

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 fan specification please see axial fan pages.

Speed control

Most models are speed controllable via voltage reduction.

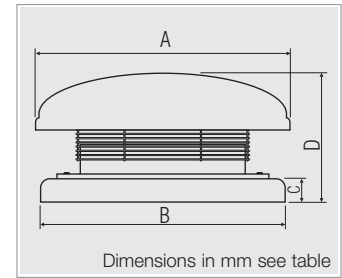
Delivery

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 200/250 | 490 | 500 | 85 | 270 |
| RC 315 | 545 | 555 | 95 | 340 |
| RC 355 | 670 | 685 | 100 | 380 |
| RC 400/450 | 765 | 790 | 100 | 460 |

| Type | Ref. No. | Nominal weight kg |
|------------|----------|-------------------|
| RC 200/250 | 5127 | 4.3 |
| RC 315 | 5128 | 6.5 |
| RC 355 | 5129 | 8.5 |
| RC 400/450 | 5130 | 12 |

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

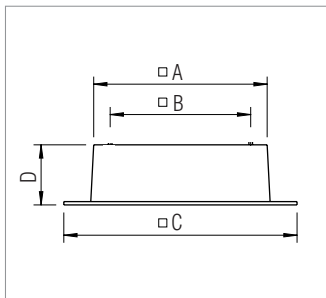
| Information | Pages |
|---|---------|
| Controllers and motor protection units | 275-290 |
| The full range of axial fans shown on pages 74-103 may also be used with the cowls. | |

| Roof cowl horizontal discharge | Fan Type | Ref. No. | R.P.M. | Air flow volume (FID) | Power | Current | Wiring diagram | Maximum air flow full load | temperature controlled | Nominal fan weight | Controllers | | | | |
|--|----------|-----------|-------------------|-----------------------|-------|---------|----------------|----------------------------|------------------------|--------------------|--------------------|-----------------------|----------|-------|----------|
| Type | Ref. No. | | min ⁻¹ | m ³ /h | kW | Amps | No. | +°C | +°C | kg | 5 step transformer | Electronic controller | | | |
| | | | | | | | | | | | | Type | Ref. No. | Type | Ref. No. |
| 1 Phase motor, 230 V / 1 ph. / 50 Hz, protection to IP 55 | | | | | | | | | | | | | | | |
| RC 200/250 | 5127 | HQW 250/4 | 1103 | 1400 | 720 | 0.04 | 0.20 | 439 | 60 | 40 | 7.5 | TSW 0.3 | 3608 | ESA 1 | 0238 |
| RC 200/250 | 5127 | HQW 250/2 | 1104 | 2590 | 1640 | 0.11 | 0.80 | 317 | 60 | 40 | 6.5 | TSW 1.5 | 1495 | ESA 1 | 0238 |
| RC 315 | 5128 | HQW 315/6 | 1105 | 915 | 1130 | 0.04 | 0.21 | 317 | 60 | 40 | 8.0 | TSW 0.3 | 3608 | ESA 1 | 0238 |
| RC 315 | 5128 | HQW 315/4 | 1106 | 1405 | 1760 | 0.06 | 0.50 | 475 | 60 | 40 | 8.0 | MWS 1.5 ¹⁾ | 1947 | ESA 1 | 0238 |
| RC 355 | 5129 | HQW 355/6 | 1107 | 940 | 1670 | 0.05 | 0.33 | 475 | 60 | 40 | 9.5 | MWS 1.5 ¹⁾ | 1947 | ESA 1 | 0238 |
| RC 355 | 5129 | HQW 355/4 | 1108 | 1405 | 2530 | 0.12 | 0.90 | 475 | 60 | 40 | 9.5 | MWS 1.5 ¹⁾ | 1947 | ESA 1 | 0238 |
| RC 400/450 | 5130 | HQW 400/6 | 1110 | 905 | 2310 | 0.06 | 0.45 | 475 | 60 | 40 | 13.0 | MWS 1.5 ¹⁾ | 1947 | ESA 1 | 0238 |
| RC 400/450 | 5130 | HQW 400/4 | 1111 | 1340 | 3460 | 0.16 | 1.30 | 475 | 60 | 40 | 13.0 | MWS 1.5 ¹⁾ | 1947 | ESA 3 | 0239 |
| RC 400/450 | 5130 | HQW 450/6 | 0991 | 960 | 3510 | 0.12 | 1.00 | 475 | 60 | 40 | 15.5 | MWS 1.5 ¹⁾ | 1947 | ESA 3 | 0239 |
| RC 400/450 | 5130 | HQW 450/4 | 0992 | 1250 | 4600 | 0.33 | 2.10 | 475 | 60 | 40 | 15.5 | MWS 3.0 ¹⁾ | 1948 | ESA 3 | 0239 |
| 3 Phase motor, 400 V / 3 ph. / 50 Hz, protection to IP 55 | | | | | | | | | | | | | | | |
| RC 200/250 | 5127 | HQD 250/4 | 1115 | 1410 | 880 | 0.05 | 0.20 | 469 | 60 | 40 | 6.5 | RDS 1 ¹⁾ | 1314 | — | — |
| RC 200/250 | 5127 | HQD 250/2 | 1116 | 2360 | 1490 | 0.11 | 0.35 | 469 | 60 | 40 | 6.5 | RDS 1 ¹⁾ | 1314 | — | — |
| RC 315 | 5128 | HQD 315/6 | 1117 | 990 | 1230 | 0.04 | 0.25 | 469 | 60 | 40 | 8.0 | RDS 1 ¹⁾ | 1314 | — | — |
| RC 315 | 5128 | HQD 315/4 | 1118 | 1360 | 1710 | 0.06 | 0.25 | 469 | 60 | 40 | 8.0 | RDS 1 ¹⁾ | 1314 | — | — |
| RC 355 | 5129 | HQD 355/6 | 1120 | 950 | 1690 | 0.05 | 0.30 | 469 | 60 | 40 | 9.5 | RDS 1 ¹⁾ | 1314 | — | — |
| RC 355 | 5129 | HQD 355/4 | 1121 | 1435 | 2590 | 0.12 | 0.85 | 469 | 60 | 40 | 9.5 | RDS 1 ¹⁾ | 1314 | — | — |
| RC 400/450 | 5130 | HQD 400/6 | 1123 | 935 | 2390 | 0.06 | 0.30 | 469 | 60 | 40 | 13.0 | RDS 1 ¹⁾ | 1314 | — | — |
| RC 400/450 | 5130 | HQD 400/4 | 1124 | 1395 | 3600 | 0.16 | 0.85 | 469 | 60 | 40 | 13.0 | RDS 1 ¹⁾ | 1314 | — | — |
| RC 400/450 | 5130 | HQD 450/6 | 0993 | 950 | 3470 | 0.12 | 0.45 | 469 | 60 | 40 | 15.5 | RDS 1 ¹⁾ | 1314 | — | — |
| RC 400/450 | 5130 | HQD 450/4 | 0994 | 1335 | 4910 | 0.33 | 1.00 | 469 | 50 | 40 | 15.5 | RDS 2 ¹⁾ | 1315 | — | — |

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

■ Selection chart

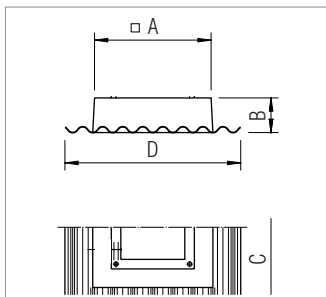
| Type | Diameter mm | Max. pitch | Poles | R.P.M. min ⁻¹ | Air flow volume in V m ³ /s in dependence to static pressure = N / m ² = freely available pressure (Δp_{stat}) in Pa | | | | | | | | | | | | | |
|-----------|-------------|------------|-------|--------------------------|--|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | | | | | 0 | 25 | 50 | 75 | 100 | 125 | 150 | 175 | 200 | 225 | 250 | 275 | 300 | |
| RC + HQ.. | 250 | | 4 | 1400 | 0.200 | 0.125 | 0.044 | | | | | | | | | | | |
| RC + HQ.. | 250 | | 2 | 2590 | 0.456 | 0.431 | 0.408 | 0.375 | 0.336 | | | | | | | | | |
| RC + HQ.. | 315 | | 6 | 915 | 0.314 | 0.222 | | | | | | | | | | | | |
| RC + HQ.. | 315 | | 4 | 1405 | 0.489 | 0.433 | 0.344 | | | | | | | | | | | |
| RC + HQ.. | 355 | | 6 | 940 | 0.464 | 0.353 | | | | | | | | | | | | |
| RC + HQ.. | 355 | | 4 | 1405 | 0.703 | 0.642 | 0.561 | | | | | | | | | | | |
| RC + HQ.. | 400 | | 6 | 905 | 0.642 | 0.511 | | | | | | | | | | | | |
| RC + HQ.. | 400 | | 4 | 1340 | 0.961 | 0.889 | 0.803 | 0.689 | | | | | | | | | | |
| RC + HQ.. | 450 | | 6 | 960 | 0.975 | 0.872 | 0.686 | | | | | | | | | | | |
| RC + HQ.. | 450 | | 4 | 1250 | 1.278 | 1.194 | 1.111 | 0.969 | | | | | | | | | | |



■ 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 200/250 | 7656 | 425 | 300 | 595 | 225 | 2.0 |
| PB 315 | 7657 | 445 | 350 | 615 | 220 | 2.5 |
| PB 355 | 7658 | 625 | 400 | 780 | 240 | 4.0 |
| PB 400/450 | 7659 | 730 | 510 | 880 | 240 | 6.0 |

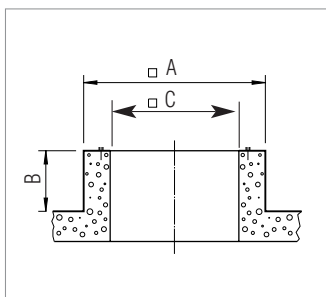


■ Soaker sheets

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 200/250 | 7662 | 400 | 150 | 1800 | ¹⁾ |
| SS 315 | 7663 | 500 | 150 | 1800 | ¹⁾ |
| SS 355 | 7664 | 650 | 150 | 1800 | ¹⁾ |
| SS 400/450 | 7665 | 750 | 150 | 1800 | ¹⁾ |

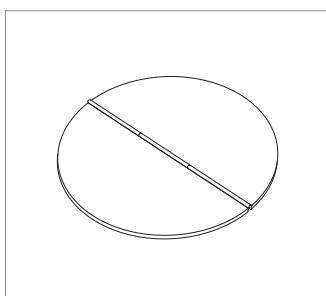
¹⁾ Dimension D and weight vary for different profiles.



■ 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. |
| 200/250 | 425 | 150 | 230/280 |
| 315 | 445 | 150 | 345 |
| 355 | 625 | 150 | 390 |
| 400/450 | 730 | 150 | 440/490 |



■ 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 200/250 | 7650 |
| BS 315 | 7651 |
| BS 355 | 7652 |
| BS 400/450 | 7653 |