

Specification

The range of HELIOS horizontal RC 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.

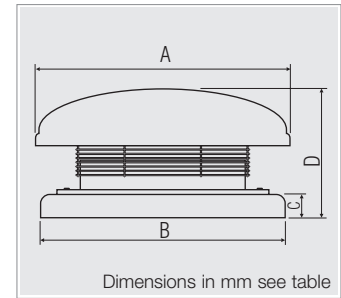
Delivery

Cowls and fans are supplied as separate items.

Reverse operation

Horizontal roof fans without backdraught shutter are reversible when wired to a reversing switch. For intake allow a drop in performance.

Horizontal discharge roof fan



Type	Dimensions in mm			
	A	B	C	D
RC 500/560	1000	925	110	550
RC 630/710	1115	1045	110	650

Type	Ref. No.	Nominal weight kg
RC 500/560	5131	21
RC 630/710	5132	27

Backdraught shutter

Backdraught shutters for horizontal models are available as an optional extra.

Bird guard

Bird guards are fitted as standard.

Electrical connection

Terminals in motor end cap (IP 55).

Roof cowls for horizontal discharge

Manufactured from glass reinforced polyester resin (G.R.P) and supplied complete with bird guard, neoprene sealing strip and fixings. Optional backdraught shutters see facing page.

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.	

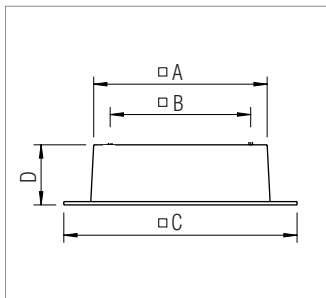
Roof cowl horizontal discharge	Fan Type	Ref. No.	R.P.M.	Air flow volume (FID)	Power	Current	Wiring diagram	Maximum air flow		Nominal fan weight	Controllers				
								full load	temperature controlled		5 step transformer	Electronic controller			
Type	Ref. No.		min ⁻¹	m ³ /h	kW	Amps	No.	+°C	+°C	kg	Type	Ref. No.	Type	Ref. No.	
1 Phase motor, 230 V / 1 ph. / 50 Hz, protection to IP 55															
RC 500/560	5131	HQW 500/6	1112	910	4570	0.14	1.20	475	60	40	17.3	MWS 1.5 ¹⁾	1947	ESA 3	0239
RC 500/560	5131	HQW 500/4	1113	1410	7130	0.45	2.60	475	60	40	17.3	MWS 3.0 ¹⁾	1948	ESA 3 i	7806
RC 500/560	5131	HQW 560/6	0385	955	6350	0.25	2.10	475	60	40	22.0	MWS 3.0 ¹⁾	1948	ESA 3	0239
RC 500/560	5131	HQW 560/4	5054	1405	10030	0.75	5.60	475	40	40	25.0	MWS 7.5 ¹⁾	1950	ESA 6 i	7807
RC 630/710	5132	HQW 630/6	5037	955	8490	0.45	3.20	475	60	40	25.0	MWS 5.0 ¹⁾	1949	ESA 6 i	7807
RC 630/710	5132	HQW 630/4	5056	1415	13980	1.50	7.00	475	40	40	35.0	MWS 7.5 ¹⁾	1950	ESA 10 i	7808
RC 630/710	5132	HQW 710/6/..	5047	925	10950	0.50	2.50/(3.00)	475	25*	40	60.0	MWS 5.0 ¹⁾	1949	ESA 6 i	7807
3 Phase motor, 400 V / 3 ph. / 50 Hz, protection to IP 55															
												Frequency inverter			
RC 500/560	5131	HQD 500/6	1126	910	4570	0.14	0.50	469	60	40	17.2	RDS 1 ¹⁾	1314	—	—
RC 500/560	5131	HQD 500/4	1127	1320	6670	0.45	1.25	469	40	40	17.2	RDS 2 ¹⁾	1315	—	—
RC 500/560	5131	HQD 560/6	0386	960	6380	0.25	1.00	469	60	40	22.0	RDS 2 ¹⁾	1315	FUR 3 ¹⁾	9485
RC 500/560	5131	HQD 560/4	0387	1380	9850	0.75	1.75	469	40	40	23.0	RDS 2 ¹⁾	1315	FUR 3 ¹⁾	9485
RC 630/710	5132	HQD 630/8	5029	735	6490	0.25	1.50	469	60	40	27.0	RDS 2 ¹⁾	1315	FUR 3 ¹⁾	9485
RC 630/710	5132	HQD 630/6	5027	970	8620	0.55	1.80	469	60	40	28.0	RDS 2 ¹⁾	1315	FUR 3 ¹⁾	9485
RC 630/710	5132	HQD 710/6/..	5599	700	10220	0.37	1.60/(1.60)	469	31*	40	57.0	RDS 2 ¹⁾	1315	FUR 3 ¹⁾	9485
RC 630/710	5132	HQD 710/6/6..	5602	920	12730	0.43/0.75	1.2/2.2	520	28*	40	55.0	RDS 4 ¹⁾	1316	FUR 3 ¹⁾	9485
RC 630/710	5132	HQD 710/6/6..	5603	930	14410	0.71/1.30	2.10/3.50	520	35*	40	60.0	RDS 4 ¹⁾	1316	FUR 4 ¹⁾	9487
RC 630/710	5132	HQD 710/4/4..	5604	1365	16270	0.95/1.55	2.10/3.70	520	20*	40	60.0	RDS 7 ¹⁾	1578	FUR 4 ¹⁾	9487
RC 630/710	5132	HQD 710/4/4..	5605	1370	18120	1.5/2.2	3.50/5.90	520	26*	40	75.0	RDS 7 ¹⁾	1578	FUR 6 ¹⁾	9489
RC 630/710	5132	HQD 710/4/..	5606	1435	20890	3.00	6.7	776	30*	40	88.0	—	—	FUR 6 ¹⁾	9489

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

* Max. pitch angle [°]

■ Selection chart

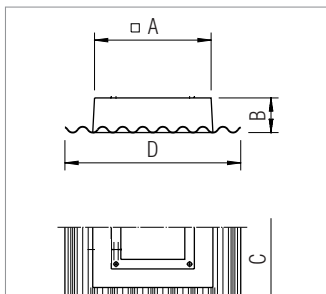
Type	Diameter mm	Max. pitch	Poles	R.P.M. min ⁻¹	Air flow volume in V m ³ /s in dependence to static pressure = N / m ² = freely available pressure ($\Delta p_{stat.}$) in Pa													
					0	25	50	75	100	125	150	175	200	225	250	275	300	
RC + HQ..	500		6	910	1.269	1.133	0.964											
RC + HQ..	500		4	1410	1.981	1.900	1.814	1.711	1.586	1.442								
RC + HQ..	560		6	955	1.764	1.567	1.319											
RC + HQ..	560		4	1405	2.786	2.675	2.556	2.428	2.286	2.136	1.983	1.722						
RC + HQD	630		8	735	1.803	1.556												
RC + HQ..	630		6	955	2.358	2.150	1.953											
RC + HQW	630		4	1415	3.883	3.761	3.639	3.508	3.369	3.217	3.050	2.862	2.642	2.436				
RC + HQD	710	31°	8	700	2.839	2.511	2.114											
RC + HQD	710	28°	6	920	3.536	3.331	3.033	2.733	2.386									
RC + HQD	710	35°	6	930	4.003	3.735	3.475	3.139	2.794									
RC + HQW	710	25°	6	925	3.042	2.817	2.558	1.847										
RC + HQD	710	20°	4	1365	4.519	4.369	4.214	4.047	3.914	3.776	3.525	3.336	3.131	2.889	2.508	1.986	1.708	
RC + HQD	710	26°	4	1370	5.033	4.883	4.728	4.567	4.394	4.214	4.019	3.808	3.575	3.311	3.033			
RC + HQD	710	30°	4	1435	5.803	5.647	5.486	5.317	5.144	4.967	4.781	4.594	4.394	4.181	3.944	3.689		



■ Purlin box for horizontal roof cowls

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 500/560	7660	865	620	1050	250	8.0
PB 630/710	7661	900	780	1080	260	10

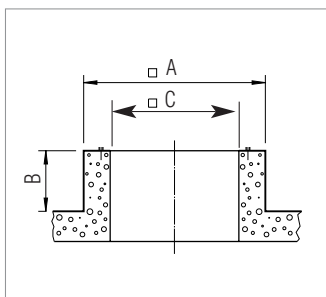


■ Soaker sheets

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 500/560	7666	870	150	1800	1)
SS 630/710	7667	1000	150	1800	1)

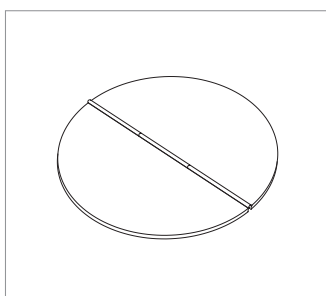
1) Dimension D and weight vary for different profiles.



■ 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.
500/560	865	150	550/630
630/710	900	150	700/810



■ Backdraught shutter

Backdraught shutters are available as an optional extra. They are manufactured from glass reinforced polyester resin (G.R.P.) and reduce unwanted draughts and heat loss when the roof fan is not in use.

Type	Ref. No.
BS 500/560	7654
BS 630/710	7655