

For **WATERPROOFED ROOFS AND EXISTING UPSTANDS**

ARCALAM®



NF 537
Actuated safety devices (DAS)
Control devices (DC)



EN 12101-2
EN 1873 + A1: 2016

Évolution Pneumatique



VERSION



Filling

ORIGIN' RANGE:

- Opal multi-wall PCA 10
Ug = 2.9 W/m².K
- Fireproof (M0) aluminium blade, unfinished or lacquered in RAL colours
- Insulated aluminium blade - sheet metal on both sides, unfinished or lacquered in RAL colours



Upstand

STEEL VERSION:

- Straight upstand
- 1.2 mm galvanised steel
- Height 300 mm with 15 mm bituminous insulating coating

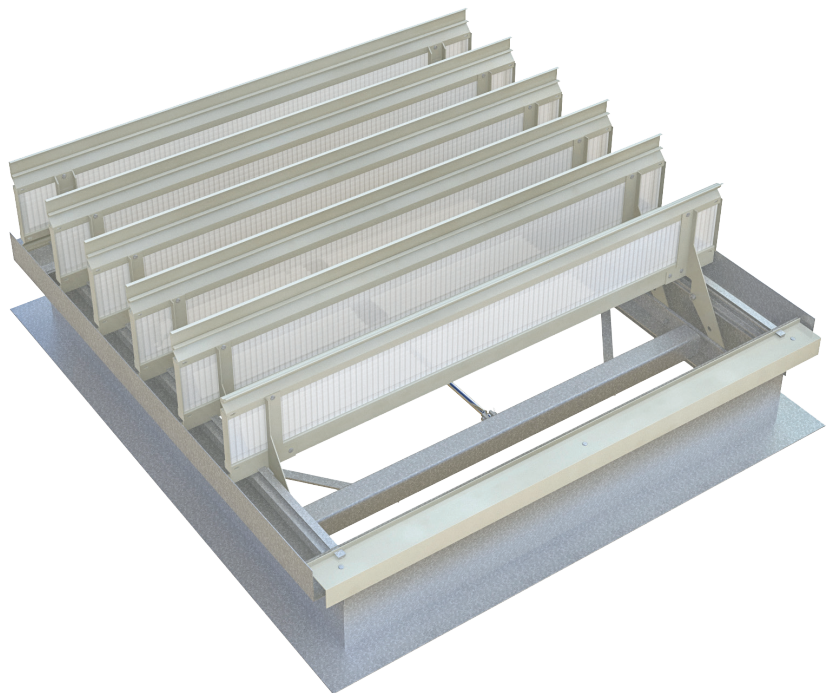
ALUMINUM VERSION:

- Straight upstand
- Height 200 mm with heel



Control

- Pneumatic opening/closing
- Mechanism integrated into the volume of the steel or aluminium upstand



OPTIONS



Filling

- Opal PCA 10 IR
- Grey PCA 10
- Transparent PCA 10
- PCA 10 + Lumira*



Control

- Limit switch



Upstand

- Special adaptation on aluminium upstand version
- Lacquered interior (standard RAL colours)
- Colaminated sheet steel top for PVC waterproofing
- Galvanised sheet steel top for PVC waterproofing
- Bare insulation for PVC waterproofing



Wind baffles

- Straight steel upstand: steel wind baffles
- Straight aluminium upstand: wind baffles

Capping upstand

- Straight galvanised steel adapter upstand, 300 mm high with 84 mm heel and 40 mm overlap
- Straight aluminium adapter upstand, 200 mm high with 70mm heel and 50 mm overlap

Filling performance

Other filling and filling options: see "Filling" data sheet.

	Type of filling	Thermal transmittance factor Ug (W/ m ² .K)	LT D65 ⁽²⁾	SF or g ⁽²⁾	Reaction to fire	R _w (dB) ⁽³⁾
		U _{hor} ⁽¹⁾				
PCA	Opal 4-wall PCA 10	2.9	61%	61%	B-s1-d0	R _w =19 dB
Blade	33.2 laminated glass	ND	>85 %	ND	ND	ND
	Aluminium blade	ND	0%	0%	ND	ND
	Insulated aluminium blade	ND	0%	0%	ND	ND

⁽¹⁾Relative to the horizontal, as per §2.31 of the Th-Bat regulations.

⁽²⁾Light transmittance LT D65 and solar transmittance SF (TST or g) as per EN 410.

⁽³⁾Filling insulated against airborne noise R_a, pink noise R_p (environment, airport and industrial activities) and road noise R_{a,rv} laboratory-measured according to NF EN ISO 140.

Geometric area Av (m²)

Number of blades	Length (cm)	Width (cm)												
		1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
6	1107	1.11	1.22	1.33	1.44	1.55	1.66	1.77	1.88	1.99	2.10	2.21	2.32	2.44
7	1269	1.27	1.40	1.52	1.65	1.78	1.90	2.03	2.16	2.28	2.41	2.54	2.66	2.79
8	1431	1.43	1.57	1.72	1.86	2.00	2.15	2.29	2.43	2.58	2.72	2.86	3.01	3.15
9	1593	1.59	1.75	1.91	2.07	2.23	2.39	2.55	2.71	2.87	3.03	3.19	3.35	3.50
10	1755	1.76	1.93	2.11	2.28	2.46	2.63	2.81	2.98	3.16	3.33	3.51	3.69	3.86
11	1917	1.92	2.11	2.30	2.49	2.68	2.88	3.07	3.26	3.45	3.64	3.83	4.03	4.22
12	2079	2.08	2.29	2.49	2.70	2.91	3.12	3.33	3.53	3.74	3.95	4.16	4.37	4.57
13	2241	2.24	2.47	2.69	2.91	3.14	3.36	3.59	3.81	4.03	4.26	4.48	4.71	4.93
14	2403	2.40	2.64	2.88	3.12	3.36	3.60	3.84	4.09	4.33	4.57	4.81	5.05	5.29
15	2565	2.57	2.82	3.08	3.33	3.59	3.85	4.10	4.36	4.62	4.87	5.13	5.39	5.64
16	2727	2.73	3.00	3.27	3.55	3.82	4.09	4.36	4.64	4.91	5.18	5.45	5.73	6.00
17	2889	2.89	3.18	3.47	3.76	4.04	4.33	4.62	4.91	5.20	5.49	5.78	6.07	6.36
18	3051	3.05	3.36	3.66	3.97	4.27	4.58	4.88	5.19	5.49	5.80	6.10	6.41	6.71

Aeraulic performance Aa (m²)

Number of blades	Length (cm)	Width (cm)												
		1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
Effective opening area Aa (m ²)														
ARCALAM ÉVOLUTION PNEUMATIQUE - Steel upstand version for waterproofing (with wind baffles)														
6	1107	0.66	0.73	0.80	0.87	0.94	1.01	1.07	1.14	1.21	1.28	1.35	1.42	1.49
7	1269	0.76	0.84	0.92	1.00	1.08	1.16	1.24	1.32	1.40	1.50	1.58	1.66	1.74
8	1431	0.86	0.95	1.04	1.13	1.22	1.31	1.42	1.51	1.60	1.69	1.78	1.87	1.96
9	1593	0.96	1.06	1.16	1.26	1.37	1.48	1.58	1.68	1.79	1.89	1.99	2.09	2.19
10	1755	1.06	1.17	1.28	1.41	1.53	1.64	1.75	1.86	1.97	2.08	2.19	2.30	2.42
11	1917	1.16	1.28	1.41	1.55	1.67	1.79	1.91	2.03	2.16	2.28	2.40	2.52	2.64
12	2079	1.26	1.39	1.55	1.68	1.81	1.94	2.08	2.21	2.34	2.47	2.60	2.74	2.87
13	2241	1.36	1.51	1.67	1.81	1.95	2.10	2.24	2.38	2.53	2.67	2.81	2.95	3.10
14	2403	1.46	1.64	1.79	1.94	2.10	2.25	2.40	2.56	2.71	2.86	3.02	3.17	3.32
15	2565	1.56	1.75	1.91	2.08	2.24	2.40	2.57	2.73	2.89	3.06	3.22	3.39	3.55
16	2727	1.66	1.86	2.04	2.21	2.38	2.56	2.73	2.91	3.08	3.25	3.43	3.60	3.78
17	2889	1.77	1.97	2.16	2.34	2.53	2.71	2.90	3.08	3.26	3.45	3.63	3.82	4.03
18	3051	1.89	2.09	2.28	2.48	2.67	2.87	3.06	3.25	3.45	3.64	3.84	4.03	4.23
ARCALAM ÉVOLUTION PNEUMATIQUE - Capping upstand version (with wind baffles)														
6	1107	0.66	0.73	0.81	0.88	0.95	1.02	1.09	1.16	1.23	1.30	1.37	1.44	1.51
7	1269	0.77	0.85	0.93	1.01	1.09	1.17	1.25	1.34	1.43	1.52	1.60	1.69	1.77
8	1431	0.87	0.96	1.05	1.15	1.24	1.33	1.44	1.54	1.63	1.72	1.82	1.91	2.00
9	1593	0.97	1.07	1.18	1.28	1.39	1.51	1.61	1.72	1.82	1.93	2.03	2.13	2.24
10	1755	1.07	1.19	1.30	1.43	1.55	1.67	1.78	1.90	2.01	2.13	2.24	2.36	2.48
11	1917	1.18	1.30	1.43	1.55	1.70	1.83	1.95	2.08	2.21	2.33	2.46	2.58	2.71
12	2079	1.28	1.42	1.57	1.71	1.85	1.99	2.12	2.26	2.40	2.53	2.67	2.81	2.95
13	2241	1.38	1.53	1.70	1.85	2.00	2.14	2.29	2.44	2.59	2.74	2.89	3.03	3.18
14	2403	1.48	1.67	1.82	1.98	2.14	2.30	2.46	2.62	2.78	2.94	3.10	3.26	3.40
15	2565	1.59	1.78	1.95	2.12	2.29	2.46	2.63	2.80	2.97	3.14	3.31	3.48	3.61
16	2727	1.69	1.90	2.08	2.26	2.44	2.62	2.80	2.98	3.17	3.35	3.53	3.71	3.82
17	2889	1.80	2.01	2.20	2.40	2.59	2.78	2.97	3.16	3.36	3.55	3.74	3.91	4.03
18	3051	1.92	2.13	2.33	2.53	2.74	2.94	3.14	3.35	3.55	3.75	3.96	4.11	4.23

COMPLIANCE & INSTALLATION

CE certified NSHEV compliant with **NF EN 12101-2 (product certification No. 0333 CPR 219056)**.

The product must be fastened and sealed in accordance with the requirements defined in the applicable DTU specifications (series 40 and 43).









Maximum insulation height: as per the DTUs, the sealing flashing must extend to a height of at least 150 mm.

The waterproofing complex (substrate, vapour barrier, insulation and two-layer sealant) must be no thicker than 40 mm for an interior upstand height of 200 mm, or 140 mm for an interior upstand height of 300 mm.

DoP available at www.skydome.eu

Maximum permissible snow loads SL (Pa)

Number of blades	Length (cm)	Width (cm)												
		1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
CO₂ consumption of ARCALAM ÉVOLUTION PNEUMATIQUE® jacks - Steel or aluminium upstand, SL 250														
6	1107	Orange	Orange	Orange	Yellow	Yellow	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
7	1269	Yellow	Yellow	Yellow	Yellow	Yellow	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
8	1431	Yellow	Yellow	Yellow	Yellow	Yellow	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
9	1593	Yellow	Yellow	Yellow	Yellow	Yellow	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
10	1755	Yellow	Yellow	Yellow	Pink	Pink	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
11	1917	Yellow	Yellow	Yellow	Pink	Pink	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
12	2079	Yellow	Yellow	Yellow	Pink	Pink	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
13	2241	Yellow	Yellow	Yellow	Pink	Pink	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
14	2403	Yellow	Yellow	Yellow	Pink	Pink	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
15	2565	Pink	Pink	Pink	Pink	Pink	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
16	2727	Pink	Pink	Pink	Pink	Pink	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
17	2889	Pink	Pink	Pink	Pink	Pink	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
18	3051	Pink	Pink	Pink	Pink	Pink	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
CO₂ consumption of ARCALAM EVOLUTION PNEUMATIQUE® jacks - Steel or aluminium upstand, SL 500														
6	1107	Yellow	Yellow	Yellow	Pink	Pink	Pink	Pink	Purple	Purple	Purple	Purple	Purple	Purple
7	1269	Yellow	Yellow	Yellow	Pink	Pink	Pink	Pink	Purple	Purple	Purple	Purple	Purple	Purple
8	1431	Yellow	Pink	Pink	Pink	Pink	Pink	Pink	Purple	Purple	Purple	Purple	Purple	Purple
9	1593	Pink	Pink	Pink	Pink	Pink	Pink	Pink	Purple	Purple	Purple	Purple	Purple	Purple
10	1755	Pink	Pink	Pink	Pink	Pink	Pink	Light Blue	Purple	Purple	Purple	Purple	Purple	Purple
11	1917	Pink	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Purple	Purple	Purple	Purple	Purple	Purple
12	2079	Pink	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Purple	Purple	Purple	Purple	Purple	Purple
13	2241	Pink	Pink	Pink	Light Blue	Light Blue	Light Blue	Light Blue	Purple	Purple	Purple	Purple	Purple	Purple
14	2403	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Purple	Purple	Purple	Purple	Purple	Purple
15	2565	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Purple	Purple	Purple	Purple	Purple	Purple
16	2727	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Purple	Purple	Purple	Purple	Purple	Purple
17	2889	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Purple	Purple	Purple	Purple	Purple	Purple
18	3051	Light Blue	Light Blue	Light Blue	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple	Purple

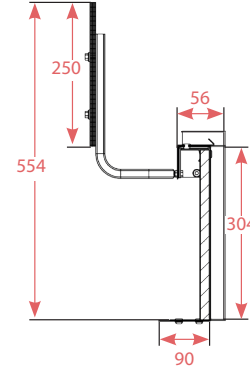
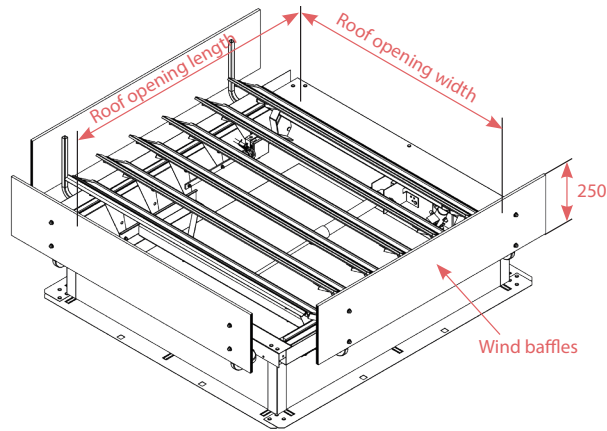
 32 mm diameter 3 normo litres at 15 bar SL 250	 40 mm diameter 4.35 normo litres at 15 bar SL 250	 50 mm diameter 6.6 normo litres at 15 bar SL 250	 63 mm diameter 9.6 normo litres at 15 bar SL 250
 80 mm diameter 15.4 normo litres at 15 bar SL 500	 40 mm diameter 4.35 normo litres at 15 bar SL 500	 50 mm diameter 6.6 normo litres at 15 bar SL 500	 63 mm diameter 9.6 normo litres at 15 bar SL 500

Consumption is the same for all filling options: 4.35 normo litres at 15 bar.
 In ventilation mode (using the site's compressed air supply), a pressure of at least 7 bar is required.
 In smoke extraction mode, an operating pressure of 15 bar is required.

Technical diagrams

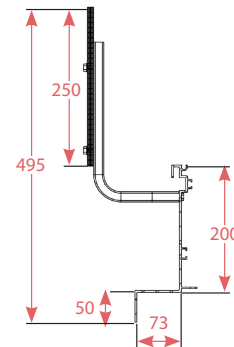
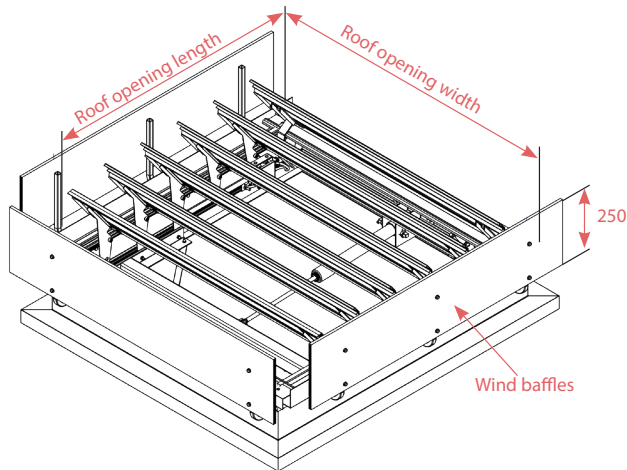
ARCALAM ÉVOLUTION PNEUMATIQUE

Galvanised steel upstand with wind baffles



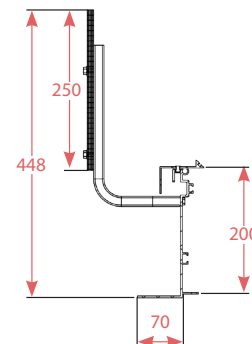
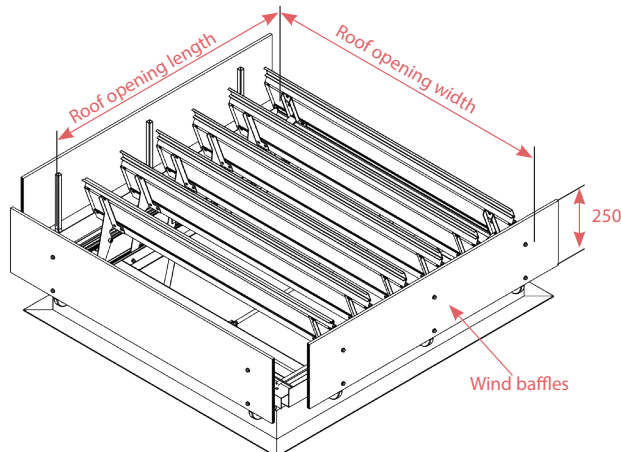
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Aluminium upstand with wind baffles



ARCALAM ÉVOLUTION PNEUMATIQUE

No overlap with wind baffles



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For the product range in other countries, please contact your local representative or visit www.skydome.eu

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For other applications and conditions of use, please contact our technical team. Their advice must be sought concerning uses of our products that are not described specifically herein.

Click this link to check that you are seeing the most up-to-date and accurate information about our products:
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