CAPRINOS PIZZA TAKE-AWAY

131 Liverpool Road, Newcastle Under Lyme, ST5 9HD

Extraction System – Extending Hours

NOISE IMPACT ASSESSMENT

Report by
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Site Visited by: S.B.Mellor MA, MIOA, CMIOSH
Site Visit: 13th June 2025
Signed:

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1.0 INTRODUCTION

SBM Safety Solutions Ltd attended Caprinos pizza take-away located at 131 Liverpool Road, Newcastle Under Lyme, ST5 9HD on the instructions of the proprietor to carry out sound measurements which would inform this noise impact assessment.

This assessment would evaluate the potential for adverse impact from an existing kitchen extraction system. The plant will operate when the take-away is open and the proprietors are seeking to extend opening hours to 3:00am. The extraction hood and ducting are located within the ground floor restaurant and culminates at the rear of the building where the outlet is situated. It is at the rear where there is the potential for adverse impact on nearby residents.

Measurements were taken on the 12th of June 2025 at two position – close to the ducting at approximately 6m and at the driveway of one of the nearest houses at approximately 20m from the ducting. The nearest residential location is approximately 30m from the noise source. As the sounds will be present after 11pm it is likely that the houses and not the gardens where the residents could potentially be affected, i.e. at 30m from the source. This report discusses the results of that monitoring and assesses the potential for adverse impact.

Acoustic terminology is explained at Appendix 1 of this report, the author's qualifications and experience are described in Appendix 2, location photographs at Appendix 3, References in Appendix 4 and Fan Technical Data in Appendix 5.

2.0 SITE DESCRIPTION

The take-away is situated close to the town of Newcastle-under-Lyme, a market town in the north of Staffordshire. There are existing similar businesses on each side of the take-away – immediately on the right and adjoining there is "Spice Grill", at approximately 40m to the south there is a Pizza Hut outlet with car park and at approximately 140m a Kentucky Fried Chicken outlet.

There is also extraction plant at the rear of Spice Grill – this was not operating during the survey.

The nearest residential area to the site is located to the west and south at approximately 30m to the west of Caprinos.

The take-away wishes to extend opening until 3:00am

Figure 1 – Monitoring Position 1 at approximately 20m from plant

Sources of noise at the site contributing to the ambient noise levels:

- Occasional passing vehicles on Liverpool Road – very low volume of traffic due to the time of the survey.

Figure 2 – External plant associated with adjacent business

3.0 NOISE CRITERION

3.1 BS4142:2014 – Rating Industrial Noise Affecting Mixed Residential and Industrial Areas

BS4142:2014 states, *"Response to sound can be subjective and is affected by many factors, both acoustic and non-acoustic.*

The significance of its impact, for example, can depend on such factors as the margin by which a sound exceeds the background sound level, its absolute level, time of day and change in the acoustic environment, as well as local attitudes to the source of the sound and the character of the neighbourhood…This British Standard describes methods for rating and assessing sound of an industrial and/or commercial nature".

This British Standard describes a method for assessing whether a specific sound may have an adverse impact. The Standard requires that the ambient noise ***(totally encompassing sound in a given situation at a given time, usually composed of sound from many sources near and far)*** including the "specific" sound from the source in question is measured in terms of the equivalent continuous sound level LAeq [see Appendix 1 for acoustic terms], which is then corrected for the residual sound (total LAeq excluding the "specific" sound).

A correction for character is made if ***"a tone, impulse or other characteristic occurs".*** For tonality, a correction of between +2dB and 6dB is considered acceptable and for impulsivity between 3 and 9dB. See table below.

Table 1

Character	Just Perceptible	Clearly Perceptible	Highly Perceptible
Tonality	+2dB	+4dB	+6dB
Impulsivity	+3dB	+6dB	+9dB

Where the specific sound features characteristics that are neither tonal nor impulsive, though otherwise are readily distinctive against the residual acoustic environment, a penalty of 3 dB can be applied. Where tonal and impulsive characteristics are present in the specific sound within the same reference period then these two corrections can both be taken into account. If one feature is dominant, then it might be appropriate to apply a single correction. Where both features are likely to affect perception and response, the corrections ought normally to be added in a linear fashion.

Intermittency

"When the specific sound has identifiable on/off conditions…if the intermittency is readily distinctive against the residual acoustic environment, a penalty of 3 dB can be applied".

The final figure, including any character correction is known as the Rating level. This Rating Level is then compared with the measured background [LA90] level. The greater this difference the greater the likelihood of "adverse impact" (See Notes 1 & 2 from BS4142:2014 below).

NOTE 1

a) Typically, the greater this difference, the greater the magnitude of the impact.

b) A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.

c) A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context.

d) The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

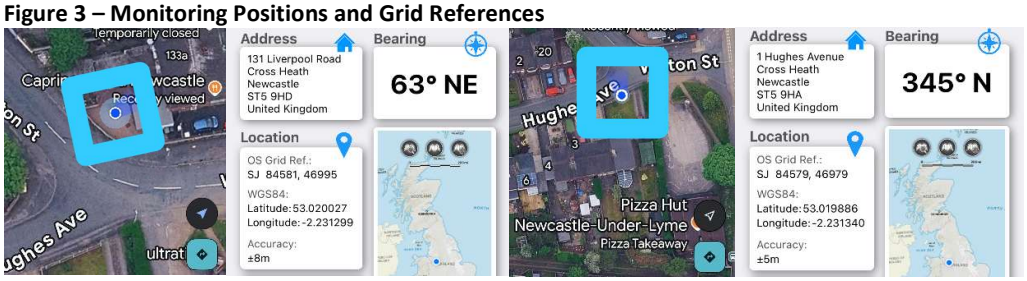
NOTE 2

Adverse impacts include, but are not limited to, annoyance and sleep disturbance. Not all adverse impacts will lead to complaints and not every complaint is proof of an adverse impact.

4.0 MEASUREMENT PROCEDURE

The site was visited in the early hours of Thursday 12th June 2025 and instrumentation was installed at 20m from the plant close to the garden of one of the nearest houses (with a clear view of the plant) and also close to the plant at 6m. The equipment at 6m was used to establish plant noise only – any extraneous sounds paused out etc., and at 20m where the equipment was left running for the monitoring period for 15-minute intervals which is the reference time period for nighttime from BS4142.

Figure 3 – Monitoring Positions and Grid References



The weather conditions during the survey period were dry, warm and with little wind. There were temperatures of 15 to 17 degrees Celsius and a wind speed 0.5-2.3m/s (SE) measured on an electronic anemometer, although slightly stronger winds were forecast.

It is not considered that weather conditions would have influenced the results.

The sound level meters used, and ancillary equipment can be found in the table below. The meters calibrated correctly before and after the on-site measurements at 94dBA (977A) and 94dBA (977C) to within +/- 0.2dBA.

Table 2

Instrument	Type	Serial No.	Calibration Cert. No.	Date of Due Calibration
Svan 977C	Sound Level Meter	97425	1504401-1	23/01/2027
Svan SV12L	Preamp	106428	1504401-1	23/01/2027
MTG MK255	Microphone	19919	1504401-1	23/01/2027
Cirrus 511E	Calibrator	12379	Cirrus 201294	24/10/2026
Svan 977A	Sound Level Meter	69280	1501866-1	07/03/2026
Svan SV12L	Preamp	71675	1501866-1	07/03/2026
Aco Pacific 7052E	Microphone	70160	1501866-1	07/03/2026
Cirrus 511E	Calibrator	39816	Cirrus 248531	17/04/2027

The instrumentation has been laboratory calibrated within the preceding 2 years.

5.0 MEASUREMENT RESULTS

The results obtained are shown in the table below.

Table 3 – Existing Ambient and Background L90 dBA

Day / Start Time	Duration	LAeq	LAmax	LAmin	L01	L10	L50	L90	L95	Notes
12/06/2025 00:06:51.700	00:15:00.000	51.7	67.6	36.0	63.2	55.1	44.7	39.4	38.8	Plant Off at 20m
12/06/2025 00:30:34.600	00:15:00.000	50.6	67.8	38.2	62.9	52.7	42.4	39.5	39.1	Plant On at 20m
12/06/2025 00:45:34.600	00:15:00.000	51.8	75.7	36.2	64.2	52.0	42.3	37.9	37.5	Plant Off - 20m
12/06/2025 00:23:37.300	00:02:08.000	57.3	73.6	50.4	67.8	59.9	53.4	51.1	50.9	Plant On at 6m
12/06/2025 00:25:50.000	00:05:02.000	52.2	59.7	50.5	58.5	54.4	51.7	50.9	50.8	Plant (FULL CAPACITY) at 6m
12/06/2025 00:40:05.200	00:05:02.000	51.3	56.4	49.9	56.2	52.2	51.1	50.5	50.3	Plant (TYPICAL CAPACITY) at 6m

6.0 ADDITIONAL OBSERVATIONS

As noted above, there were very occasional vehicles passing on Liverpool Road.

It can be seen in the table above the typical background level (with plant off) is **38dBA**.

The plant was **not audible** to the observer at 20m.

7.0 ASSESSMENT OF RESULTS

7.1 BS4142

Levels from the plant in close proximity.

Our measured levels of the plant at **6m** were **50-51dBA** using the L90 indices to eliminate any additional extraneous sounds (others were paused out).

The LAeq, 15-minute levels at 20m are very similar with the plant operating and not – in fact a little lower when the plant was operating which suggests that there is very little influence from the plant on the ambient noise levels. The same applies to the L90 levels too.

We can also look at the plant level at **6m** to estimate the resultant noise level at the nearest houses (30m) – a correction for distance needs to be applied (point source):

20LOG (distance of measured level / distance to residential property)
20LOG (6 / 30) = -14dBA
51 – 14 = **37dBA** (to nearest whole decibel).

The observer could not discern any sounds or characteristics of plant noise at 20m, e.g. a "hum" and so a correction has not been applied to the BS4142 assessment below.

Table 6 - BS4142 Assessment

Specific Noise Level	37dB
Tonal/Impulsive/Intermittent Character Correction	0 dB
Rating Level [Specific + Character Correction]	37 dB
Background Noise Level (L90)	38 dB
Excess over Background	-1dB
Conclusion – *"Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context."*	

7.2 Uncertainty

The following factors have a bearing on the uncertainty of the assessment:

- The existing ambient / background level was established during one monitoring period, but this was in the early hours of the morning after midnight on a weekday and so can be considered worst case. Other sources (occasional passing cars) were paused out of the plant noise measurements at 6m.
- Ambient and background noise levels may be higher during weekend periods which will reduce the likelihood of adverse impact still further.

Overall, it is considered that the assessment is sufficiently robust.

8.0 DISCUSSION AND CONCLUSIONS

The extension of opening hours will of course also have economic benefits with the creation of additional jobs as well as well as providing a useful flexible service for customers in an increasingly 24-hour economy.

9.1 BS4142

Given the existing noise climate and context of this location there is likely to be "**low impact" –** the context in this case being that the building has operated as a take-away previously and there are many similar establishments in the area.

This is especially so given the increase in the number of deliveries only orders (reducing actual footfall). A noise management plan is also suggested below.

Also, the nearby residents may be less sensitive than at other locations where there has been no previous similar use.

9.2 LOAEL / SOAEL

It is likely that the noise will "**No Observed Effect"** or there will be **"No Observed Adverse Effect (NOEL)"**

Given the existing and historical uses:

"Sounds will not be noticeable…may be noticeable and not intrusive. Noise can be heard but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life."

9.3 Overall

With good site management there should be no reason why the site should not be permitted to extend opening hours based on the assessment and discussion above.

9.4 Noise Managements – Suggested Plan

Kitchen sounds, Patrons and Delivery Vehicles

Keep doors and windows closed to prevent kitchen and takeaway reception sounds breaking out of the building.

Patrons arriving on site are unlikely to be an issue especially with the plan for increasing deliveries. Delivery vehicles sounds are likely to be similar to other vehicles on Liverpool Road. Later in the day and in the early hours the associated sounds with delivery vehicle noise can be managed by staff – e.g. designated parking (front) and training as noted below.

Noise Breakout

The following additional noise control measures are recommended:

- Keep doors and windows closed.
- Avoid using the rear yard after 11:00pm.

Training

Management should ensure appropriate staff training covering:

- Awareness of responsibilities for noise, e.g., responding to complaints.
- Delivery drivers –
    - Parking away from any residential properties.

- Keeping doors closed.
- No revving of engines.
- Keeping car radios and sound systems turned down.
- No slamming of doors.
- Keeping to a slow speed e.g., 5-10mph.
- Keeping routes to the delivery doors free from obstacles.
- Minimising the amount of time for collection.
- No gathering outside of the premises – remaining in the vehicle until summoned for collection.

Doors and Windows

Doors should not be opened unnecessarily, and windows should be kept closed. Also, keep the doors and windows of adjacent rooms, such as toilets and corridors, closed especially if they are next to noise sensitive residential properties.

Ventilation

Ventilate the premises by artificial means, if possible, to avoid opening doors and windows (see noise limits for external plant as noted above for the extraction system).

Entrance and Outside Areas

This noise source is usually from raised voices and is likely to be especially noticeable at night. Post notices close to exit doors requesting that customers leave quickly and quietly.

Deliveries / Collections (Stock)

Restrict driver collections at night to the front of the takeaway and delivery times as far as possible to those where disturbance would be minimised. Limit the number and/or frequency of such activities.

Monitoring

The front and rear should be visited periodically by management to check on noise levels emanating from the premises and patrons.

APPENDIX 1

EXPLANATION OF ACOUSTIC TERMS

The dB or the decibel, is the unit of noise. The number of decibels or the level, is measured using a sound level meter. It is common for the sound level meter to filter or 'weight' the incoming sound so as to mimic the frequency response of the human ear. Such measurements are designated **dB(A)**.

A doubling of the sound is perceived, by most people, when the level has increased by 10 dB(A). The least discernible difference is 2 dB(A). Thus, most people cannot distinguish between, say 30 and 31 dB(A).

The Background level of noise is most commonly represented by the level which is exceeded for 90% of the time i.e. the LA90.

If a noise varies over time, then the **equivalent continuous level, or LAeq**, is the notional constant level of noise which would contain the same amount of acoustic energy as the time varying noise.

The following table gives an indication of the comparative loudness of various noises expressed in terms of the A weighted scale:

Source of noise	dB(A)	Nature of Noise
Inside Quiet bedroom at night	30	Very Quiet
Quiet office	40	
Rural background noise	45	
Normal conversational level	60	
Busy restaurant	65	
Typewriter @ 1m	73	
Inside suburban electric train	76	
Alarm clock ringing @ .5m	80	
Hand clap @ 1m	80	
HGV accelerating @ 6m	92	Very Loud

APPENDIX 2

QUALIFICATIONS AND EXPERIENCE OF M. S. MELLOR

My full name is Steven Brian Mellor. I am the principal consultant at the firm of SBM Safety Solutions Ltd, a consultancy company that specialises in health, safety and environmental services including noise assessment and control.

I hold a Master's degree in Health, Safety and Environmental Law, British Occupational Health Society (BOHS) M104 certificate in Noise and Vibration and Institute of Acoustics Certificate of Competence in Environmental Noise Measurement (Derby University), plus Diploma in Acoustics and Noise Control (Bristol University). I am a member of the professional body for noise and vibration specialists, the Institute of Acoustics, MIOA.

I have some 22 years' experience of dealing with problems caused by noise and vibration, both regarding noise and vibration in the environment, the workplace and the home. The firm SBM Safety Solutions Ltd. was formed 19 years ago. During that time, we have advised many groups including employers, residents and developers about the problems of noise and vibration in the workplace and environment.

APPENDIX 3

Site and Location Images

Housing to the rear

Take-away Entrance – Liverpool Road

Empty Road – Liverpool Road in the Early Hours of the Morning

APPENDIX 4

REFERENCES

1. National Planning Policy Framework or NPPF (2023).
2. British Standard 8233:2014 (Guidance on Sound Insulation and Noise Reduction for Buildings).
3. WHO “Guidelines for Community Noise”.
4. BS4142:2014 – Rating Industrial Noise Affecting Mixed Residential and Industrial Areas.
5. ProPG Professional Practice Guidance on Planning & Noise, May 2017

APPENDIX 5

CYLINDRICAL CASED AXIAL FLOW FANS
COMPACT TCBB / TCBT Series - ALUMINIUM IMPELLERS

ErP IP65 PROTECTION

Range of cylindrical cased axial flow fans fitted with aluminium impellers and manufactured from high grade rolled galvanised steel and protected against corrosion by cataforesis primer and black polyester paint finish.
All models are supplied with pre-wired wiring junction box located on the outside of the fan casing for easy wiring access.
Available, depending upon the model, with single or three phase motors in 2, 4 or 6 poles.

Motors
Single phase motor (TCBB) or three phase motor (TCBT).
Models 250, 315, 355 and 400: External rotor motor, IP54, Class F, thermal protection, working temperature from -40°C to +40°C.
Models 450, 500, 560, 630 and 6/710: IP65, Class F, thermal protection, working temperature from -40°C to +70°C.
Models 4/710 and 800: IP55, Class F, working temperature from -40°C to +40°C.

All motors are speed controllable by autotransformer except models /4-560H, /4-630, 710 and T/800.
Three phase motors are speed controllable by inverter.
Electrical supplies:
Single phase 220-240V-50Hz.
(Capacitor located inside the wiring terminal box).
Three phase 220-240/380-415V-50Hz or 380-415V-50Hz.
(See characteristic chart).

Additional information
Standard air direction: form (B) configuration (impeller over motor).

On request
Air direction: form (A) configuration (motor over impeller).
From Ø450 to Ø800, three phase motors 2 speed, 4/8 poles.

ATEX versions TCBT
On request, explosion proof versions in accordance with ATEX Directive, for 3 phase models.
For ambient working temperatures:
From -20°C to +55°C: models TCBT/4-315 to 630mm
models TCBT/6-355 to 710mm
From -20°C to +40°C: models TCBT/4-710 to 800mm
models TCBT/6-800mm
Motors IP55 Class F
- ATEX Flameproof - Gas
In standard ATEX version flameproof motors are without thermal protection.
If used with frequency inverter, flameproof motors with a PTC-type thermal protection must be specified at order.
For models TCBT/4-710 and 800mm
models 2G Exd IIB T4
models 2G Exd IIB[H2] T4 (with Ex d IIC T4 motor)
- ATEX Increased safety - Gas
Not available TCBT/2-250/H 400V-50Hz
TCBT/4-250/H 400V-50Hz
TCBT/6-355/H 400V-50Hz
TCBT/6-400/H 400V-50Hz
Available for TCBT/6-400/H 230/400V-50Hz and larger sizes.
models 2G Exe II T3
- ATEX - Dust
In standard ATEX version, ATEX motors for dust are without thermal protection.
If used with frequency inverter, ATEX motors for dust with a PTC-type thermal protection must be specified at order.

Corrosion resistance
Rolled steel casings and motor support protected by cataforesis primer and black polyester paint finish.
Stainless steel screws.

Terminal box
Wiring terminal box with cable gland PG-11 (except ATEX models).

Impeller dynamically balanced
Impellers are dynamically balanced, according to ISO 1940 standard, giving vibration free operation.

Configuration for models /4-710 and 800.

Constructive configuration models 250, 315, 355 and 400 (excepted 6-355, 6-400 and ATEX)

Specific applications

Ex Versions

For models TCBT/4-710 and 800mm
Suspended flammable particles and non-conductive dust:
II 3D Ex tc IIIB T125°C
Conductive dust:
II 3D Ex tc IIIC T125°C (with IP65 motor)

To select TCBT ATEX refer to performance curves, or Easyvent.
Note electrical data may vary for ATEX motors.

TECHNICAL CHARACTERISTICS

Before installation check that the product electrical characteristics listed on the data plate label (voltage, power, frequency, etc.) match those of the intended electrical supply.

Model	Speed (r.p.m.)	Diameter (mm)	Maximum absorbed power (W)	Maximum current (A)		Sound pressure level* (dB(A))	Maximum airflow (m³/h)	Weight (kg)	Speed controller		Variable frequency inverter	
				≤ 230 V	≤ 400 V				REB	RMB/T	VFTM	VFKB
SINGLE PHASE 2 POLE												
TCBB/2-250/H	2680	250	123	0,5	–	62	1.680	8	–	–	–	–
SINGLE PHASE 4 POLE												
TCBB/4-250/H	1430	250	44	0,2	–	42	900	8	REB-1	RMB-1,5	–	–
TCBB/4-315/H	1435	315	105	0,6	–	52	1.990	11	REB-1	RMB-1,5	–	–
TCBB/4-355/H	1420	355	120	0,6	–	52	2.460	13,2	REB-2,5	RMB-1,5	–	–
TCBB/4-400/H	1410	400	277	1,1	–	60	5.050	15,5	REB-2 ,5	RMB-3,5	–	–
TCBB/4-450/H	1410	450	591	2,5	–	63	6.940	21	–	–	–	–
TCBB/4-500/H	1410	500	636	2,8	–	66	7.500	25	REB-5	RMB-3,5	–	–
TCBB/4-560/L	1405	560	1289	6	–	68	11.990	33	REB-10	RMB-8	–	–
TCBB/4-560/H	1420	560	1308	6	–	69	12.170	34,7	–	–	–	–
TCBB/4-630/L	1365	630	1707	7,5	–	70	15.980	40	–	–	–	–
SINGLE PHASE 6 POLE												
TCBB/6-355/H	880	355	92	0,4	–	46	2.160	13,2	REB-1	RMB-1,5	–	–
TCBB/6-400/H	870	400	118	0,5	–	48	2.820	15,5	REB-1	RMB-1,5	–	–
TCBB/6-500/H	920	500	226	1	–	57	5.250	24,8	REB-2,5	RMB-1,5	–	–
TCBB/6-560/L	930	560	375	1,6	–	60	7.810	33,5	REB-5	RMB-3,5	–	–
TCBB/6-630/L	920	630	514	2,1	–	60	10.410	38,5	REB-5	RMB-8	–	–
TCBB/6-710/L	930	710	849	4,2	–	62	14.480	46	–	–	–	–
THREE PHASE 2 POLE												
TCBT/2-250/H	2775	250	114	0,3	0,2	62	1.730	8	–	–	TRI-0,37	VFKB-45
THREE PHASE 4 POLE												
TCBT/4-250/H	1470	250	42	0,3	0,2	42	900	8	–	RMT-1,5	TRI-0,37	VFKB-45
TCBT/4-315/H	1465	315	99	0,5	0,3	51	1.950	11	–	RMT-1,5	TRI-0,37	VFKB-45
TCBT/4-355/H	1415	355	117	0,5	0,3	52	2.470	13,2	–	RMT-1,5	TRI-0,37	VFKB-45
TCBT/4-400/H	1410	400	268	0,9	0,5	60	4.950	15,5	–	RMT-1,5	TRI-0,37	VFKB-45
TCBT/4-450/H	1405	450	526	1,9	1,1	63	6.650	21	–	RMT-2,5	TRI-0,55	VFKB-45
TCBT/4-500/H	1420	500	641	2,6	1,5	66	7.590	25	–	RMT-2,5	TRI-0,55	VFKB-45
TCBT/4-560/L	1415	560	1184	3,8	2,2	68	12.090	33	–	RMT-2,5	TRI-0,75	VFKB-45
TCBT/4-560/H	1390	560	1348	4,2	2,4	69	13.370	34,7	–	–	TRI-1,1	VFKB-45
TCBT/4-630/L	1410	630	1768	5,9	3,4	70	16.370	39	–	–	TRI-1,5	VFKB-45
TCBT/4-630/H	1400	630	1940	6,2	3,6	70	17.030	40	–	–	TRI-1,5	VFKB-45
TCBT/4-710/L	1435	710	2175	6,4	3,7	73	20.290	46	–	–	TRI-1,5	VFKB-45
TCBT/4-710/H	1460	710	3441	10,6	6,1	73	26.420	54	–	–	TRI-3	VFKB-48
TCBT/4-800/L	1460	800	3750	11,3	6,5	76	29.950	65	–	–	TRI-3	VFKB-48
TCBT/4-800/K	1460	800	5177	–	8,8	76	36.950	68	–	–	TRI-4	–
TCBT/4-800/G	1470	800	6146	–	11,1	77	38.500	81	–	–	TRI-5,5	–
TCBT/4-800/H	1475	800	7688	–	13	78	42.490	89	–	–	TRI-5,5	–
THREE PHASE 6 POLE												
TCBT/6-355/H	900	355	97	0,4	0,2	47	2.250	13,2	–	RMT-1,5	TRI-0,37	VFKB-45
TCBT/6-400/H	860	400	116	0,4	0,2	49	2.970	15,5	–	RMT-1,5	TRI-0,37	VFKB-45
TCBT/6-450/H	940	450	161	0,7	0,4	54	4.020	20,7	–	RMT-1,5	TRI-0,37	VFKB-45
TCBT/6-500/H	930	500	198	0,9	0,5	57	4.990	24,8	–	RMT-1,5	TRI-0,37	VFKB-45
TCBT/6-560/H	920	560	363	1,4	0,8	60	7.630	33,5	–	RMT-2,5	TRI-0,55	VFKB-45
TCBT/6-630/L	915	630	595	-	1,3	60	10.940	38	–	RMT-2,5	TRI-0,55	VFKB-45
TCBT/6-630/H	950	630	906	-	2,7	62	13.610	38,5	–	RMT-5	TRI-1,1	VFKB-45
TCBT/6-710/L	910	710	967	3,5	2,0	62	16.240	46	–	–	TRI-1,1	VFKB-45
TCBT/6-710/H	910	710	1378	5,4	3,1	63	19.120	46	–	–	TRI-1,1	VFKB-45
TCBT/6-800/L	965	800	1278	4,7	2,7	66	20.770	57	–	–	TRI-1,1	VFKB-45
TCBT/6-800/K	975	800	1592	5,7	3,3	66	24.090	64	–	–	TRI-1,5	VFKB-45
TCBT/6-800/G	975	800	1968	8,0	4,6	67	26.310	68	–	–	TRI-2,2	VFKB-45
TCBT/6-800/H	970	800	2345	8,7	5	68	27.910	80	–	–	TRI-2,2	VFKB 48

* Sound pressure level measured in free field conditions at a distance equivalent to three times the diameter of the impeller with a minimum of 1,5 meters.