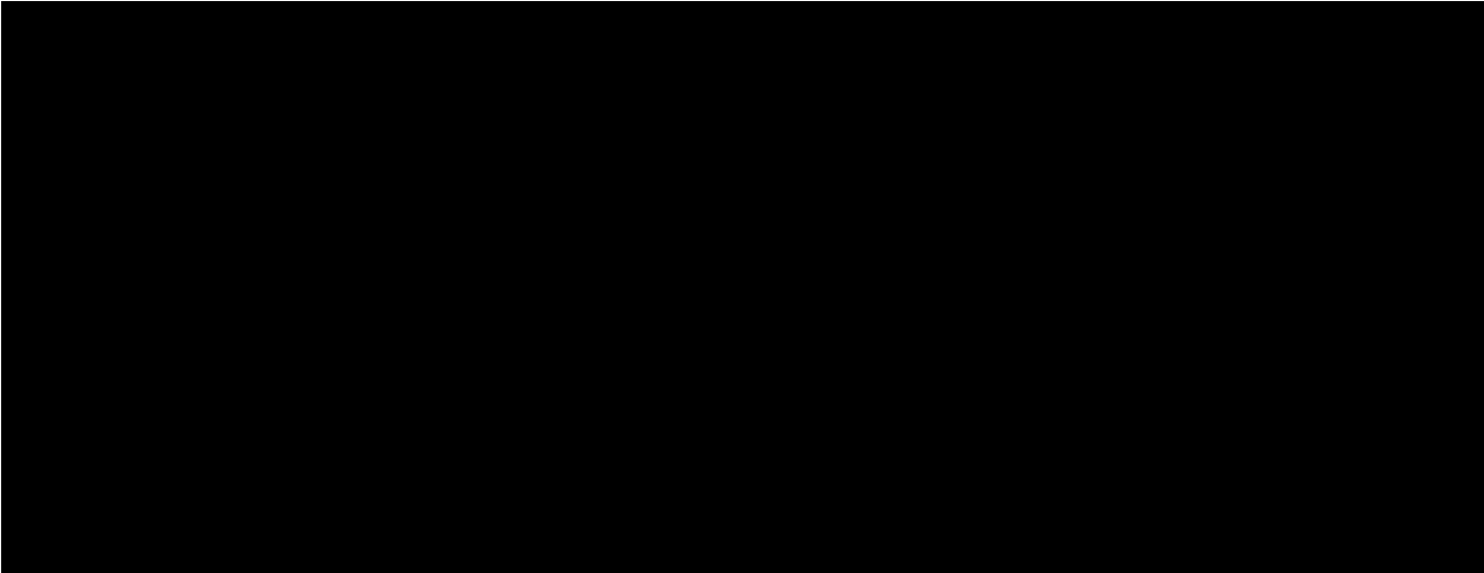




---

**From:** Aarti O'Leary 

**Sent:** 25 July 2019 17:30

**To:** Anita Gardner <[Anita.Gardner@arun.gov.uk](mailto:Anita.Gardner@arun.gov.uk)>

**Cc:** Carol Reynolds <[Carol.Reynolds@arun.gov.uk](mailto:Carol.Reynolds@arun.gov.uk)>; Juan Baeza <[Juan.Baeza@arun.gov.uk](mailto:Juan.Baeza@arun.gov.uk)>; Anna Appleton <[Anna.Appleton@arun.gov.uk](mailto:Anna.Appleton@arun.gov.uk)>

**Subject:** RE: Application Ref: LU/164/19/PL - 5 Arundel Road, Littlehampton

Dear Anita

We hereby submit a response to the matters raised in the Environmental Health team's consultation response dated 12<sup>th</sup> July 2019.

This includes an assessment of noise arising from the roof mounted air intake and extract flue, the extract ventilation to the kitchen sinks, the number of customers collected orders from the site, and the different vehicle types used for delivering orders to customers.

The overall conclusion of the assessment remains, as per the original assessment, that the proposals would not give rise to unacceptable noise impacts on nearby receptors.

We trust that you now have sufficient information in order to determine the application favourably.

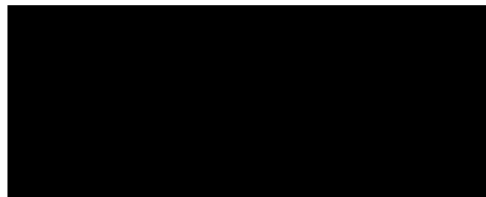
We would be grateful if you provide an indication as to when determination is likely to be made.

Kind Regards

Aarti O'Leary  
BSc (Hons), MA (Merit), MRTPI  
Associate



Chartered Surveyors & Town Planners  
6 New Bridge Street  
London  
EC4V 6AB



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---

**From:** Carol Reynolds <[Carol.Reynolds@arun.gov.uk](mailto:Carol.Reynolds@arun.gov.uk)>

**Sent:** 12 July 2019 13:05

**To:** Aarti O'Leary [REDACTED]

**Cc:** Anita Gardner <[Anita.Gardner@arun.gov.uk](mailto:Anita.Gardner@arun.gov.uk)>; Juan Baeza <[Juan.Baeza@arun.gov.uk](mailto:Juan.Baeza@arun.gov.uk)>; Anna Appleton <[Anna.Appleton@arun.gov.uk](mailto:Anna.Appleton@arun.gov.uk)>

**Subject:** FW: Application Ref: LU/164/19/PL - 5 Arundel Road, Littlehampton

Dear Mr O'Leary,

Thank you for updated Acoustic and Odour Reports submitted in this case. Since Anita is away from the office today I thought it best to contact you directly. Please find below my comments for your action. Should I be able to provide any assistance then please do not hesitate in contacting me.

Kind regards

Carol Reynolds BSc(Hons) MCIEH

Carol Reynolds | Senior Environmental Health Officer, Arun District Council | Location: Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

Internal: 37678 | External: +44 (0) 1903 737678 | E-mail: [carol.reynolds@arun.gov.uk](mailto:carol.reynolds@arun.gov.uk) Secure E-mail:

[creynolds@arun.gcsx.gov.uk](mailto:creynolds@arun.gcsx.gov.uk) Visit Arun's web site at [www.arun.gov.uk](http://www.arun.gov.uk) P Save the environment - think before you print.

Please note my Work Days are Tuesday to Friday

---

**From:** Carol Reynolds

**Sent:** 12 July 2019 09:53

**To:** Anita Gardner <[Anita.Gardner@arun.gov.uk](mailto:Anita.Gardner@arun.gov.uk)>

**Subject:** Fwd: Application Ref: LU/164/19/PL - 5 Arundel Road, Littlehampton

Dear Anita,

**Environmental Health:** I acknowledge information already provided in the Planning Statement, dated May 2019, Ref 13538. I now refer to that Noise Assessment, Job Number A113884, 3rd Issue, prepared by Wyg.

Unfortunately this report only considers noise from the condenser unit to the walk in chiller, whilst excluding other new noise sources particularly in respect of noise from the air intake and exit flue to the flat roof of this single storey building above the kitchen odour abatement system, but also extract ventilation to the kitchen sinks. Please would you request that the applicant also provides proper assessment of these areas, together with detail of any further mitigation measures that may be necessary

In respect of car parking, the acoustic report needs to be expanded to properly describe the acknowledged intensification of use of this space, ie the number of customer as well as the number of delivery vehicles and the type of delivery vehicles such as mopeds, etc which will arrive at/depart from this site over a given time during proposed operating hours and how this will affect the acoustic environment, particularly of sensitive receptors R5 to R10 and mitigation measures that may be necessary.

**Reason:** in order to safeguard the amenity.

Kind regards

Carol

Begin forwarded message:

**From:** Carol Reynolds <[Carol.Reynolds@arun.gov.uk](mailto:Carol.Reynolds@arun.gov.uk)>

**Date:** 11 July 2019 at 15:50:50 BST

**To:** Anita Gardner <[Anita.Gardner@arun.gov.uk](mailto:Anita.Gardner@arun.gov.uk)>

**Subject:** FW: Application Ref: LU/164/19/PL - 5 Arundel Road, Littlehampton

Environmental Health:

**Odour Assessment:** See Wyg Job Reference Number A113884, 4<sup>th</sup> Issue, 18<sup>th</sup> June 2019 and Defra Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems, 2018. The proposed flue will discharge to the roof of this single storey business where it is surrounded by higher levels domestic residences. For this reason then I would dispute a dispersion Score of '10 – Moderate' instead applying the Rating '20 – Very poor,' particularly since this faces sensitive rooms of that home to the immediate north of the development. I would also Rate the size of this kitchen as 'Medium – 5 rather than Small – 1' and the type of cooking as '4 – Medium.' I agree with the Rating of 10 for the proximity of receptors, which leads me to the overall Odour Risk Assessment of 37 and the need for a 'Very High' level of odour control. Alongside baffle filters detailed then specification to be given for the type of prefilter to be provided as well as clarification as to a 0.4 second retention time through the activated carbon filters.

**Reason:** In order to safeguard the amenity.

---

**From:** Anita Gardner <[Anita.Gardner@arun.gov.uk](mailto:Anita.Gardner@arun.gov.uk)>

**Sent:** 26 June 2019 09:38

**To:** Anna Appleton <[Anna.Appleton@arun.gov.uk](mailto:Anna.Appleton@arun.gov.uk)>

**Subject:** FW: Application Ref: LU/164/19/PL - 5 Arundel Road, Littlehampton

Hi Anna,

I have received additional information and substitute plans in respect of the above application .

Please can this e-mail and attachment be forwarded to the officer who has been allocated the case.

Thanks

Anita

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[Anita.Gardner](#) | Principal Planner, Directorate of Place, [Arun District Council](#) | Location: First Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

Internal: 37529 | External: +44 (0) 1903 737529 | E-mail: [anita.gardner@arun.gov.uk](mailto:anita.gardner@arun.gov.uk)

Visit Arun's web site at [www.arun.gov.uk](http://www.arun.gov.uk)



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**From:** Aarti O'Leary

**Sent:** 25 June 2019 15:05

**To:** Anita Gardner  
**Cc:** Planning; Serena Page  
**Subject:** RE: Application Ref: LU/164/19/PL - 5 Arundel Road, Littlehampton

Hi Anita

As mentioned in my email yesterday, please find attached the following in respect of the above application:

- Noise Assessment
- Odour Assessment
- Amended Plans
- Cover Letter

We would be grateful if you could confirm receipt of this email and attachments, and their circulation to the relevant consultees.

Kind Regards

**Aarti O'Leary**  
BSc (Hons), MA (Merit), MRTPI  
Associate

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**From:** Aarti O'Leary  
**Sent:** 24 June 2019 11:20  
**To:** 'Anita Gardner' <[Anita.Gardner@arun.gov.uk](mailto:Anita.Gardner@arun.gov.uk)>  
**Cc:** Serena Page [REDACTED]  
**Subject:** RE: Application Ref: LU/164/19/PL - 5 Arundel Road, Littlehampton

Hi Anita

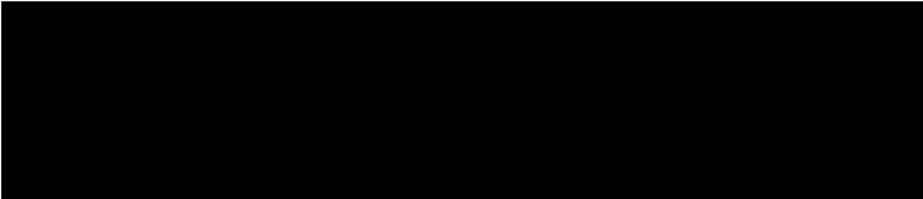
I just wanted to confirm whether there have been any further consultation responses received in respect of the above application.

We will shortly be submitting a Noise Assessment and Odour Assessment in support of the application, together with plans showing a minor amendment (comprising relocation of the proposed condenser unit on the western elevation and the inclusion of noise mitigation measures around the condenser).

This amendment is considered to be minor in scale and should not affect the determination deadline of the application, which is currently 15<sup>th</sup> July 2019.

Kind Regards

**Aarti O'Leary**  
BSc (Hons), MA (Merit), MRTPI  
Associate



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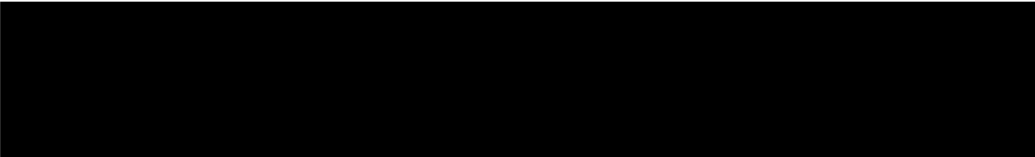
**From:** Aarti O'Leary  
**Sent:** 04 June 2019 15:07  
**To:** 'Anita Gardner' <Anita.Gardner@arun.gov.uk>  
**Cc:** Serena Page   
**Subject:** RE: Application Ref: LU/164/19/PL - 5 Arundel Road, Littlehampton

Hi Anita

Thank you for the update.

Kind Regards

**Aarti O'Leary**  
BSc (Hons), MA (Merit), MRTPI  
Associate



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**From:** Anita Gardner <Anita.Gardner@arun.gov.uk>  
**Sent:** 04 June 2019 15:04  
**To:** Aarti O'Leary   
**Subject:** RE: Application Ref: LU/164/19/PL - 5 Arundel Road, Littlehampton

Dear Aarti,  
I can confirm that Notices have been posted on site today.  
Regards

Anita

Anita Gardner | Principal Planner, Directorate of Place, Arun District Council | Location: First Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

Internal: 37529 | External: +44 (0) 1903 737529 | E-mail: [anita.gardner@arun.gov.uk](mailto:anita.gardner@arun.gov.uk)

Visit Arun's web site at [www.arun.gov.uk](http://www.arun.gov.uk)



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**From:** Aarti O'Leary [REDACTED]  
**Sent:** 03 June 2019 16:06  
**To:** Anita Gardner  
**Cc:** Planning  
**Subject:** Application Ref: LU/164/19/PL - 5 Arundel Road, Littlehampton

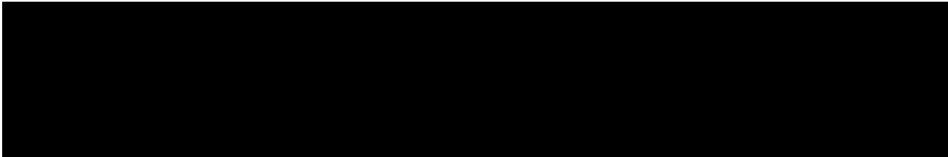
Hi Anita

I note that a local resident has expressed concern that a site notice has not been displayed in relation to the above application.

I would be grateful if you could please confirm that a site notice has been put up at the site.

Kind Regards

**Aarti O'Leary**  
BSc (Hons), MA (Merit), MRTPI  
Associate



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This document has been prepared following comments from Environment Health at Arun District Council received by WYG on 15<sup>th</sup> July 2019.

**ADC Comment 1**

*Unfortunately this report only considers noise from the condenser unit to the walk in chiller, whilst excluding other noise sources particularly in respect of noise from the air intake and exit flue to the flat roof of this single storey building above the kitchen odour abatement system, but also extract ventilation to the kitchen sinks. Please would you request that the applicant also provides proper assessment of these areas, together with detail of any further mitigation measures that may be necessary.*

**WYG Response 1.**

Any potential noise associated with the air intake and exit flue to the flat roof will be a result of an inline fan located within the shop/building structure. The fan is proposed to be a 'Woods ESTOC 50-355-3'; the product data sheet is appended to this document which presents the following noise level data:

**Table 1.0 – Noise Level Data**

| Description    | Sound Pressure Level (dBA) at 3m distance |
|----------------|-------------------------------------------|
| ESTOC 50-355-3 | 34.0                                      |

This noise level is more than 10 dB below the 'Glendon Karbox 2464' condenser unit of 56 dBA at a 1m distance (46 dB when normalised to 3m), assessed within the original noise assessment. Noise breakout from the proposed extraction fan is more than 10 dB quieter than the externally mounted condenser unit and therefore would make a negligible contribution to overall noise levels.

Furthermore, the noise level presented within table 1.0 above does not include any additional attenuation provided by extract ductwork or attenuation from the building envelope itself. As such, noise breakout from the extract system would be even lower, and the conclusions of the noise assessment would not be affected.

For the extract ventilation to the kitchen sinks, it is understood that this unit will be a standard wall mounted extract fan, the type is similar to those used within domestic bathrooms with timer, which will result in little or no externally generated noise. It is understood this will be a 'Vent-Axia VASF100'. A datasheet has been appended which shows a sound pressure level of 28 dB(A) at a 3m distance at high speed. Given the closest dwelling façade is more than 10m away from the location of this unit, it would make a negligible contribution to overall noise levels.

It should also be noted that the applicant will be sealing closed the existing opening windows, further reducing the potential for any noise breakout from internally located building services plant to outside areas or surrounding sensitive receptor locations.

## ADC Comment 2

*In respect of car parking, the acoustic report needs to be expanded to properly describe the acknowledged intensification of the use of the space, i.e the number of customer as well as the number of deliveries vehicles and the type of delivery vehicles such as mopeds, etc which will arrive at / depart from this site over a given time during proposed operating hours and how this will affect the acoustic environment.*

## WYG Response 2

An updated assessment has been undertaken below which includes noise from delivery vehicles (delivering from the store to customers) using both mopeds and cars.

A summary of predicted customer delivery numbers is presented within table 2.0 below.

**Table 2.0 – Deliveries to Customers**

| Day       | 11 am – 12 pm | 12 pm – 1 pm | 1 pm – 6pm | 6pm – 9pm (Peak) | After 9m |
|-----------|---------------|--------------|------------|------------------|----------|
| Monday    | 0             | 0            | 5          | 10               | 0        |
| Tuesday   | 0             | 0            | 4          | 8                | 1        |
| Wednesday | 0             | 0            | 3          | 11               | 2        |
| Thursday  | 0             | 0            | 4          | 66               | 3        |
| Friday    | 0             | 0            | 12         | 37               | 6        |
| Saturday  | 0             | 1            | 14         | 40               | 4        |
| Sunday    | 0             | 1            | 14         | 16               | 5        |

From the table above, as a worst-case, during peak hours (6pm – 9pm) 40 customer deliveries are predicted over a 3-hour period. Therefore, the updated assessment below includes the assumption of 14 customer deliveries during a worst-case hour. For this assessment, it has also been assumed these vehicles will be 50% in cars and 50% on Mopeds which is also considered to be worst-case. The assessment assumes 14 vehicles in and out during the hourly period. However, it should be noted that several customer deliveries are expected to take place in one vehicle movement and therefore the following calculations that assume every delivery represents an individual journey is considered to represent a worst-case scenario.

The following calculation has been undertaken, based on customer delivery information above, to represent a worst-case  $L_{Aeq,1hour}$ . The calculation has been undertaken on the basis that vehicles take

10 seconds to pull in, switch the engine off whilst collecting delivery and takes 10 seconds to pull out of the carpark. This noise level has been included as a point source within the model.

7 x 20 seconds at  $L_p$  64.2 dB at 2m distance (Moped arriving and leaving)  
 7 x 20 seconds at  $L_p$  59.9 dB at 2m distance (Car arriving and leaving)

$$L_{Aeq}(1hour) = 10\log(1/3600)(140 \text{ sec} \times 10^{0.1 \times 64.2 \text{ dB}} + 140 \text{ sec} \times 10^{0.1 \times 59.9 \text{ dB}})$$

$$= 50.8 \text{ dB at 2 m distance}$$

Furthermore, data has been provided by the prospective occupier regarding the number of customer 'walk-in' orders which, for the purposes of this assessment, has been equated to the number of customer vehicles using the carpark. From the data provided, in a worst-case peak period approximately 40 customers walk into the store. The following calculation has been undertaken, based on customer walk-in information, to represent a worst-case  $L_{Aeq,1hour}$ . The calculation has been undertaken on the basis that vehicles take 10 seconds to pull in, switch the engine off whilst in the store and takes 10 seconds to pull out of the carpark.

40 x 20 seconds at  $L_p$  59.9 dB at 2m distance (Car arriving and leaving)

$$L_{Aeq}(1hour) = 10\log(1/3600)(800 \text{ sec} \times 10^{0.1 \times 59.9 \text{ dB}})$$

$$= 53.6 \text{ dB at 2 m distance}$$

This level is less than originally assessed within the noise assessment (see section 3.2) where an average noise level of 54.0 @ 1.5m was used. Therefore, the worst-case level, as originally assessed, has been retained within the assessment below as a worst-case scenario.

The updated cumulative assessment of  $L_{Aeq}$  noise levels presented below is inclusive of the car-park noise and building services plant as shown with table 5.2 of the original noise assessment (dated June 2019) as well as the above noise level data for customer deliveries and customer walk-ins.

**Table 3.0 Updated Noise Intrusion Levels** (Daytime / Night-time)

| Location | External $L_{Aeq}$ Noise Level at 1 metre from facade | Internal $L_{Aeq}$ with windows open | Internal $L_{Aeq}$ with windows closed | Criteria Internal $L_{Aeq}$ dB Daytime / Night-time |
|----------|-------------------------------------------------------|--------------------------------------|----------------------------------------|-----------------------------------------------------|
| R01      | 24.5                                                  | 9.5                                  | 0.0                                    | 35 / 30                                             |
| R02      | 24.1                                                  | 9.1                                  | 0.0                                    | 35 / 30                                             |
| R03      | 24.8                                                  | 9.8                                  | 0.0                                    | 35 / 30                                             |
| R04      | 25.7                                                  | 10.7                                 | 0.0                                    | 35 / 30                                             |
| R05      | 34.0                                                  | 19.0                                 | 4.0                                    | 35 / 30                                             |
| R06      | 34.4                                                  | 19.4                                 | 4.4                                    | 35 / 30                                             |
| R07      | 30.7                                                  | 15.7                                 | 0.7                                    | 35 / 30                                             |
| R08      | 38.7                                                  | 23.7                                 | 8.7                                    | 35 / 30                                             |
| R09      | 44.9                                                  | 29.9                                 | 14.9                                   | 35 / 30                                             |

| Location | External $L_{Aeq}$ Noise Level at 1 metre from façade | Internal $L_{Aeq}$ with windows open | Internal $L_{Aeq}$ with windows closed | Criteria Internal $L_{Aeq}$ dB Daytime / Night-time |
|----------|-------------------------------------------------------|--------------------------------------|----------------------------------------|-----------------------------------------------------|
| R10      | 39.6                                                  | 24.6                                 | 9.6                                    | 35 / 30                                             |

The assessment present above demonstrates that updated internal daytime and night-time  $L_{Aeq}$  noise levels are predicted to be within the BS8233 / WHO noise intrusion criteria at all existing receptors within windows open and closed.

Furthermore, an assessment of maximum instantaneous noise levels ( $L_{Amax}$ ) consistent with the original noise report is presented below. As a worst-case the following noise level data has been used in the model to represent the maximum noise level from a moped arriving / leaving the carpark:

Moped Maximum Noise Level ( $L_{Amax}$ ) = 88.5 dB(A) @ 2m

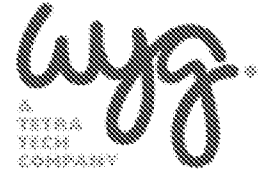
The updated results (consistent with Table 5.3 of the original noise report) are presented below.

**Table 4.0 Updated  $L_{Amax}$  Noise Level Comparison Assessment**

| Location | Existing $L_{Amax}$ Event (Monitored between the hours of 23:00 – 01:00) | Predicted $L_{Amax}$ (Modelled) from carpark – Door Slam or Moped | Difference |
|----------|--------------------------------------------------------------------------|-------------------------------------------------------------------|------------|
| R01      | 72.2                                                                     | 47.5                                                              | -24.7      |
| R02      | 72.2                                                                     | 47.0                                                              | -25.2      |
| R03      | 72.2                                                                     | 50.4                                                              | -21.8      |
| R04      | 72.2                                                                     | 51.6                                                              | -20.6      |
| R05      | 72.2                                                                     | 61.8                                                              | -10.4      |
| R06      | 72.2                                                                     | 60.5                                                              | -11.7      |
| R07      | 72.2                                                                     | 59.4                                                              | -12.8      |
| R08      | 72.2                                                                     | 64.9                                                              | -7.3       |
| R09      | 72.2                                                                     | 72.7                                                              | 0.5        |
| R10      | 72.2                                                                     | 71.0                                                              | -1.2       |

The results demonstrate that  $L_{Amax}$  noise levels from the proposed night-time use of the carpark are predicted to be less than the existing  $L_{Amax}$  noise levels experienced at nearby receptors with the exception of R09 where a difference of 0.5 dB is predicted. However, a difference of 0.5 dB is considered to be negligible as noise level changes of  $\pm 3$  dB are generally imperceptible to the human ear. Furthermore, considering the variable nature of existing vehicle noise sources in the vicinity of the site and the worst-case noise levels used within this assessment this difference is not considered to be significant.

Therefore, the use of the carpark during these 'early' night-time hours would not have a detrimental impact at existing sensitive receptor locations. Overall, the noise levels arising from the proposed use



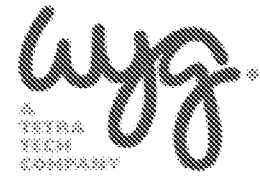
are well within the BS8233/WHO noise intrusion criteria and, therefore, the proposed use is considered to be acceptable.

For WYG Environment

**Lewis Kelter**  
Senior Consultant

**Graham Davis**  
Principal Consultant

**End of Document**



## **Appendix A – Manufacturers’ Data Sheets**

## POWERBOX FANS - ESTOC

### FEATURES

- Sizes from 355 to 710 mm diameter
- Air flow up to 5.2 m<sup>3</sup>/s
- Static pressures up to 1130 Pa
- Speed controllable external rotor motors
- Multiple outlet orientations
- All panels interchangeable to offer flexible outlet position

### ELECTRICAL SUPPLY

220-240V/50Hz/1 $\phi$   
380-420V/50Hz/3 $\phi$

### TEMPERATURE RANGE

Maximum temperature from +40°C to +70°C (depending on the model)

### SIZES

355, 400, 450, 500, 560, 630 and 710.

### FEATURES AND CONSTRUCTION

The Estoc casing is made from galvanized sheet steel with PentaPost construction and acoustic insulation made from mineral wool with a thickness of 20 mm.

### IMPELLER

The Estoc has a backward curved centrifugal impellers made of plastic with galvanised steel support plates for those up to 450 mm. Fans with a diameter of 500 mm and larger have high efficiency backward curved centrifugal impellers made of aluminium.

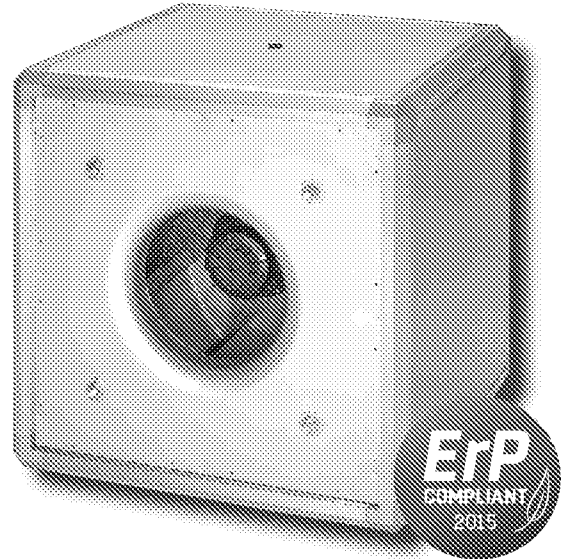
### MOTOR

The impellers together with the external rotor motors are dynamically balanced to quality standard G2,5 DIN ISO 19410

### SPEED CONTROLLERS

Speed is 100% infinitely variable using auto transformers or inverter control (please see pages 219-267).

NB; Performance reduction in straight through configuration. Please refer to performance curve



### PRODUCT CODE

Estoc 50-355-3

- ESTOC - Product Name
- 50 = Box Size  
ie, 50 = 500mm; 67 = 670mm;  
80 = 800mm; 102 = 1020mm
- 355 = Spigot Diameter size
- 1 = 1 $\phi$  or 3 = 3 $\phi$

### ACCESSORIES (Pages 143-150) - CONTROLLERS (Pages 219-267)

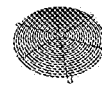
The range of accessories include dampers, flexible connectors, service doors, outlet covers, guards, side covering and insulating connections. A quick reference guide is shown below.



SFC



SWR



CIG



SOC



Mounting track/SMT



Controls Inverter



Controls Transformer

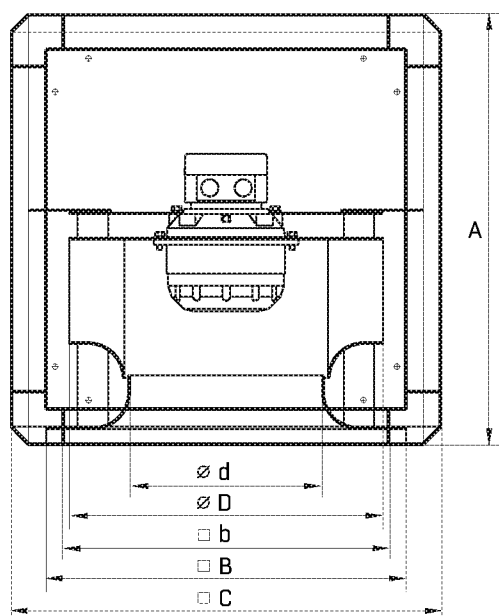
## PRODUCT AND ELECTRICAL DETAILS

| Product Code    | Product Name | Speed (rpm) | Motor Frame | Electrical Supply    | Electrical Details |                       |                      | Wiring Diagram | Speed Controller | Maximum Operating Temp (°C) | Breakout |
|-----------------|--------------|-------------|-------------|----------------------|--------------------|-----------------------|----------------------|----------------|------------------|-----------------------------|----------|
|                 |              |             |             |                      | Motor (kW)         | Full Load Current (A) | Starting Current (A) |                |                  |                             |          |
| ESTOC 50-355-1  | UB503514     | 1325        | Integral    | 220-240 V-50 Hz-1 Ph | 0.29               | 1.25                  | 2.5                  | CD3028         | TEID 1.5         | 55                          | 33       |
| ESTOC 67-400-1  | UB674414     | 1380        | Integral    | 220-240 V-50 Hz-1 Ph | 0.53               | 2.4                   | 4.9                  | CD3028         | TEID 2.2         | 45                          | 45       |
| ESTOC 67-450-1  | UB674514     | 1270        | Integral    | 220-240 V-50 Hz-1 Ph | 0.76               | 3.5                   | 7.35                 | CD3028         | TEID 3.5         | 45                          | 41       |
| ESTOC 67-500-1  | UB675514     | 1310        | Integral    | 220-240 V-50 Hz-1 Ph | 1.57               | 7.3                   | 16.79                | CD3028         | TEID 7.5         | 40                          | 45       |
| ESTOC 50-355-3  | BI101216     | 1355        | Integral    | 380-420V-50 Hz-3 Ph  | 0.3                | 0.66                  | 2.18                 | CD3030         | IDDXF54 2.2      | 50                          | 34       |
| ESTOC 67-400-3  | BI101217     | 1335        | Integral    | 380-420V-50 Hz-3 Ph  | 0.46               | 0.9                   | 2.69                 | CD3030         | IDDXF54 2.2      | 50                          | 37       |
| ESTOC 67-450-3  | BI101218     | 1240        | Integral    | 380-420V-50 Hz-3 Ph  | 0.67               | 1.33                  | 3.46                 | CD3030         | IDDXF54 2.2      | 50                          | 37       |
| ESTOC 67-500-3  | BI101219     | 1380        | Integral    | 380-420V-50 Hz-3 Ph  | 1.8                | 3.7                   | 17.76                | CD3030         | IDDXF54 3.7      | 40                          | 44       |
| ESTOC 80-560-3  | BI101220     | 1350        | Integral    | 380-420V-50 Hz-3 Ph  | 2.5                | 4.8                   | 20.18                | CD3030         | IDDXF54 5.3      | 40                          | 47       |
| ESTOC 80-630-3  | BI101221     | 1380        | Integral    | 380-420V-50 Hz-3 Ph  | 3.65               | 8.6                   | 27.72                | CD3030         | IDDXF54 7.2      | 45                          | 55       |
| ESTOC 102-710-3 | BI101222     | 890         | Integral    | 380-420V-50 Hz-3 Ph  | 2.45               | 4.7                   | 18.8                 | CD3030         | IDDXF54 5.3      | 45                          | 49       |

\*Sound power levels are average dBA at 3 metres distance over sphere, under free field conditions and are presented for comparative purposes only. Values shown are those at the mid-point of the performance curve.

\*\* For speed controllers, please see pages 219-267. For ErP efficiency ratings and grades please refer to our Fan Selector for more information.

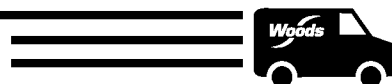
## DRAWING AND DIMENSIONS



| Product Code  | A    | B   | C   | D    | E   | F   | G   | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
|---------------|------|-----|-----|------|-----|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ESTOC 50-355  | 500  | 450 | 420 | 500  | 365 | 224 | 33  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ESTOC 67-400  | 570  | 520 | 530 | 670  | 404 | 253 | 49  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ESTOC 67-450  | 670  | 620 | 590 | 670  | 454 | 286 | 58  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ESTOC 67-500  | 670  | 620 | 590 | 670  | 504 | 321 | 68  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ESTOC 80-560  | 800  | 720 | 690 | 800  | 570 | 361 | 95  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ESTOC 80-630  | 800  | 720 | 690 | 800  | 624 | 407 | 105 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ESTOC 102-710 | 1020 | 940 | 910 | 1020 | 718 | 438 | 157 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

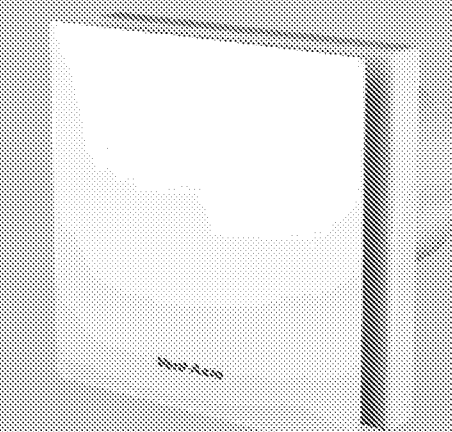
All dimensions shown in mm

Products in **bold** are available from our UK Distributors on next day delivery, if ordered by 4pm. Please call to confirm availability on 01206 222 555.



# Silent Fan

- Only 14dB(A)
- Silent intermittent bathroom fan with two speeds selectable at installation
- Stylish discrete design
- Back draught shutters included (remove when ceiling mounting)
- High efficiency motor
- 2 year guarantee
- IP24 rated
- Standard thermal overload protection on motor
- Suitable for wall, ceiling, window and panel mounting
- Meets current Building Regulations Approved Document F and L

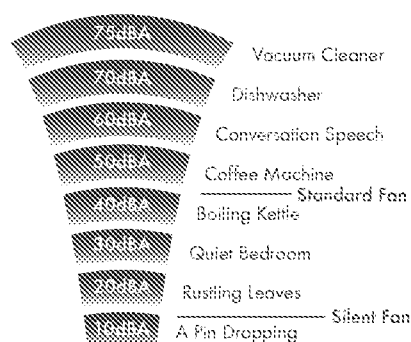


**ELECTRICAL**  
WINNER 2012



## Silent Fan Axial Bathroom/Toilet Fan

The quietest bathroom fan on the market. The VASF100 provides stylish and silent ventilation without compromising on performance.



## Models

### VASF100B

1 of 2 speeds selectable at installation. 100mm bathroom / toilet fan with back draught shutter.

| Model     | Stock Ref |
|-----------|-----------|
| VASF100 B | 446658    |

### VASF100T (Timer)

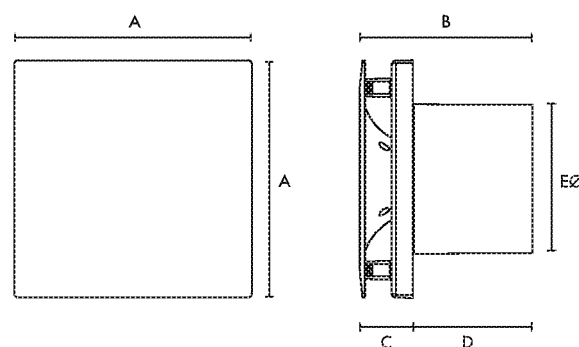
1 of 2 speeds selectable at installation. 100mm bathroom / toilet fan with back draught shutter. Overrun timer adjustable between 5 and 30 minutes.

| Model     | Stock Ref |
|-----------|-----------|
| VASF100 T | 446659    |

## Accessories

| Model          | Stock Ref |
|----------------|-----------|
| Window Kit     | 442947    |
| Wall Kit White | 254102    |
| Wall Kit Brown | 254100    |

## Dimensions (mm)



| A   | B   | C  | D  | EØ |
|-----|-----|----|----|----|
| 159 | 117 | 37 | 80 | 99 |

Weight 0.7kg

## Performance Guide

| Model                | l/s | Watts | Sound dB(A)<br>@ 3m |
|----------------------|-----|-------|---------------------|
| VASF100 - low speed  | 15  | 3.2   | 14                  |
| VASF100 - high speed | 31  | 5.0   | 28                  |