

## INVERTER SINGLE TO THREE PHASE

### FEATURES & BENEFITS

- 1 Ph 200-240VAC to 3 Ph 200-240 VAC electrical supply
- Pre-Programmed for easy installation
- Max shielded cable length 25m
- Asynch motor speed control
- Ultra compact & light making it easy to install
- Simple to use Alpha-numeric display
- Included fitted potentiometer for manual speed adjustment
- Connectable as Modbus RTU offering control flexibility
- Built in RFI filter minimising interference
- Built-in brake functions with built in DC and AC brake functions
- 2xAI, 1xAO & 1xRO / RS485 connection options
- BMS enable/disable
- Maximum operating ambient 50°C
- Coated PCB standard for harsh environments
- High energy efficiency

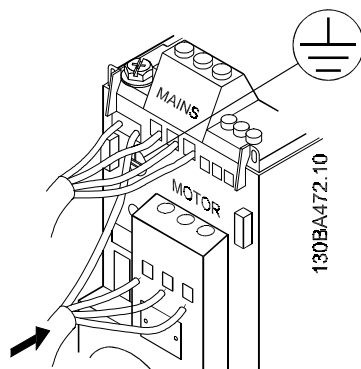
### DESCRIPTION

Our inverter is a frequency converter with unsurpassed reliability, user-friendliness, condensed functionality, and extremely easy to commission. Terminal numbers are named in the same manner as in the rest of the family, making installation easy.

It converts a single phase 200-240 VAC input into a three phase output to allow the Maxfan Compac product to use a high efficiency 3Ph, 230V motor.

A safety isolator/switch disconnecter should be installed on the mains side of the drive to ensure that the mains supply can be isolated for maintenance.

Please see the image below, illustrating the connections on the bottom of the inverter drive.



### RANGE

There are three matched inverters that are specifically designed to use with our Maxfan Compac fan range. Details are shown below.

| Part Number | Inverter Model | Ph. | V        | Amps | kW   | Enc. |
|-------------|----------------|-----|----------|------|------|------|
| PK901092    | 4.2            | 1-3 | 200-240V | 4.2  | 0.75 | M1   |
| PK901090    | 6.8            | 1-3 | 200-240V | 6.8  | 1.5  | M2   |
| PK901091    | 9.6            | 1-3 | 200-240V | 9.6  | 2.2  | M3   |

#### Step 1

Fit top cover on frequency converter.

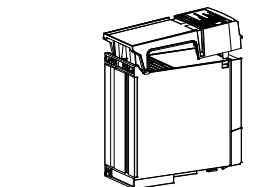


Illustration 414

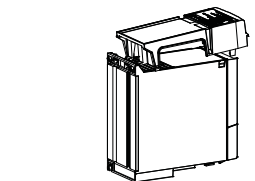


Illustration 415

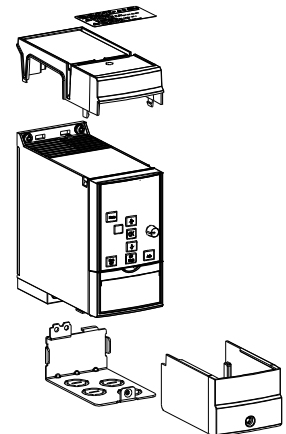


Illustration 416



## INVERTER - QUICK INSTALLATION GUIDE

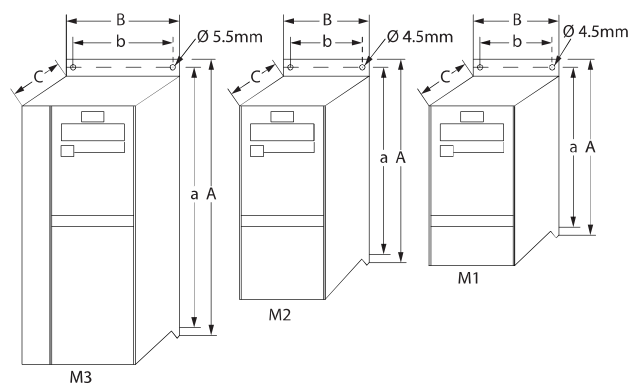


**Ready – Steady – Go!**  
 Connect motor and power cables, turn the control knob,  
 and watch the motor speed change.



RoHS compliant  
 The VLT® Micro Drive does not contain lead,  
 cadmium, hexavalent chrome, mercury,  
 or flame retardant PBB and PBDE.

## INVERTER - TECHNICAL & DRAWING DETAILS



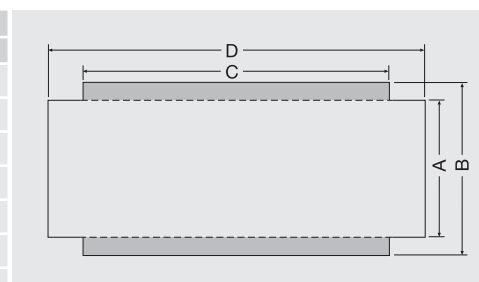
| Part Number | Inverter Model | Enc. | Ph. | V        | Amps | kW   | Power [kW]  | Height [mm] | Width [mm] |    | Depth [mm] | Max. Weight [kg] |
|-------------|----------------|------|-----|----------|------|------|-------------|-------------|------------|----|------------|------------------|
|             |                |      |     |          |      |      | 1x200-240 V |             |            |    |            |                  |
| PK901092    | 4.2            | M1   | 1-3 | 200-240V | 4.2  | 0.75 | 0.75        | 219.3       | 70         | 55 | 148        | 1.1              |
| PK901090    | 6.8            | M2   | 1-3 | 200-240V | 6.8  | 1.5  | 1.5         | 245.6       | 78         | 59 | 144        | 1.6              |
| PK901091    | 9.6            | M3   | 1-3 | 200-240V | 9.6  | 2.2  | 2.2         | 297.5       | 95         | 69 | 210        | 3                |



**SIL**

Sound attenuator to reduce noise transmission to ducting system. In galvanized steel.

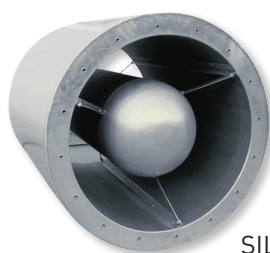
| Model   | ØA (mm) | ØB (mm) | C (mm) | D (mm) | Weight (kg) | Attenuation in dB |     |     |     |      |      |      |      |
|---------|---------|---------|--------|--------|-------------|-------------------|-----|-----|-----|------|------|------|------|
|         |         |         |        |        |             | 63                | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
| SIL 125 | 125     | 225     | 600    | 700    | 5,08        | 4                 | 6   | 10  | 19  | 28   | 33   | 25   | 18   |
| SIL 160 | 160     | 250     | 600    | 700    | 6,53        | 2                 | 4   | 8   | 16  | 26   | 26   | 23   | 10   |
| SIL 200 | 200     | 300     | 600    | 700    | 8,63        | 0                 | 3   | 7   | 16  | 22   | 20   | 13   | 10   |
| SIL 250 | 250     | 355     | 600    | 700    | 12,9        | 1                 | 2   | 6   | 13  | 19   | 15   | 8    | 6    |
| SIL 315 | 315     | 415     | 600    | 700    | 14,5        | 0                 | 1   | 4   | 10  | 12   | 7    | 4    | 4    |
| SIL 355 | 355     | 450     | 900    | 1050   | 16,9        | 1                 | 2   | 6   | 14  | 18   | 12   | 6    | 5    |
| SIL 400 | 400     | 500     | 900    | 1050   | 16,9        | 1                 | 2   | 5   | 13  | 15   | 8    | 3    | 2    |
| SIL 450 | 450     | 560     | 900    | 1050   | 22,4        | 1                 | 2   | 5   | 13  | 13   | 6    | 4    | 3    |
| SIL 500 | 500     | 630     | 900    | 1050   | 26,4        | 1                 | 2   | 4   | 13  | 11   | 3    | 4    | 2    |
| SIL 560 | 560     | 670     | 900    | 1050   | 26,5        | 2                 | 4   | 7   | 12  | 12   | 12   | 10   | 2    |
| SIL 630 | 630     | 710     | 900    | 1100   | 30,4        | 1                 | 1   | 4   | 10  | 11   | 8    | 9    | 6    |



### SIL-CZ / SIL-CZO



**SIL-CZ**



**SIL-CZO**

#### SIL CZ

Casing pre-galvanised sheet steel Z200 of thickness 0,8 mm.

Mounting flange with threaded insert.

Acoustic miner wool density 70kg/m<sup>3</sup> with erosion resistant facing with M0 fire resistance.

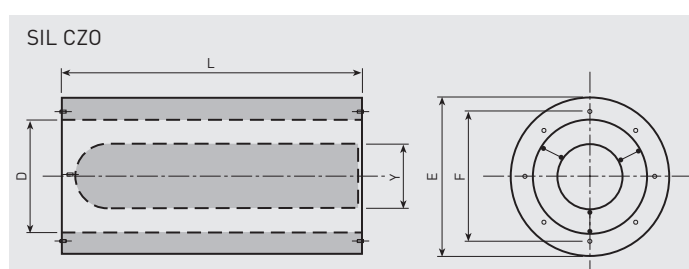
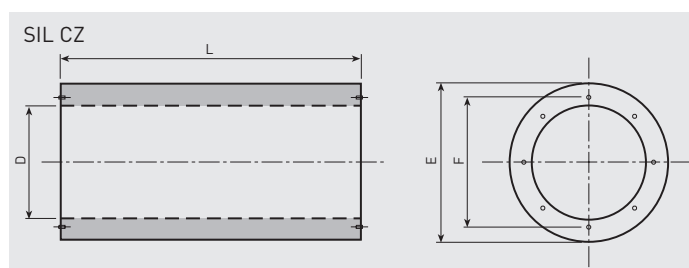
#### SIL CZO

As SIL CZ but with internal pod for extra attenuation.

#### On request

Version with stainless steel casing.

| Ø nominal (mm) | ØD (mm) | ØE (mm) | ØF (mm) | Holes |      | ØY (mm) | L    |        |      |
|----------------|---------|---------|---------|-------|------|---------|------|--------|------|
|                |         |         |         | nº    | Type |         | ØDx1 | ØDx1,5 | ØDx2 |
| 400            | 400     | 540     | 450     | 8     | M10  | 200     | 400  | 600    | 800  |
| 450            | 450     | 610     | 500     | 8     | M10  | 250     | 450  | 675    | 900  |
| 500            | 500     | 660     | 560     | 12    | M10  | 250     | 500  | 750    | 1000 |
| 560            | 560     | 720     | 620     | 12    | M10  | 300     | 560  | 840    | 1120 |
| 630            | 630     | 790     | 690     | 12    | M10  | 300     | 630  | 945    | 1260 |
| 710            | 710     | 870     | 770     | 16    | M10  | 380     | 710  | 1065   | 1420 |
| 800            | 800     | 1000    | 860     | 16    | M10  | 380     | 800  | 1200   | 1600 |
| 900            | 900     | 1100    | 970     | 16    | M12  | 380     | 900  | 1350   | 1800 |
| 1000           | 1000    | 1200    | 1070    | 16    | M12  | 650     | 1000 | 1500   | 2000 |
| 1120           | 1120    | 1320    | 1190    | 20    | M15  | 650     | 1120 | 1680   | 2240 |
| 1250           | 1250    | 1450    | 1320    | 20    | M12  | 650     | 1250 | 1875   | 2500 |
| 1400           | 1400    | 1600    | 1470    | 20    | M15  | 650     | 1400 | 2100   | 2800 |
| 1600           | 1600    | 1800    | 1680    | 24    | M12  | 650     | 1600 | 2400   | 3200 |



# Roof hood

HN



## Description

Ventilation hood for air exit above roof, suitable for both industrial and comfort ventilation. The air is ejected in an upwards-directed jet. This avoids contaminating the air in the vicinity of the hood, and soiling of the area around the hood. The ejection is so effective that you can install a fresh air inlet in the immediate vicinity of the hood, without any special precautions.

NOTE! When fans are not running there is always a risk for drifting snow and damp to penetrate into ducts. At some occasions also condensation can cause trouble.

The hood is made of galvanised sheet steel, and can also be supplied in other materials such as stainless steel sheet 1.4301, stainless acid-resistant steel sheet 1.4404, aluzinc AZ185 and painted in various colours, to special order. It has a net over the opening and an internal rain funnel to collect rainwater and snow, which is drained out of the hood through a hose. The hose can withstand temperatures of between -45 and +65 °C.

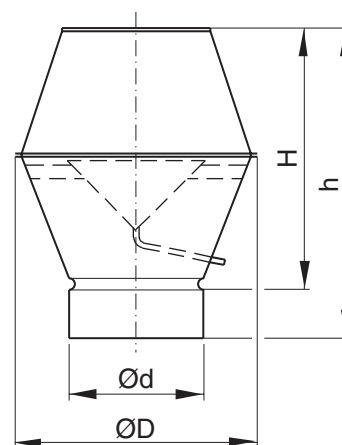
The hood has a female connection, which fits outside a ventilation duct.

As special delivery the hood can be supplied with three anchoring wire-loops. It is standard on Ø400.

## Ordering example

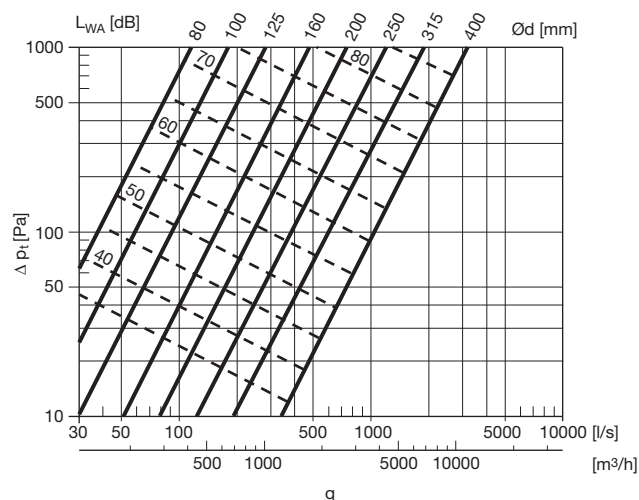
|              |    |     |
|--------------|----|-----|
| Product      | HN | 315 |
| Dimension Ød |    |     |

## Dimensions



|           |            |           |           |           | Roof through connection<br>TGR |           |
|-----------|------------|-----------|-----------|-----------|--------------------------------|-----------|
| Ød<br>nom | ØD<br>[mm] | H<br>[mm] | h<br>[mm] | m<br>[kg] | 50<br>mm                       | 100<br>mm |
| Size      |            |           |           |           |                                |           |
| 80        | 130        | 160       | 310       | 0,66      | 3                              | 3         |
| 100       | 180        | 220       | 360       | 0,96      | 3                              | 3         |
| 125       | 225        | 240       | 380       | 1,26      | 3                              | 4         |
| 160       | 280        | 340       | 475       | 1,95      | 3                              | 4         |
| 200       | 345        | 420       | 555       | 2,92      | 3                              | 4         |
| 250       | 430        | 505       | 640       | 4,31      | 4                              | 5         |
| 315       | 550        | 620       | 755       | 6,75      | 5                              | 6         |
| 400       | 685        | 846       | 981       | 9,57      | 5                              | 6         |

## Technical data



## PLEATED PANEL AIR FILTER G4 to EN779:2012

### Applications

The Pleated Panel Air Filter is a medium efficiency disposable air filter, suitable for ventilation and air conditioning systems which require a higher efficiency and greater dust holding capacity than can be achieved with glass or synthetic panels.

The G4 filter can be used where glass panels are undesirable, such as in the food industry and hospitals.

Typically G4 panel filters are used as pre filters on supply air systems to High Performance Bag Filters, or to protect heating or cooling coils from dust build up which leads to system inefficiency. Another common place to see G4 Pleated Panel Air Filters is to protect fans in extract systems for office blocks or kitchen extract systems.



### Description

Pleated Panel Filters consist of a dry non-woven fabric media which is pleated to give an extended surface area, producing a low initial resistance for the same air volume, making this an energy efficient filter. The pleat is supported by an expanded galvanised steel mesh.

The pleated air filter media is contained within the air filter by a rigid all-cardboard casing, or a cardboard frame with recycled perforated cap-punch retaining grids. The filter is sealed together using hot melt adhesive glues to ensure a highly rigid and quality disposable panel air filter.

The Pleated Panel Air Filter Media is available sealed into a galvanised steel metal frame for high humidity applications such as supply air from atmosphere where standard cardboard filters may lose their rigidity and fail.

### Technical

The pleated air filter media is Flame Retardant to UL Class II

Max Operating Temp 80 Deg C

Dust Holding Capacity for 50mm Filter = 840 g/m<sup>2</sup> Dust Holding Capacity for 100mm Filter = 1260 g/m<sup>2</sup>

Nominal to Actual Size: less 6mm on H & W, 3mm on Depth

### PLEATED PANEL FILTER STANDARD SIZES

| Size      |           | Flow Rate              |                        |                        | Part Numbers |           |          |           |          |           |
|-----------|-----------|------------------------|------------------------|------------------------|--------------|-----------|----------|-----------|----------|-----------|
| OT Inches | Actual mm | 22mm m <sup>3</sup> /s | 47mm m <sup>3</sup> /s | 97mm m <sup>3</sup> /s | 1" (22mm)    |           | 2"(47mm) |           | 4"(97mm) |           |
|           |           |                        |                        |                        | Lattice      | Cap Scrap | Lattice  | Cap Scrap | Lattice  | Cap Scrap |
| 10 x 10   | 242 x 242 | 0.12                   | 0.15                   | 0.18                   | 1130101      | 1134101   | 1130201  | 1134201   | 1130401  | 1134401   |
| 12 x 12   | 289 x 289 | 0.17                   | 0.21                   | 0.25                   | 1130102      | 1134102   | 1130202  | 1134202   | 1130402  | 1134402   |
| 15 x 15   | 369 x 369 | 0.27                   | 0.34                   | 0.41                   | 1130103      | 1134103   | 1130203  | 1134203   | 1130403  | 1134403   |
| 18 x 18   | 445 x 445 | 0.40                   | 0.50                   | 0.59                   | 1130104      | 1134104   | 1130204  | 1134204   | 1130404  | 1134404   |
| 20 x 10   | 495 x 242 | 0.24                   | 0.30                   | 0.36                   | 1130106      | 1134106   | 1130206  | 1134206   | 1130406  | 1134406   |
| 20 x 16   | 495 x 394 | 0.39                   | 0.49                   | 0.59                   | 1130108      | 1134108   | 1130208  | 1134208   | 1130408  | 1134408   |
| 20 x 20   | 495 x 495 | 0.49                   | 0.61                   | 0.74                   | 1130110      | 1134110   | 1130210  | 1134210   | 1130410  | 1134410   |
| 25 x 16   | 620 x 394 | 0.49                   | 0.61                   | 0.73                   | 1130111      | 1134111   | 1130211  | 1134211   | 1130411  | 1134411   |
| 25 x 20   | 620 x 495 | 0.61                   | 0.77                   | 0.92                   | 1130112      | 1134112   | 1130212  | 1134212   | 1130412  | 1134412   |
| 24 x 12   | 594 x 289 | 0.34                   | 0.43                   | 0.51                   | 1130113      | 1134113   | 1130213  | 1134213   | 1130413  | 1134413   |
| 24 x 20   | 594 x 495 | 0.59                   | 0.74                   | 0.88                   | 1130114      | 1134114   | 1130214  | 1134214   | 1130414  | 1134414   |
| 24 x 24   | 594 x 594 | 0.71                   | 0.88                   | 1.06                   | 1130115      | 1134115   | 1130215  | 1134215   | 1130415  | 1134415   |

## **Activated Carbon Filters Metal Cased Discarb Cells**

### **Applications**

Activated Carbon Discarb Cells can be used for the reduction of odour or for gas control. Activated Carbon Discarb Cells offer a compact and convenient method to housing bonded carbon panels ready for mounting in a range of filter housings.

Typical applications for Airclean Activated Carbon Cells include Kitchen Extract Odour Control, Commercial Food Manufacture, Laboratory supply and extract systems, Office Air Supply, and VOC control.

Activated Carbon Discarbs offer a practical solution for controlling gases and odours in airflows from 0.1m<sup>3</sup>/s up to 10m<sup>3</sup>/s +.

### **Description**

The metal cased 'Discarb' cells have the highest carbon loading in our range, and have standard or heavy-duty carbon panels permanently sealed into a galvanised sheet steel casing.

This construction gives a very strong unit capable of handling large air volumes or where conditions dictate, increased contact time. The advantage of this unit is that with panels sealed in, there is no possibility of air leakage.

Activated Carbon Discarb Filter Units can be manufactured to almost any reasonable size, the limiting factors being the overall weight for handling purposes and the size of individual panels. When the unit has finished its useful life it is discarded and replaced with a complete new cell.

### **Technical**

Carbon Filters must be selected based on system duty airflows, and required contact times (dwell / residence). Contact times must be selected based on concentration and specific gases / odours that need to be removed.

The following tables on the next page offer selections for Activated Carbon Discarbs of all styles based on 0.1 second contact times.

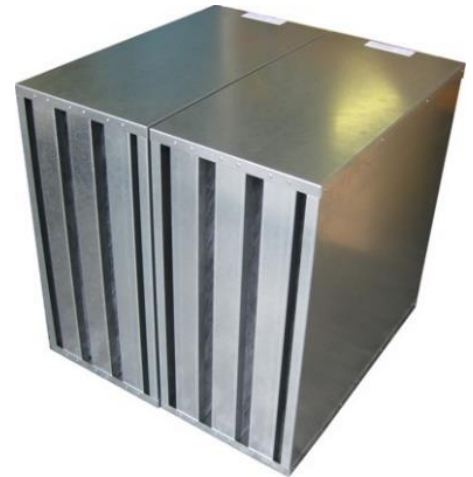
For 0.2 second contact times reduce the airflows in the 0.1 second tables by 50%, pressure drops will reduce to 50%.

For 0.3 second contact times reduce the airflows in the 0.1 second tables to 33.3%, pressure drops will reduce to 33.3%.

For 0.4 second contact times reduce the airflows in the 0.1 second tables to 25%, pressure drops will reduce to 25%.

Pre filtration of grade M5 to EN779 is recommended prior to Activated Carbon Filters to aid effective gas removal.

Max allowable air on conditions to the unit are 40 Degree Centigrade and 80% Relative Humidity, if these conditions are exceeded then the activated carbon filter will be ineffective.



| ACTIVATED CARBON DISCARB FILTERS - STANDARD FLOW |     |     |      |     |                      |                      |
|--------------------------------------------------|-----|-----|------|-----|----------------------|----------------------|
| Dimensions (Actual, mm)                          |     |     | m³/s | Pa  | Grade 20 – Std. Flow | Grade 50 – Std. Flow |
| H                                                | W   | D   |      |     | Part No.             | Part No.             |
| 293                                              | 293 | 293 | 0.10 | 75  | 1620101              | 1620121              |
| 293                                              | 293 | 445 | 0.15 | 95  | 1620102              | 1620122              |
| 293                                              | 293 | 597 | 0.22 | 140 | 1620103              | 1620123              |
| 445                                              | 445 | 293 | 0.21 | 55  | 1620104              | 1620124              |
| 445                                              | 445 | 445 | 0.31 | 70  | 1620105              | 1620125              |
| 445                                              | 445 | 597 | 0.41 | 105 | 1620106              | 1620126              |
| 597                                              | 597 | 293 | 0.41 | 70  | 1620107              | 1620127              |
| 597                                              | 597 | 445 | 0.61 | 90  | 1620108              | 1620128              |
| 597                                              | 597 | 597 | 0.81 | 130 | 1620109              | 1620129              |
| 597                                              | 293 | 597 | 0.40 | 130 | 1620110              | 1620130              |
| 597                                              | 196 | 597 | 0.27 | 130 | 1620111              | 1620131              |

| ACTIVATED CARBON DISCARB FILTERS - EXTRA DUTY |     |     |      |     |                       |                       |
|-----------------------------------------------|-----|-----|------|-----|-----------------------|-----------------------|
| Dimensions (Actual, mm)                       |     |     | m³/s | Pa  | Grade 20 – Extra Duty | Grade 50 – Extra Duty |
| H                                             | W   | D   |      |     | Part No.              | Part No.              |
| 293                                           | 293 | 293 | 0.13 | 125 | 1620201               | 1620221               |
| 293                                           | 293 | 445 | 0.20 | 175 | 1620202               | 1620222               |
| 293                                           | 293 | 597 | 0.27 | 250 | 1620203               | 1620223               |
| 445                                           | 445 | 293 | 0.30 | 95  | 1620204               | 1620224               |
| 445                                           | 445 | 445 | 0.41 | 125 | 1620205               | 1620225               |
| 445                                           | 445 | 597 | 0.54 | 185 | 1620206               | 1620226               |
| 597                                           | 597 | 293 | 0.54 | 125 | 1620207               | 1620227               |
| 597                                           | 597 | 445 | 0.80 | 150 | 1620208               | 1620228               |
| 597                                           | 597 | 597 | 1.06 | 225 | 1620209               | 1620229               |
| 597                                           | 293 | 597 | 0.53 | 225 | 1620210               | 1620230               |
| 597                                           | 196 | 597 | 0.35 | 225 | 1620211               | 1620231               |

## Notes

- \* Airflow rates are based on a 0.1 second contact time. (Indian & Thai Cuisine require minimum of 0.3s)
- \* **Grade 20** 20 - 30% retention CTC. **Grade 50** 50 - 60% retention CTC.

## Holding Frames and Cases

Holding frames and casings for Activated Carbon Filters are available singularly or in multiples, and can be manufactured to suit non-standard sizes and special applications.

See Catalogue Section 8 (AC8) and Section 11 (AC11) for full information.



Fully Welded Side Withdrawal  
Filter Housing (1840)



Kitchavent – Grease, Smoke and Odour Control  
for Kitchen Extract (1815)

# LONGAR® Type 2

## High Performance Premium Baffle Filter



### LONGAR® TYPE 2 FEATURES:

- 100% Flame barrier protection to DIN 18869-5.
- Cutsafe safety edges.
- Fully welded construction – all stainless steel construction.
- Meets insurance requirements.
- Meets HVCA DW172 requirements.
- Folding handles and drainholes as standard.
- Robust baffle filter construction – built to last.
- Tested & certified to European standard DIN 18869-5.
- Tested & certified to American standard UL1046.
- Tested & certified to ASTM2519.

### APPLICATIONS

- Commercial kitchens
- Water mist separation
- Spark arrestors
- Sand filtration
- Grease filtration

### LONGAR® TYPE 2 PREMIUM BAFFLE FILTER

For use in commercial kitchens and ventilation to extract grease laden air and act as a fire barrier. Fire barriers prevent any cooking flames traveling past the extract canopy. The new Type 2 is a development of customers requesting certain attributes for the baffle filter, the main ones being safety edges on frame and blades. LONGAR® Type 2 is available in standard depths of 20mm and 45mm depths, this is required for the filter to operate at a constant efficiency and to protect the system as a flame barrier as tested to European Standard DIN 18869-5 and American Standard UL1046. Custom sizes are available on request.

### CONSTRUCTION / MATERIAL SPECIFICATIONS

As standard all baffles are manufactured with Stainless Steel 430 polished finish, (Other finishes and materials are available). Maximum Operating temperature 400C or 750F.

### FITTING INSTRUCTIONS

- Fit products, handles in direction of air in.
- Product vertical in air stream.

### HANDLING

- Handle with care when unpacking.
- Store in dry and frost protected place.

### MAINTENANCE

- All maintenance should be carried out in accordance with the planned maintenance set by installation contractor.
- When handling any components suitable PPE should be used - gloves, eye protection and access equipment.
- Filters should be cleaned by a trained operative either daily for heavy use or weekly for light use.
- For more exact guide to cleaning you should contact a cleaning specialist.

### PACKAGING

- All units are packaged in double wall boxes with separators for standard sizes, glued closed for protection whilst in transit against contamination.

### FILTER CLASSIFICATION:

- Filter Class G2
- UL Class 2

### TESTED TO:

- DIN 18869-5
- UL 1046
- ASTM 2519

### MANUFACTURED TO:

- DW172
- ISO9001

For technical specifications, part numbers and ordering information, please see overleaf.

# LONGAR® Type 2

## High Performance Premium Baffle Filter

### TECHNICAL SPECIFICATIONS

Longar specifies the baffle filter as height x width x thickness. The handles are fixed to the height and drain holes punched on the width. The length of the baffle blade is the height; please ensure correct orientation is given when ordering.

| SIZE ORDERING GUIDE (TOLERANCES +/- 2mm)     |                       |                    |         |                     |
|----------------------------------------------|-----------------------|--------------------|---------|---------------------|
| Part Number                                  | Actual Size HxWxD     | Nominal Size HxWxD | Weight  | Filter Free Area    |
| TYPE2ST10X20X2                               | 243 x 496 x 45mm      | 254 x 508 x 50mm   | 1.40kgs | 0.08m <sup>2</sup>  |
|                                              | 9.57 x 19.53 x 1.77"  | 10 x 20 x 2"       | 3.08lbs | 0.86ft <sup>2</sup> |
| TYPE2ST12X20X2                               | 295 x 496 x 45mm      | 304 x 508 x 50mm   | 1.61kgs | 0.09m <sup>2</sup>  |
|                                              | 11.61 x 19.53 x 1.77" | 12 x 20 x 2"       | 3.54lbs | 1.02ft <sup>2</sup> |
| TYPE2ST16X16X2                               | 395 x 395 x 45mm      | 406 x 406 x 50mm   | 1.54kgs | 0.10m <sup>2</sup>  |
|                                              | 15.55 x 15.55 x 1.77" | 16 x 16 x 2"       | 3.39lbs | 1.05ft <sup>2</sup> |
| TYPE2ST16X20X2                               | 395 x 496 x 45mm      | 406 x 508 x 50mm   | 1.96kgs | 0.13m <sup>2</sup>  |
|                                              | 15.55 x 19.53 x 1.77" | 16 x 20 x 2"       | 4.31lbs | 1.40ft <sup>2</sup> |
| TYPE2ST18X18X2                               | 444 x 444 x 45mm      | 457 x 457 x 50mm   | 1.98kgs | 0.13m <sup>2</sup>  |
|                                              | 17.48 x 17.48 x 1.77" | 18 x 18 x 2"       | 4.36lbs | 1.40ft <sup>2</sup> |
| TYPE2ST20X16X2                               | 496 x 395 x 45mm      | 508 x 406 x 50mm   | 1.93kgs | 0.12m <sup>2</sup>  |
|                                              | 19.53 x 15.55 x 1.77" | 20 x 16 x 2"       | 4.25lbs | 1.32ft <sup>2</sup> |
| TYPE2ST20X20X2                               | 496 x 496 x 45mm      | 508 x 508 x 50mm   | 2.41kgs | 0.16m <sup>2</sup>  |
|                                              | 19.53 x 19.53 x 1.77" | 20 x 20 x 2"       | 5.30lbs | 1.76ft <sup>2</sup> |
| TYPE2ST24X24X2                               | 597 x 597 x 45mm      | 609 x 609 x 50mm   | 3.15kgs | 0.24m <sup>2</sup>  |
|                                              | 23.50 x 23.50 x 1.77" | 24 x 24 x 2"       | 6.93lbs | 2.56ft <sup>2</sup> |
| FINAL RECOMMENDED PRESSURE DROP: 400 PASCALS |                       |                    |         |                     |

Pressure drop and airflow information available on request.



**LONGAR INDUSTRIES**

FILTERS AND FABRICATIONS FOR A CLEANER ENVIRONMENT

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As part of our program for continuous improvement, Longar Ltd reserves the right to change specifications without notice. 15-01-2016.

# THE MERLIN RANGE

## MERLIN CT1250 SYSTEM

*The Merlin CT1250 ventilation interlock system, with built in current monitoring, is designed specifically for use in commercial kitchens to meet BS6173. This panel is to be used when the kitchen appliances do have flame failure devices, therefore Gas proving is not a requirement.*

The Merlin CT1250 acts as an interlock between the ventilation system and the gas solenoid valve.

The system has built in current monitors in order to interlock with up to 2 fans and offers an alternative to using air pressure differential switches.



### Key Features of the Merlin CT1250 System

- Allows Compliance with BS6173 for commercial kitchens
- To be used when all appliances have flame failure devices
- 2 built in current monitors can be easily adjusted to the user's requirements
- Reliable method of interlock, with no moving parts there's little to go wrong
- BMS Terminals Normally Closed or Normally open and common.
- Will accept remote emergency knock-off buttons.
- Can monitor up to 20 amp running current.
- Clear LED display for system indications
- Can be used when pressure differential switches cannot be used e.g. wall-mounted fans
- Straightforward to install and calibrate. The CT1250 can be easily adjusted to the user's requirements
- Easy installation
- Covered by S&S Northern Ltd 3 year warranty.

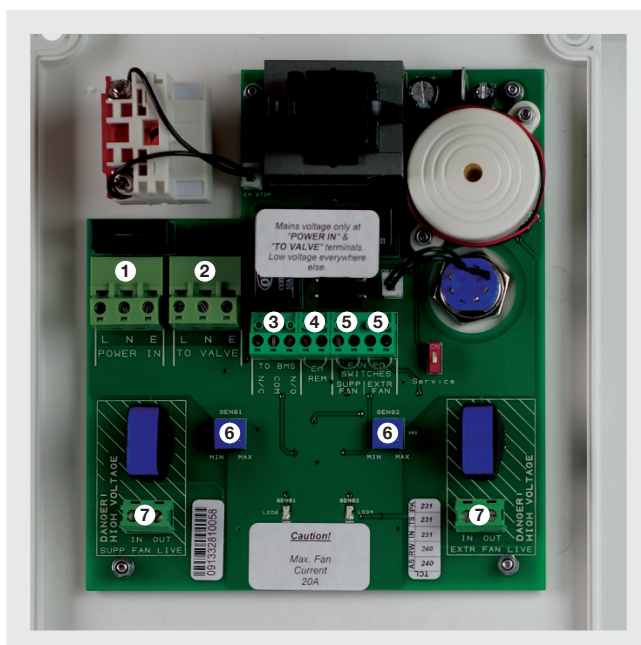


# KITCHEN EQUIPMENT ENGINEERED TO MEET BS6173

When the fan is turned “on” the CT1250 monitors the electrical current going to the fan motor, when there is sufficient current going to the fan motor our panel receives a signal to indicate the fans are operating. Turning the key to the “on” position will open the gas solenoid valve. If the fans should fail, the “fan fault” LED on the panel will illuminate and the gas solenoid valve will close.

When there is a “fan fault” the supply fan or extract fan led on the Merlin CT1250 panel fascia will flash. This informs the electrician or kitchen staff which fan has failed. Operating the system in the above manner will ensure the requirements of BS6173 are fully met where all the catering equipment has flame failure devices fitted. Wiring of the system is straightforward using volt free connections for all BMS and remote emergency stops. A Gas Safe engineer would be required to fit the gas solenoid valve.

Calibration of the current monitor is easy, once wired set the fan speed controller to setting 1 (or low setting) for example. Turn the blue rotary switches anti-clockwise until the green LED goes out, and then slowly turn clockwise until the green LED is again illuminated. This indicates the current is being detected going to the fan motor, if the fan is turned off or faulty the LED will switch off and the system will go into a ‘fan fault’ and shut off the gas.



## Merlin CT1250 System Wiring Diagram

1. 230v AC Supply
2. 230v AC output to valve
3. Terminal for BMS connections
4. Remote emergency stop Input
5. Fan sensor input- close when fan on -  
(for use with PD switches)
6. Pots are adjusted to increase or decrease sensitivity
7. Live wire going to the fan goes in and back out onto the fan

S&S Northern has a full technical team available on 01257 470 983  
or if you are based in the South East please call 01702 291 725

## Merlin CT1250 Box Dimensions

|        |       |
|--------|-------|
| Height | 254mm |
| Length | 178mm |
| Depth  | 62mm  |

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