



Bottom blade



Regular blades

# External louvres

## WG



### External weather louvres for the protection of ventilation and air conditioning systems

External weather louvres to protect ventilation and air conditioning systems against the direct ingress of rain, leaves and birds into fresh air and exhaust air openings. In combination with insect screens, they also provide protection against insects. They are used for a wide variety of applications with regard to air flow and can also cover large installation openings. For single grilles, the following applies:

- Maximum width of 2400 mm, maximum height of 2310 mm, maximum area of 4 m<sup>2</sup> (aluminium variant also as continuous horizontal runs)
- Low differential pressure due to aerofoil blades
- Low air-regenerated noise due to a rounded drip edge
- Simple and quick installation due to perimeter border
- Variants made of galvanised sheet steel, aluminium or stainless steel
- Large-area arrangement of several single grilles in combination with support structure provided by others possible to cover very large installation openings

#### Optional equipment and accessories

- Installation subframe
- Can be combined with multileaf or non-return dampers
- Insect screen
- Powder-coated or with anodised finish

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## General information

### Application

- External weather louvres for fresh air and exhaust air openings of ventilation and air conditioning systems
- Protection against the direct ingress of rain as well as against leaves and birds
- Recommended face velocity for fresh air openings 2 – 2.5 m/s max.

### Special features

- Large areas possible by arranging multiple single sections horizontally and/or vertically (subdivided construction); single sections made of aluminium can also be combined into continuous horizontal runs
- Low differential pressure and low air-regenerated noise due to aerofoil blades
- Simple and quick installation due to perimeter border
- Silicone free

### Nominal sizes

- B: 200, 400, 600, 800, 1000, 1200, 1400, 1600, 1800, 2000, 2200, 2400 mm (intermediate sizes 201 – 2399 mm in increments of 1 mm)
- Width subdivided max. = 4900 mm (intermediate sizes 2401 – 4899 mm in increments of 1 mm)
- H: 165, 330, 495, 660, 825, 990, 1155, 1320, 1485, 1650, 1815, 1980, 2145, 2310 mm (intermediate sizes 166 – 2309 mm in increments of 1 mm)
- Height subdivided max. = 4720 mm (intermediate sizes 2311 – 4719 mm in increments of 1 mm)
- Any combination of B × H
- Undivided construction up to max. 4 m<sup>2</sup>

### WG-B-AL

- WG-B-AL-M (middle section) B: 2000 mm
- WG-B-AL-E (end section) B: 1000 – 2000 mm (intermediate sizes 1001 – 1999 mm in increments of 1 mm)
- H: 165 – 1980 mm (intermediate sizes 166 – 1979 mm in increments of 1 mm)

### Variants

- WG: External weather louvre made of galvanised sheet steel
- WG-A2: External weather louvre made of stainless steel
- WG-AL: External weather louvre made of aluminium
- WG-B-AL: External weather louvre made of aluminium, for continuous horizontal runs

### Construction

#### Cover grille

- Crimped wire mesh, galvanised steel (only WG, WG-AL, WG-B-AL)
- 1: With insect screen, galvanised steel (only WG, WG-AL, WG-B-AL)
- 2: With crimped wire mesh, stainless steel (only WG-AL, WG-B-AL)
- 3: With insect screen and crimped wire mesh, stainless steel (only WG-A2, WG-AL, WG-B-AL)

#### Front border

- With holes
- U: without holes

### Parts and characteristics

- Front border
- Regular blades and bottom blade
- Crimped wire mesh
- Insect screen (optional)
- Visible mullion or stabilising mullion at the rear, from B = 1385 mm

### Accessories

- Installation subframes for the fast and simple installation of external weather louvres

### Construction features

- Crimped wire mesh at the rear, mesh aperture 20 × 20 × 1.8 mm
- Optional insect screen at the rear, mesh aperture 1.25 × 1.25 × 0.4 mm
- Border fixing holes

### Materials and surfaces

- Border, mullion and blades made of formed galvanised sheet steel, aluminium or stainless steel
- Crimped wire mesh made of galvanised steel or stainless steel
- P1: Powder-coated, RAL CLASSIC colour
- PS: Powder-coated, NCS or DB colour

### Maintenance

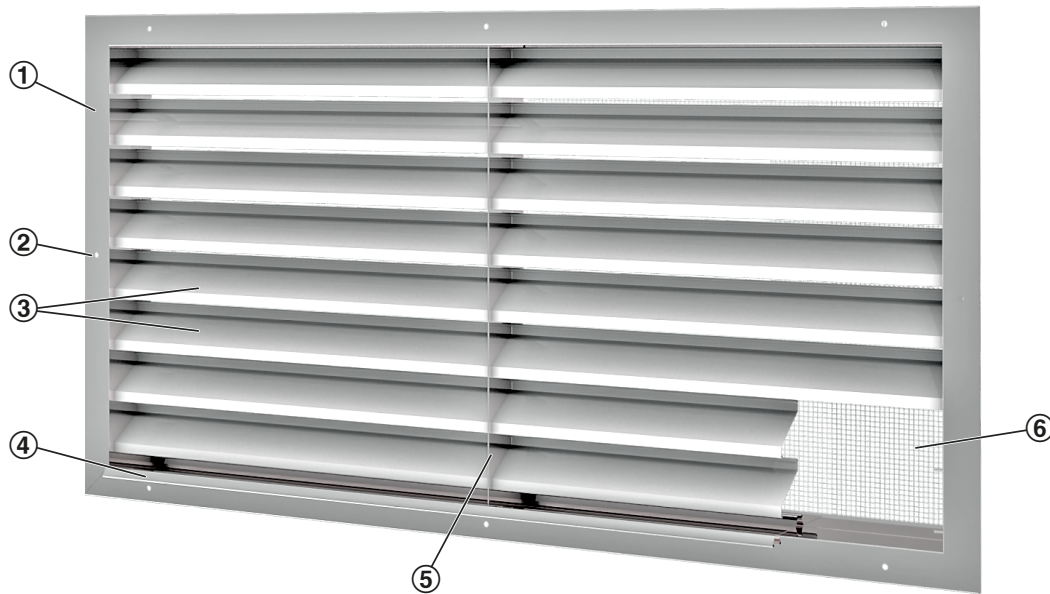
- Maintenance-free, as construction and materials are not subject to wear

## Function

External weather louvres are externally mounted air transfer devices for the fresh air and exhaust air of air conditioning systems. They are installed in external walls and façades. Their narrowly arranged blades give good protection against the direct ingress of rain as well as against leaves and birds. Under certain

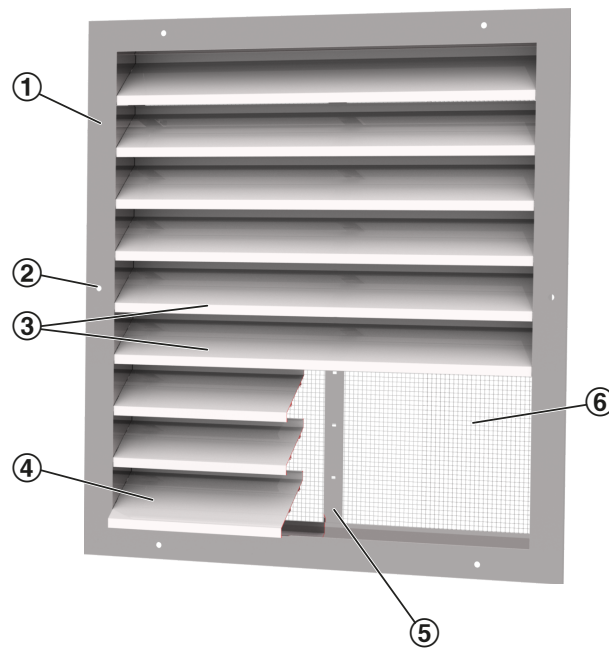
unfavourable conditions, such as heavy rain, and depending on the airflow velocity, slight quantities of water could enter with the air. This is why the airflow velocity in fresh air openings should not exceed 2 – 2.5 m/s.

### Schematic illustration of WG, WG-A2



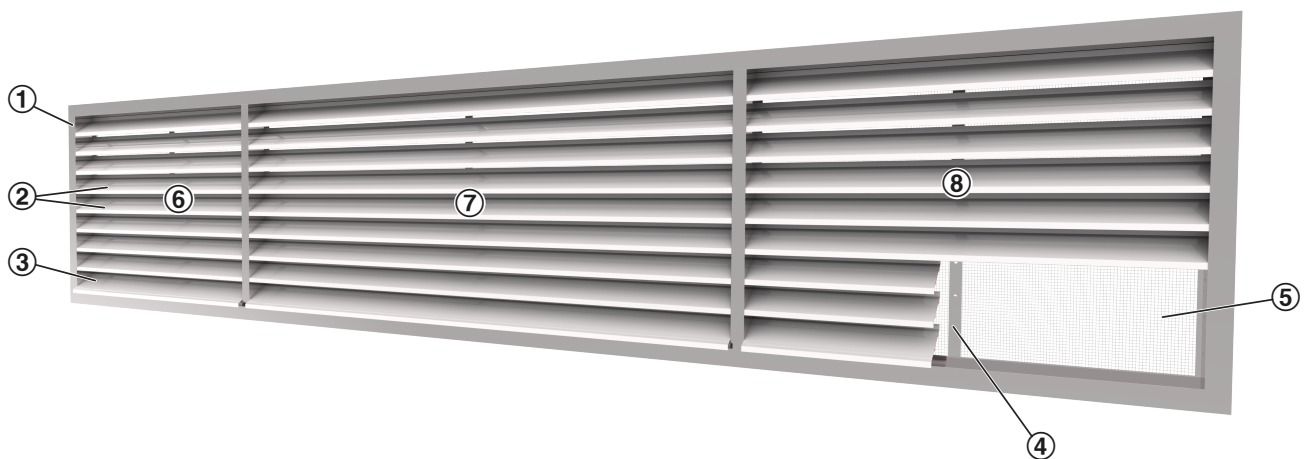
- ① Border
- ② Fixing holes
- ③ Regular blades
- ④ Bottom blade
- ⑤ Mullion from B = 1385
- ⑥ Crimped wire mesh; additional insect screen as an option

Schematic illustration of WG-AL



- ① Border
- ② Fixing holes
- ③ Regular blades
- ④ Bottom blade
- ⑤ Stabilising mullion at the rear, from B = 1385
- ⑥ Crimped wire mesh; additional insect screen as an option

Schematic illustration of WG-B-AL



- ① Border
- ② Regular blades
- ③ Bottom blade
- ④ Stabilising mullion at the rear, from E/M = 1300
- ⑤ Crimped wire mesh; additional insect screen as an option
- ⑥ Left end section
- ⑦ Middle section
- ⑧ Right end section

## Technical data

Nominal sizes	200 × 165 – 2400 × 1650 / 1600 × 2310 mm
Width subdivided	up to 4900 mm
Height subdivide	up to 4720 mm
Horizontal runs (WG-B-AL)	H: 165 – 1980 mm

## Quick sizing

Quick sizing tables in the Easy Product Finder provide a good overview of the

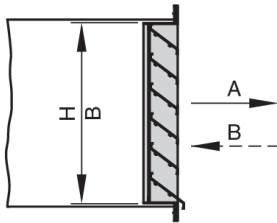
- Possible volume flow rates for different airflow velocities
- Corresponding pressure losses
- Sound power level
- Free areas

Precise values based on project-specific data can be determined with our Easy Product Finder design program.

You will find the Easy Product Finder on our website:

[www.trox.de/mytrox/auslegungsprogramm-easy-product-finder-182e16348fac3d33](http://www.trox.de/mytrox/auslegungsprogramm-easy-product-finder-182e16348fac3d33)

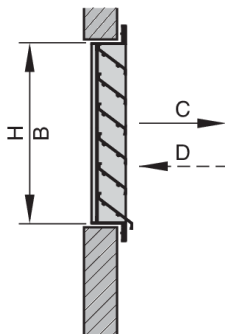
### Duct installation into rectangular ducts (installation types A and B)



A Exhaust air

B Fresh air

### Plenum installation (installation types C and D)



C Exhaust air

D Fresh air

## Specification text

This specification text describes the general properties of the product. Texts for variants can be generated with our Easy Product Finder design program.

Rectangular external weather louvre as a protection for air conditioning systems against the direct ingress of rain, leaves and birds into fresh air and exhaust air openings. Ready-to-install component which consists of a border, aerofoil rain defence blades, and a bird mesh at the rear.

### Special features

- Large areas possible by arranging multiple single sections horizontally and/or vertically (subdivided construction); single sections made of aluminium can also be combined into continuous horizontal runs
- Low differential pressure and low air-regenerated noise due to aerofoil blades
- Simple and quick installation due to perimeter border
- Silicone free

### Construction

Cover grille

- Crimped wire mesh, galvanised steel (only WG, WG-AL, WG-B-AL)
- 1: With insect screen, galvanised steel (only WG, WG-AL, WG-B-AL)
- 2: With crimped wire mesh, stainless steel (only WG-AL, WG-B-AL)
- 3: With insect screen and crimped wire mesh, stainless steel (only WG-A2, WG-AL, WG-B-AL)

Front border

- With holes
- U: without holes

### Materials and surfaces

- Border, mullion and blades made of formed galvanised sheet steel, aluminium or stainless steel
- Crimped wire mesh made of galvanised steel or stainless steel
- P1: Powder-coated, RAL CLASSIC colour
- PS: Powder-coated, NCS or DB colour

### Technical data

- Nominal sizes: 200 × 165 – 2400 × 1650/1600 × 2310 mm
- Width subdivided: up to 4900 mm
- Height subdivided: up to 4720 mm
- Continuous horizontal runs (WG-B-AL): height 165 – 1980 mm

### Sizing data

- $q_v$  [m<sup>3</sup>/h]
- $\Delta p_t$  [Pa]

Air-regenerated noise

- $L_{WA}$  [dB(A)]

## Order code

WG – AL – 2 – ... / 600 × 1155 / ER / P1 - RAL ...  
 |     |     |     |     |     |     |  
 1     2     3     4     5     6     7

**1 Type**

WG External louvres

**2 Material**

No entry required: galvanised sheet steel

**A2** Stainless steel

**AL** Aluminium

**3 Construction**

No entry required: crimped wire mesh

**1** Insect screen, galvanised steel (only WG, WG-AL)

**2** Crimped wire mesh, stainless steel (only WG-AL)

**3** Crimped wire mesh and insect screen, stainless steel (only WG-AL, WG-A2)

**4 Front frame**

No entry required: with holes

**U** without holes

**5 Nominal size [mm]**

B × H

**Order example: WG-AL-1-U/1200×1150/S2-E6-C-31**

**Material**

**Construction**

**Nominal size**

**Installation subframe**

**User interface**

(B × H > 4 m<sup>2</sup> when subdivided)

**6 Installation subframe**

No entry required: none

**ER** with (not with unperforated front frame)

**7 Surface**

No entry required: standard construction

**P1** powder-coated, specify RAL CLASSIC colour

Only for WG-AL

**S2** with anodised finish, specify EURAS standard colour (31 – 35)

**S3** with anodised finish, E6-C-0, colour according to EURAS standard

Gloss level

RAL 9010 50 %

RAL 9006 30 %

All other RAL colours 70 %

Aluminium

Insect screen, galvanised steel, border without fixing holes

1200 × 1150 mm

None

With anodised finish to EURAS standard, E6-C-31, pale bronze

**WG-B - AL - E-R - 2 - ... / 5500 × 1320 / ER / P1 - RAL ...**  
 |        |        |        |        |        |        |        |  
 1        2        3        4        5        6        7        8

### 1 Type

**WG-B** External weather louvre, for continuous horizontal runs of any width

### 2 Material

**AL** Aluminium

### 3 Section

No entry required: complete horizontal run, nominal size

**E-R** Right end section

**E-L** Left end section

**M** Middle section

### 4 Construction

No entry required: crimped wire mesh, galvanised steel

**1** Insect screen, galvanised steel

**2** Crimped wire mesh, stainless steel

**3** Crimped wire mesh and insect screen, stainless steel

### 5 Front frame

No entry required: with holes

**U** without holes

### 6 Nominal size [mm]

B × H

For complete horizontal run:

B ≤ 4 m: 2 end sections (E)

B > 4 m: 2 end sections (E) and n middle sections (M)

### 7 Installation subframe

No entry required: none

**ER** with (not with unperforated front frame)

### 8 Surface

No entry required: raw aluminium

**P1** powder-coated, specify RAL CLASSIC colour

**S2** with anodised finish, specify EURAS standard colour (31 – 35)

**S3** with anodised finish, E6-C-0, colour according to EURAS standard

Gloss level

RAL 9010 50 %

RAL 9006 30 %

All other RAL colours 70 %

### Order example: WG-B-AL/4500×1980/ER

<b>Material</b>	Aluminium
<b>Section</b>	1 right end section of 1250 mm, 1 middle section of 2000 mm, 1 left end section of 1250 mm
<b>Construction</b>	Crimped wire mesh
<b>Nominal size</b>	4500 × 1980 mm
<b>Installation subframe</b>	With
<b>User interface</b>	Standard construction



## Variants

### External weather louvre, variant WG



External weather louvre made of galvanised steel sections

### WG

#### Variant

- External weather louvre made of galvanised sheet steel

#### Constructions

- Galvanised sheet steel
- 1: With insect screen, galvanised steel
- U: Border without fixing holes

1 can be combined with U

#### Parts and characteristics

- Front border
- Regular blades and bottom blade
- Crimped wire mesh
- Insect screen (optional)
- Visible mullion from B = 1385 mm

#### Construction features

- Border, material thickness 1.5 mm
- Blades, material thickness 0.63 mm
- Crimped wire mesh at the rear, mesh aperture 20 × 20 × 1.8 mm
- Optional insect screen at the rear, mesh aperture 1.25 × 1.25 × 0.4 mm
- Border fixing holes

#### Materials and surfaces

- Border, mullion and blades made of formed galvanised sheet steel
- Crimped wire mesh made of galvanised steel
- P1: Powder-coated, RAL CLASSIC colour
- PS: Powder-coated, NCS or DB colour

**WG-A2****Variant**

- External weather louvre made of stainless steel

**Constructions**

- Stainless steel
- 3: with insect screen, stainless steel
- U: Border without fixing holes

3 can be combined with U

**Parts and characteristics**

- Front border
- Regular blades and bottom blade
- Crimped wire mesh
- Insect screen, optional
- Visible mullion from B = 1385 mm

**Construction features**

- Border, material thickness 1.5 mm
- Blades, material thickness 0.63 mm
- Crimped wire mesh at the rear, mesh aperture 20 × 20 × 1.8 mm
- Optional insect screen at the rear, mesh aperture 1.25 × 1.25 × 0.4 mm
- Border fixing holes

**Materials and surfaces**

- Border, mullion, blades and crimped wire mesh made of stainless steel, material no. 1.4301
  - P1: Powder-coated, RAL CLASSIC colour
  - PS: Powder-coated, NCS or DB colour
-

**External weather louvre, variant WG-AL**

External weather louvre made of aluminium sections

**WG-AL****Variant**

- External weather louvre made of aluminium

**Constructions**

- Aluminium
- 1: With insect screen, galvanised steel
- 2: With crimped wire mesh, stainless steel
- 3: With insect screen and crimped wire mesh, stainless steel
- U: Border without fixing holes

1, 2, 3 can be combined with U

**Parts and characteristics**

- Front border
- Regular blades and bottom blade
- Crimped wire mesh
- Insect screen (optional)
- Stabilising mullion at the rear, from B = 1385 mm

**Construction features**

- Border, material thickness 1.7 mm
- Blades, material thickness 1.35 mm
- Crimped wire mesh at the rear, mesh aperture 20 × 20 × 1.8 mm
- Optional insect screen at the rear, mesh aperture 1.25 × 1.25 × 0.4 mm
- Border fixing holes

**Materials and surfaces**

- Border, stabilising mullion and blades made of extruded aluminium sections, material no. EN AW-6060 T66
- Crimped wire mesh made of galvanised steel
- P1: Powder-coated, RAL CLASSIC colour
- PS: Powder-coated, NCS or DB colour
- S2: With anodised finish, colour according to EURAS standard, E6-C-31 – E6-C-35
- S3: With anodised finish, colour according to EURAS standard, E6-C-0

**External weather louvre, variant WG-B-AL**

External weather louvre, horizontal run, aluminium

**WG-B-AL****Variant**

- External weather louvre made of aluminium, for continuous horizontal runs

**Constructions**

- Aluminium
- 1: With insect screen, galvanised steel
- 2: With crimped wire mesh, stainless steel
- 3: With insect screen and crimped wire mesh, stainless steel
- U: Border without fixing holes

1, 2, 3 can be combined with U

**Parts and characteristics**

- Front border
- Regular blades and bottom blade
- Crimped wire mesh
- Insect screen (optional)
- Stabilising mullion at the rear, from E/M = 1300 mm

**Construction features**

- (up to B = 4000 mm) or two end sections plus any number of middle sections (from B = 4001 mm)
- Border, material thickness 1.7 mm
- Blades, material thickness 1.35 mm
- Crimped wire mesh at the rear, mesh aperture 20 × 20 × 1.8 mm
- Optional insect screen at the rear, mesh aperture 1.25 × 1.25 × 0.4 mm
- Border fixing holes

**Materials and surfaces**

- Border, stabilising mullion and blades made of extruded aluminium sections, material no. EN AW-6060 T66
- Crimped wire mesh made of galvanised steel
- P1: Powder-coated, RAL CLASSIC colour
- PS: Powder-coated, NCS or DB colour

- S2: With anodised finish, colour according to EURAS standard, E6-C-31 – E6-C-35
- S3: With anodised finish, colour according to EURAS standard, E6-C-0

## Material

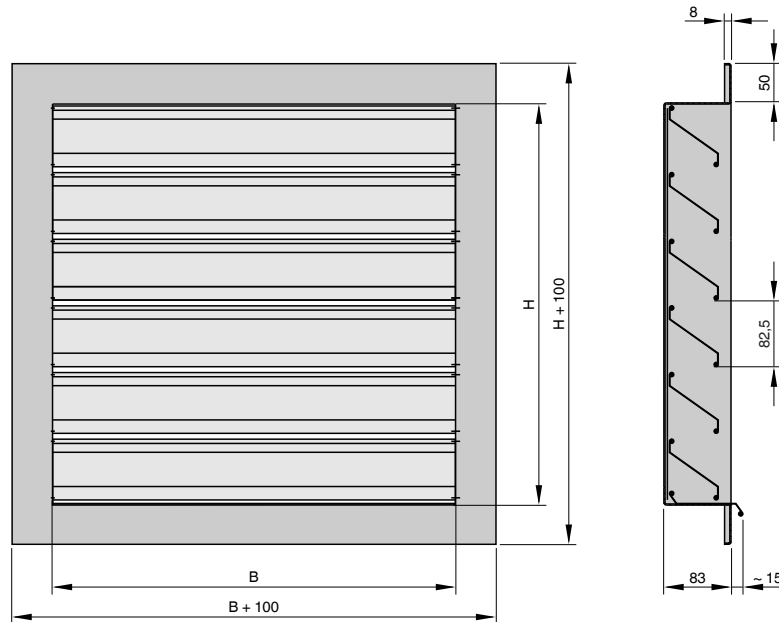
Part	Order code detail	Material	Note
Front border	–	Formed sheet steel, galvanised	Material thickness 1.5 mm
Front border	A2	Stainless steel, material no. 1.4301	Material thickness 1.5 mm
Front border	AL	Extruded aluminium sections, material no. EN AW-6060 T66	Material thickness 1.7 mm
Blades	–	Formed sheet steel, galvanised	Material thickness 0.63 mm
Blades	A2	Stainless steel, material no. 1.4301	Material thickness 0.63 mm
Blades	AL	Extruded aluminium sections, material no. EN AW-6060 T66	Material thickness 1.35 mm
Mullion	–	Formed sheet steel, galvanised	from B = 1385 mm
Mullion	A2	Stainless steel, material no. 1.4301	from B = 1385 mm
Stabilising mullion	AL	Extruded aluminium sections, material no. EN AW-6060 T66	from B = 1385 mm
Crimped wire mesh	–	Galvanised steel	
Crimped wire mesh	2	Stainless steel, material no. 1.4301	only WG-AL, WG-B-AL
Crimped wire mesh	3	Stainless steel, material no. 1.4301	only WG-A2, WG-AL, WG-B-AL
Insect screen	1	Galvanised steel	only WG, WG-AL, WG-B-AL
Insect screen	3	Stainless steel, material no. 1.4301	only WG-A2, WG-AL, WG-B-AL

## Surfaces

Part	Order code detail	User interface	Note
Border and blades	–	untreated	
Border and blades	P1-RAL ...	powder-coated, colour RAL ... CLASSIC	
Border and blades	PS-NCS ...	powder-coated, colour NCS ...	
Border and blades	S2	with anodised finish, colour to EURAS standard E6-C-31 – E6-C-35	only WG-AL, WG-B-AL
Border and blades	S3	with anodised finish, colour to EURAS standard E6-C-0	only WG-AL, WG-B-AL

## Dimensions and weight

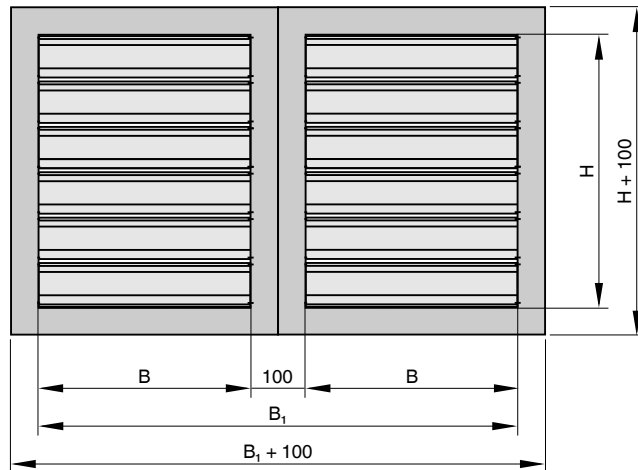
WG, WG-A2



WG, WG-A2, weights [kg]

H [mm]	B [mm]											
	200	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
165	3	4	5	6	8	9	11	13	14	15	17	19
330	3	5	6	7	9	11	13	14	15	17	19	20
495	5	6	8	9	11	13	16	18	19	21	24	25
660	6	7	9	11	13	16	19	21	22	26	28	30
825	8	9	12	13	16	18	22	24	26	30	33	36
990	9	10	13	15	18	21	25	28	30	34	38	41
1155	11	12	15	17	20	24	28	31	33	39	43	46
1320	12	14	16	18	22	26	31	35	37	43	48	52
1485	14	16	18	20	24	29	34	38	41	47	52	57
1650	15	16	20	22	27	31	37	41	44	51	57	62
1815	17	18	21	24	29	34	40	45	48	56	62	
1980	18	19	22	26	31	37	43	48	52	60		
2145	20	21	23	28	33	39	46	52	56			
2310	21	23	25	30	35	42	49	55				

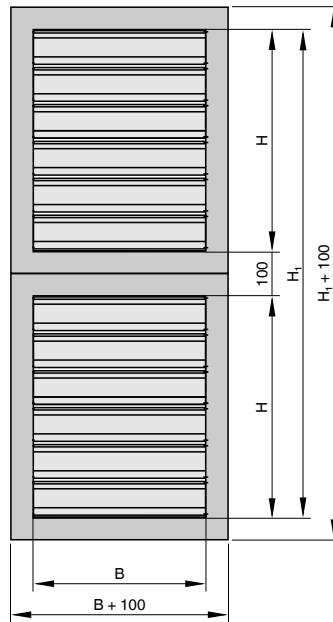
WG, WG-A2, width subdivided



WG, WG-A2, width subdivided, weights [kg]

H [mm]	B <sub>1</sub> [mm]									
	1900	2100	2300	2500	2900	3300	3700	4100	4500	4900
	B [mm]									
	900	1000	1100	1200	1400	1600	1800	2000	2200	2400
165	14	15	17	18	22	25	27	30	34	37
330	16	18	20	21	26	28	30	34	38	40
495	20	22	24	26	32	35	37	43	47	50
660	24	27	29	31	38	42	44	51	57	61
825	28	31	34	37	44	49	52	60	66	71
990	32	36	39	42	50	56	59	68	76	82
1155	37	40	44	47	56	62	67	77	86	93
1320	41	44	48	52	62	69	74	86	95	103
1485	45	49	53	57	68	76	81	94	105	114
1650	49	53	58	63	74	83	89	103	114	124
1815	53	58	63	68	80	90	96	111	124	
1980	57	62	68	73	86	96	104	120		
2145	61	66	72	78	92	103	111			
2310	65	71	77	83	98	110				

WG, WG-A2, height subdivided

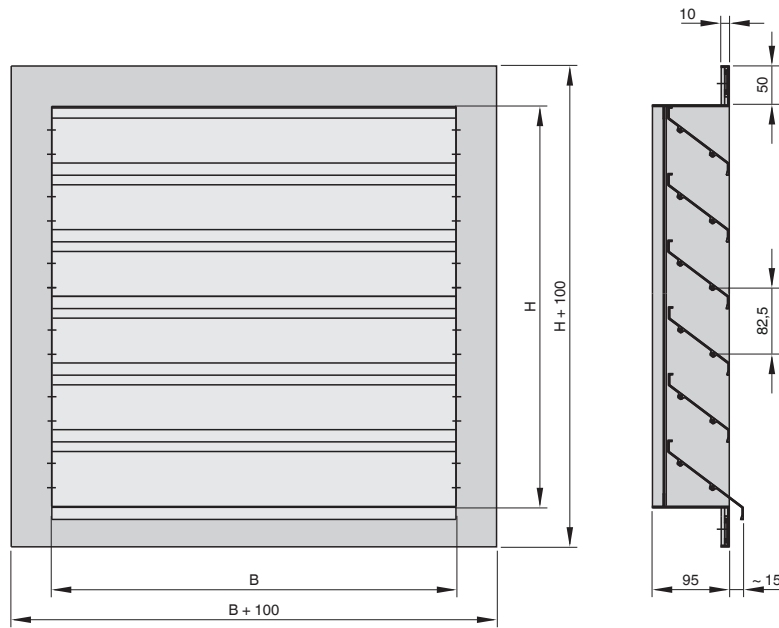


WG, WG-A2, height subdivided, weights [kg]

H <sub>1</sub> [mm]	H [mm]	B [mm]											
		200	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
2410	1155	21	24	30	33	40	47	56	62	67	77	86	93
2740	1320	24	28	33	37	44	52	62	69	74	86	95	103
3070	1485	27	31	37	41	49	57	68	76	81	94	105	114
3400	1650	30	32	40	44	53	63	74	83	89	103	114	124
3730	1815	33	36	42	48	58	68	80	90	96	111	124	
4060	1980	36	38	44	52	62	73	86	96	104	120		
4390	2145	39	42	46	56	66	78	92	103	111			
4720	2310	42	46	50	60	71	83	98	110				



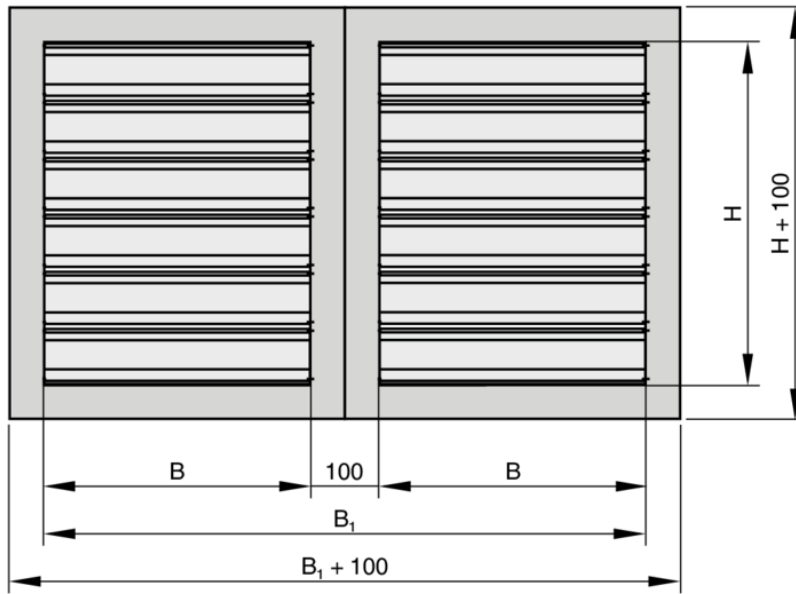
WG-AL



WG-AL, weights [kg]

H [mm]	B [mm]											
	200	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
165	2	3	4	5	6	7	8	9	10	11	12	13
330	2	3	4	5	6	7	8	9	10	11	12	13
495	3	4	5	6	7	8	9	10	11	14	16	19
660	4	5	6	7	8	10	12	14	15	17	19	22
825	5	6	7	8	10	12	14	16	19	21	24	26
990	6	7	8	10	12	15	17	19	21	24	27	30
1155	7	8	10	12	14	16	18	21	24	27	30	33
1320	8	10	12	14	16	18	21	24	27	30	33	36
1485	10	12	14	16	18	21	24	27	30	33	36	39
1650	12	14	16	18	21	24	27	30	33	36	39	42
1815	14	16	18	21	24	27	30	33	36	39	42	
1980	16	18	20	24	27	30	33	36	39	42		
2145	18	20	22	27	30	33	36	39	42			
2310	20	22	24	29	33	36	39	42				

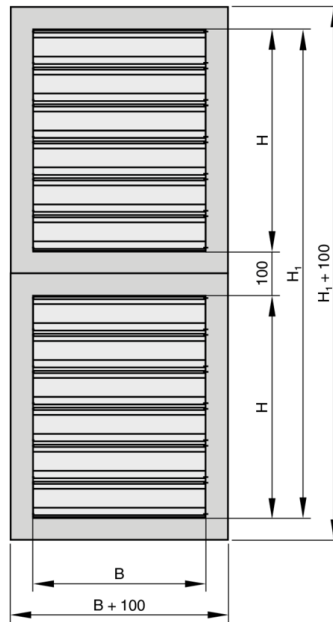
WG-AL width subdivided



WG-AL, width subdivided, weights [kg]

H [mm]	B <sub>1</sub> [mm]									
	1900	2100	2300	2500	2900	3300	3700	4100	4500	4900
	B [mm]									
	900	1000	1100	1200	1400	1600	1800	2000	2200	2400
165	10	11	12	13	15	17	19	21	23	25
330	11	12	13	14	16	18	20	22	24	26
495	13	14	15	16	18	20	22	28	32	38
660	15	16	18	20	24	28	30	34	38	44
825	18	20	22	24	28	32	38	42	48	52
990	22	24	27	30	34	38	42	48	54	60
1155	26	28	30	32	36	42	48	54	60	66
1320	30	32	34	36	42	48	54	60	66	72
1485	34	36	39	42	48	54	60	66	72	78
1650	39	42	45	48	54	60	66	72	78	84
1815	45	48	51	54	60	66	72	78	84	
1980	51	54	57	60	66	72	78	84		
2145	57	60	63	66	72	78	84			
2310	62	66	69	72	78	84				

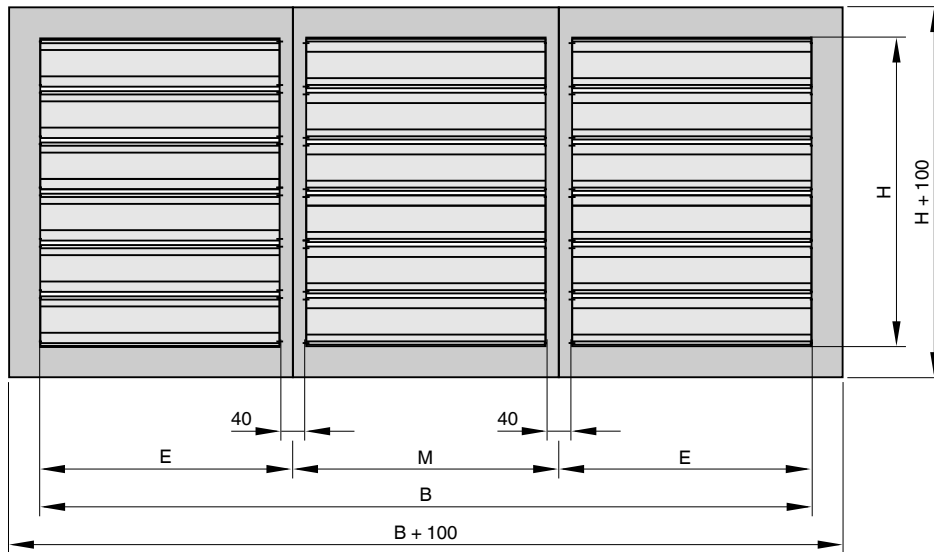
WG-AL, height subdivided



WG-AL, height subdivided, weights [kg]

H <sub>1</sub> [mm]	H [mm]	B [mm]											
		200	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
2410	1155	14	16	20	24	28	32	36	42	48	54	60	66
2740	1320	16	20	24	28	32	36	42	48	54	60	66	72
3070	1485	20	24	28	32	36	42	48	54	60	66	72	78
3400	1650	24	28	32	36	42	48	54	60	66	72	78	84
3730	1815	28	32	36	42	48	54	60	66	72	78	84	90
4060	1980	32	36	40	48	54	60	66	72	78	84	90	96
4390	2145	36	40	44	54	60	66	72	78	84	90	96	102
4720	2310	40	44	48	58	66	72	78	84	90	96	102	108

WG-B-AL

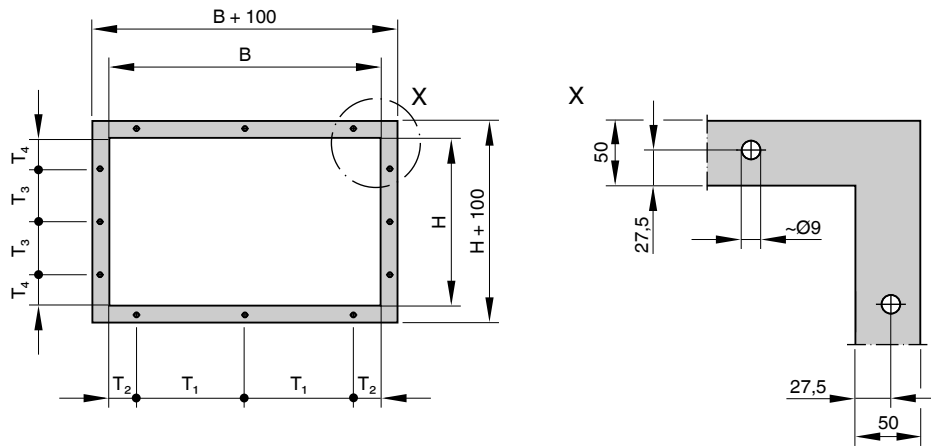


WG-B-AL, weights [kg]

H [mm]	M [mm]	E [mm]						
	2000	1000	1200	1400	1600	1800	2000	
165	10	5	6	7	8	9	10	
330	11	6	7	8	9	10	11	
495	14	7	8	9	10	11	14	
660	17	8	10	12	14	15	17	
825	21	10	12	14	16	19	21	
990	24	12	15	17	19	21	24	
1155	27	14	16	18	21	24	27	
1320	30	16	18	21	24	27	30	
1485	33	18	21	24	27	30	33	
1650	36	21	24	27	30	33	36	
1815	39	24	27	30	33	36	39	
1980	42	27	30	33	36	39	42	

## Product details

## Border fixing holes – WG, WG-A2, WG-AL



## WG, standard sizes, width B, no. of flange holes n

B [mm]	Number of holes n	T <sub>1</sub> [mm]	T <sub>2</sub> [mm]
200	1	–	100
400	2	240	80
600	2	440	80
800	2	640	80
1000	3	420	80
1200	3	520	80
1400	3	620	80
1600	4	480	80
1800	4	547	80
2000	4	613	80
2200	5	510	80
2400	5	560	80

## WG, standard sizes, height H, no. of flange holes n

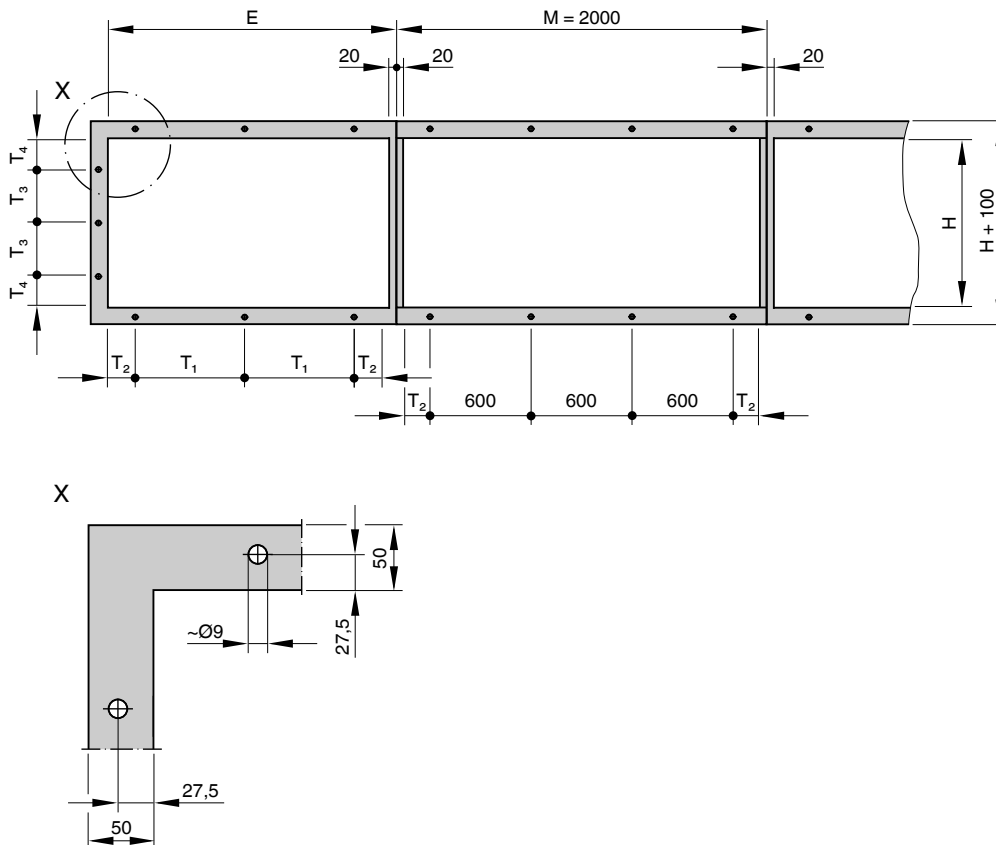
H [mm]	Number of holes n	T <sub>3</sub> [mm]	T <sub>4</sub> [mm]
165	1	–	83
330	1	–	165
495	1	–	248
660	1	–	330
825	1	–	413
990	1	–	495
1155	1	–	578
1320	2	445	437
1485	2	500	492
1650	2	555	547
1815	2	610	602
1980	3	499	491
2145	3	540	533
2310	3	581	574

**WG, intermediate sizes, width B, no. of flange holes n**

B [mm]	Number of holes n	T <sub>1</sub> [mm]	T <sub>2</sub> [mm]
165 – 384	1	–	B/2
385 – 881	2	B - 160	80
882 – 1481	3	(B - 160)/2	80
1482 – 2081	4	(B - 160)/3	80
2082 – 2399	5	(B - 160)/4	80

**WG, intermediate sizes, height H, no. of flange holes n**

H [mm]	Number of holes n	T <sub>3</sub> [mm]	T <sub>4</sub> [mm]
166 – 1319	1	–	H/2
1321 – 1979	2	(H + 15)/3	T <sub>3</sub> - 7.5
1981 – 2309	3	(H + 15)/4	T <sub>3</sub> - 7.5

**Border fixing holes – WG-B-AL**

**WG-B-AL, standard sizes, width B, no. of flange holes n**

End section E [mm]	Number of holes n	T <sub>1</sub> [mm]	T <sub>2</sub> [mm]
1000	3	410	80
1200	3	510	80
1400	4	407	80
1600	4	473	80
1800	4	540	80
2000	4	607	80

**WG-B-AL, standard sizes, height H, no. of flange holes n**

H [mm]	Number of holes n	T <sub>3</sub> [mm]	T <sub>4</sub> [mm]
165	1	–	83
330	1	–	165
495	1	–	248
660	1	–	330
825	1	–	413
990	1	–	495
1155	1	–	578
1320	2	445	437
1485	2	500	492
1650	2	555	547
1815	2	610	602
1980	3	499	491

**WG-B-AL, intermediate sizes, width B, no. of flange holes n**

End section E [mm]	Number of holes n	T <sub>1</sub> [mm]	T <sub>2</sub> [mm]
1001 – 1481	3	$(E - 180)/2$	80
1482 – 1999	4	$(E - 180)/3$	80

**WG-B-AL, intermediate sizes, height H, no. of flange holes n**

H [mm]	Number of holes n	T <sub>3</sub> [mm]	T <sub>4</sub> [mm]
1001 – 1319	1	–	H/2
1321 – 1979	2	$(H + 15)/3$	T <sub>3</sub> - 7.5

**Installation and commissioning**

- Install with or without installation subframe (construction U only without installation subframe)
- Install subdivided constructions either horizontally next to each other or vertically on top of each other
- Install components of the continuous horizontal runs (end and middle sections) individually
- Install louvres for large areas on a support structure (to be provided by others)

Wall installation without installation subframe WG, WG-A2 Wall installation without installation subframe WG-AL



Width or height subdivided

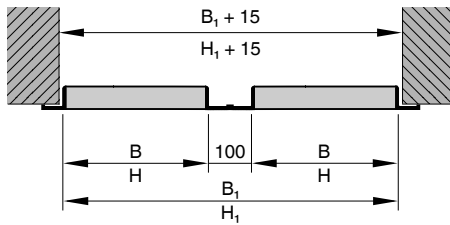
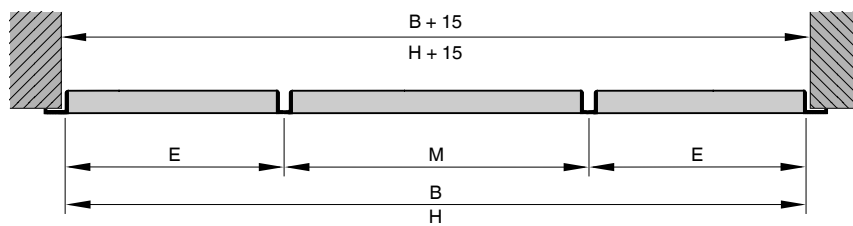


Illustration shows width subdivided

Horizontal runs of WG-B-AL





## Nomenclature

A [m <sup>2</sup> ] Upstream cross section	L <sub>WA</sub> [dB(A)] A-weighted sound power level of air-regenerated noise for the louver
B [mm] Duct width	m [kg] Weight
B <sub>i</sub> [mm] Duct width for subdivided louvres	n [ ] Number of flange screw holes
Δp <sub>t</sub> [Pa] Total differential pressure	qv [m <sup>3</sup> /h]; [l/s] Volume flow rate
H [mm] Duct height	v [m/s] Airflow velocity based on the upstream cross section
H <sub>i</sub> [mm] Duct height for subdivided louvres	v <sub>t</sub> [m/s] Airflow velocity based on the upstream cross section (Type NL)