

# ORION: Multifunctional Roof Ventilator



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Helm Orion Ventilator

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MANUFACTURING INGENUITY

# Helm Orion Ventilator

Helm has always been a solutions-led company and is well-positioned at the forefront of industrial progression. The company is therefore continually involved in finding effective solutions to smoke control problems.

Our natural smoke and heat exhaust ventilation systems are designed to extract smoke from the interior of a building through automatically operable roof-mounted ventilators, in compliance with Part 2 of the EN 1210 I code. Helm also installs powered smoke and heat exhaust systems to enhance ventilation. These systems not only ensure that fans and cabling comply with the relevant part of the EN 1210 I code, but also ensures the company's research and development objectives are on par with the latest international developments.

## Features

- Natural day-to-day ventilation
- Natural smoke exhaust in case of fire
- No fan power consumption required
- Compliance with the EN 12101-2
- CE certified, for all the options

The Orion is a multifunctional roof ventilator with certified aerodynamic area as a standalone ventilator with the certification extending when incorporating bird screens, burglar bars and wind baffles in any combination. The added advantage of the Orion is its compliance with EN 12101-2 and CE mark, allowing the designer complete peace of mind when specifying this product.

## Specifications

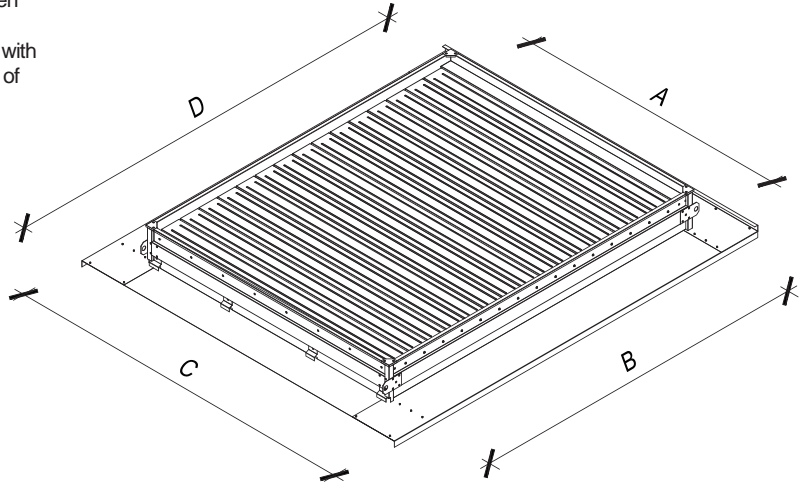
All options of the Orion are certified

- Material: Zinalume or Galvanised
- Standard Chromadek®, Standard Colourbond®, standard RAL colours available
- Installation angle: Flat roof up to 15° inclination or monitor of 45°
- Opening mechanism: 24V linear actuator or 24V spring return actuator
- Fusible link temperatures: 74°C, 100°C, 138°C, 182°C or 232°C
- Up-stand of 150 mm possible
- Wind deflector of 50 mm height possible
- Extended width possible
- Optional: bird mesh, burglar bar

## Performances and Classification

Certified by an independent test laboratory, according to EN 12101-2:2003 standard

- Aerodynamic free area: see table on the following page
- Reliability: Re100
- Low ambient temperature: T(00)
- Wind load: WL 2300
- Resistance to heat: B 300
- Reaction to fire classification (steel): A1

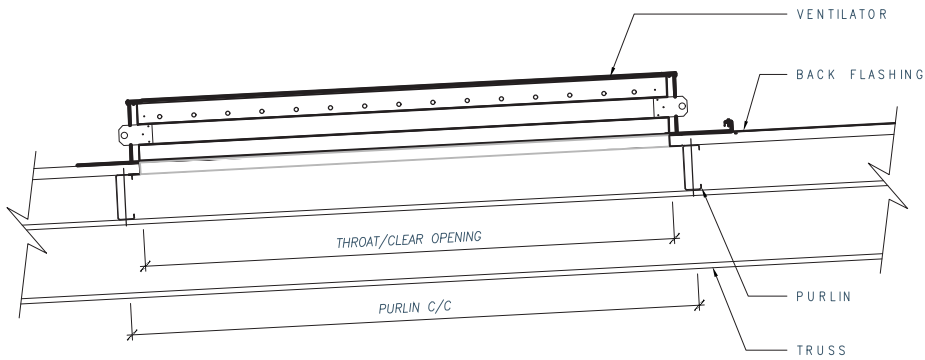


ORION	A10	A12	A14	A15	B10	B12	B14	B15
Measured Throat Area (Av) in m <sup>2</sup>	1,83	2,18	2,53	2,7	2,25	2,68	3,11	3,32
Discharge Coefficient (CvO)	0,59	0,59	0,58	0,57	0,60	0,60	0,56	0,55
Throat Width & Length in mm(B & A)	1316 x 1394	1316 x 1660	1316 x 1926	1316 x 2059	1616 x 1394	1616 x 1660	1616 x 1926	1616 x 2059
Total Width & Length in mm (D & C)	1916 x 1794	1916 x 2060	1916 x 2326	1916 x 2459	2216 x 1794	2216 x 2060	2216 x 2326	2216 x 2459
Total Height in mm	0,150	0,150	0,150	0,150	0,150	0,150	0,150	0,150
Quantity of Blades	10	12	14	15	10	12	14	15
Recommended Purlin Spacing in mm	1400	1600	1900	2000	1400	1600	1900	2000
Mass in kg	49	60	68	73	61	72	84	90

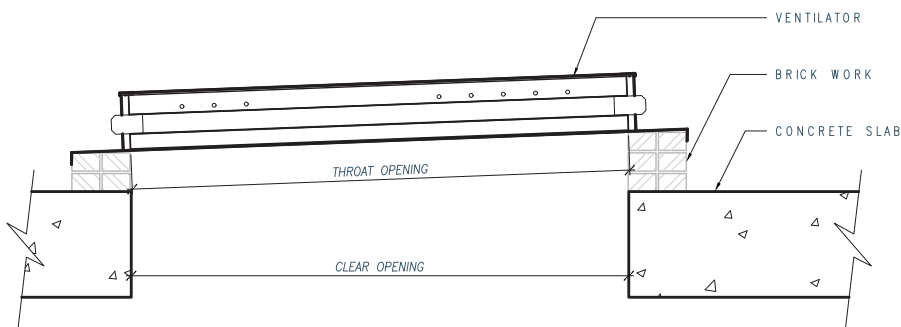


# Helm Orion ventilator

Typical roof installation detail



Typical brick up-stand installation detail



Aerodynamic Free Area - m<sup>2</sup>

Code	Without Wind Baffle								With Wind Baffle			
	A10	A12	A14	A15	B10	B12	B14	B15	A14	A15	B14	B15
<b>ORION</b>												
Standard ventilator	1.07	1.28	1.46	1.53	1.35	1.60	1.74	1.82	1.55	1.68	1.93	2.10
With burglar bar	1.02	1.23	1.40	1.47	1.29	1.53	1.67	1.75	1.48	1.61	1.85	2.01
With bird mesh	0.94	1.13	1.29	1.35	1.19	1.41	1.53	1.61	1.35	1.46	1.68	1.82
With burglar bar and bird mesh	0.91	1.08	1.24	1.30	1.14	1.36	1.48	1.54	1.29	1.40	1.61	1.75





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