



EXTERNAL WEATHER LOUVRE, VARIANT WGK

External weather louvre
made of aluminium sections,
anodised



REGULAR BLADES

Regular blades



BOTTOM BLADE

Bottom blade

WGK

WITH SMALL BLADE PITCH

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.

- Maximum width of 1997 mm, maximum height of 1997 mm
- Low differential pressure due to aerofoil blades
- Low air-regenerated noise
- All aerodynamic data is measured in aerodynamics and acoustics laboratories
- Available in standard sizes and many intermediate sizes
- Simple and quick installation due to perimeter border

Optional equipment and accessories

- Installation subframe
- Insect screen
- Powder-coated or with anodised finish

General information



Application

- External weather louvres with small blade pitch, for the 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 outdoor air openings 2 – 2.5 m/s max.

Special features

- 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: 97, 147, 197, 297, 397, 497, 597, 797, 997, 1197, 1397, 1597, 1797, 1997 mm (intermediate sizes 98 – 1996 mm in increments of 1 mm)
- H: 97, 147, 197, 247, 297, 347, 397, 447, 497, 597, 797, 997, 1197, 1397, 1597, 1797, 1997 mm (intermediate sizes 122 – 1972 mm in increments of 25 mm)

Construction

Cover grille

- Crimped wire mesh
- 1: With insect screen, galvanised steel
- 3: With insect screen, stainless steel

Front border

- With holes
- U: without holes

Parts and characteristics

- Front border
- Regular blades and bottom blade
- Crimped wire mesh
- Insect screen (optional)
- Visible stabilising mullion from B = 597 mm, two mullions from B = 1198 mm, three mullions from B = 1797 mm

Accessories

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

Construction features

- Border, material thickness 1.3 mm
- Blades, material thickness 1.35 mm
- Crimped wire mesh at the rear, mesh aperture 6 × 6 × 0.63 mm
- Optional insect screen at the rear, mesh aperture 1.25 × 1.25 × 0.4 mm
- Border fixing holes

Materials and surfaces

- Border, blades and stabilising mullions made of extruded aluminium sections, material no. EN AW-6060 T66, with anodised finish, colour to EURAS standard E6-C-0, natural colour
- Crimped wire mesh made of galvanised 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

Description □

Variants

Parts and characteristics

- Front border
- Regular blades and bottom blade
- Crimped wire mesh
- Insect screen (optional)
- Visible stabilising mullion from B = 597 mm, two mullions from B = 1198 mm, three mullions from B = 1797 mm

Accessories

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

Nominal sizes

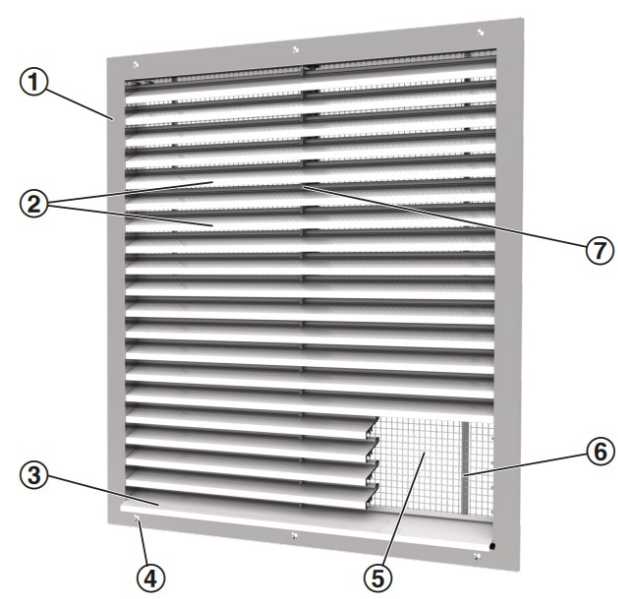
- B: 97, 147, 197, 297, 397, 497, 597, 797, 997, 1197, 1397, 1597, 1797, 1997 mm (intermediate sizes 98 – 1996 mm in increments of 1 mm)
- H: 97,147, 197, 247, 297, 347, 397, 447, 497, 597, 797, 997, 1197, 1397, 1597, 1797, 1997 mm (intermediate sizes 122 – 1972 mm in increments of 25 mm)

TECHNICAL INFORMATION

Function, Technical data, Quick sizing, Specification text, Order code, Related products □

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 WGK-AL



- ① Front border
- ② Regular blades
- ③ Bottom blade
- ④ Fixing holes
- ⑤ Crimped wire mesh; additional insect screen as an option
- ⑥ Reinforcing strut from H = 597
- ⑦ Stabilising mullion from B = 597

Nominal sizes	97 × 97 – 1997 × 997 mm/1197 × 1997 mm
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Quick sizing tables in the Easy Product Finder provide a good overview of the

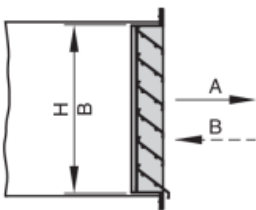
- Possible volume flow rates for different airflow velocities
- Corresponding pressure losses
- Sound power level
- Free areas

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:

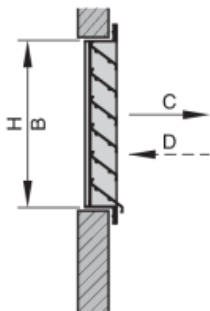
www.trox.de/mytrox/auslegungsprogramm-easy-product-finder-182e16348fac3d33

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

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

- Low differential pressure and low air-regenerated noise due to aerofoil blades
- Simple and quick installation due to perimeter border
- Silicone free

Materials and surfaces

- Border, blades and stabilising mullions made of extruded aluminium sections, material no. EN AW-6060 T66, with anodised finish, colour to EURAS standard E6-C-0, natural colour
- Crimped wire mesh made of galvanised steel
- P1: powder-coated, RAL CLASSIC colour
- PS: powder-coated, NCS or DB colour

Construction

Cover grille

- Crimped wire mesh
- 1: With insect screen, galvanised steel
- 3: With insect screen, stainless steel

Front border

- With holes
- U: without holes

Technical data

- Nominal sizes: 97 × 97 – 1997 × 997 mm / 1197 × 1997 mm

Sizing data

q_v [m³/h]

Δp_t [Pa]

Air-regenerated noise

L_{WA} [dB(A)]

WGK - AL - 3 - ... / 1197 x 797 / ER / P1 - RAL ...
1 2 3 4 5 6 7

1 Type
WGK External weather louvre with small blade pitch

2 Material
AL Anodised aluminium

3 Construction
No entry required: crimped wire mesh, galvanised steel
1 Insect screen, galvanised steel
3 Insect screen, stainless steel

4 Front frame
No entry required: with holes
U Without holes

5 Nominal size [mm]
B x H

6 Installation subframe
No entry required: none
ER With (not with unperforated front border)

7 Surface
No entry required: with anodised finish (S3), E6-C-0 (natural colour), colour to EURAS standard
P1 powder-coated, specify RAL CLASSIC colour
S2 with anodised finish, specify EURAS standard colour (31 – 35)

Gloss level
RAL 9010 50 %
RAL 9006 30 %
All other RAL colours 70 %

Order example: WGK-AL-1/997x1622/P1-RAL 9006

Material	Aluminium
Construction	Insect screen, galvanised steel
Nominal size	997 x 1622 mm
Installation subframe	None
User interface	Powder-coated, RAL 9006, white aluminium

Dimensions and weight, Product details, Installation details



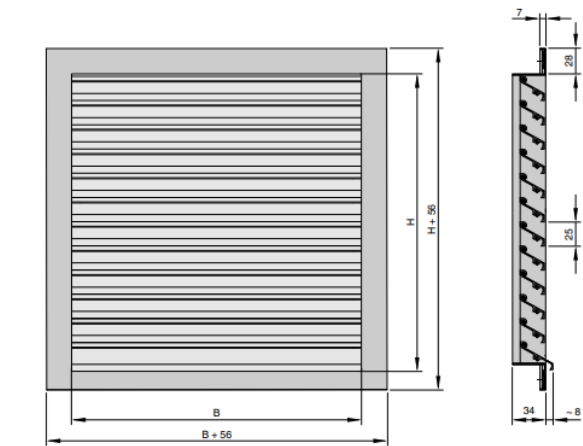
WGK, width 97 – 997 mm, weights [kg]

H [mm]	B [mm]											
	97	147	197	297	397	497	597	697	797	897	997	
97	1	1	1	1	1	1	1	1	1	1	2	
147	1	1	1	1	1	1	1	1	2	2	2	
197	1	1	1	1	1	2	2	2	2	2	3	
247	1	1	1	1	2	2	2	2	3	3	3	
297	1	1	1	2	2	2	3	3	3	3	4	
347	1	1	1	2	2	3	3	3	4	4	4	
397	1	1	2	2	2	3	3	4	4	4	5	
447	1	1	2	2	3	3	4	4	4	5	5	
497	1	1	2	2	3	3	4	4	5	5	6	
597	1	2	2	3	3	4	5	5	6	6	7	
797	1	2	3	4	4	5	6	7	8	8	9	
997	1	2	3	4	5	6	7	8	9	10	11	
1197	2	3	4	5	6	8	9	10	11	12	14	
1397	2	3	5	6	7	9	10	12	13	14	16	
1597	2	4	5	7	8	10	12	13	15	16	18	
1797	2	4	6	8	9	11	13	15	17	18	20	
1997	2	4	6	8	10	12	14	16	18	20	22	

WGK, width 1097 - 1997 mm, weights [kg]

H [mm]	B [mm]										
	1097	1197	1297	1397	1497	1597	1697	1797	1897	1997	
97	2	2	2	2	3	3	3	3	3	3	
147	2	2	3	3	3	3	3	4	4	4	
197	3	3	3	3	4	4	4	4	4	5	
247	3	4	4	4	4	5	5	5	5	6	
297	4	4	5	5	5	6	6	6	6	7	
347	5	5	5	6	6	6	7	7	7	8	
397	5	6	6	6	7	7	8	8	8	9	
447	6	6	7	7	8	8	9	9	9	10	
497	6	7	7	8	8	9	9	10	10	11	
597	8	8	9	9	10	11	11	12	12	13	
797	10	11	12	12	13	14	15	16	16	17	
997	12	13	14	15	16	17	18	19	20	21	
1197	15	16	17	18	20	21	22				
1397	17	19	20	21	23						
1597	20	21	23								
1797	22										
1997											

WGK



WGK, standard sizes, width B, no. of flange holes n

B [mm]	Number of holes n	T ₁ [mm]	T ₂ [mm]
97	1	–	B/2
147	1	–	B/2
197	1	–	B/2
297	2	262	17.5
397	2	362	17.5
497	3	231	17.5
597	3	281	17.5
797	3	381	17.5
997	4	321	17.5
1197	4	387	17.5
1397	5	341	17.5
1597	5	391	17.5
1797	6	352	17.5
1997	6	392	17.5

WGK, standard sizes, height H, no. of flange holes n

H [mm]	Number of holes n	T ₁ [mm]	T ₂ [mm]
97		–	–
147		–	–
197		–	–
297		–	–
397		–	–
497		–	–
597	3	281	17.5
797	3	381	17.5
997	4	321	17.5
1197	4	387	17.5
1397	5	341	17.5
1597	5	391	17.5
1797	6	352	17.5
1997	6	392	17.5

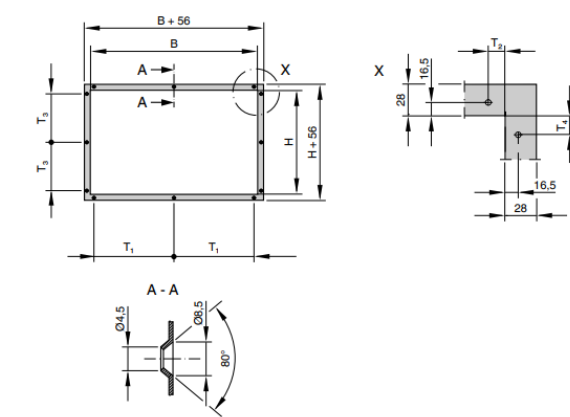
WGK, intermediate sizes, width B, no. of flange holes n

B [mm]	Number of holes n	T ₁ [mm]	T ₂ [mm]
97 - 296	1	–	B/2
298 - 396	2	B - 35	17.5
398 - 796	3	(B - 35)/2	17.5
798 - 1396	4	(B - 35)/3	17.5
1398 - 1796	5	(B - 35)/4	17.5
1798 - 1996	6	(B - 35)/5	17.5

WGK, intermediate sizes, height H, no. of flange holes n

H [mm]	Number of holes n	T ₃ [mm]	T ₄ [mm]
122 - 572	0	-	-
622 - 772	3	(H - 35)/2	17.5
822 - 1372	4	(H - 35)/3	17.5
1422 - 1772	5	(H - 35)/4	17.5
1822 - 1972	6	(H - 35)/5	17.5

Border fixing holes, WGK



INSTALLATION AND COMMISSIONING

- Installation with or without installation subframe

Wall installation without installation subframe

