function, Technical data, Specification text, Order code



Ventilation grilles are air terminal devices for the supply air and extract air of ventilation and air conditioning systems. They guide the supply air into the room. Ventilation grilles with adjustable blades allow for adapting the discharge direction to the local conditions. The result is a mixed flow ventilation in comfort zones and industrial zones, with good overall room ventilation. Induction slows the airflow down, i.e. the airflow velocity decreases as the distance from the grille increases. The distance at which the airflow velocity has reached a certain value (for example 0.2 m/s) is called the throw distance. The supply air jet from wall grilles arranged close to the ceiling reaches a greater throw distance than a comparable free jet (without ceiling influence) due to the ceiling influence. Single grilles, groups of grilles and continuous horizontal runs all achieve various throw distances. In cooling mode it is necessary to take account of the jet deflection towards the occupied zone, which increases as the supply air to room air temperature difference increases and the discharge velocity decreases. In heating mode the supply air jet is deflected towards the ceiling. This has no negative effect on the airflow velocity in the occupied zone, but it may affect the complete ventilation of the room.

#### Schematic illustration of a ventilation grille with horizontal blades

□

- 1 Front frame L
- 2 Fixing A11 (by others)
- 3 Core H-F0
- 4 Attachment AG

#### Schematic illustration of a ventilation grille with vertical blades

□

- 1 Front frame A
- 2 Core V-MO
- 3 Fixing VS

#### Schematic illustration of a ventilation grille with rectangular holes

□

- 1 Front frame A
- 2 Core P-EG
- 3 Fixing SP

#### Grille installation with ceiling influence (side view)

□

Due to the ceiling effect, the supply air flows into the room with a Coanda effect and achieves a greater throw distance ( $L_s$ ).

#### Grille installation with ceiling influence (top view)

□  
**Grille installation without ceiling influence (side view)**  
 □

With a distance of  $\geq 0.8$  m between the upper edge of the grille and the lower edge of the ceiling, there is no ceiling influence. The throw distance is thus smaller due to the missing Coanda effect. With a distance of 0.3 m and 0.8 m between the ceiling and the grille, the resulting flow behaviour depends on various factors - e.g. volume flow rate or discharge velocity.

Nominal sizes	225 × 75 – 2025 × 525 mm
minimum volume flow rate	11 – 1013 l/s or 40 – 3647 m³/h
maximum volume flow rate	65 – 4370 l/s or 234 – 15732 m³/h
Supply air to room air temperature difference	-12 to 15 K

Volume flow rates indication for single grille (undivided construction) for supply air.

The individual sizing of the ventilation and acoustic data for the different variants is possible with our free design programme Easy Product Finder.

H-F0/F15: horizontal blades – fixed

Geometric free area  $A_{geo}$  [m²]

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0.006	0.009	0.013	0.016	0.019	0.025	0.032	0.038	0.045	0.051	0.058	0.064
125	0.011	0.017	0.023	0.029	0.035	0.047	0.059	0.071	0.083	0.095	0.106	0.118
225	0.022	0.033	0.045	0.056	0.067	0.09	0.113	0.136	0.158	0.181	0.204	0.227
325		0.049	0.066	0.083	0.1	0.133	0.167	0.201	0.234	0.268	0.302	0.335
425					0.132	0.176	0.221	0.266	0.31	0.355	0.399	0.444
525						0.275	0.33	0.386	0.442	0.497	0.553	

Effective air discharge area (supply air)  $A_{eff}$  [m²]: H-F0

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0.008	0.011	0.015	0.019	0.022	0.029	0.036	0.043	0.05	0.058	0.065	0.072
125	0.014	0.021	0.027	0.034	0.04	0.053	0.066	0.079	0.093	0.106	0.119	0.132
225	0.026	0.039	0.051	0.064	0.076	0.101	0.126	0.152	0.177	0.202	0.227	0.252
325		0.057	0.076	0.094	0.113	0.15	0.187	0.224	0.261	0.298	0.334	0.371
425					0.149	0.198	0.247	0.296	0.345	0.393	0.442	0.491
525							0.307	0.368	0.429	0.489	0.55	0.611

Effective air discharge area (supply air)  $A_{eff}$  [m²]: H-F15

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0.007	0.011	0.014	0.017	0.021	0.027	0.034	0.041	0.047	0.054	0.06	0.067
125	0.013	0.019	0.025	0.031	0.037	0.049	0.061	0.073	0.086	0.098	0.11	0.122
225	0.024	0.036	0.047	0.059	0.07	0.093	0.116	0.139	0.162	0.185	0.208	0.231
325		0.052	0.069	0.086	0.103	0.137	0.171	0.205	0.239	0.273	0.307	0.341
425					0.136	0.181	0.226	0.271	0.316	0.361	0.406	0.45
525							0.281	0.337	0.393	0.448	0.504	0.56

Effective air inflow area (extract air)  $A_{eff}$  [m²]: H-F0

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0.011	0.015	0.02	0.025	0.03	0.039	0.049	0.059	0.068	0.078	0.087	0.097
125	0.019	0.027	0.036	0.045	0.053	0.07	0.088	0.105	0.122	0.139	0.156	0.174
225	0.035	0.051	0.067	0.084	0.1	0.132	0.165	0.197	0.23	0.262	0.295	0.327
325		0.075	0.099	0.122	0.146	0.194	0.242	0.29	0.337	0.385	0.433	0.481
425					0.193	0.256	0.319	0.382	0.445	0.508	0.571	0.634
525							0.396	0.474	0.553	0.631	0.709	0.788

Effective air inflow area (extract air)  $A_{eff}$  [m²]: H-F15

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,011	0,016	0,02	0,025	0,03	0,04	0,05	0,059	0,069	0,079	0,088	0,098
125	0,019	0,027	0,036	0,044	0,053	0,07	0,087	0,105	0,122	0,139	0,156	0,173
225	0,034	0,051	0,067	0,083	0,099	0,131	0,163	0,195	0,228	0,26	0,292	0,324
325		0,074	0,097	0,121	0,145	0,192	0,239	0,286	0,333	0,38	0,428	0,475
425					0,19	0,252	0,315	0,377	0,439	0,501	0,563	0,625
525							0,39	0,468	0,545	0,622	0,699	0,776

H-P0/P15: horizontal blades – fixed

Geometric free area  $A_{geo}$  [m<sup>2</sup>]

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,007	0,011	0,015	0,018	0,022	0,03	0,037	0,045	0,052	0,06	0,067	0,075
125	0,013	0,021	0,027	0,035	0,041	0,055	0,069	0,083	0,098	0,112	0,126	0,14
225	0,026	0,04	0,053	0,067	0,08	0,107	0,134	0,161	0,188	0,215	0,242	0,269
325		0,059	0,078	0,099	0,118	0,159	0,199	0,239	0,279	0,319	0,359	0,399
425					0,157	0,21	0,263	0,317	0,37	0,423	0,476	0,529
525							0,328	0,394	0,46	0,527	0,593	0,659

Effective air discharge area (supply air)  $A_{eff}$  [m<sup>2</sup>]: H-P0

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,01	0,014	0,018	0,023	0,027	0,036	0,044	0,053	0,062	0,07	0,079	0,088
125	0,016	0,023	0,031	0,038	0,045	0,06	0,074	0,089	0,104	0,118	0,133	0,148
225	0,028	0,042	0,055	0,068	0,081	0,108	0,135	0,161	0,188	0,214	0,241	0,267
325		0,06	0,079	0,098	0,118	0,156	0,195	0,233	0,272	0,31	0,349	0,387
425					0,154	0,204	0,255	0,305	0,356	0,406	0,456	0,507
525							0,315	0,377	0,44	0,502	0,564	0,627

Effective air discharge area (supply air)  $A_{eff}$  [m<sup>2</sup>]: H-P15

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,01	0,014	0,018	0,022	0,027	0,035	0,044	0,052	0,061	0,07	0,078	0,087
125	0,015	0,023	0,03	0,037	0,044	0,058	0,072	0,086	0,101	0,115	0,129	0,143
225	0,027	0,04	0,053	0,065	0,078	0,103	0,129	0,154	0,18	0,205	0,231	0,256
325		0,057	0,075	0,094	0,112	0,149	0,186	0,222	0,259	0,296	0,333	0,369
425					0,146	0,194	0,242	0,29	0,338	0,386	0,434	0,482
525							0,299	0,358	0,418	0,477	0,536	0,595

Effective air inflow area (extract air)  $A_{eff}$  [m<sup>2</sup>]: H-P0

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,012	0,017	0,023	0,028	0,033	0,044	0,054	0,065	0,076	0,086	0,097	0,108
125	0,02	0,029	0,037	0,046	0,055	0,073	0,091	0,109	0,127	0,145	0,163	0,181
225	0,035	0,051	0,067	0,084	0,1	0,132	0,165	0,197	0,229	0,262	0,294	0,327
325		0,074	0,097	0,121	0,144	0,191	0,238	0,285	0,332	0,379	0,426	0,473
425					0,189	0,25	0,312	0,373	0,434	0,496	0,557	0,619
525							0,385	0,461	0,537	0,613	0,689	0,765

Effective air inflow area (extract air)  $A_{eff}$  [m<sup>2</sup>]: H-P15

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,012	0,018	0,023	0,028	0,034	0,045	0,056	0,066	0,077	0,088	0,099	0,11
125	0,02	0,029	0,038	0,047	0,056	0,074	0,092	0,11	0,128	0,146	0,164	0,182
225	0,035	0,051	0,067	0,083	0,1	0,132	0,164	0,197	0,229	0,261	0,294	0,326
325		0,073	0,097	0,12	0,143	0,19	0,237	0,283	0,33	0,377	0,424	0,47
425					0,187	0,248	0,309	0,37	0,431	0,492	0,553	0,614
525							0,382	0,457	0,532	0,608	0,683	0,759

V-MO: vertical blades – adjustable

Geometric free area  $A_{geo}$  [m<sup>2</sup>]

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,007	0,01	0,014	0,017	0,02	0,027	0,034	0,041	0,048	0,055	0,061	0,068
125	0,014	0,021	0,028	0,034	0,041	0,055	0,069	0,082	0,096	0,11	0,123	0,137
225	0,028	0,041	0,055	0,069	0,083	0,11	0,137	0,165	0,192	0,22	0,247	0,275
325		0,062	0,083	0,103	0,124	0,165	0,206	0,248	0,289	0,33	0,371	0,412
425					0,165	0,22	0,275	0,33	0,385	0,44	0,495	0,55
525						0,341	0,409	0,477	0,545	0,613	0,681	

Effective air discharge area (supply air)  $A_{\text{eff}}$  [m<sup>2</sup>]: V-MO

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,01	0,014	0,019	0,023	0,027	0,036	0,045	0,053	0,062	0,071	0,08	0,088
125	0,016	0,024	0,031	0,038	0,046	0,061	0,075	0,09	0,105	0,12	0,135	0,149
225	0,029	0,042	0,056	0,069	0,083	0,11	0,137	0,164	0,191	0,218	0,245	0,272
325		0,061	0,081	0,1	0,12	0,159	0,198	0,237	0,276	0,315	0,354	0,394
425					0,157	0,208	0,259	0,311	0,362	0,413	0,464	0,516
525						0,321	0,384	0,447	0,511	0,574	0,638	

Effective air inflow area (extract air)  $A_{\text{eff}}$  [m<sup>2</sup>]: V-MO

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,012	0,017	0,022	0,027	0,032	0,042	0,053	0,063	0,073	0,084	0,094	0,104
125	0,019	0,028	0,037	0,045	0,054	0,071	0,089	0,106	0,124	0,141	0,159	0,176
225	0,034	0,05	0,066	0,082	0,098	0,129	0,161	0,193	0,224	0,256	0,288	0,32
325		0,072	0,095	0,118	0,141	0,187	0,233	0,279	0,325	0,371	0,417	0,463
425					0,185	0,245	0,305	0,365	0,426	0,486	0,546	0,606
525						0,377	0,452	0,526	0,601	0,675	0,75	

H-MO: horizontal blades – adjustable

Geometric free area  $A_{\text{geo}}$  [m<sup>2</sup>]

H/L	225	325	425	525	625	825	1025	1225
125	0,014	0,021	0,029	0,035	0,043	0,057	0,071	0,085
225	0,027	0,041	0,055	0,068	0,082	0,109	0,137	0,165
325		0,061	0,082	0,101	0,122	0,162	0,203	0,244
425					0,161	0,214	0,269	0,324
525						0,335	0,403	

Effective air discharge area (supply air)  $A_{\text{eff}}$  [m<sup>2</sup>]: H-MO

H/L	225	325	425	525	625	825	1025	1225
125	0,015	0,022	0,029	0,036	0,043	0,057	0,07	0,084
225	0,027	0,04	0,053	0,066	0,079	0,105	0,131	0,157
325		0,059	0,078	0,097	0,116	0,154	0,192	0,23
425					0,152	0,202	0,252	0,302
525						0,313	0,375	

Effective air inflow area (extract air)  $A_{\text{eff}}$  [m<sup>2</sup>]: H-MO

H/L	225	325	425	525	625	825	1025	1225
125	0,019	0,028	0,037	0,045	0,054	0,072	0,089	0,107
225	0,035	0,051	0,068	0,084	0,1	0,133	0,165	0,198
325		0,075	0,098	0,122	0,146	0,194	0,241	0,289
425					0,192	0,254	0,317	0,38
525						0,393	0,471	

P-R: perforated sheet metal insert – circular holes

Geometric free area  $A_{\text{geo}}$  [m<sup>2</sup>]

H/L	225	325	425	525	625	825	1025	1225
125	0,009	0,014	0,018	0,023	0,027	0,036	0,046	0,055
165	0,013	0,019	0,025	0,032	0,038	0,051	0,064	0,077
225	0,018	0,027	0,036	0,046	0,055	0,073	0,091	0,11
325		0,041	0,055	0,068	0,082	0,11	0,137	0,165
425					0,11	0,146	0,183	0,22
525							0,229	0,275

P-EG: Perforated sheet metal insert – Rectangular holes

Geometric free area  $A_{Geo}$  [m<sup>2</sup>]

H/L	225	325	425	525	625	825	1025	1225
125	0,018	0,027	0,035	0,044	0,053	0,071	0,089	0,107
165	0,025	0,037	0,05	0,062	0,075	0,1	0,125	0,15
225	0,035	0,053	0,071	0,089	0,107	0,143	0,179	0,215
325		0,08	0,107	0,134	0,161	0,215	0,268	0,322
425					0,214	0,286	0,358	0,43
525							0,448	0,538

Ventilation grilles with gently sloped border, rectangular, for supply and extract air. Function combined with an appealing design. Gently sloped border. Preferably for wall and sill installation but also suitable for rectangular ducts. Ready-to-install component which consists of a border and symmetrically and aerodynamically profiled, horizontal blades with a concealed linkage that allows for adjusting the blades simultaneously.

#### Special characteristics

- Energy-efficient and acoustically optimised air discharge
- 6 Front frame options: S, M, L, A, C, H
- Multiple Core options: Horizontal blades, Vertical blades and Pattern designs
- Aerodynamic aluminium blades, adjustable, fixed straight (0°) or fixed angled (15°) air discharge
- Perforated sheet construction with the option of circular or rectangular openings
- Easy installation with concealed screw fixing with and without installation subframe, visible screws, terminals or hidden-plaster border
- Aesthetic border construction, almost completely flush with the installation surface
- Linear look – fixed blades ideal for continuous horizontal runs
- Use of existing attachments
- Easy replacement of existing grilles due to standard installation dimensions

#### Materials and surfaces

- Border and blades made of aluminium
- Border and blades anodised, E6-C-0, natural colour
- Linkage and end pieces for adjustable blades made of highly temperature resistant special plastic, flame retardant to UL 94, V-0
- Vertical lateral mullions made of aluminium
- Patterns made of galvanized metal sheet
- P1: Border, blades and patterns powder-coated, RAL CLASSIC colour

#### Technical data

- Nominal sizes: 225 × 75 – 2025 × 525 mm
- Horizontal run section, height: 75 – 525 mm
- Minimum volume flow rate (supply air): 11 – 1013 l/s or 40 – 3647 m<sup>3</sup>/h
- Maximum volume flow rate (supply air), at LWA max. 40 dB(A) without attachments: 65 – 4370 l/s or 234 – 15732 m<sup>3</sup>/h
- Supply air to room air temperature difference: -12 to +15 K

X-GRILLE-modular	-	H	-	F0	-	L	-	VS	/	L × H	/	AG	/	A1	/
1		2		3		4		5		6		7		8	

#### 1 Type

X-GRILLE-modular

#### 2 Insert construction style

H horizontal blades

V vertical blades

P Perforated sheet

#### 3 Insert construction

#### Blades:

F0 fixed blades 0° pitch 12.5 mm  
F15 fixed blades 15° pitch 12.5 mm  
P0 fixed blades 0° pitch 16.7 mm  
P15 fixed blades 15° pitch 16.7 mm  
F45 fixed blades 45° pitch 20 mm  
P45 fixed blades 45° pitch 20 mm  
R45 fixed blades 45° pitch 20 mm  
E45 fixed blades 45° pitch 20 mm  
MO adjustable blades

#### Perforated sheet:

R rounded holes  
EG rectangular holes

#### 4 Front frame

No entry: none  
S small  
M medium  
L large  
A angled  
C curved  
H hidden

#### 5 Fixing

No entry: none  
VS Concealed screw fixing  
SP concealed screw fixing without installation subframe  
A11 visible screw fixing  
HS Concealed screw fixing  
CF Clamp fixing

#### 6 Dimensions

L: 225 – 2025  
H: 75 – 525

#### 7 Attachments

A without (grille face only)  
AG Damper unit, opposed action blades  
D Air direction control, blades installed at 90° to the front blades, independently adjustable  
DG D combined with AG  
AS Hit and miss damper  
EF coarse filter media

#### 8 Installation subframe

No entry required: None  
A1 Installation subframe 12.5 mm  
B1 Installation subframe 5.5 mm  
C1 Flush installation subframe 0 mm

#### 9 Surface

No entry: anodised, E6-C-0, natural colour  
P1 Powder-coated, specify RAL CLASSIC colour  
Gloss level:  
RAL9010 50 %  
RAL 9006 30 %  
all other RAL colours 70 %

Order example: X-GRILLE-Modular -H-F0-L-VS/625×325/AG/A1/P1-RAL 9016



Inset construction	horizontal blades
Inset construction	fixed blades 0° pitch 12.5 mm
Front border	large
Mounting	concealed screw fixing
Nominal size	625 x 325 mm
Attachments	Damper unit, opposed action blades
Installation subframe	12.5 mm
User interface	RAL 9016, traffic white, gloss level 70 %

X-GRILLE-modular      -    E    -    R    -    H    -    F0    -    L    -    VS    /    L x H    /    AG    /    A1    /

   |                    |                    |                    |                    |                    |                    |                    |                    |                    |

   1                            2                            3                            4                            5                            6                            7                            8                            9                            10

### 1 Type

X-GRILLE-modular Horizontal run section

### 2 Profile

E End section

M Middle section

### 3 End section

Specify only for end section

R Right end section

L Left end section

### 4 Insert construction style

H horizontal blades

V vertical blades

P Perforated sheet

### 5 Inset construction

Blades:

F0 fixed blades 0° pitch 12.5 mm

F15 fixed blades 15° pitch 12.5 mm

P0 fixed blades 0° pitch 16.7 mm

P15 fixed blades 15° pitch 16.7 mm

F45 fixed blades 45° pitch 20 mm

P45 fixed blades 45° pitch 20 mm

R45 fixed blades 45° pitch 20 mm

E45 fixed blades 45° pitch 20 mm

MO adjustable blades

### 6 Front frame

S small

M medium

L large

A angled

C curved

H hidden

### 7 Fixing

No entry required: None

VS concealed screw fixing

SP concealed screw fixing without installation subframe

A11 visible screw fixing

HS Concealed screw fixing

CF Clamp fixing

### 8 Dimensions

End section

L: 950 – 2025

H: 75 – 525

Middle section

L: 2000  
H: 75 – 525

9 Attachments

- A without (grille face only)
- AG Damper unit, opposed action blades
- D Air direction control, blades installed at 90° to the front blades, independently adjustable
- DG D combined with AG
- AS Hit and miss damper
- EF coarse filter media

10 Installation subframe

- No entry required: None
- A1 Installation subframe 12.5 mm
- B1 Installation subframe 5.5 mm
- C1 Flush installation subframe 0 mm

11 Surface

- No entry: anodised, E6-C-0, natural colour
- P1 Powder-coated, specify RAL CLASSIC colour
- Gloss level:
- RAL 9010 50 %
- RAL 9006 30 %
- All other RAL colours 70 %

Variants, Weights & Dimensions



Fixing -VS

□

Concealed screw fixing (rear view).

Weights

Weights insert horizontal blades [kg]

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,08	0,12	0,16	0,19	0,24	0,31	0,39	0,47	0,55	0,63	0,7	0,78
125	0,18	0,27	0,36	0,45	0,55	0,73	0,91	1,09	1,27	1,45	1,63	1,81
225	0,39	0,58	0,78	0,97	1,17	1,55	1,94	2,33	2,71	3,1	3,49	3,87
325		0,89	1,19	1,48	1,78	2,38	2,97	3,56	4,16	4,75	5,34	5,93
425					2,4	3,2	4	4,8	5,6	6,4	7,2	8
525							5,03	6,04	7,04	8,05	9,05	10,06

Weights inset vertical blades [kg]

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,11	0,17	0,23	0,28	0,34	0,46	0,57	0,69	0,8	0,92	1,04	1,15
125	0,2	0,31	0,42	0,53	0,64	0,85	1,07	1,28	1,5	1,71	1,93	2,15
225	0,39	0,6	0,81	1,01	1,22	1,64	2,05	2,47	2,89	3,3	3,72	4,13
325		0,89	1,19	1,5	1,81	2,43	3,04	3,66	4,27	4,89	5,5	6,12
425					2,4	3,21	4,03	4,85	5,66	6,48	7,29	8,11
525							5,08	6,1	7,13	8,16	9,19	10,21

Weights inset perforated sheet metal [kg]

H/L	225	325	425	525	625	825	1025	1225
75	0,08	0,12	0,16	0,19	0,23	0,3	0,38	0,45
125	0,14	0,2	0,26	0,32	0,38	0,5	0,62	0,74
225	0,24	0,35	0,46	0,57	0,67	0,89	1,1	1,32
325		0,51	0,66	0,82	0,97	1,28	1,59	1,9
425					1,27	1,67	2,07	2,48
525							2,56	3,05

#### Weights front frame S, M [kg]

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,14	0,18	0,21	0,25	0,29	0,37	0,45	0,52	0,6	0,68	0,76	0,84
125	0,18	0,21	0,25	0,29	0,33	0,41	0,49	0,56	0,64	0,72	0,8	0,87
225	0,21	0,25	0,29	0,33	0,37	0,45	0,53	0,6	0,68	0,76	0,84	0,91
325		0,29	0,33	0,37	0,41	0,49	0,56	0,64	0,72	0,8	0,87	0,95
425					0,45	0,53	0,6	0,68	0,76	0,84	0,91	0,99
525							0,64	0,72	0,8	0,87	0,95	1,03

#### Weights front frame L, A, C, H [kg]

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,22	0,27	0,32	0,38	0,43	0,54	0,64	0,75	0,86	0,97	1,07	1,18
125	0,26	0,32	0,37	0,42	0,48	0,58	0,69	0,8	0,91	1,01	1,12	1,23
225	0,32	0,37	0,42	0,48	0,53	0,64	0,75	0,85	0,96	1,07	1,17	1,28
325		0,42	0,48	0,53	0,58	0,69	0,8	0,91	1,01	1,12	1,23	1,34
425					0,64	0,75	0,85	0,96	1,07	1,17	1,28	1,39
525							0,91	1,01	1,12	1,23	1,34	1,44

#### Weights attachment AG [kg]

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,4	0,5	0,7	0,8	1,0	1,3	1,6	1,9	2,2	2,5	2,8	3,1
125	0,5	0,6	0,8	1,0	1,2	1,5	1,9	2,3	2,6	2,9	3,2	3,6
225	0,7	0,9	1,1	1,4	1,6	2,1	2,5	3,0	3,5	4,0	4,4	4,8
325		1,2	1,4	1,7	2,0	2,6	3,2	3,8	4,3	4,9	5,5	6,1
425					2,5	3,2	3,9	4,6	5,4	6,1	6,8	7,5
525							4,5	5,3	6,4	7,1	7,8	8,6

#### Weights attachment DG [kg]

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,4	0,6	0,8	0,9	1,1	1,5	1,8	2,1	2,4	2,8	3,2	3,5
125	0,6	0,8	1	1,2	1,5	1,9	2,4	2,8	3,2	3,6	4,1	4,6
225	0,8	1,2	1,5	1,8	2,2	2,8	3,5	4,1	4,7	5,3	6,0	6,7
325		1,6	2	2,4	2,9	3,7	4,6	5,5	6,2	7,0	7,9	8,8
425					3,6	4,6	5,7	6,8	7,7	8,7	9,8	10,9
525							6,8	8,1	9,1	10,1	11,4	12,9

#### Weights attachment D [kg]

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,2	0,3	0,4	0,4	0,5	0,7	0,9	1,0	1,1	1,3	1,5	1,7
125	0,3	0,4	0,5	0,6	0,7	0,9	1,2	1,4	1,5	1,7	2,0	2,3
225	0,4	0,6	0,7	0,9	1	1,4	1,7	2	2,2	2,6	3,0	3,3
325		0,7	0,9	1,2	1,4	1,8	2,2	2,7	3,0	3,4	3,8	4,2
425					1,7	2,3	2,8	3,3	3,7	4,3	4,9	5,4
525							3,3	4,0	4,4	5,1	5,7	6,3

#### Weights attachment AS [kg]

H/L	225	325	425	525	625	825	1025	1225	1425	1625	1825	2025
75	0,3	0,4	0,5	0,6	0,7	0,9	1,1	1,3	1,5	1,7	1,9	2,1
125	0,4	0,6	0,8	0,9	1,1	1,4	1,8	2,1	2,4	2,7	3,0	3,4
225	0,8	1,0	1,3	1,6	1,9	2,5	3,0	3,6	4,1	4,7	5,3	5,8
325		1,5	1,9	2,3	2,7	3,5	4,3	5,1	5,8	6,6	7,4	8,2
425					3,8	4,9	6,0	7,2	8,2	9,3	10,4	11,5
525							7,3	8,7	10,5	11,8	13,0	14,1

#### Front frame -S

□

Front frame -M

□

Front frame -L

□

Front frame -A

□

Front frame -C

□

Front frame -H

□

Core -H-F0

□

Core -H-F15

□

Core -H-PO

□

Core -H-P15

□

Core -H-MO

□

Core -V-MO

□

Core -P-R

□

Core -P-EG

□

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## Product details

### Installation location

- Installation preferably in walls, sills and rectangular ducts
- Installation with installation subframe is recommended
- For installation without installation subframe, install the front border with concealed screw fixing, visible screws, concealed screws or fixing tabs

### Volume flow rate balancing

When several ventilation grilles are installed on the same duct, it may be necessary to balance the volume flow rates.

- AG: Damper unit with opposed action blades, adjustable, secured with a locking screw
- AS: Damper unit with hit and miss damper, adjustable, secured with a locking screw

### Air pattern

- Adjustable blades: Set the air control blades individually or together and depending on the local conditions
- D, DG: Air control blades, fitted at 90° to the front blades, can be adapted to the local conditions

### Equivalence criteria

□

### Installation opening for a ventilation grille

□

Installation opening with installation subframe -A1 and -B1 for fixing -VS:

L = Order length of the ventilation grille L  
H = Order height of the ventilation grille H

**Installation opening for a ventilation grille**

□

Installation opening with installation subframe -C1 for fixing -VS or without installation subframe for fixing -SP

L = Order length of the ventilation grille L - 5 mm

H = Order height of the ventilation grille H - 5 mm

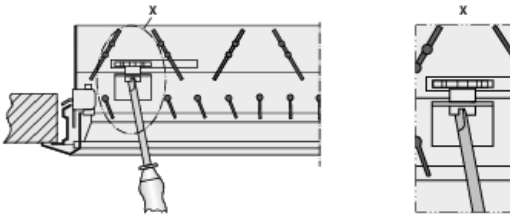
**Installation opening for a ventilation grille**

□

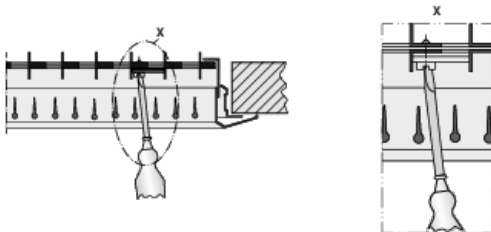
Installation opening without installation subframe for fixing -A11, -HS, -CF:

L = Order length of the ventilation grille L - 13 mm  
H = Order height of the ventilation grille H - 13 mm

**Volume flow rate balancing -\*G**



**Volume flow rate balancing -S**



**JUST GREAT - SEE FOR YOURSELF**

**AN ALUMINIUM VENTILATION GRILLE FOR ALL CASES**

Have a look at the many different configuration options.

**NEW CONCEALED SCREW FIXINGS**

Thanks to five different fixing variants, the X-GRILLE modular is suitable for all standard wall constructions.

With the concealed screw fixing, you can install the X-GRILLE modular quickly and safely.