Example kitchen extract system using a 3000x900 stainless steel canopy, comprising of the following items:

## Fan

Elta SCPP450/4/1 axial fan selected duty 1.13m3/s @350pa system resistance. Noise level of 66dba @ 3mtrs, reduced to 51dba using a in line silencer see date sheet attached.

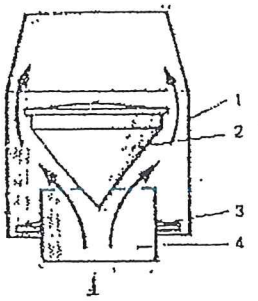
## Filtration

Stainless steel baffle type grease filters mounted in the canopy. Odour control Carbopleat ridged bag filter and incorporating pleated panel pre-filter see date sheet.

## Discharge

Duct work to terminate 1 mtr above eaves using a high velocity discharge cowl. The duct work shall be mounted from the top of the canopy, running along the ceiling (size 600x250), and rising threw the flat roof to the rear of the building with fan, filter and silencer mounted outside and 450 dia ductwork, running up dangled roof.

## Design




1. Outer cowl
2. Inner cone
3. Baffle plate
4. Central pipe

The cowl comprises three concentric main sections – the central pipe, the inner cone and the outer cowl (see the illustration).

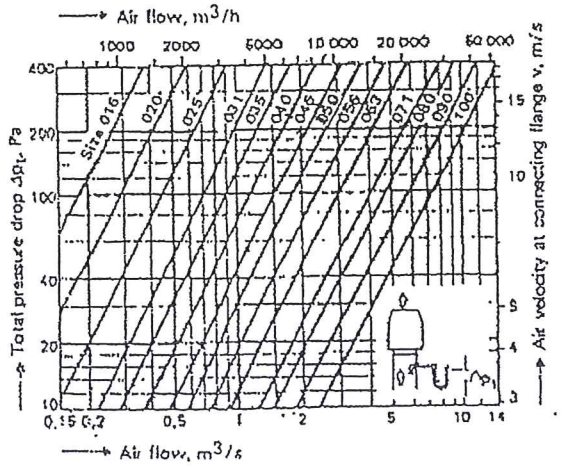
A baffle plate is located in the space between the central pipe and the outer cowl, and this prevents the air from flowing downwards. Drainage is provided by the small clearance between the baffle plate and the outer cowl. The cowl is easy to dismantle for painting, etc.

## Sizes (refer to the central pipe dia. in cm)

See under "Dimensions and weights".

## Pressure drop

The chart applies to air with a density of 1,2 kg/m³.




1 Pa ≈ 0,1 mm vp

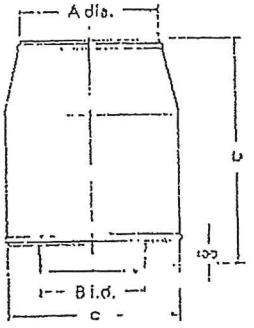
## Accessories (to be ordered separately)

| | |
|---|---|
| Type EBFA counterflange | See catalogue |
| Type EBVM grouting-in frame | section D 80 |

## Packaging

The cowl is delivered unpacked.

## Dimensions and weights




| Size aaa | A | B | C | D | Weight, kg Primed steel b = 1 | Galv. steel b = 2 |
|---|---|---|---|---|---|---|
| 016 | 210 | 160 | 260 | 420 | 8 | 8 |
| 020 | 260 | 200 | 325 | 500 | 9 | 9 |
| 025 | 325 | 250 | 405 | 600 | 14 | 10 |
| 031 | 410 | 315 | 510 | 730 | 22 | 16 |
| 035 | 460 | 355 | 580 | 810 | 28 | 18 |
| 040 | 520 | 400 | 650 | 900 | 34 | 24 |
| 045 | 585 | 450 | 730 | 995 | 43 | 30 |
| 050 | 650 | 500 | 810 | 1100 | 52 | 36 |
| 056 | 730 | 560 | 910 | 1220 | 67 | 47 |
| 063 | 820 | 630 | 1025 | 1380 | 86 | 61 |
| 071 | 920 | 710 | 1150 | 1570 | 108 | 77 |
| 080 | 1040 | 800 | 1300 | 1750 | 137 | 97 |
| 090 | 1170 | 900 | 1460 | 1800 | 170 | 119 |
| 100 | 1300 | 1000 | 1625 | 2100 | 208 | 146 |

## Ordering key

Ventilation cowl — EYBA-aaa-b

Size (aaa)
See "Dimensions and weights"

Material (b)
1 = Primed steel
2 = Galvanised steel

# electrical data

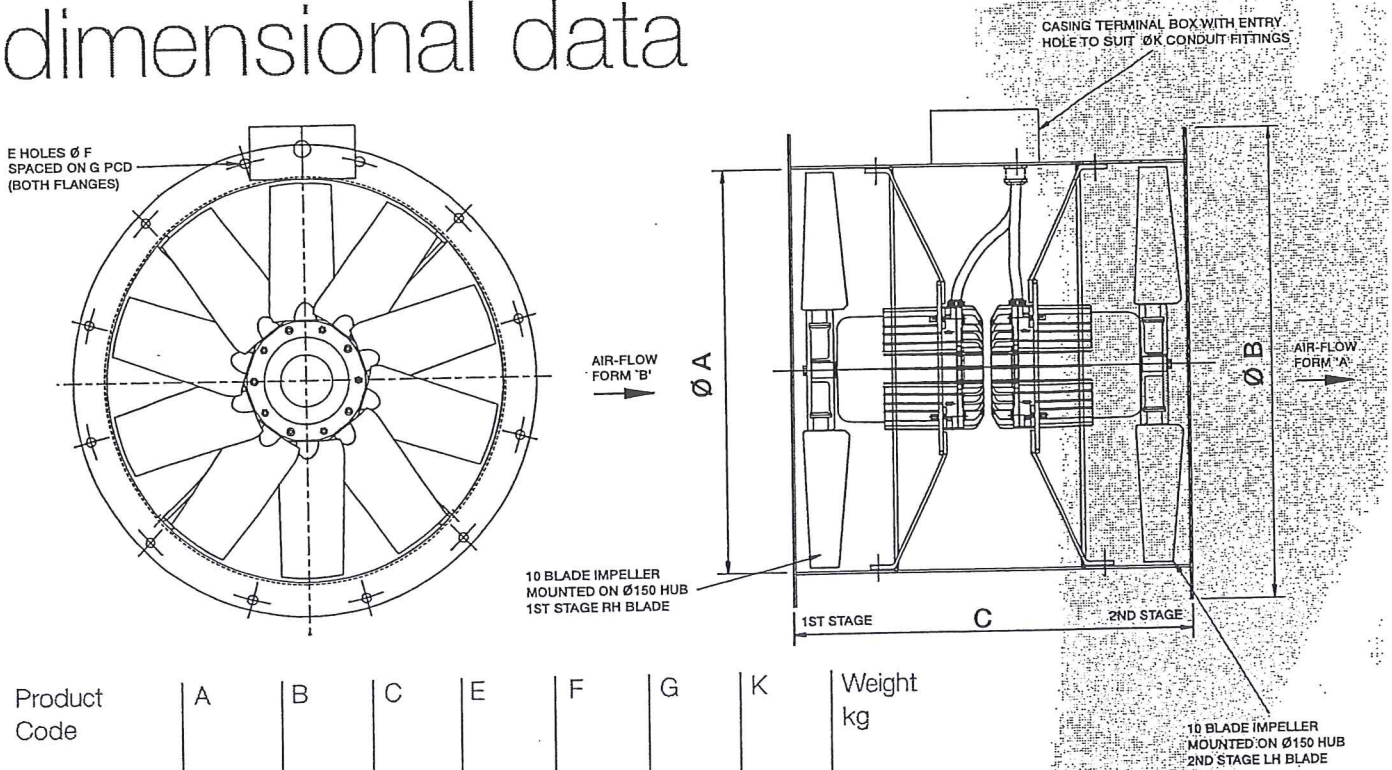
| Product Code | Speed r/min | FLC Amps | SC Amps | Output kW | Electronic Controller | Transformer Controller |
|---|---|---|---|---|---|---|
| SCPP450/4-1 | 1345 | 6.0 | 18 | 0.74 | EL61TK | TC18 |
| SCPP500/4-1 | 1350 | 7.2 | 21.6 | 1.1 | EL101 | TC18 |
| SCPP560/4-1 | 1350 | 9.8 | 30 | 1.5 | EL101 | TC110 |
| SCPP630/4-1 | 1350 | 15.8 | 39.6 | 2.2 | - | - |

# sound data

| Product Code | | Octave Band 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1 kHz | 2 kHz | 4 kHz | 8 kHz | dBA @ 3m |
|---|---|---|---|---|---|---|---|---|---|---|
| | Inlet | 70 | 71 | 80 | 77 | 73 | 69 | 63 | 57 | 58 |
| SCPP450/4-1 | Outlet | 69 | 71 | 80 | 75 | 74 | 71 | 67 | 60 | 58 |
| | Inlet | 75 | 75 | 82 | 80 | 78 | 75 | 70 | 63 | 62 |
| SCPP500/4-1 | Outlet | 76 | 76 | 82 | 79 | 79 | 77 | 73 | 67 | 63 |
| | Inlet | 80 | 79 | 84 | 83 | 82 | 80 | 76 | 69 | 66 |
| SCPP560/4-1 | Outlet | 82 | 80 | 84 | 84 | 83 | 82 | 79 | 72 | 68 |
| | Inlet | 83 | 83 | 87 | 88 | 85 | 83 | 79 | 73 | 70 |
| SCPP630/4-1 | Outlet | 85 | 83 | 87 | 88 | 86 | 86 | 82 | 77 | 71 |

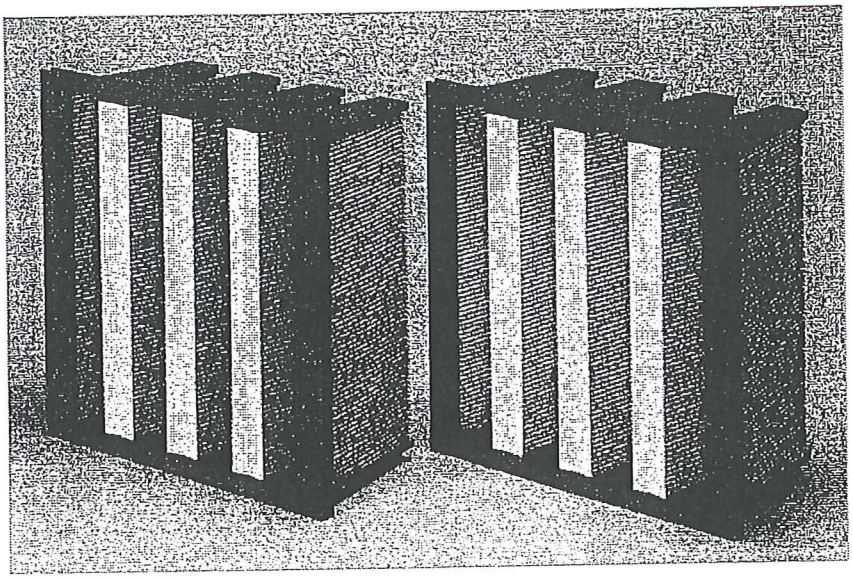
Acoustic data: tests and preparation of data have been carried out in accordance with BS848 Part 2(1985). The In-duct Sound Power Level Spectra are in dB re 1pW. The overall A-Scale sound pressure level is at a distance of three metres with spherical propagation. It is expressed in dB re 20uPa and is presented for comparative purposes only as in practice the semi-reverberant nature of any installation and directivity effects can give a different level.

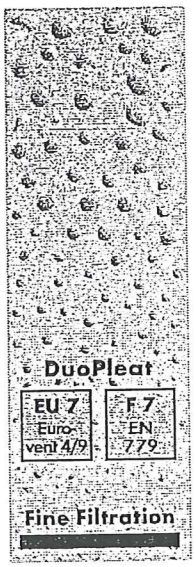
# dimensional data




| Product Code | A | B | C | E | F | G | K | Weight kg |
|---|---|---|---|---|---|---|---|---|
| SCPP450/4-1 | 450 | 530 | 430 | 8 | 12 | 500 | 20 | 35 |
| SCPP500/4-1 | 500 | 585 | 500 | 12 | 12 | 560 | 20 | 55 |
| SCPP560/4-1 | 560 | 645 | 500 | 12 | 12 | 620 | 20 | 60 |
| SCPP630/4-1 | 630 | 715 | 500 | 12 | 12 | 690 | 20 | 70 |

# Active opposers of gases and odours: Viledon CarboPleat and DuoPleat Filters






viledon

## The application

CarboPleat activated-carbon and DuoPleat combination filters improve indoor air quality, alleviate feelings of ill-health in connection with the Sick Building Syndrome, and protect people as well as sensitive products, processes and equipment, by eliminating or reducing pollutant gases and unwanted odours.

They are used in intake, exhaust and recirculated air filtration involving special requirements for clean air quality, e. g.

- in state-of-the-art air-conditioning and indoor climate control systems (hospitals, laboratories, printshops, catering kitchens, museums, airports, shopping malls, hotels, banks, office buildings, etc.)
- in compact air-conditioners
- as prefilters for HEPA and ULPA filters.

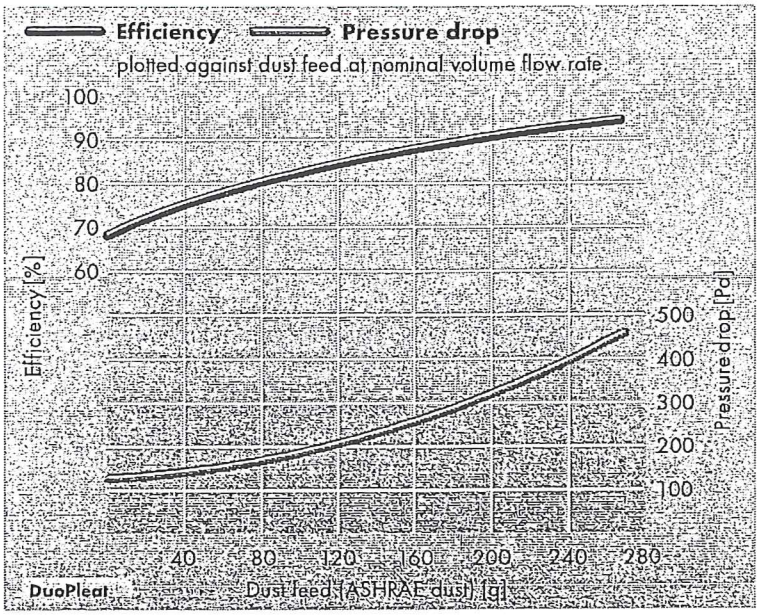
## The special features and benefits

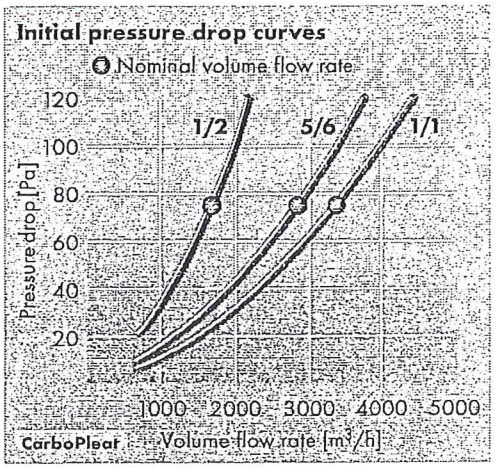
- The activated-carbon media in both filters are secured in an open structure by a newly developed, patented bonding process, achieving maximized active surface for gas adsorption.
- DuoPleat filters are activated-carbon and particle filters in one: their unique filter media combine the special activated-carbon medium with a triple-layered high-performance nonwoven of synthetic-organic fibers and microfibers on the upstream side. This enables Class F7 particle filtration and effective gas adsorption to be handled in a single filter stage, i.e. without any structural modifications to existing systems.
- The pleated filter media are mounted in a plastic-framed V-configuration, and cast-sealed to preclude leaks. The large filtering area installed, together with the unique structure of the filter media, provides not only a particularly high storage capacity and a long useful lifetime, but also very low pressure drops. Your benefit: exceptionally cost-efficient and reliable operation.
- The filters are glassfiber-free, self-extinguishing to DIN 53438 (Fire Classes F1/K1), as well as non-corrosive and fully incinerable, since metal-free.
- Our Modern quality management to ISO 9001 ensures consistently high quality for every filter.

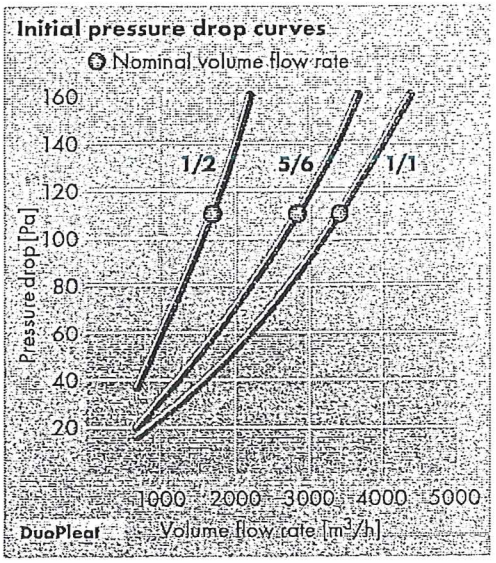
| CarboPleat / DuoPleat | | 1/1 | 5/6 | 1/2 |
|---|---|---|---|---|
| Dimensions | mm | 592x592x318 | 592x490x318 | 592x287x318 |
| Weight, approx. | kg | 9.0 / 9.7 | 7.9 / 8.5 | 4.8 / 5.1 |
| Activated carbon weight, approx. | kg | 4.4 | 3.5 | 1.9 |
| Thermal stability | °C | 70 | 70 | 70 |
| Filtering area | m² | 9.8 | 7.9 | 4.3 |
| Recommended application | | | | |
| temperature | °C | ≤30 | ≤30 | ≤30 |
| relative humidity | % | ≤60 | ≤60 | ≤60 |
| for mounting frames | mm | 610x610 | 610x508 | 610x305 |

Freudenberg

# Technical filter test data to EN 779 and E DIN 71460/2




| Key data | | | CarboPleat | DuoPleat |
|---|---|---|---|---|
| Average efficiency | $E_m$ | % | – | 85 |
| Nominal volume flow rate | | $m^3/h$ | 3400 | 3400 |
| Maximum volume flow rate | | $m^3/h$ | 4250 | 4250 |
| Initial pressure drop | | Pa | 75 | 110 |
| Final pressure drop * | | Pa | – | 450 |
| Filter capacity ** | | | | |
| – organic substance Toluene | | g | 910 | 910 |
| – organic substance n-Butane | | g | 105 | 105 |
| – inorganic substance $SO_2$ | | g | 210 | 210 |
| Dust holding capacity (AC Fine/450 Pa) | | g | – | 530 |

* For cost-efficiency or system-specific reasons it may be appropriate to change the filters before reaching the stated final pressure drop. It can also be exceeded in certain applications.

** The filter capacity was determined for upstream concentrations of the substances according to DIN 71460 / part 2 (draft): "Air filters for motor vehicle compartments / Test method for adsorptive filters". Use at lower concentrations will result in lower filter capacity as well.

The figures given are mean values subject to tolerances due to the normal production fluctuations. Our explicit written confirmation is always required for the correctness and applicability of the information involved in any particular case.

Subject to technical alterations.

You will find instructions on how to handle and dispose of loaded filters in our information on product safety and eco-compatibility.


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