

**Specification**

The range of HELIOS vertical VC roof cowls are designed to be aerodynamically stable. The cowls provide weather protection to fans, when used and may also be used to screen roof openings or duct terminations. Manufactured from glass reinforced polyester resin (G.R.P), reinforced with coremat to provide additional strength with light weight. Units are finished in a hard gloss, UV stabilised, gel coat, giving an attractive weather proof finish.

**Fans**

Cowls accept any HELIOS plate axial fan and must be ordered separately. Note: Cowls are not suitable for use in combination with explosion proof fans. For further specification please see axial fan pages.

**Speed control**

Most models are speed controllable via voltage reduction.

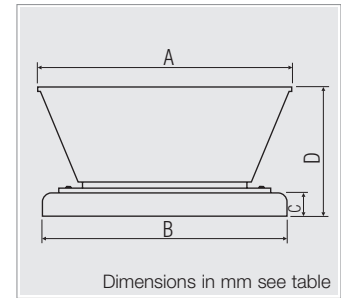
**Delivery**

Cowls and fans are supplied as separate items.

**Reverse operation**

Vertical roof fans are not reversible.

Vertical discharge roof fan



Type	Dimensions in mm			
	A	B	C	D
VC 355	690	685	100	475
VC 400/450	790	790	100	585

Type	Ref. No.	Nominal weight kg
VC 355	7695	8.5
VC 400/450	7696	12

**Backdraught shutter**

Vertical extract models have backdraught shutters fitted as standard.

**Bird guard**

Bird guards are fitted as standard.

**Electrical connection**

Terminals in motor end cap (IP 55).

**Roof cowls for vertical discharge**

Manufactured from glass reinforced polyester resin (G.R.P) and supplied complete with bird guard, neoprene sealing strip and fixings.

**Colours**

Units may be supplied in any BS or RAL colour. 8 standard colours are available as a no cost option. Other colours may incur a minimal surcharge.

**The following colours are available as standard:**

- BS 00 A 05 (Silver Grey) Standard
- BS 10 A 05 (Goose Wing Grey)
- BS 18 B 25 (Merlin Grey)
- BS 08 B 29 (Dark Brown)
- BS 10 B 19 (Mushroom)
- BS 12 B 27 (Olive Green)
- BS 12 B 21 (Moorland Green)
- HELIOS Bright Red

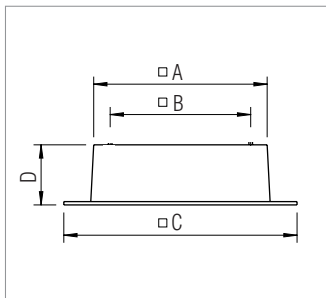
Information	Pages
Controllers and motor protection units	275-290
The full range of axial fans shown on pages 74-103 may also be used with the cowls.	

Roof cowl vertical discharge	Fan Type	Ref. No.	R.P.M.	Air flow volume (FID)	Power	Current	Wiring diagram	Maximum air flow temperature		Nominal fan weight	Controllers				
								full load	controlled		5 step transformer		Electronic controller		
Type	Ref. No.		min <sup>-1</sup>	m <sup>3</sup> /h	kW	Amps	No.	+°C	+°C	kg	Type	Ref. No.	Type	Ref. No.	
<b>1 Phase motor, 230 V / 1 ph. / 50 Hz, protection to IP 55</b>															
VC 355	7695	HQW 355/6	1107	940	1790	0.05	0.33	475	60	40	9.5	MWS 1.5 <sup>1)</sup>	1947	ESA 1	0238
VC 355	7695	HQW 355/4	1108	1405	2660	0.12	0.90	475	60	40	9.5	MWS 1.5 <sup>1)</sup>	1947	ESA 1	0238
VC 400/450	7696	HQW 400/6	1110	905	2430	0.06	0.45	475	60	40	13.0	MWS 1.5 <sup>1)</sup>	1947	ESA 1	0238
VC 400/450	7696	HQW 400/4	1111	1340	3640	0.16	1.30	475	60	40	13.0	MWS 1.5 <sup>1)</sup>	1947	ESA 3	0239
VC 400/450	7696	HQW 450/6	0991	960	3730	0.12	1.00	475	60	40	15.5	MWS 1.5 <sup>1)</sup>	1947	ESA 3	0239
VC 400/450	7696	HQW 450/4	0992	1250	4830	0.33	2.10	475	60	40	15.5	MWS 3.0 <sup>1)</sup>	1948	ESA 3	0239
<b>3 Phase motor, 400 V / 3 ph. / 50 Hz, protection to IP 55</b>															
VC 355	7695	HQD 355/6	1120	950	1820	0.05	0.30	469	60	40	9.5	RDS 1 <sup>1)</sup>	1314	—	—
VC 355	7695	HQD 355/4	1121	1435	2720	0.12	0.85	469	60	40	9.5	RDS 1 <sup>1)</sup>	1314	—	—
VC 400/450	7696	HQD 400/6	1123	935	2520	0.06	0.30	469	60	40	13.0	RDS 1 <sup>1)</sup>	1314	—	—
VC 400/450	7696	HQD 400/4	1124	1395	3790	0.16	0.85	469	60	40	13.0	RDS 1 <sup>1)</sup>	1314	—	—
VC 400/450	7696	HQD 450/6	0993	950	3700	0.12	0.45	469	60	40	15.5	RDS 1 <sup>1)</sup>	1314	—	—
VC 400/450	7696	HQD 450/4	0994	1335	5210	0.33	1.00	469	50	40	15.5	RDS 2 <sup>1)</sup>	1315	—	—

<sup>1)</sup> Includes full motor protection unit; alternative: TSW/TSD; 5 step transformer controllers without motor protection unit.

### ■ Selection chart

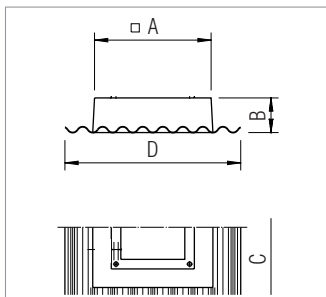
Type	Diameter mm	Max. pitch	Poles	R.P.M. min <sup>-1</sup>	Air flow volume in V m <sup>3</sup> /s in dependence to static pressure = N / m <sup>2</sup> = freely available pressure ( $\Delta p_{stat.}$ ) in Pa												
					0	25	50	75	100	125	150	175	200	225	250	275	300
VC + HQ..	355		6	940	0.497	0.394											
VC + HQ..	355		4	1405	0.739	0.678	0.614	0.489									
VC + HQ..	400		6	905	0.675	0.572											
VC + HQ..	400		4	1340	1.011	0.936	0.881	0.750									
VC + HQ..	450		6	960	1.036	0.925	0.744										
VC + HQ..	450		4	1250	1.342	1.272	1.144	1.019									



### ■ Purlin box for vertical roof cowl

Manufactured from glass reinforced polyester resin (G.R.P.). Corrosion resistant and thermally efficient, finished in goose wing grey to match most building applications. The units are designed to give load bearing support to the range of HELIOS fans and cowls and may be fitted in pitched or flat roof applications.

Type	Ref. No.	Dimensions in mm				Nominal weight kg
		A	B	C	D	
PB 355	7658	625	400	780	240	4.0
PB 400/450	7659	730	510	880	240	6.0

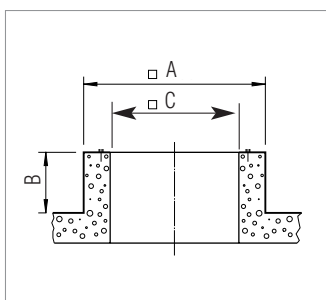


### ■ Soaker sheets

Available in an extensive range of profiles and colours to match HELIOS roof cowls. Standard colour is grey. Manufactured from glass reinforced polyester resin (G.R.P) with chamfered profiles around the upstand to stop water build-up.

Type	Ref. No.	Dimensions in mm			
		A	B	C	D
SS 355	7664	650	150	1800	<sup>1)</sup>
SS 400/450	7665	750	150	1800	<sup>1)</sup>

<sup>1)</sup> Dimension D and weight vary for different profiles.



### ■ Curb dimensions

Curbs should be manufactured from hardwood, treated softwood or a similar material. All dimensions include any flashing covering the curb. On some models the fan guard is close to the edge of the fan plate, so on it may be necessary on site to make provision for this in the curb.

Cowl size	A	B	C
	Max.	Min.	Min.
355	625	150	390
400/450	730	150	440/490