LONDON BOROUGH OF ENFIELD

PLANNING COMMITTEE	**Date:** 6 September 2022

Report of Head of Planning	**Contact Officer:** Andy Higham Gideon Whittingham Eloise Kiernan Tel No: 020 8132 2130	**Ward:** Upper Edmonton

Ref: 22/00746/FUL	**Category**: Minor Application

LOCATION: 161 Fore Street, London, N18 2XB

PROPOSAL: Installation of external flue to rear.

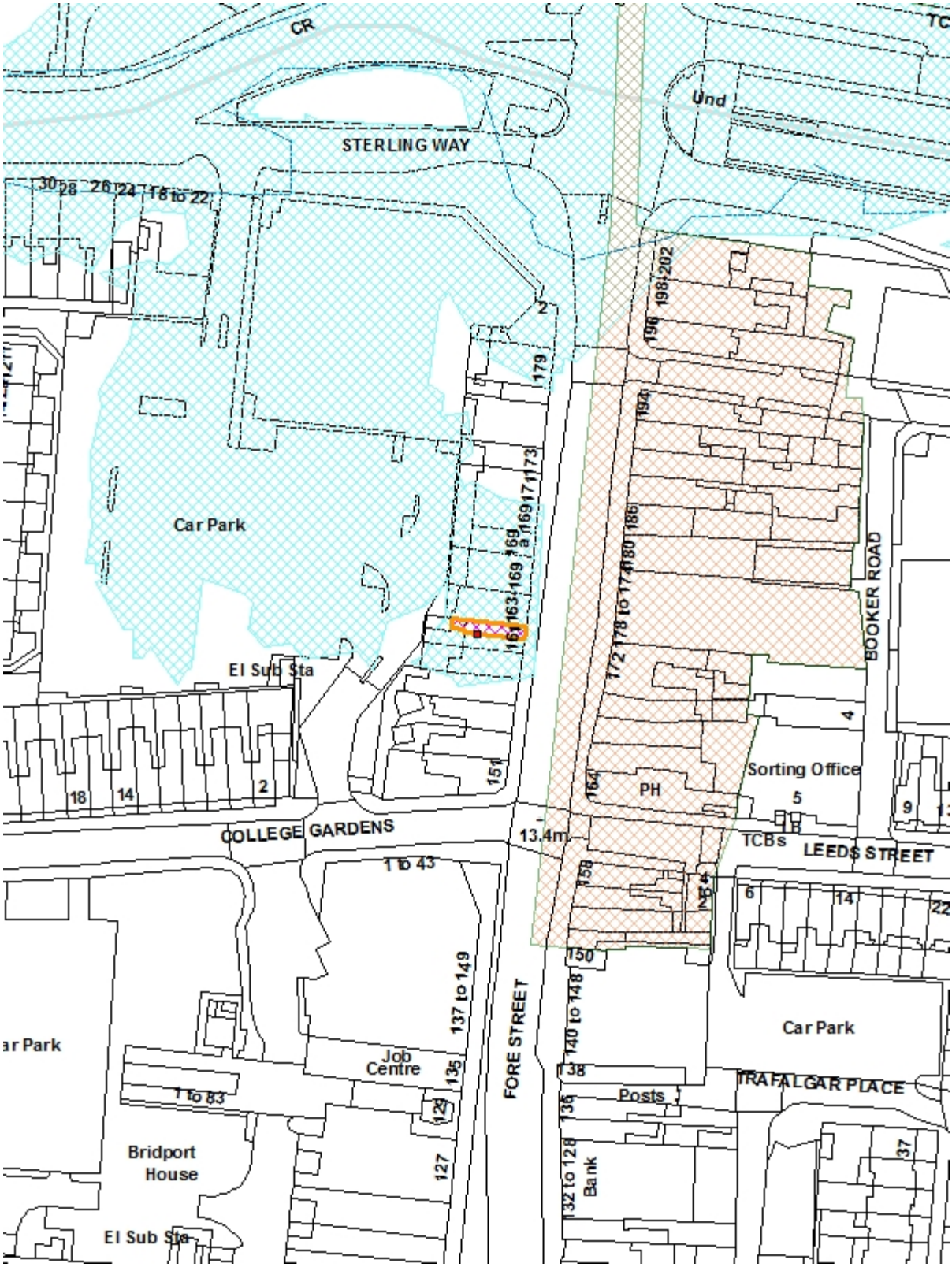
Applicant Name & Address:	**Agent Name & Address:**
Mr Awat Bakr 161 Fore Street London N18 2XB	Mr Kenan Kara Advance Architecture 352 Green Lanes London N13 5TJ

RECOMMENDATION:

1. That the Head of Development Management be authorised to GRANT planning permission subject to conditions.

2. That the Head of Development Management be granted delegated authority to agree the final wording of the conditions to cover the matters in the Recommendation section of this report.

Ref: 22/00746/FUL **LOCATION: 161 Fore Street, London, N18 2XB,**



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North

1. Note for Members

1.1 Although a planning application of this nature would normally be determined under delegated authority, the application is been reported to the Planning Committee for determination at the request of Cllr Savva due to the level of local interest.

2. Recommendation

2.1 That, the Head of Development Management, be authorised to GRANT planning permission subject to the following conditions:

1. Time Limit
2. Approved Plans
3. Acoustic Report
4. Opening Hours
5. External Finish-Black
6. Refuse Storage
7. Cycle Parking

2.2 That the Head of Development Management be granted delegated authority to agree the final wording of the conditions to cover the matters in the Recommendation section of this report.

3. Executive Summary

3.1 The application seeks approval for change of use from supermarket (Class Ea) to restaurant (Class Eb) with ducting flue to first floor rear.

3.2 The scheme is considered acceptable for the following reasons:

i. It would preserve and enhance the character and appearance of the Fore Street Angel Conservation Area.
ii. It is an appropriate use within the Angel Edmonton District Centre,
iii. It would not be detrimental to residential amenities; and
iv. It would not be detrimental to highway safety.

4. Site and Surroundings

4.1 The application site is situated on the western side of Fore Street within close proximity to the junction with College Gardens.

4.2 The application site forms part of the Angel Edmonton District Centre comprising commercial units at ground floor level with residential uses at first levels in some cases.

4.3 The building is not listed; however, it falls within the boundaries of the Fore Street Angel Conservation Area.

4.4 The site is also identified as Flood Zone 2 and a Site of Archaeological Interest.

5. Proposal

5.1 The application seeks planning permission for the installation of ducting flue to first floor rear in connection with a permitted change of use of the premises from a supermarket to a restaurant.

5.2 The proposed opening hours are 9:00 a.m. to 22:30 (Monday to Friday, Saturday, Sundays and Bank Holidays) with 3 full-time members of staff.

6. Relevant planning history

6.1 AD/08/0083, Installation of non-illuminated fascia sign, three internally illuminated projecting box sign and one non-illuminated hanging sign (RETROSPECTIVE). Refused on 02.10.2008

6.2 TP/08/0813, Installation of new shopfront. Granted with conditions on 14.07.2008

6.3 TP/05/0314, Single storey rear extension involving demolition of existing garage and relocation of air conditioning units at rear. Granted with conditions on 05.05.2005

7. Consultation

7.1 Statutory and non-statutory consultees

Internal

7.2 Environmental Health – No objections subject to a condition for an acoustic report

External

7.3 None

Public

7.4 The 21 day public consultation period concluded on the 3 April 2022. The application was also advertised in the local paper and by site notice. Two representations were received, which raised the following matters:

- Inadequate parking provision.
- Increase in traffic and ultimately noise pollution to residents.
- Loss of parking.
- Noise nuisance to surrounding residential properties
- Affect local ecology.
- Close to adjoining properties.

8. Relevant Planning Policies

8.1 Section 70(2) of the Town and Country Planning Act 1990 requires the Committee have regard to the provisions of the development plan so far as material to the application: and any other material considerations. Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires planning decisions to be made in accordance with the development plan unless material considerations indicate otherwise.

London Plan (2021)

8.2 The London Plan is the overall strategic plan for London setting out an integrated economic, environmental, transport and social framework for the development of London for the next 20-25 years. The following policies of the London Plan are considered particularly relevant:

SD6 Town Centres and High Streets
SD7 Town Centres-Development Principals and Development Plan Documents
D4 Delivering Good Design
D5 Inclusive Design
D8 Public Realm
D14 Noise
HC1 Heritage Conservation and Growth
T2 Healthy Streets
T5 Cycling
T6 Car parking

Core Strategy

8.3 The Core Strategy was adopted in November 2010 and sets out a spatial planning framework for the development of the Borough through to 2025. The document provides the broad strategy for the scale and distribution of development and supporting infrastructure, with the intention of guiding patterns of development and ensuring development within the Borough is sustainable. The following is considered particularly relevant:

CP17 Town Centres
CP24 The road network
CP25 Pedestrian and cyclists
CP30 Maintaining and enhancing the built environment
CP31 Built and landscape heritage
CP32 Pollution

Development Management Document

8.4 The Development Management Document (DMD) provides further detail and standard based policies by which planning applications should be determined. Policies in the DMD support the delivery of the Core Strategy. The following local plan Development Management Document policies are considered particularly relevant:

DMD27	Angel Edmonton, Edmonton Green, Southgate and Palmers Green District Centres
DMD32	Managing the Impact of Food and Drink Establishments
DMD37	Achieving High Quality and Design-Led Development
DMD44	Conserving and Enhancing Heritage Assets
DMD45	Parking Standards and Layout
DMD47	Access, New Roads and Servicing
DMD68	Noise

8.5 Other Relevant Policy

- National Planning Policy Framework (2019)
- National Planning Practice Guidance (2019)
- The Town and Country Planning (Use Classes) Order (Amended 2020)

Enfield Local Plan (Reg 18) 2021

8.6 Enfield Local Plan - Reg 18 Preferred Approach was approved for consultation on 9th June 2021. The Reg 18 document sets out the Council's preferred policy approach together with draft development proposals for several sites. It is Enfield's Emerging Local Plan.

8.7 The Local Plan remains the statutory development plan for Enfield until such stage as the replacement plan is adopted and as such applications should continue to be determined in accordance with the Local Plan, while noting that account needs to be taken of emerging policies and draft site proposals.

9. Analysis

9.1 The main issues for consideration regarding this application are as follows:

- Principle of the Development.
- Impact on Character and Appearance of the Conservation Area
- Highways; and
- Neighbouring Amenities

9.2 Principle of the Development

9.2.1 The site is located within the Angel Edmonton District Centre. The Business and Planning Act 2020 introduced significant changes to the Use Classes Order with the new regulations (effective from 1 September 2020) introducing a broad category of 'commercial, business and service' uses, known as Class E.

9.2.2 The new Class E effectively amalgamates the former Class A1 (retail), Class A2 (financial and professional services), A3 (restaurants/cafes), B1 (offices) along with health/medical uses, creches, nurseries (all formerly D1 uses) and indoor sports/recreation (formerly D2 use) into a single Class..

9.2.3 As a result, the existing use as a supermarket [Class E(a)] is in the same category as the proposed use as restaurant [Class E(b)] and consequently, planning permission is not required for the change of use.

9.2.4 However planning permission is required for the installation of the external ventilation ducting to the rear.

9.3 Impact on Character and Appearance of the Conservation Area

9.3.1 Policy DMD 44, Policy CP31 of the Core Strategy and Policy HC1 of the London Plan seek to preserve and enhance the character and appearance of heritage assets including conservation areas.

9.3.2 The site is situated within the Fore Street Angel Conservation Area. There are no external works or other alterations proposed to the appearance of the building, except for the extractor flue. However, this would be sited to the rear elevation facing onto a rear servicing area and is considered to be well embedded when viewed amongst the rear elevation of the existing parade. The extractor would therefore not be visible from the shopping frontage on Fore Street with limited views from the servicing area to the rear of the site.

9.3.3 As a result, and with regard to the statutory tests applicable to the assessment of development within and adjacent to heritage assets, it is considered there is no harm to the special character and appearance of the Fore Street Conservation Area. However, it is considered appropriate to attach a condition to ensure that the flue is finished in a colour that is sympathetic to the building and surrounding area.

9.3.4 As there are no other exterior alterations and the use is consistent with the types of uses in the area, there would be no adverse visual impacts to the character of the area. As such it is consistent with 72(1) Planning (Listed Building and Conservation Area) Act 1990.

9.3.5 It is therefore considered that the proposed development would preserve the special character and appearance of the Fore Street Angel Conservation Area, having regard to policies DMD37 and DMD44 of the DMD, CP30 and CP31 of the Core Strategy and D4, D8 and HC1 of the London Plan.

9.4 Neighbouring Amenities

9.4.1 Policy DMD 32 states that proposals for food and drink establishments should have no detrimental effect to the amenity of neighbouring residents. Policy DMD8 also relates to neighbouring amenities in regard to sunlight/daylight, outlook and privacy. Policies CP32 of the Core Strategy, DMD68 of the DMD and D14 of the London Plan relate to noise and pollution.

9.4.2 The site is situated within a District Centre with predominately commercial uses at ground floor level with some residential uses on upper floors. Two representations have been received in regard to noise nuisance and pollution to neighbouring occupiers.

9.4.3 The premises is situated within a designated town centre: a noise rich environment with a variety of different uses within the immediate vicinity. It is where policy directs food and drink uses.

9.4.4 In considering the representations made against the proposal, the Environmental Health Officer did not object to the proposed external flue in principle but recognises such development can give rise to noise and disturbance. IT is therefore important that the technical specification for any

external ducting together with a maintenance regime, is agreed prior to its installation and use. It is therefore deemed appropriate to attach a condition for an acoustic report, having regard to policies DMD68 of the DMD, CP32 of the Core Strategy and D14 of the London Plan.

9.4.5 It is not considered that the proposed development would have any further impacts on residential amenities in regard to loss of sunlight/daylight, outlook, or privacy, having regard to Policies DMD8 or DMD32.

9.4.6 It is also considered the presence of the extract flue having regard to its size and siting would not harm the visual amenities of the area or the outlook form neighbouring and nearby residential propoerties.

9.5 CIL

9.5.1 The development is not liable for Mayoral or Enfield CIL.

10. Public Sector Equalities Duty

10.1 Under the Public Sector Equalities Duty, an equalities impact assessment has been undertaken. It is considered the proposal would not disadvantage people who share one of the different nine protected characteristics as defined by the Equality Act 2010 compared to those who do not have those characteristics.

11. Conclusion

11.1 It is considered that the proposed development would preserve the character and appearance of the Conservation Area and would not give rise to conditions detrimental to residential amenity.

PLEASE NOTE
1. All dimensions to be verifiedon site.
2. All dimensions are in milimeters.
3. No work shall commence until all approvals and agreements have been obtained. These include, Planning, Building Regulations, Water and party Wall.
4. The Copyright of this drawing belong to Adv Planning Limited T/A Advance Architecture.

Scale (@ A3) 1 : 200

1m 2 4 6 8 10

Drawn By	IE	PROJECT STATUS	PLANNING	PROJECT	161 FORE STREET, EDMONTON, N18 2XB	SHEET	BLOCK PLAN	DRAWING NUMBER	P107	REV
Checked By	KK		BLOCK PLAN			JOB No.	22.011	DATE	03/03/22	R1

ADVANCE ARCHITECTURE
ARCHITECTURE / PLANNING / LICENSING
352 Green Lanes, Palmers Green, London N13 5TJ - 020 8801 6601
www.advancearchitecture.co.uk
info@advancearchitecture.co.uk

GigaBoxes are real multi-functional options that offer almost unlimited flexibility in various applications.

Compact frame construction and assembly-friendly accessories make a variable and thus optimal adaptation possible by simply repositioning the casing panels to the structural conditions. With five or (with series T120) three possible discharge directions this gives design flexibilty to suit all site conditions. All types have integrated crane hooks for easier positioning as standard.

They are particularly suitable for medium to higher air flow volumes against high resistances in ventilation systems of every type. Furthermore, the new series GB.. T120 is suited for extraction of dirty, hot air up to 120° C. Altogether, 26 models are available with air flow volumes from 1400 to 19 000 m³/h for duct diameters 250 to 710 mm.
GigaBoxes from Helios are delivered complete with:

– Discharge adapter from square to circular ducted system for low-loss discharge
– Flexible sleeves to reduce vibration transmission and for the connection to ducts in the usual standard diameters.

Backward curved high output centrifugal impeller guarantees an energy-efficient operation at low noise emission.

Outdoor installation with wall bracket (accessories).

Roof installation with outdoor cover hood and external weather louvers (accessories).

Installation in the attic with anti vibration mounts (accessories).

NEW!

GigaBox for air flow temperatures up to max. 120° C.

GB.. T120: The motor which is located outside of the air flow is separated from the impeller through a temperature insulated partition panel. The motor-impeller-unit is removable without disassembly of the ducting.

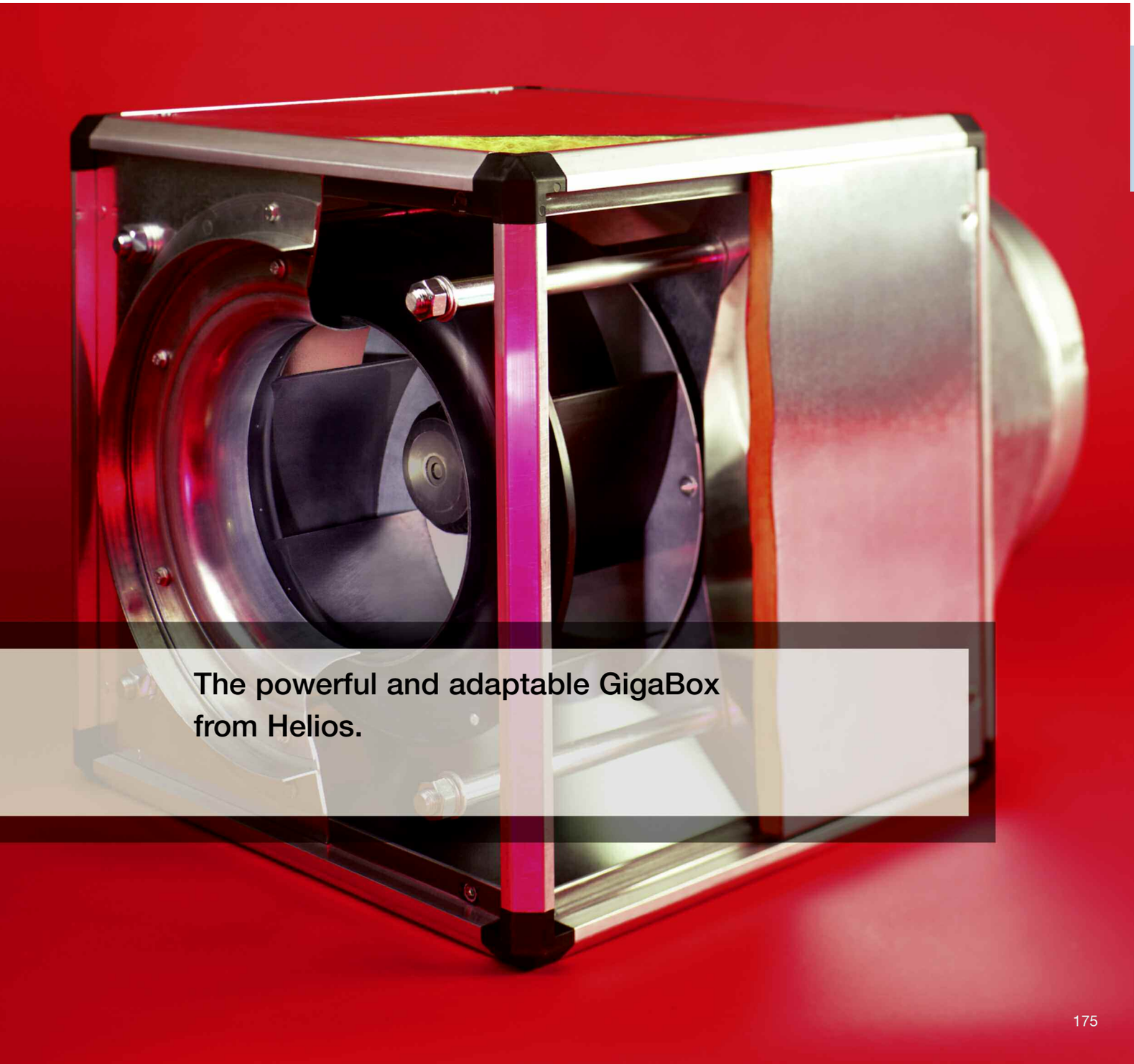
Assembly of the discharge adapter for GB.. T120 with centrifugal discharge direction to the top or to the side.

GB.. T120 with simply removable inspection cover.

The double-walled, removeable 20 mm thick side panels are noise and temperature insulated with flame-retardant mineral wool.
This allows for a variable installation and simple inspection access. Extensive accessories like wall bracket, condensate collector incl. condensate spigot (for GB.. T120 included in delivery), external weather louvers to cover the exhaust opening, outdoor cover hood for protected outdoor installation ensure for the necessary flexibility on site.

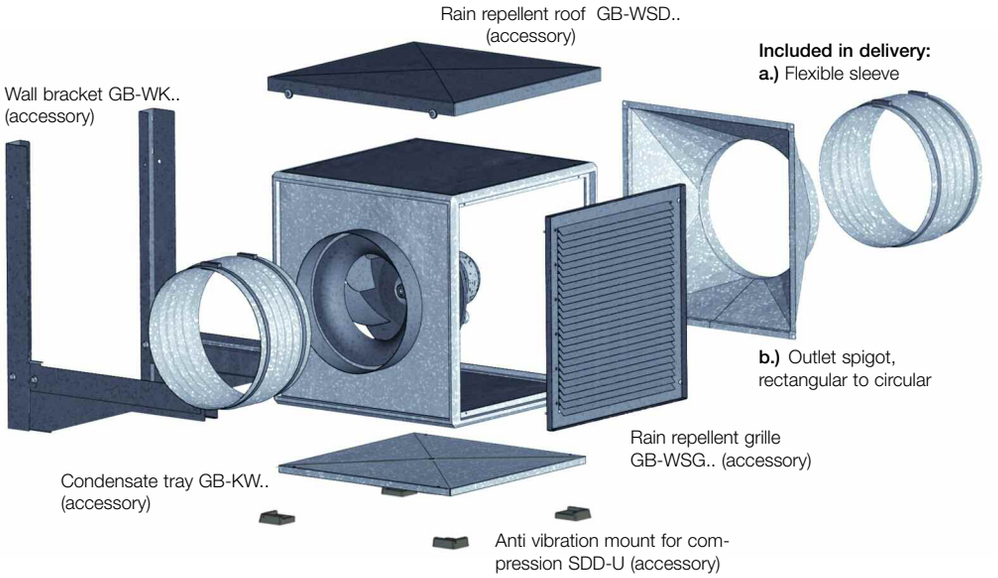
The T120 model impresses with outstanding benefits:
- Air flow temperature up to max. 120° C.
- Motor located outside of air flow.
- Temperature insulated partition panel between motor and impeller, lined with 20 mm thick, flame-retardant mineral wool.
- Easily accessible motor-impeller-unit, removable without disassembling the system components.
- Inspection cover with handle, simply remove for cleaning and maintenance.
- Condensate collector with condensate spigot included in delivery.
- Accessory components suitable for use to max. 120° C.

For applications with high air flow temperatures and/or steam/humidity present in the exhaust air, the GigaBox T120 is ideally suitable.
Ideal for application in exhaust air systems of process technology or in commercial kitchens.



The powerful and adaptable GigaBox from Helios.

GigaBox and accessory



Application
Multifunctional fan box, suitable for medium to higher air flow volumes against high resistances in every type of ventilation system. The compact frame construction offers easy conversion of the outlet position. Together with a choice of ideal accessories make these units ideal for all applications.
The GB.. T120 types are suitable for the extraction of dirty, humid and hot air up to max. 120° C, i.e. as extract air fan in commercial kitchens and many applications of process technology.

Casing
Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulating and flame-retardant mineral wool.
Intake cone for ideal airflow, spigot and flexible connector for duct connection. With outlet adapter (from square to circular) on the exhaust side for low-loss discharge and flexible connector to reduce vibration transmission. The flexible connectors are supplied as standard and correspond to the max. permissible air flow temperature of +70 °C and/or +120 °C with the types GB.. T120. Lifting lugs are standard for using crane hooks.
With GB.. T120 the motor is located outside of the air flow. The thermally insulated partition panel is also the support plate for the motor and impeller unit and can be removed completely for inspection without removing the complete fan from the system.

Speed control
All types (except GBD 630/4 T120) are speed controllable by voltage reduction using a 5-step transformer controller or an electronic controller. The 3-phase models can also be 2 speed controlled by star/delta switch (accessories DS 2 or full motor protection unit M 4). The performances of the speeds are given in the performance curve.
3-phase models are controllable with frequency inverters by installation of a sinusoidal filter (accessories) between inverter and motor. Type GBD 630/4 is only controllable by frequency inverter.

Assembly
Assembly of types GB..
Adaptable installation position and flexible assembly using the five possible discharge directions via the discharge adapter. Removable panels allow inspection access on all sides.
Assembly of types GB.. T120
Installation must be carried out with condensation discharge showing downward. Flexible assembly by three possible centrifugal discharge directions via the discharge adapter. Inspection cover with handle, for cleaning and maintenance simply remove. Lifting lugs are standard for using crane hooks. Vibration transmission to the building is minimised by anti vibration mounts (type SDD-U, accessories). Vibration transmission to the ducting is prevented by using the standard flexible connector supplied.

Impeller
Smooth running centrifugal impeller with backward curved polymer blades (size 250 from steel) on a galvanised steel back plate, direct driven. Size 500 and all GB.. T120 types with impellers from aluminium. These energy efficient impellers are low noise. Dynamically balanced assembled with the motor to DIN ISO 1940 Pt.1 – class 6.3 or 2.5.

Motor
IEC-standard motor or maintenance-free external rotor motor protected to IP 54 or 44. Thermal overload protection through built-in thermal contacts. Suitable for continuous operation S1. Insulation class F. Ball bearings are lubricated for life.

Electrical connection
Terminal box protection to IP 54.

Air flow direction
The air flow direction of centrifugal fans is not reversible, but can be set by positioning the fan to the required air flow direction. Furthermore the position can be set individually to constructional conditions through conversion of discharge adapter and panels. The correct motor rotation direction is marked through rotation arrows on the motor and has to be checked at start-up.

Incorrect direction of rotation
If the fan is operated in the incorrect direction of rotation the motor will overheat and the thermal contact will trip. Typical indication for this is a very low air flow combined with high noise levels and vibration.

Ambient temperature
The maximum permitted air flow temperature is given in the individual fan chart.

Surrounding temperature
From – 40° C to + 40° C.

Information	Pages
Design of systems, acoustic	12 on
General techn. information, speed control	17 on

	Sound press. Case breakout	Sound press. Intake	Air flow volume $\dot{V}$ m³/s against static pressure												
Type GB..	L_{PA} dB(A)	L_{PA} dB(A)	($\Delta P_{stat.}$) in Pa												
	at 4 m	at 4 m	**0**	**50**	**100**	**150**	**200**	**250**	**300**	**350**	**400**	**500**	**600**	**700**	**800**
GBW 250/4	27	39	0.389	0.319	0.244	0.147									
GBW 315/4	29	41	0.414	0.361	0.300	0.236	0.153	0.042							
GBW 355/4	34	46	0.817	0.747	0.675	0.594	0.505	0.400	0.258						
GBD 355/4/4	34	46	0.836	0.772	0.711	0.638	0.577	0.492	0.367	0.089					
GBW 400/4	38	50	1.142	1.092	1.036	0.975	0.917	0.85	0.764	0.656	0.511				
GBD 400/4/4	38	50	1.097	1.031	0.961	0.889	0.811	0.725	0.628	0.469	0.114				
GBW 450/4	40	52	1.514	1.433	1.361	1.292	1.217	1.122	1.006	0.867	0.692	0.083			
GBD 450/4/4	40	52	1.514	1.431	1.344	1.256	1.161	1.061	0.947	0.822	0.664	0.083			
GBW 500/4	45	57	2.333	2.236	2.139	2.042	1.947	1.85	1.744	1.628	1.506	1.219	0.778	0.042	
GBD 500/4/4	44	57	2.458	2.367	2.278	2.189	2.097	2.006	1.903	1.789	1.664	1.369	0.947	0.014	
GBW 500/6	35	46	1.600	1.478	1.347	1.189	0.978	0.678	0.144						
GBD 560/4/4	44	57	3.497	3.397	3.300	3.203	3.106	3.011	2.911	2.811	2.706	2.461	2.142	1.731	1.144
GBD 560/6/6	35	48	2.400	2.261	2.114	1.953	1.767	1.539	1.239	0.767					
GBD 630/4/4	48	61	4.153	4.058	3.961	3.869	3.775	3.683	3.592	3.500	3.403	3.194	2.953	2.675	2.333
GBD 630/6/6	43	56	3.192	2.992	2.794	2.597	2.375	2.103	1.767	1.356	0.792				
GBD 710/6/6	46	59	5.194	4.989	4.783	4.564	4.333	4.083	3.811	3.511	3.178	2.333	0.753		
Type GB.. T120	L_{PA} dB(A)	L_{PA} dB(A)	($\Delta P_{stat.}$) in Pa												
	at 4 m	at 4 m	**0**	**50**	**100**	**150**	**200**	**250**	**300**	**350**	**400**	**500**	**600**	**700**	**800**
GBW 355/4 T120	36	49	0.961	0.894	0.831	0.767	0.683	0.567	0.418	0.201					
GBD 355/4/4 T120	36	49	0.964	0.908	0.846	0.778	0.697	0.594	0.469	0.192					
GBW 400/4 T120	40	53	1.369	1.293	1.217	1.136	1.053	0.942	0.806	0.622	0.439				
GBD 400/4/4 T120	40	53	1.353	1.275	1.193	1.106	1.014	0.900	0.761	0.581	0.381				
GBW 450/4 T120	45	57	1.975	1.887	1.800	1.700	1.625	1.525	1.426	1.317	1.208	0.917	0.528		
GBD 450/4/4 T120	45	57	1.994	1.914	1.833	1.750	1.653	1.556	1.450	1.336	1.206	0.897	0.372		
GBW 500/4 T120	45	59	2.318	2.244	2.158	2.075	1.989	1.903	1.800	1.696	1.575	1.300	0.975	0.511	
GBD 500/4/4 T120	45	59	2.319	2.239	2.157	2.081	1.994	0.191	1.833	1.739	1.642	1.381	1.061	0.533	
GBD 560/4/4 T120	48	62	3.417	3.322	3.247	3.164	3.078	2.994	2.910	2.817	2.722	2.533	2.336	2.064	1.671
GBD 630/4 T120	53	67	3.928	3.867	3.803	3.742	3.667	3.594	3.533	3.469	3.397	3.242	3.097	2.908	2.703

Special application for GigaBox T120 – commercial kitchens

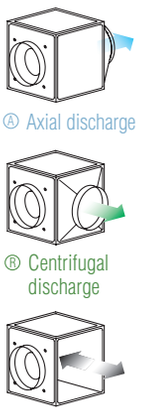
For the design of exhaust air systems in commercial kitchens the VDI 2052 (2006) "Ventilation equipment for kitchens – design, layout, approval" is applied. This follows for extract air fan:

- ☐ Fans of exhaust air systems must be designed and installed in such a way that they are easily accessible, can be easily controlled and cleaned.
  They must be able to be switched off from the kitchen.
  The motors must be located outside of the extract air flow.
  Connected kitchen extraction hoods must separate solid and liquid components, if possible.
  A backdraft into following units is to be prevented.

These specific requirements from the GigaBoxes GB.. T120 are fulfilled in an outstanding manner. Easily accessible casing and double-walled side panels make cleaning simple with grease dissolving agents and steam possible.

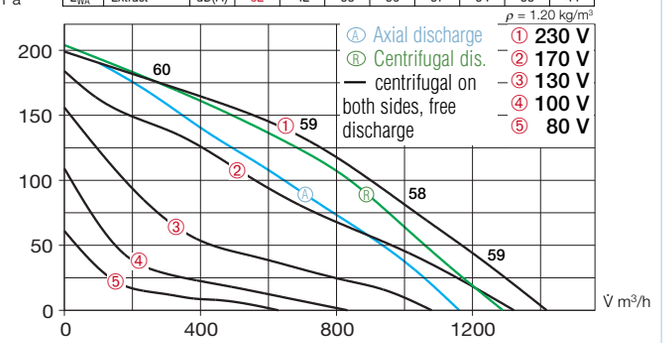
Requirements in excess thereof of kitchen extract air units and the appropriate fire protection can deviate country-specifically; these special requirements of the respective country, in which the unit is to be used, must be considered.

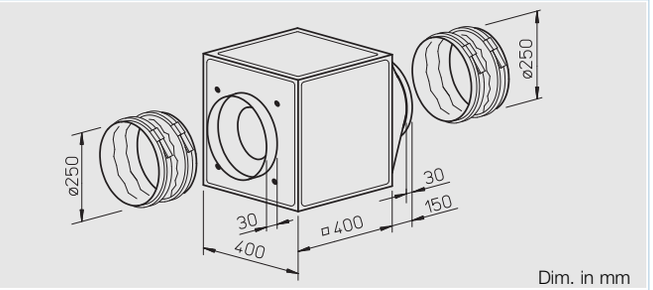
Models GB..



GBW 250/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	47	37	45	40	33	30	22	19
L_{WA}	Intake	dB(A)	59	41	49	52	54	55	49	39
L_{WA}	Extract	dB(A)	62	42	53	56	57	54	53	44





■ Specification

■ Casing
Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulating and flame-retardant mineral wool. Intake cone for ideal airflow, spigot and flexible connector for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

□ Impeller
Smooth running backward curved centrifugal impeller highly efficient with blades from steel on galvanised steel disc, direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

□ Motor
Maintenance-free and speed controllable external rotor motor, protection to IP 44. With ball bearings and radio suppressed as standard.

□ Electrical connection
Terminal box fitted on the motor as standard, protection to IP 54.

□ Motor protection
Motors have thermal contacts wired in series with the windings which automatically reset.

□ Speed control
Speed controllable through voltage reduction by 5 step transformer controller or electronic speed controller. The duties at different speeds are given in the performance curve.

□ Assembly
Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter.

For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Sound levels
Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

in the tables above the performance curve. Beside, the sound power level (on intake) is stated over the rated characteristic curve. In the table below you can also find the
- case breakout level at 4 m (freefield conditions).

■ Accessories

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 250 Ref. No. 5625

External weather louvers to cover exhaust opening.
GB-WSG 250 Ref. No. 5637

Outdoor cover hood for outdoor installation.
GB-WSD 250 Ref. No. 5746

Condensate collector with condensate spigot for pipe connection.
GB-KW 250 Ref. No. 5642

Information	Pages
Design of systems, acoustic	12 on
General techn. information, speed control	17 on

Accessory-Details	Pages
Speed controller and full motor protection unit	397 on

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	5 step transformer controller without motor protect. unit Type	Ref. No.
		V̇ m³/h	min⁻¹	dB(A) at 4 m	kW	A	A	No.	+°C	+°C	kg		
1 Phase motor, 230 V / 1 ph. / 50 Hz, capacitor motor, protection to IP 44													
GBW 250/4	5509	1400	1290	27	0.11	0.44	0.48	923	65	65	20	**TSW 1.5**	1495

Models GB..

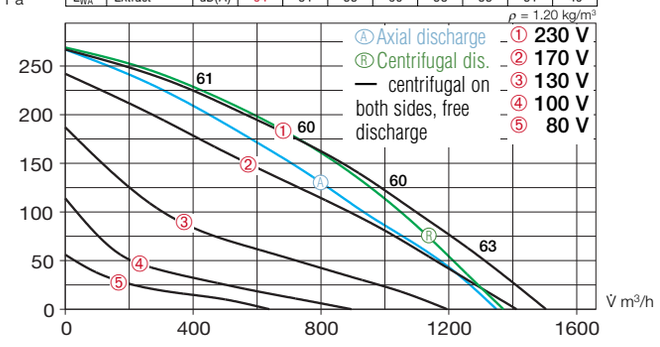
Ⓐ Axial discharge

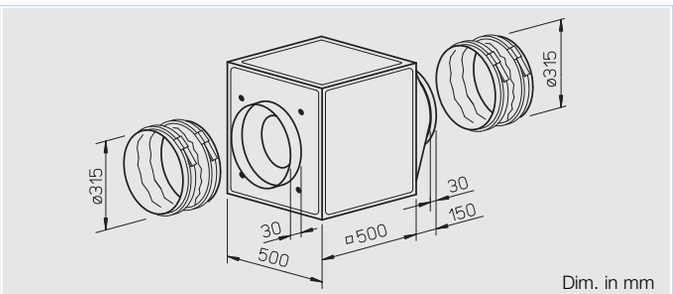
Ⓡ Centrifugal discharge

— centrifugal on both sides, free discharge

GBW 315/4

Frequency		Hz	Ges.	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	49	41	45	44	39	34	23	20
L_{WA}	Intake	dB(A)	61	49	50	56	56	53	49	36
L_{WA}	Extract	dB(A)	64	51	55	60	58	55	51	40





■ Specification

■ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insultion and flame-retardant mineral wool.
Intake cone for ideal airflow, spigot and flexible connector for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission.
Simple positioning by standard crane hooks.

☐ Impeller

Smooth running centrifugal highly efficient impeller with backward curved blades from steel on galvanised steel disc, direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

☐ Motor

Maintenance-free and speed controllable external rotor motor, protection to IP 44. With ball bearings and radio suppressed as standard.

☐ Electrical connection

Terminal box fitted on the motor as standard, protection to IP 54.

☐ Motor protection

Motors have thermal contacts wired in series with the windings which automatically reset.

☐ Speed control

Speed controllable through voltage reduction by 5 step transformer controller or electronic speed controller. Duties at different speeds are given in the performance curve.

☐ Assembly

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter.
For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level exhaust

in the tables above the performance curve. Beside, the sound power level (on intake) is stated over the rated characteristic curve. In the table below you can also find the
- case breakout level at 4 m (freefield conditions).

■ Accessories

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 315 Ref. No. 5625

External weather louvers to cover exhaust opening
GB-WSG 315 Ref. No. 5638

Outdoor cover hood for outdoor installation.
GB-WSD 315 Ref. No. 5747

Condensate collector with condensate spigot for pipe connection.
GB-KW 315 Ref. No. 5643

☐ Information	Pages
Design of systems, acoustic	12 on
General techn. information, speed control	17 on

☐ Accessory-Details	Pages
Speed controller and full motor protection unit	397 on

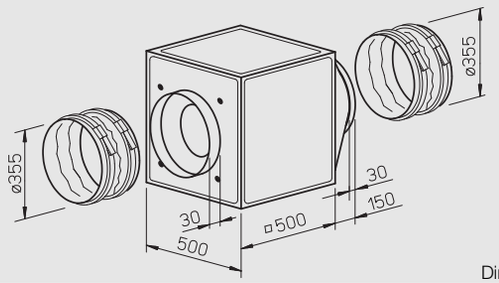
Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	5 step transformer controller without motor protect. unit Type	Ref. No.
		V̇ m³/h	min⁻¹	dB(A) at 4 m	kW	A	A	No.	+°C	+°C	kg		
1 Phase motor, 230 V / 1 ph. / 50 Hz, capacitor motor, protection to IP 44													
GBW 315/4	5510	1490	1325	29	0.135	0.58	0.60	923	55	55	31	**TSW 1.5**	1495

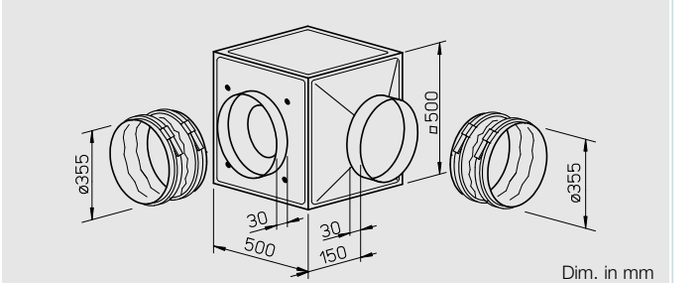
Models GB..

Arbitrary installation position and flexible assembly by five possible discharge directions.

Models GB.. T120 NEW!

Designed for moving dirty, humid and hot air up to max. 120° C.





■ Special features of type GB.. T120

- Designed for moving dirty, humid and hot air volumes up to max. 120° C.
- Motor located outside of air flow.
- Temperature insulated partition panel between motor and impeller, lined with 20 mm thick, flame-retardant mineral wool.
- Easily accessible motor and impeller unit, removable without disassembling the system components.
- Inspection cover with handle, simply remove for cleaning and maintenance.
- Condensate collector with condensate spigot included in delivery. Drill hole for rain drainage (accessories) for outdoor installation is prepared.

□ Assembly of types GB.. T120

Installation must be carried out with condensation discharge showing downward. Flexible assembly by three possible centrifugal discharge directions via the discharge adapter.
Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Feature

□ Assembly of types GB..

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter.
For wall mounting the wall bracket (accessories) have to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Specification of both types

□ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulating and flame-retardantmineral wool. Intake cone for ideal inflow as well as spigot and flexible sleeve (for the respective max. permissible air flow temperature) for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

□ Impeller

Smooth running backward curved centrifugal impeller highly efficient with polymer blades on galvanised steel disc (with GB.. T120 aluminium impeller), direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

□ Motor

Maintenance-free external rotor motor or IEC-standard motor protected to IP 44 or 54. With ball bearings and radio suppressed as standard.

□ Electrical connection

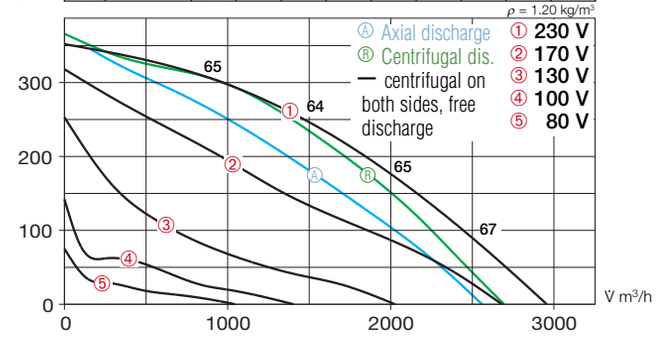
Standard terminal box (IP 54) fitted on the motor; with GB.. T120 fitted on the motor support plate.

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	5 step transformer controller with motor protect. unit	Ref. No.	5 step transformer controller without motor protect. unit	Ref. No.	Full motor protection unit using the thermal contacts	Ref. No.
		V̇ m³/h	min⁻¹	dB(A) at 4 m	kW	A	A	Nr.	+°C	+°C	kg	**Type**		**Type**		**Type**	
1 Phase motor, 230 V / 1 ph. / 50 Hz, capacitor motor, protection to IP 54																	
GBW 355/4	5511	2940	1325	34	0.29	1.30	1,40	864	60	60	32	**MWS 1.5**	1947	**TSW 1.5**	1495	**MW**[1]	1579
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△-wiring, protection to IP 54																	
GBD 355/4/4	5512	2700/3010	1115/1355	34	0.20/0.30	0.35/0.70	0,70	867	55	55	32	**RDS 1**	1314	**TSD 0.8**	1500	**M4**[2]	1571
1 Phase motor, 230 V / 1 ph. / 50 Hz, capacitor motor, protection to IP 54																	
GBW 355/4 T120	5770	3460	1340	36	0.32	1.60	1.80	935	120	120	38	**MWS 3**	1948	**TSW 3.0**	1496	**MW**[1]	1579
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△-wiring, protection to IP 54																	
GBD 355/4/4 T120	5771	2990/3470	1100/1360	36	0.22/0.33	0.40/0.80	0.80	947	120	120	38	**RDS 1**	1314	**TSD 0.8**	1500	**M4**[2]	1571

[1] incl. operation switch
[2] incl. operation and 2 speed switch

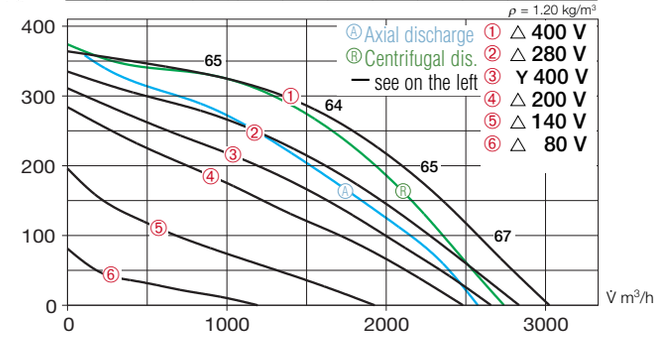
GBW 355/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	54	46	50	49	44	39	28	25
L_{WA}	Intake	dB(A)	66	54	55	61	61	58	54	41
L_{WA}	Extract	dB(A)	69	56	60	65	63	60	56	45



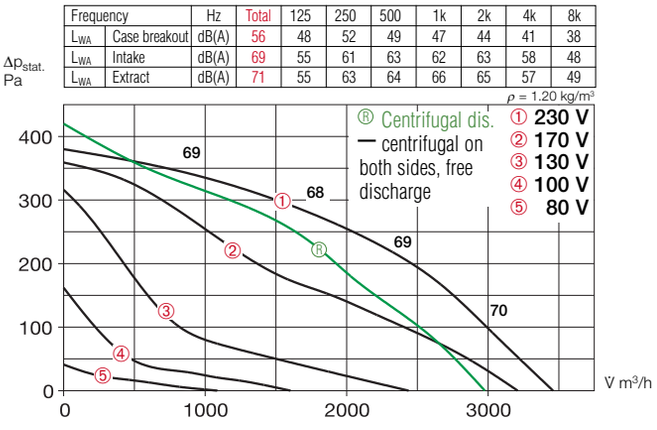
GBD 355/4/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	54	46	50	49	44	39	28	25
L_{WA}	Intake	dB(A)	66	54	55	61	61	58	54	41
L_{WA}	Extract	dB(A)	69	56	60	65	63	60	56	45



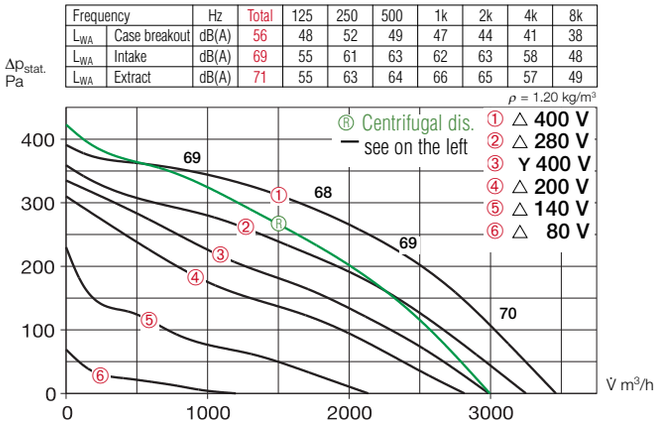
GBW 355/4 T120

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	56	48	52	49	47	44	41	38
L_{WA}	Intake	dB(A)	69	55	61	63	62	63	58	48
L_{WA}	Extract	dB(A)	71	55	63	64	66	65	57	49



GBD 355/4/4 T120

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	56	48	52	49	47	44	41	38
L_{WA}	Intake	dB(A)	69	55	61	63	62	63	58	48
L_{WA}	Extract	dB(A)	71	55	63	64	66	65	57	49



☐ Motor protection

Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ Speed control

All types are speed controllable by voltage reduction using a transformer controller. The 3-phase models can also be 2 speed controlled by star/delta switch (accessories DS 2 or full motor protection unit M 4). The duties at different speeds are given in the performance curve.

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:

- sound level case breakout
- sound level intake
- sound level extract

in the tables above the performance curve. Beside, the sound power level (on intake) is stated over the rated characteristic curve. In the table below you can also find the

- case breakout level at 4 m (freefield conditions).

■ Accessories of both types

Anti vibration mounts for installation indoors. Set of 4.

SDD-U	Ref. No. 5627

Wall bracket for wall mounting.

GB-WK 355	Ref. No. 5625

External weather louvers to cover exhaust opening.

GB-WSG 355	Ref. No. 5638

Outdoor cover hood for outdoor installation.

GB-WSD 355	Ref. No. 5747

On/Off and 2-speed switch for 3-phase star/delta motors.

DS 2 [3]	Ref. No. 1351

[3] full motor protection unit recommended: MD Ref. No. 5849

☐ Information	Pages
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☐ Accessory-Details	**Pages**
Speed controller and full motor protection unit	397 on

■ Specific accessories

☐ for types GB..

Condensate collector with condensate spigot for pipe connection.

GB-KW 355	Ref. No. 5643

(Condensate collector with condensate spigot included in delivery with GB.. T120).

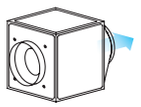
☐ for types GB.. T120

Rain drainage for outdoor installation (drill holes for rain drainage is already prepared).

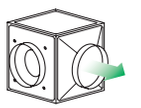
GB-RA	Ref. No. 9418

Models GB..

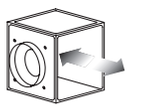
Arbitrary installation position and flexible assembly by five possible discharge directions.



Ⓐ Axial discharge



Ⓡ Centrifugal discharge

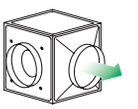


— centrifugal on both sides, free discharge

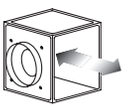
Models GB.. T120

NEW!

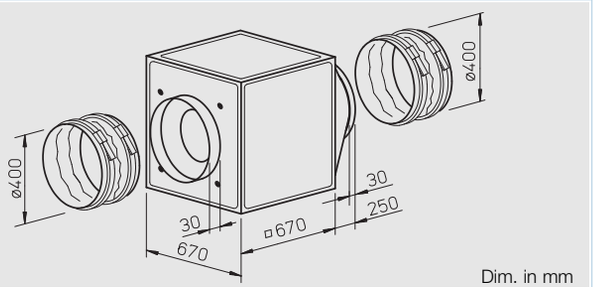
Designed for moving dirty, humid and hot air up to max. 120° C.



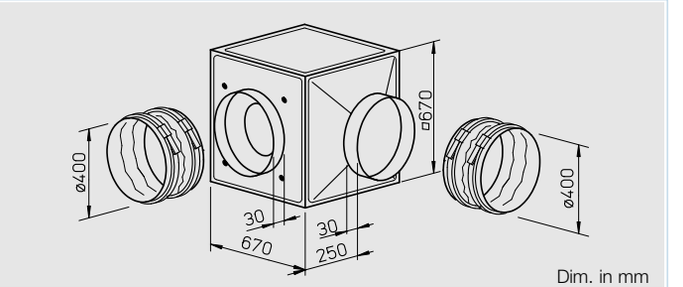
Ⓡ Centrifugal discharge



— centrifugal on both sides, free discharge



Dim. in mm



Dim. in mm

■ Special features of type GB.. T120

- Designed for moving dirty, humid and hot air volumes up to max. 120° C.
- Motor located outside of air flow.
- Temperature insulated partition panel between motor and impeller, lined with 20 mm thick, flame-retardant mineral wool.
- Easily accessible motor and impeller unit, removable without disassembling the system components.
- Inspection cover with handle, simply remove for cleaning and maintenance.
- Condensate collector with condensate spigot included in delivery. Drill hole for rain drainage (accessories) for outdoor installation is prepared.

□ Assembly of types GB.. T120

Installation must be carried out with condensation discharge showing downward. Flexible assembly by three possible centrifugal discharge directions via the discharge adapter.
Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Feature

□ Assembly of types GB..

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter.
For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Specification of both types

□ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulting and flame-retardant mineral wool. Intake cone for ideal inflow as well as spigot and flexible sleeve (for the respective max. permissible air flow temperature) for duct connection. With discharge adapter (from square into circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

□ Impeller

Smooth running backward curved centrifugal impeller highly efficient with polymer blades on galvanised steel disc (with GB.. T120 aluminium impeller), direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

□ Motor

Maintenance-free external rotor motor or IEC-standard motor protected to IP 44 or 54. With ball bearings and radio suppressed as standard.

□ Electrical connection

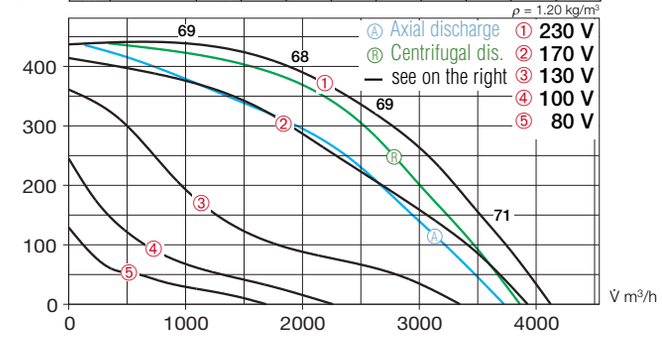
Standard terminal box (IP 54) fitted on the motor; with GB.. T120 fitted on the motor support plate.

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	5 step transformer controller with motor protect. unit Type	Ref. No.	5 step transformer controller without motor protect. unit Type	Ref. No.	Full motor protection unit using the thermal contacts Type	Ref. No.
		V̇ m³/h	min⁻¹	dB(A) at 4 m	kW	A	A	Nr.	+°C	+°C	kg						
1 Phase motor, 230 V / 1 ph. / 50 Hz, capacitor motor, protection to IP 54																	
GBW 400/4	5513	4110	1360	38	0.53	2.40	2.80	864	50	50	52	**MWS 3**	1948	**TSW 3.0**	1496	**MW**[1]	1579
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△-wiring, protection to IP 54																	
GBD 400/4/4	5514	3300/3950	910/1270	38	0.29/0.46	0.50/0.78	0.92	867	50	45	47	**RDS 1**	1314	**TSD 1.5**	1501	**M4**[2]	1571
1 Phase motor, 230 V / 1 ph. / 50 Hz, capacitor motor, protection to IP 54																	
GBW 400/4 T120	5772	4930	1280	40	0.54	2.50	2.50	935	120	100	62	**MWS 3**	1948	**TSW 3.0**	1496	**MW**[1]	1579
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△-wiring, protection to IP 54																	
GBD 400/4/4 T120	5773	4010/4870	975/1255	40	0.29/0.48	0.50/1.10	1.10	947	120	120	62	**RDS 2**	1315	**TSD 1.5**	1501	**M4**[2]	1571

[1] incl. operation switch [2] incl. operation and 2 speed switch

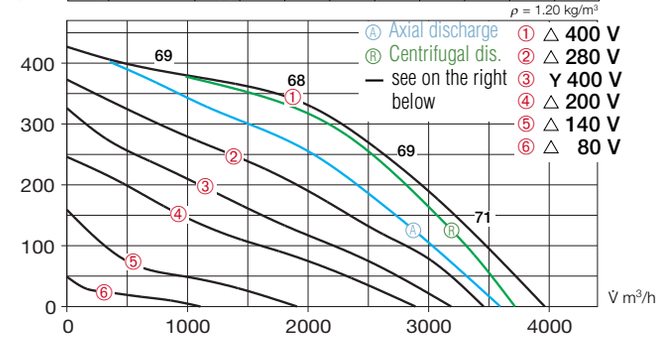
GBW 400/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	58	54	54	49	45	42	37	29
L_{WA}	Intake	dB(A)	70	60	61	63	66	61	56	47
L_{WA}	Extract	dB(A)	73	58	67	69	65	63	60	53



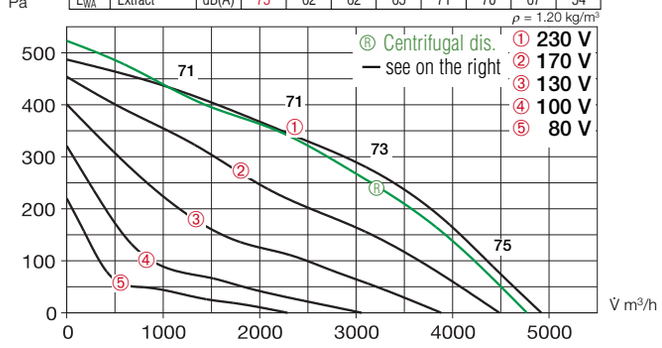
GBD 400/4/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	58	54	54	49	45	42	37	29
L_{WA}	Intake	dB(A)	70	60	61	63	66	61	56	47
L_{WA}	Extract	dB(A)	73	58	67	69	65	63	60	53



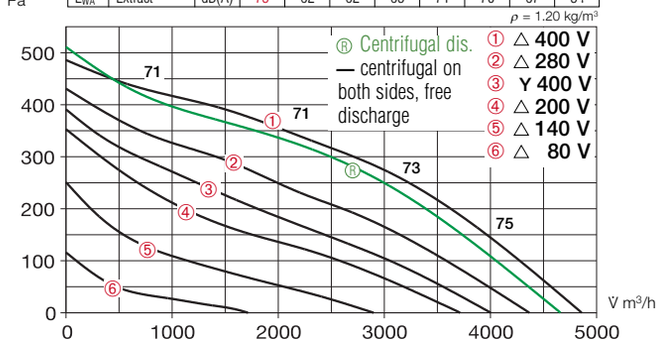
GBW 400/4 T120

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	60	56	53	51	52	50	47	39
L_{WA}	Intake	dB(A)	73	58	60	63	68	69	63	52
L_{WA}	Extract	dB(A)	75	62	62	65	71	70	67	54



GBD 400/4/4 T120

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	60	56	53	51	52	50	47	39
L_{WA}	Intake	dB(A)	73	58	60	63	68	69	63	52
L_{WA}	Extract	dB(A)	75	62	62	65	71	70	67	54



☐ Motor protection

Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ Speed control

All types are speed controllable by voltage reduction using a transformer controller.
The 3-phase models can also be 2 speed controlled by star/delta switch (accessories DS 2 or full motor protection unit M 4). The duties at different speeds are given in the performance curve.

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level extract

in the tables above the performance curve. Beside, the sound power level (on intake) is stated over the rated characteristic curve. In the table below you can also find the
- case breakout level at 4 m (freefield conditions).

■ Accessories of both types

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 400 Ref. No. 5626

External weather louvers to cover exhaust opening.
GB-WSG 400 Ref. No. 5639

Outdoor cover hood for outdoor installation.
GB-WSD 400 Ref. No. 5748

On/Off and 2-speed switch for 3-phase star/delta motors.
DS 2 [3] Ref. No. 1351

[3] full motor protection unit recommended: MD Ref. No. 5849

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☐ Accessory-Details	Pages
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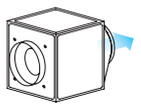
■ Specific accessories

☐ for types GB..
Condensate collector with condensate spigot for pipe connection.
GB-KW 400 Ref. No. 5644
(Condensate collector with condensate spigot included in delivery with GB.. T120).

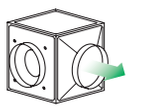
☐ for types GB.. T120
Rain drainage for outdoor installation (drill holes for rain drainage is already prepared).
GB-RA Ref. No. 9418

Models GB..

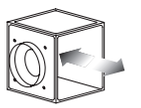
Arbitrary installation position and flexible assembly by five possible discharge directions.



Ⓐ Axial discharge



Ⓡ Centrifugal discharge

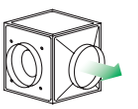


— centrifugal on both sides, free discharge

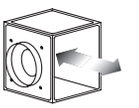
Models GB.. T120

NEW!

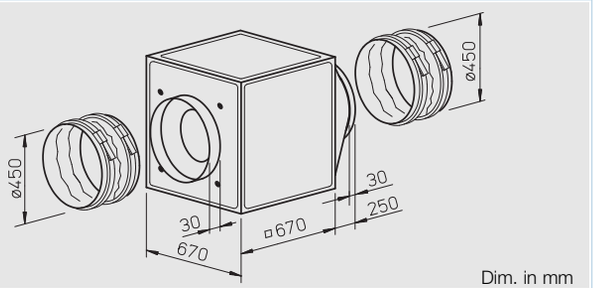
Designed for moving dirty, humid and hot air up to max. 120° C.



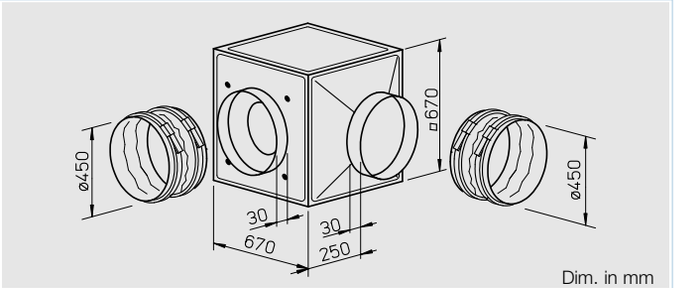
Ⓡ Centrifugal discharge



— centrifugal on both sides, free discharge



Dim. in mm



Dim. in mm

■ Special features of type GB.. T120

- Designed for moving dirty, humid and hot air volumes up to max. 120° C.
- Motor located outside of air flow.
- Temperature insulated partition panel between motor and impeller, lined with 20 mm thick, flame-retardant mineral wool.
- Easily accessible motor and impeller unit, removable without disassembling the system components.
- Inspection cover with handle, simply remove for cleaning and maintenance.
- Condensate collector with condensate spigot included in delivery. Drill hole for rain drainage (accessories) for outdoor installation is prepared.

□ Assembly of types GB.. T120

Installation must be carried out with condensation discharge showing downward. Flexible assembly by three possible centrifugal discharge directions via the discharge adapter.
Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Feature

□ Assembly of types GB..

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter.
For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Specification of both types

□ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature consulting and flame-retardant mineral wool.
Intake cone for ideal inflow as well as spigot and flexible sleeve (for the respective max. permissible air flow temperature) for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

□ Impeller

Smooth running backward curved centrifugal impeller highly efficient with polymer blades on galvanised steel disc (with GB.. T120 aluminium impeller), direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

□ Motor

Maintenance-free external rotor motor or IEC-standard motor protected to IP 44 or 54. With ball bearings and radio suppressed as standard.

□ Electrical connection

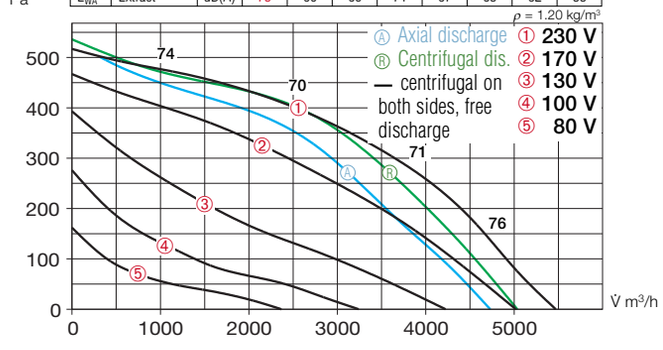
Standard terminal box (IP 54) fitted on the motor; with GB.. T120 fitted on the motor support plate.

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	5 step transformer controller with motor protect. unit Type	Ref. No.	5 step transformer controller without motor protect. unit Type	Ref. No.	Full motor protection unit using the thermal contacts Type	Ref. No.
		V̇ m³/h	min⁻¹	dB(A) at 4 m	kW	A	A	Nr.	+°C	+°C	kg						
1 Phase motor, 230 V / 1 ph. / 50 Hz, capacitor motor, protection to IP 54																	
GBW 450/4	5515	5450	1270	40	0.76	3.50	3.50	864	45	45	49	**MWS 5**	1949	**TSW 5.0**	1497	**MW**[1)]	1579
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△-wiring, protection to IP 54																	
GBD 450/4/4	5516	4350/5450	880/1240	40	0.36/0.67	0.70/1.30	1.30	867	55	55	49	**RDS 2**	1315	**TSD 1.5**	1501	**M4**[2)]	1571
1 Phase motor, 230 V / 1 ph. / 50 Hz, capacitor motor, protection to IP 54																	
GBW 450/4 T120	5774	7110	1370	45	1.00	4.60	5.50	935	120	100	74	**MWS 7.5**	1950	**TSW 7.5**	1596	**MW**[1)]	1579
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△-wiring, protection to IP 54																	
GBD 450/4/4 T120	5775	6210/7180	1100/1350	45	0.65/0.90	1.10/1.60	1.80	947	120	110	74	**RDS 2**	1315	**TSD 3.0**	1502	**M4**[2)]	1571

[1)] incl. operation switch [2)] incl. operation and 2 speed switch

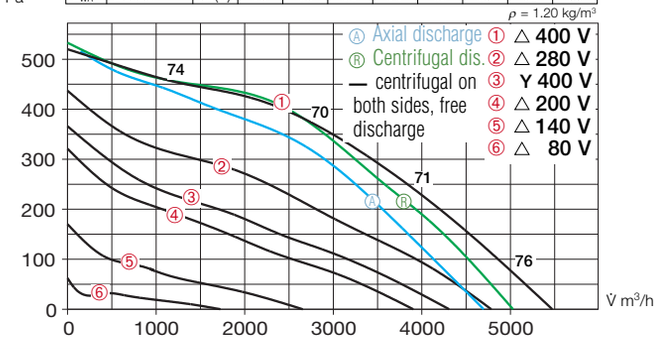
GBW 450/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	60	56	56	51	47	44	39	31
L_{WA}	Intake	dB(A)	72	62	63	65	68	63	58	49
L_{WA}	Extract	dB(A)	75	60	69	71	67	65	62	55



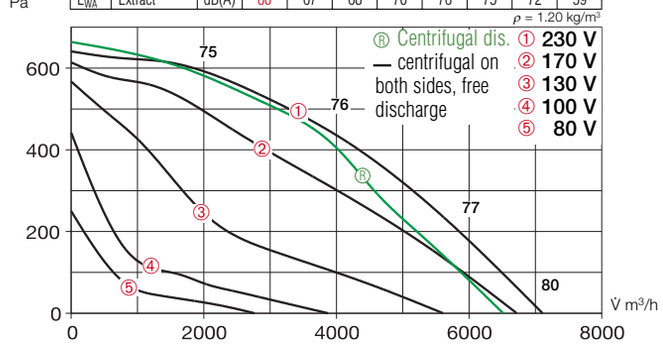
GBD 450/4/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	60	56	56	51	47	44	39	31
L_{WA}	Intake	dB(A)	72	62	63	65	68	63	58	49
L_{WA}	Extract	dB(A)	75	60	69	71	67	65	62	55



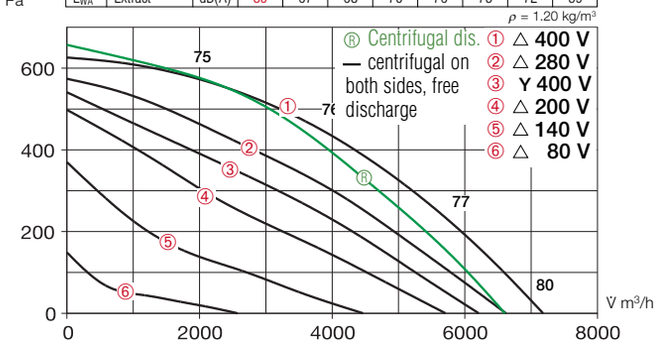
GBW 450/4 T120

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	65	61	58	56	57	55	52	44
L_{WA}	Intake	dB(A)	77	62	64	67	72	73	67	56
L_{WA}	Extract	dB(A)	80	67	68	70	76	75	72	59



GBD 450/4/4 T120

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	65	61	58	56	57	55	52	44
L_{WA}	Intake	dB(A)	77	62	64	67	72	73	67	56
L_{WA}	Extract	dB(A)	80	67	68	70	76	75	72	59



☐ Motor protection

Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ Speed control

All types are speed controllable by voltage reduction using a transformer controller.
The 3-phase models can also be 2 speed controlled by star/delta switch (accessories DS 2 or full motor protection unit M 4). The duties at different speeds are given in the performance curve.

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level extract

in the tables above the performance curve. Beside, the sound power level (on intake) is stated over the rated characteristic curve. In the table below you can also find the
- case breakout level at 4 m (freefield conditions).

■ Accessories of both types

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 450 Ref. No. 5626

External weather louvers to cover exhaust opening.
GB-WSG 450 Ref. No. 5639

Outdoor cover hood for outdoor installation.
GB-WSD 450 Ref. No. 5748

On/Off and 2-speed switch for 3-phase star/delta motors.
DS 2 [3] Ref. No. 1351

[3] full motor protection unit recommended: MD Ref. No. 5849

☐ Information	Pages
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☐ Accessory-Details	Pages
Speed controller and full motor protection unit	397 on

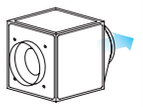
■ Specific accessories

☐ for types GB..
Condensate collector with condensate spigot for pipe connection.
GB-KW 450 Ref. No. 5644
(Condensate collector with condensate spigot included in delivery with GB.. T120).

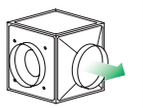
☐ for types GB.. T120
Rain drainage for outdoor installation (drill holes for rain drainage is already prepared).
GB-RA Ref. No. 9418

Models GB..

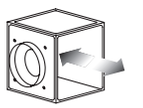
Arbitrary installation position and flexible assembly by five possible discharge directions.



Ⓐ Axial discharge



Ⓡ Centrifugal discharge

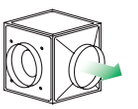


— centrifugal on both sides, free discharge

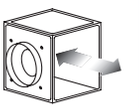
Models GB.. T120

NEW!

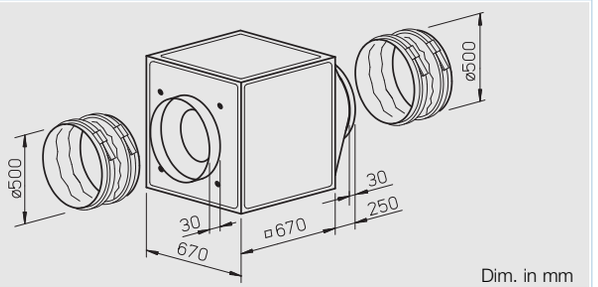
Designed for moving dirty, humid and hot air up to max. 120° C.



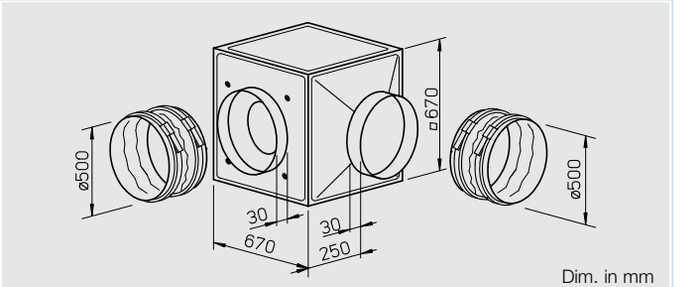
Ⓡ Centrifugal discharge



— centrifugal on both sides, free discharge



Dim. in mm



Dim. in mm

■ **Special features of type GB.. T120**

- Designed for moving dirty, humid and hot air volumes up to max. 120° C.
- Motor located outside of air flow.
- Temperature insulated partition panel between motor and impeller, lined with 20 mm thick, flame-retardant mineral wool.
- Easily accessible motor and impeller unit, removable without disassembling the system components.
- Inspection cover with handle, simply remove for cleaning and maintenance.
- Condensate collector with condensate spigot included in delivery. Drill hole for rain drainage (accessories) for outdoor installation is prepared.

□ **Assembly of types GB.. T120**

Installation must be carried out with condensation discharge showing downward. Flexible assembly by three possible centrifugal discharge directions via the discharge adapter. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ **Feature**

□ **Assembly of types GB..**

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter. For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ **Specification of both types**

□ **Casing**

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulting and flame-retardant mineral wool. Intake cone for ideal inflow as well as spigot and flexible sleeve (for the respective max. permissible air flow temperature) for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

□ **Impeller**

Smooth running backward curved aluminium centrifugal impeller highly efficient and direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

□ **Motor**

Maintenance-free external rotor motor or IEC-standard motor protected to IP 44 or 54. With ball bearings and radio suppressed as standard.

□ **Electrical connection**

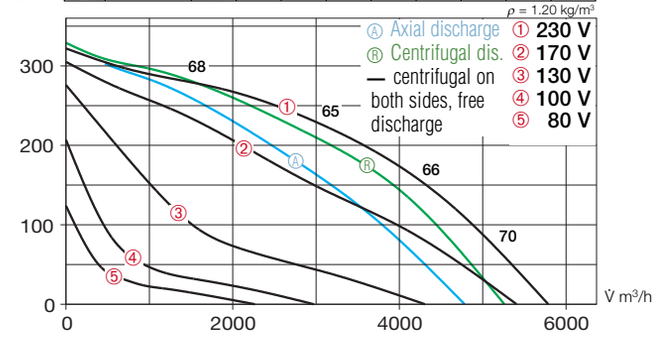
Standard terminal box (IP 54) fitted on the motor; with GB.. T120 fitted on the motor support plate.

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	5 step transformer controller with motor protect. unit Type	Ref. No.	5 step transformer controller without motor protect. unit Type	Ref. No.	Full motor protection unit using the thermal contacts Type	Ref. No.
		V m³/h	min⁻¹	dB(A) at 4 m	kW	A	A	Nr.	+°C	+°C	kg						
1 Phase motor, 230 V / 1 ph. / 50 Hz, capacitor motor, protection to IP 54																	
GBW 500/6	5519	5760	880	35	0.52	2.30	2.60	864	45	45	47	**MWS 3**	1948	**TSW 3.0**	1496	**MW**[1)]	1579
GBW 500/4	5517	8400	1350	45	1.38	6.40	8.20	865	65	55	61	**MWS 10**	1946	–	–	–	–
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△-wiring, protection to IP 54																	
GBD 500/4/4	5518	8000/8850	1075/1340	45	0.97/1.45	1.60/2.80	2.90	867	50	50	57	**RDS 7**	1578	**TSD 5.5**	1503	**M4**[2)]	1571
1 Phase motor, 230 V / 1 ph. / 50 Hz, capacitor motor, protection to IP 54																	
GBW 500/4 T120	5776	8345	1340	45	1.40	6.1	7.0	301	120	100	75	**MWS 10**	1946	–	–	**MW**[1)]	1579
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△-wiring, protection to IP 54																	
GBD 500/4/4 T120	5777	7320/8350	1070/1365	45	1.07/1.50	1.80/3.00	3.0	947	120	110	75	**RDS 4**	1316	**TSD 3.0**	1502	**M4**[2)]	1571

[1)] incl. operation switch [2)] incl. operation and 2 speed switch

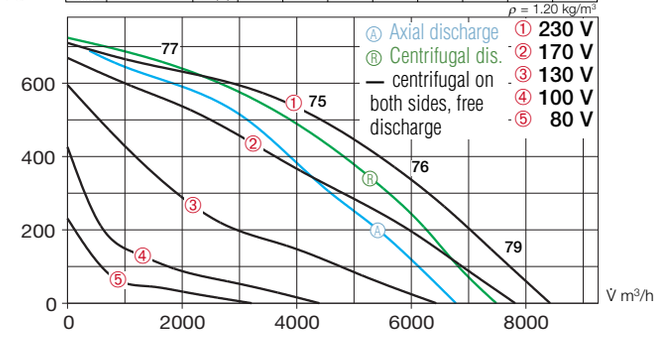
GBW 500/6

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	55	52	51	42	40	37	32	25
L_{WA}	Intake	dB(A)	66	49	51	61	62	59	51	41
L_{WA}	Extract	dB(A)	70	58	62	67	65	64	59	48



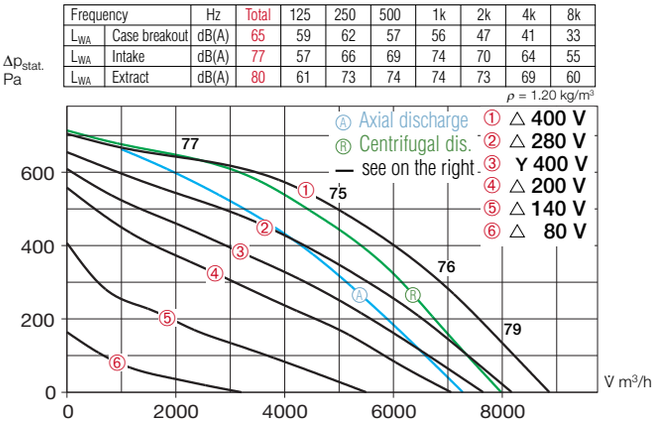
GBW 500/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	65	59	62	57	56	47	41	33
L_{WA}	Intake	dB(A)	77	57	66	69	74	70	64	55
L_{WA}	Extract	dB(A)	80	61	73	74	74	73	69	60



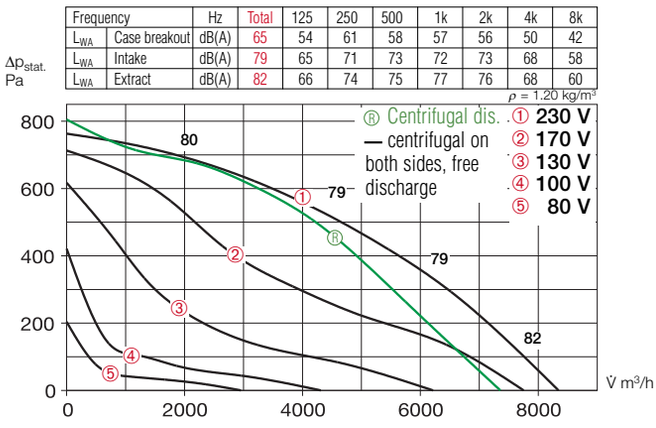
GBD 500/4/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	65	59	62	57	56	47	41	33
L_{WA}	Intake	dB(A)	77	57	66	69	74	70	64	55
L_{WA}	Extract	dB(A)	80	61	73	74	74	73	69	60



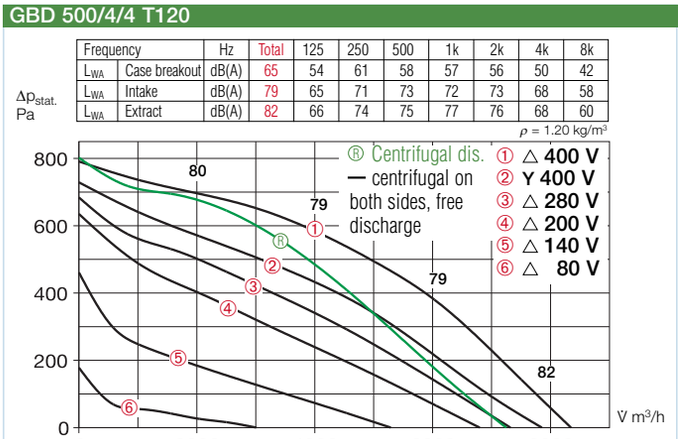
GBW 500/4 T120

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	65	54	61	58	57	56	50	42
L_{WA}	Intake	dB(A)	79	65	71	73	72	73	68	58
L_{WA}	Extract	dB(A)	82	66	74	75	77	76	68	60



GBD 500/4/4 T120

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	65	54	61	58	57	56	50	42
L_{WA}	Intake	dB(A)	79	65	71	73	72	73	68	58
L_{WA}	Extract	dB(A)	82	66	74	75	77	76	68	60



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Accessory-Details	Pages
Speed controller and full motor protection unit	397 on

☐ Motor protection

Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ Speed control

All types are speed controllable by voltage reduction using a transformer controller.
The 3-phase models can also be 2 speed controlled by star/delta switch (accessories DS 2 or full motor protection unit M 4). The duties at different speeds are given in the performance curve.

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level extract

in the tables above the performance curve. Beside, the sound power level (on intake) is stated over the rated characteristic curve. In the table below you can also find the
- case breakout level at 4 m (freefield conditions).

■ Accessories of both types

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 500 Ref. No. 5626

External weather louvers to over exhaust opening.
GB-WSG 500 Ref. No. 5639

Outdoor cover hood for outdoor installation.
GB-WSD 500 Ref. No. 5748

On/Off and 2-speed switch for 3-phase star/delta motors.
DS 2 [3] Ref. No. 1351

[3] full motor protection unit recommended: MD Ref. No. 5849

■ Specific accessories

☐ for types GB..

Condensate collector with condensate spigot for pipe connection.
GB-KW 500 Ref. No. 5644

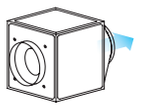
(Condensate collector with condensate spigot included in delivery with GB.. T120).

☐ for types GB.. T120

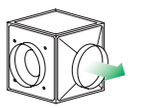
Rain drainage for outdoor installation (drill holes for rain drainage is already prepared).
GB-RA Ref. No. 9418

Models GB..

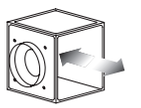
Arbitrary installation position and flexible assembly by five possible discharge directions.



Ⓐ Axial discharge



Ⓡ Centrifugal discharge

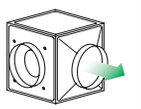


— centrifugal on both sides, free discharge

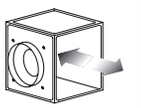
Models GB.. T120

NEW!

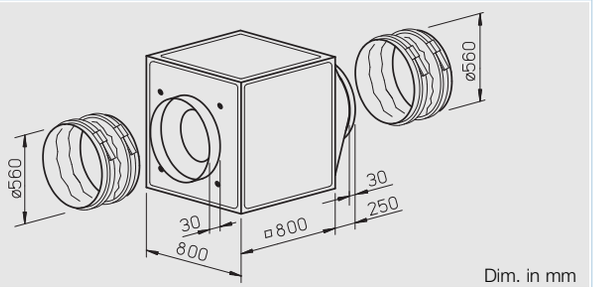
Designed for moving dirty, humid and hot air up to max. 120° C.



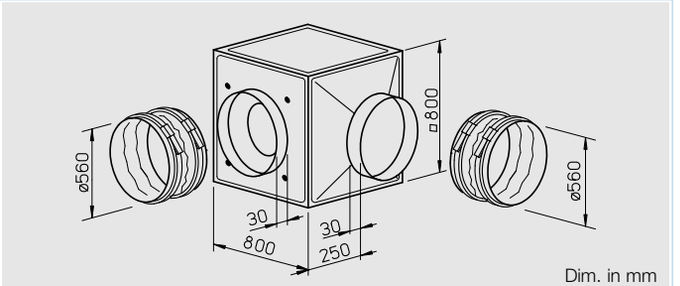
Ⓡ Centrifugal discharge



— centrifugal on both sides, free discharge



Dim. in mm



Dim. in mm

■ Special features of type GB.. T120

- Designed for moving dirty, humid and hot air volumes up to max. 120° C.
- Motor located outside of air flow.
- Temperature insulated partition panel between motor and impeller, lined with 20 mm thick, flame-retardant mineral wool.
- Easily accessible motor and impeller unit, removable without disassembling the system components.
- Inspection cover with handle, simply remove for cleaning and maintenance.
- Condensate collector with condensate spigot included in delivery. Drill hole for rain drainage (accessories) for outdoor installation is prepared.

□ Assembly of types GB.. T120

Installation must be carried out with condensation discharge showing downward. Flexible assembly by three possible centrifugal discharge directions via the discharge adapter. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Feature

□ Assembly of types GB..

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter. For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Specification of both types

□ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulting and flame-retardant mineral wool.
Intake cone for ideal inflow as well as spigot and flexible sleeve (for the respective max. permissible air flow temperature) for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

□ Impeller

Smooth running backward curved aluminium centrifugal impeller highly efficient and direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

□ Motor

Maintenance-free external rotor motor or IEC-standard motor protected to IP 44 or 54. With ball bearings and radio suppressed as standard.

□ Electrical connection

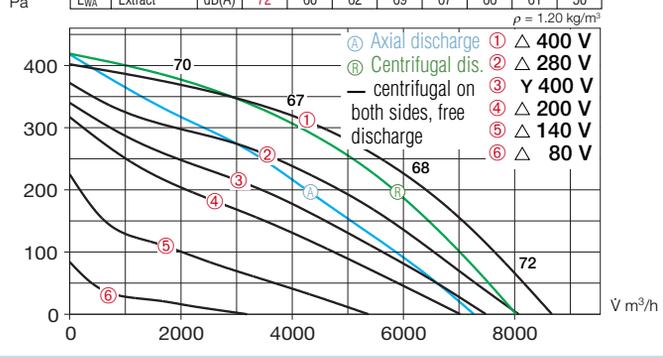
Standard terminal box (IP 54) fitted on the motor; with GB.. T120 fitted on the motor support plate.

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	5 step transformer controller with motor protect. unit Type	Ref. No.	5 step transformer controller without motor protect. unit Type	Ref. No.	Full motor protection unit using the thermal contacts Type	Ref. No.
		V̇ m^3/h	min^{-1}	dB(A) at 4 m	kW	A	A	Nr.	+°C	+°C	kg						
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△-wiring, protection to IP 54																	
GBD 560/6/6	5522	7800/8640	690/870	35	0.51/0.80	0.90/1.90	1.90	867	60	60	80	**RDS 4**	1316	**TSD 3.0**	1502	**M4**[1)]	1571
GBD 560/4/4	5521	11500/12590	1110/1350	44	1.70/2.50	2.80/4.80	4.90	867	55	45	90	**RDS 7**	1578	**TSD 7.0**	1504	**M4**[1)]	1571
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△-wiring, protection to IP 54																	
GBD 560/4/4 T120	5778	11520/12300	1250/1400	48	1.85/2.50	3.20/6.80	6.80	520	120	120	105	**RDS 7**	1578	**TSD 7.0**	1504	**M4**[1)]	1571

[1)] incl. operation and 2 speed switch

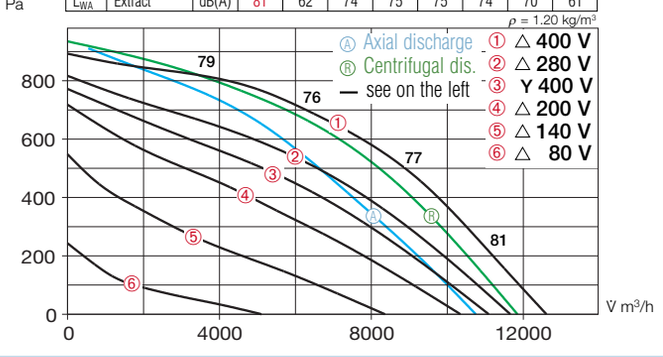
GBD 560/6/6

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	55	52	51	42	40	37	32	25
L_{WA}	Intake	dB(A)	68	51	53	63	64	61	53	43
L_{WA}	Extract	dB(A)	72	60	62	69	67	66	61	50



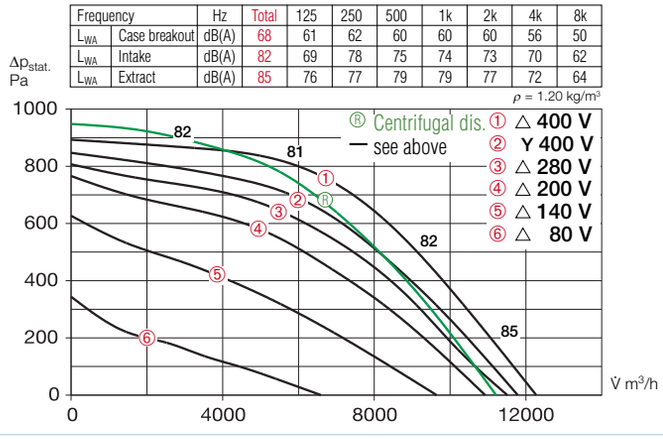
GBD 560/4/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	64	64	64	48	50	46	43	37
L_{WA}	Intake	dB(A)	77	57	66	69	74	70	64	55
L_{WA}	Extract	dB(A)	81	62	74	75	75	74	70	61



GBD 560/4/4 T120

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	68	61	62	60	60	60	56	50
L_{WA}	Intake	dB(A)	82	69	78	75	74	73	70	62
L_{WA}	Extract	dB(A)	85	76	77	79	79	77	72	64



☐ Motor protection

Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ Speed control

All types are speed controllable by voltage reduction using a transformer controller.
The 3-phase models can also be 2 speed controlled by star/delta switch (accessories DS 2 or full motor protection unit M 4). The duties at different speeds are given in the performance curve.

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level extract

in the tables above the performance curve. Beside, the sound power level (on intake) is stated over the rated characteristic curve. In the table below you can also find the
- case breakout level at 4 m (freefield conditions).

■ Accessories of both types

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 560 Ref. No. 5626

External weather louvers to cover exhaust opening.
GB-WSG 560 Ref. No. 5640

Outdoor cover hood for outdoor installation.
GB-WSD 560 Ref. No. 5749

On/Off and 2-speed switch for 3-phase star/delta motors.
DS 2 [2] Ref. No. 1351

[2] full motor protection unit recommended: MD Ref. No. 5849

☐ Information	Pages
Design of systems, acoustic	12 on
General techn. information, speed control	17 on

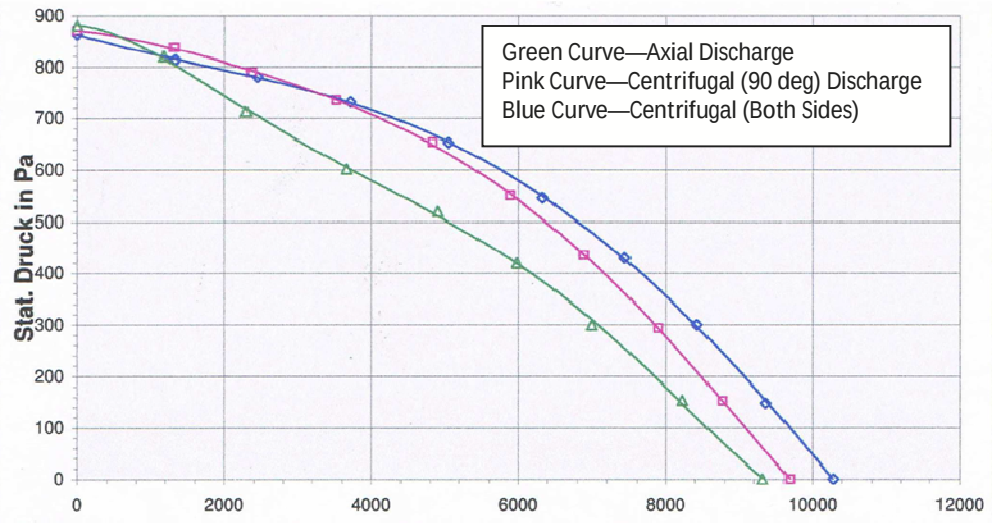
☐ Accessory-Details	Pages
Speed controller and full motor protection unit	397 on

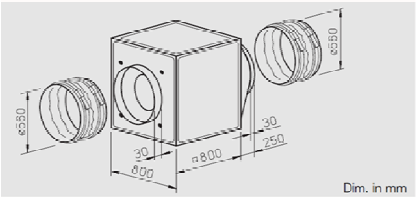
■ Specific accessories

☐ for types GB..
Condensate collector with condensate spigot for pipe connection.
GB-KW 560 Ref. No. 5645
(Condensate collector with condensate spigot included in delivery with GB.. T120).

☐ for types GB.. T120
Rain drainage for outdoor installation (drill holes for rain drainage is already prepared).
GB-RA Ref. No. 9418

GBW 560/4





$\Delta p_{stat.}$ Pa

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	64	64	64	48	50	46	43	37
L_{WA}	Intake	dB(A)	77	57	66	69	74	70	64	55
L_{WA}	Extract	dB(A)	81	62	74	75	75	74	70	61

Self supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel. Intake cone for ideal airflow, spigot and flexible connector for duct connection. With discharge adapter (square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks. Installation must be carried out with condensation discharge showing downward. Flexible assembly by three possible centrifugal discharge directions via discharge adapter. Outdoor installation is possible using outdoor cover hood and external weather louvres (accessories).

Impeller:
Smooth running backward curved aluminium centrifugal impeller highly efficient and direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 - class 6.3

Motor:
Maintenance free external rotor motor or IEC standard motor protected to IP 44 and 54. With ball bearings and radio suppressed as standard.

Electrical Connection:
Standard terminal box (IP54) fitted on the motor support plate.

Motor Protection:
Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

Speed Control:
Speed controllable by voltage reduction using transformer controller.

Type	Ref. No.	R.P.M.	Sound Level	Motor power (nominal)	Current Full Load	Maximum air flow temp.	Nom. weight (net)	5 step trans. controller	
		min^{-1}	dB(A) at 4 m	kW	Amps	+°C	kg	Type	Ref.
GBW 560/4	5508	1370	44	2.0	8.7	60	90	TSW 10	1498

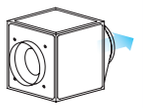
Volume Flow m3/s against static pressure

0	50	100	150	200	250	300	400	500	600	700	800
2.77	2.72	2.55	2.48	2.41	2.31	2.22	2.0	1.72	1.44	1.00	0.36

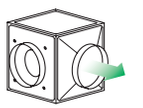
Type Ref.

Models GB..

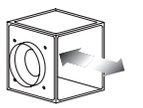
Arbitrary installation position and flexible assembly by five possible discharge directions.



Ⓐ Axial discharge



Ⓡ Centrifugal discharge

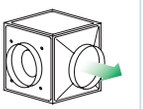


— centrifugal on both sides, free discharge

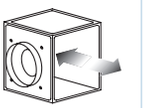
Models GB.. T120

NEW!

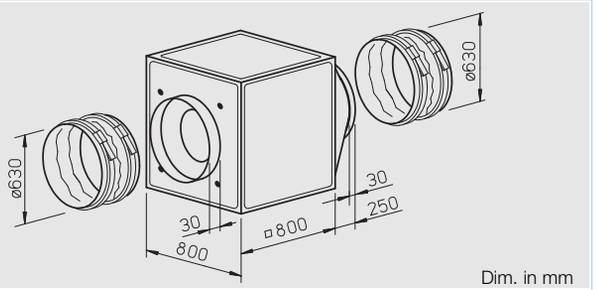
Designed for moving dirty, humid and hot air up to max. 120° C.



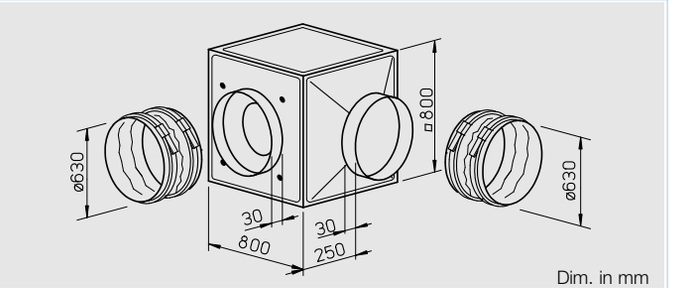
Ⓡ Centrifugal discharge



— centrifugal on both sides, free discharge



Dim. in mm



Dim. in mm

■ Special features of type GB.. T120

- Designed for moving dirty, humid and hot air volumes up to max. 120° C.
- Motor located outside of air flow.
- Temperature insulated partition panel between motor and impeller, lined with 20 mm thick, flame-retardant mineral wool.
- Easily accessible motor and impeller unit, removable without disassembling the system components.
- Inspection cover with handle, simply remove for cleaning and maintenance.
- Condensate collector with condensate spigot included in delivery. Drill hole for rain drainage (accessories) for outdoor installation is prepared.

□ Assembly of types GB.. T120

Installation must be carried out with condensation discharge showing downward. Flexible assembly by three possible centrifugal discharge directions via the discharge adapter. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Feature

□ Assembly of types GB..

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter. For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Specification of both types

□ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulting and flame-retardant mineral wool. Intake cone for ideal inflow as well as spigot and flexible sleeve (for the respective max. permissible air flow temperature) for duct connection. With discharge adapter (from square into circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

□ Impeller

Smooth running backward curved aluminium centrifugal impeller highly efficient and direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

□ Motor

Maintenance-free external rotor motor or IEC-standard motor protected to IP 44 or 54. With ball bearings and radio suppressed as standard.

□ Electrical connection

Standard terminal box (IP 54) fitted on the motor; with GB.. T120 fitted on the motor support plate.

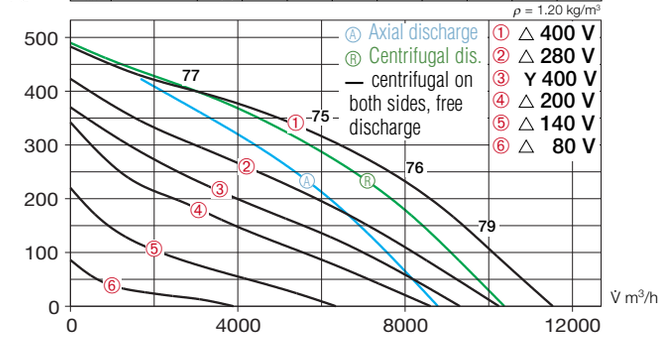
Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	5 step transformer controller with motor protect. unit	Ref. No.	5 step transformer controller without motor protect. unit	Ref. No.	Full motor protection unit using the thermal contacts	Ref. No.
		V m^3/h	min^{-1}	dB(A) at 4 m	kW	A	A	Nr.	+°C	+°C	kg	Type		Type		Type	
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△-wiring, protection to IP 54																	
GBD 630/6/6	5524	9700/11490	630/820	43	0.76/1.35	1.50/2.40	2.40	867	60	60	103	**RDS 4**	1316	**TSD 5.5**	1503	**M4**[1)]	1571
GBD 630/4/4	5523	13500/14950	1120/1380	48	2.55/3.65	4.50/6.60	7.90	867	75	50	105	**RDS 11**	1332	**TSD 11.0**	1513	**M4**[1)]	1571
3 Phase motor, 400 V / 3 ph. /, 50 Hz, protection to IP 54												frequency inverter / sinusoidal filter					
GBD 630/4 T120	5779	14000	1445	53	4.40	8.10	–	776	120	120	131	**FUG 12**	6109 /	**FU-SF 16**	6117	–	–

[1)] incl. operation and 2 speed switch

GBD 630/6/6

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	63	60	59	50	48	45	40	33
L_{WA}	Intake	dB(A)	76	59	61	71	72	69	61	51
L_{WA}	Extract	dB(A)	80	68	72	77	75	74	69	58

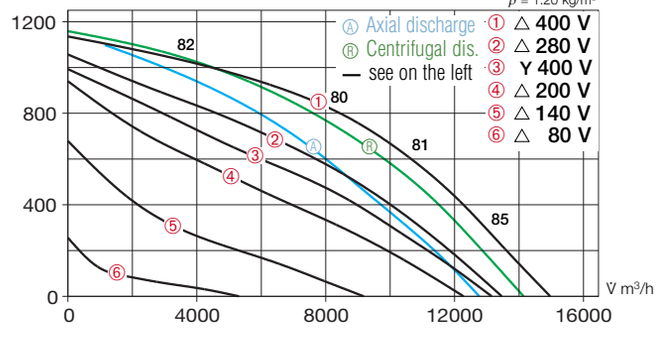
ρ = 1.20 kg/m³



GBD 630/4/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	68	68	68	52	54	50	47	41
L_{WA}	Intake	dB(A)	81	61	70	73	78	74	68	59
L_{WA}	Extract	dB(A)	85	66	77	79	79	78	74	65

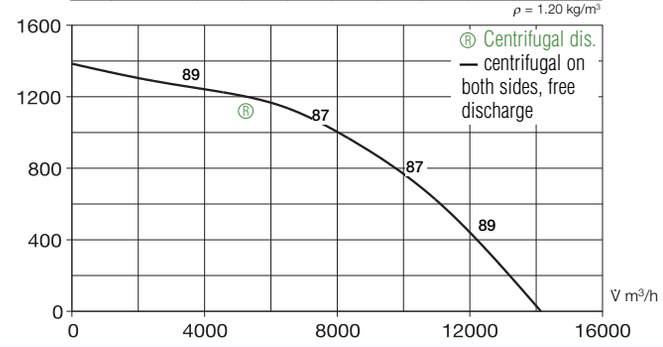
ρ = 1.20 kg/m³



GBD 630/4 T120

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	73	66	67	65	65	65	61	55
L_{WA}	Intake	dB(A)	87	74	83	80	79	78	75	67
L_{WA}	Extract	dB(A)	90	81	82	84	84	82	77	69

ρ = 1.20 kg/m³



☐ Motor protection

Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ Speed control

All types (except GB 630/4 T120) are speed controllable by voltage reduction using a transformer controller. The 3-phase models can also be 2 speed controlled by star/delta switch (accessories DS 2 or full motor protection unit M 4). The duties at different speeds are given in the performance curve.
Type GBD 630/4 T120 is exclusively controllable by frequency inverter

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level extract

in the tables above the performance curve. Beside, the sound power level (on intake) is stated over the rated characteristic curve. In the table below you can also find the
- case breakout level at 4 m (freefield conditions).

■ Accessories of both types

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 630 Ref. No. 5626

External weather louvers to cover exhaust opening.
GB-WSG 630 Ref. No. 5640

Outdoor cover hood for outdoor installation.
GB-WSD 630 Ref. No. 5749

☐ Information	Pages
Design of systems, acoustic	12 on
General techn. information, speed control	17 on

☐ Accessory-Details	Pages
Speed controller and full motor protection unit	397 on

■ Specific accessories

☐ for types GB..

Condensate collector with condensate spigot for pipe connection.
GB-KW 630 Ref. No. 5645
(Condensate collector with condensate spigot included in delivery with GB.. T120).

On/Off and 2-speed switch for 3-phase star/delta motors.
DS 2 [2] Ref. No. 1351

☐ for types GB.. T120

Rain drainage for outdoor installation (drill holes for rain drainage is already prepared).
GB-RA Ref. No. 9418

[2] full motor protection unit recommended: MD Ref. No. 5849

GigaBox centrifugal fan 710 mm ø

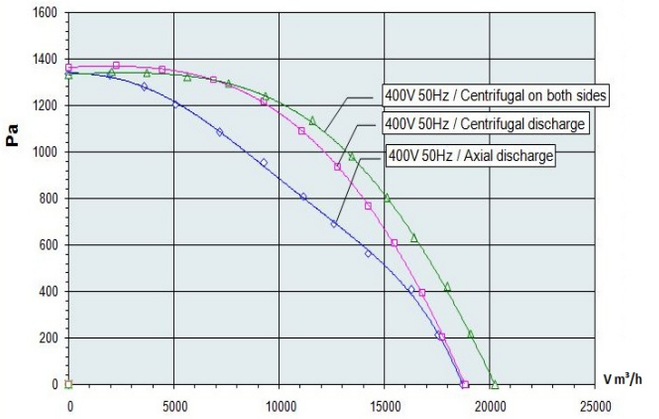
Models GB..

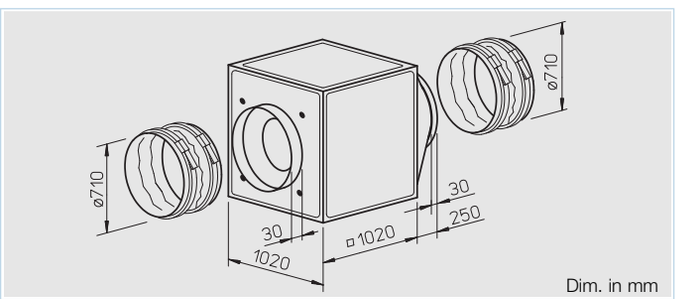
Ⓐ Axial discharge

Ⓡ Centrifugal discharge

— centrifugal on both sides, free discharge

GBD 710/4/4





■ Specification

■ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulting and flame-retardant mineral wool. Intake cone for ideal inflow as well as spigot and flexible sleeve for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

□ Impeller

Smooth running backward curved aluminium centrifugal impeller highly efficient and direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

□ Motor

Maintenance-free and speed controllable external rotor motor, protection to IP 44. With ball bearings and radio suppressed as standard.

□ Electrical connection

Terminal box fitted on the motor as standard, protection to IP 54.

□ Motor protection

Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

□ Speed control

All models are speed controllable using an **Inverter drive**.

□ Assembly

Arbitrary installation position and flexible assembly by five possible discharge directions of the discharge adapter. For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Accessories

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

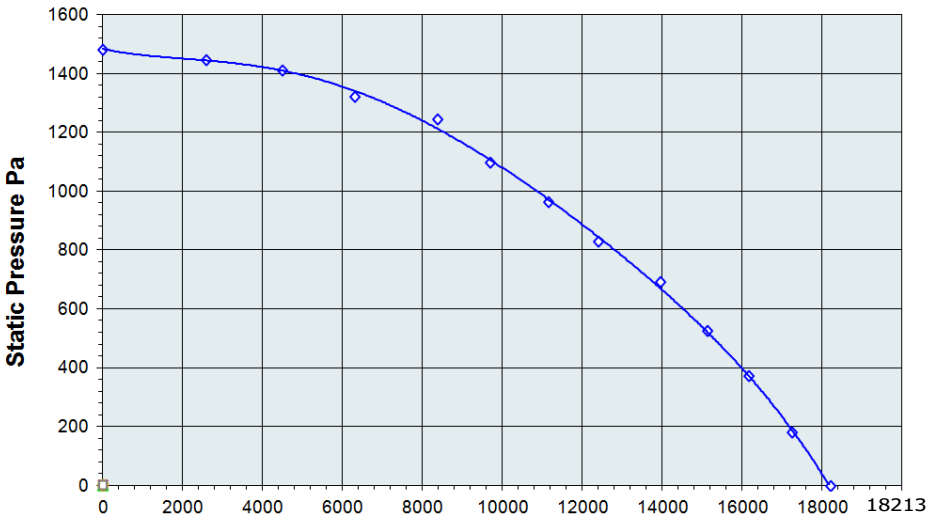
External weather louvers to cover exhaust opening.
GB-WSG 710 Ref. No. 5641

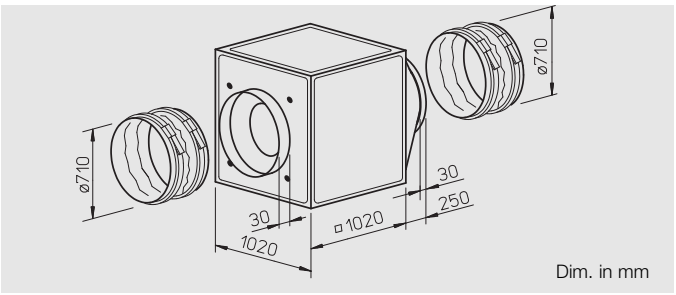
Outdoor cover hood for outdoor installation.
GB-WSD 710 Ref. No. 5750

Condensate collector with condensate spigot for pipe connection.
GB-KW 710 Ref. No. 5646

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	**Inverter** controller **Type**	Ref.	Full motor protection unit using the thermal contacts **Type**	Ref. No.
		V̇ m³/h	min⁻¹	dB(A) at 4 m	kW	A	A	Nr.	+°C	+°C	kg				
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△															
GBD 710/4/4	5529	20285	1465	TBC	5.5	9.9	10.2	TBC	50	50	167	5.5kW IP55	131B5488	-	

GBD 710/4/4 T120



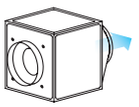


Designed for moving dirty, humid and hot air volumes up to max. 120 C. Motor located outside of air flow. Temperature insulated partition panel between motor and impeller, lined with 20mm thick, flame retardant mineral wool. Condensate collector with condensate spigot included in delivery. Drill hole for rain drainage (accessories) for outdoor installation is prepared. Self supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel. Intake cone for ideal airflow, spigot and flexible connector for duct connection. With discharge adapter (square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.
Installation must be carried out with condensation discharge showing downward. Flexible assembly by three possible centrifugal discharge directions via discharge adapter. Outdoor installation is possible using outdoor cover hood and external weather louvres (accessories).
Impeller: Smooth running backward curved aluminium centrifugal impeller highly efficient and direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 - class 6.3
Motor: Maintenance free external rotor motor or IEC standard motor protected to IP 44 and 54. With ball bearings and radio suppressed as standard.
Electrical Connection: Standard terminal box (IP54) fitted on the motor support plate.
Motor Protection: Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

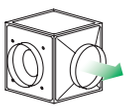
Type Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	**Inverter** controller Type Ref.	Full motor protection unit using the thermal contacts Type Ref. No.
	V m^3/h	min^{-1}	dB(A) at 4 m	kW	A	A	Nr.	+°C	+°C	kg		
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△												
GBD 710/4 T120 5756	20285	1465	TBC	5.5	9.9	10.2	TBC	120	120	167	5.5kW IP55 131B5488	-

Type Ref.

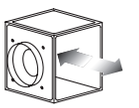
Models GB..



Ⓐ Axial discharge



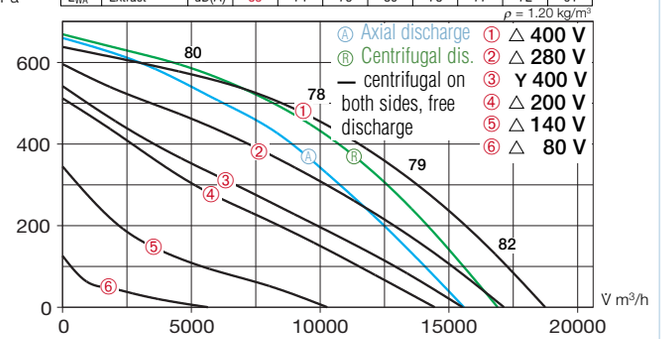
Ⓡ Centrifugal discharge

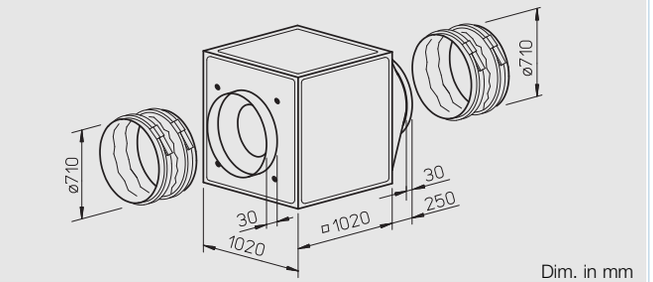


— centrifugal on both sides, free discharge

GBD 710/6/6

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	66	63	62	53	51	48	43	36
L_{WA}	Intake	dB(A)	79	62	64	74	75	72	64	54
L_{WA}	Extract	dB(A)	83	71	75	80	78	77	72	61





Dim. in mm

Information	Pages
Design of systems, acoustic	12 on
General techn. information, speed control	17 on

Accessory-Details	Pages
Speed controller and full motor protection unit	397 on

Specification

Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulting and flame-retardant mineral wool. Intake cone for ideal inflow as well as spigot and flexible sleeve for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

Impeller

Smooth running backward curved aluminium centrifugal impeller highly efficient and direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

Motor

Maintenance-free and speed controllable external rotor motor, protection to IP 44. With ball bearings and radio suppressed as standard.

Electrical connection

Terminal box fitted on the motor as standard, protection to IP 54.

Motor protection

Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

Speed control

All models are speed controllable using a transformer controller for voltage reduction.
The 3 ph.-models can also be operated on two speeds using a Y/△ switch DS 2 or a full motor protection unit M4. The voltage steps are given in the performance curve.

Assembly

Arbitrary installation position and flexible assembly by five possible discharge directions of the discharge adapter. For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level extract

in the tables above the performance curve. Beside, the sound power level (on intake) is stated over the rated characteristic curve. In the table below you can also find the
- case breakout level at 4 m (freefield conditions).

Accessories

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

External weather louvers to cover exhaust opening.
GB-WSG 710 Ref. No. 5641

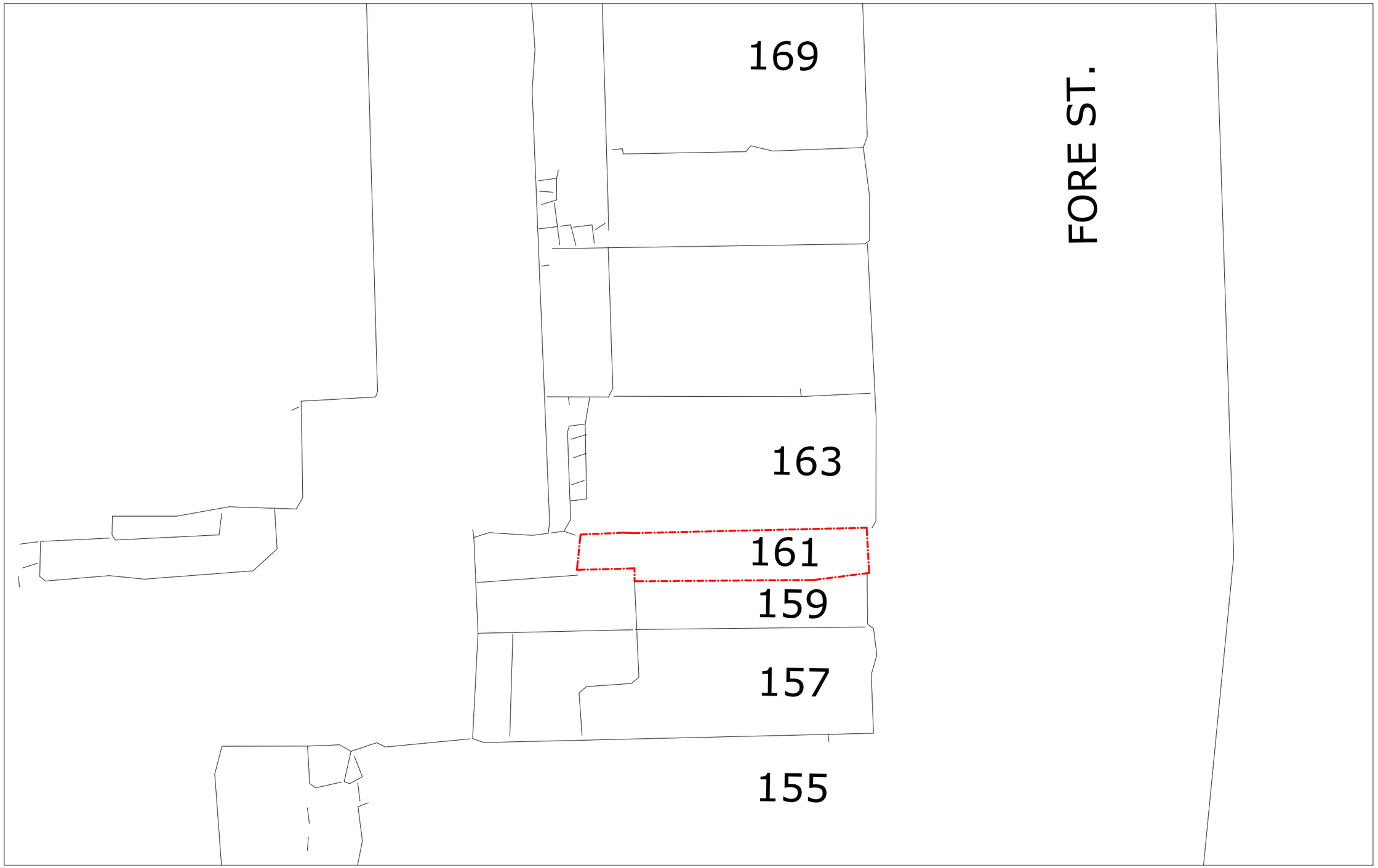
Outdoor cover hood for outdoor installation.
GB-WSD 710 Ref. No. 5750

Condensate collector with condensate spigot for pipe connection.
GB-KW 710 Ref. No. 5646

On/Off and 2-speed switch for 3-phase star/delta motors.
DS 2[2)] Ref. No. 1351

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	5 step transformer controller with motor protect. unit Type	Ref. No.	5 step transformer controller without motor protect. unit Type	Ref. No.	Full motor protection unit using the thermal contacts Type	Ref. No.
		V̇ m³/h	min⁻¹	dB(A) at 4 m	kW	A	A	Nr.	+°C	+°C	kg						
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△-wiring, protection to IP 54																	
GBD 710/6/6	5525	16500/18700	690/890	46	1.55/2.45	2.90/4.70	4.70	867	50	50	157	**RDS 7**	1578	**TSD 7.0**	1504	**M4**[1)]	1571

[1)] incl. operation and 2 speed switch [2)] required full motor protection unit: model MD, Ref. No. 5849



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Scale (@ A3) 1 : 200

1m 2 4 6 8 10

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Checked By	KK		BLOCK PLAN			JOB No.	22.011	DATE	25/02/22	

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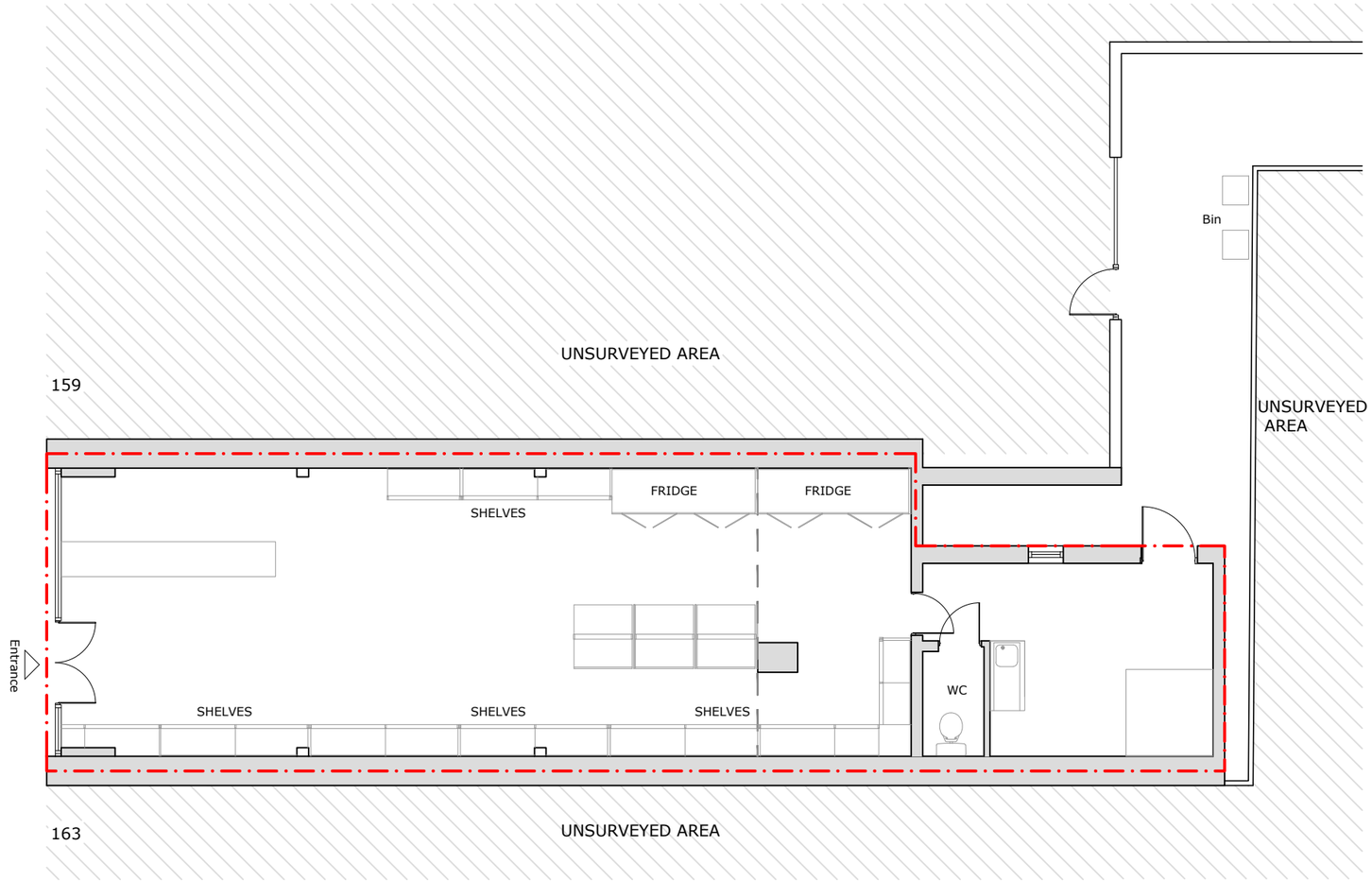

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Scale (@ A3) 1 : 100

0.5m 1 2 3 4 5

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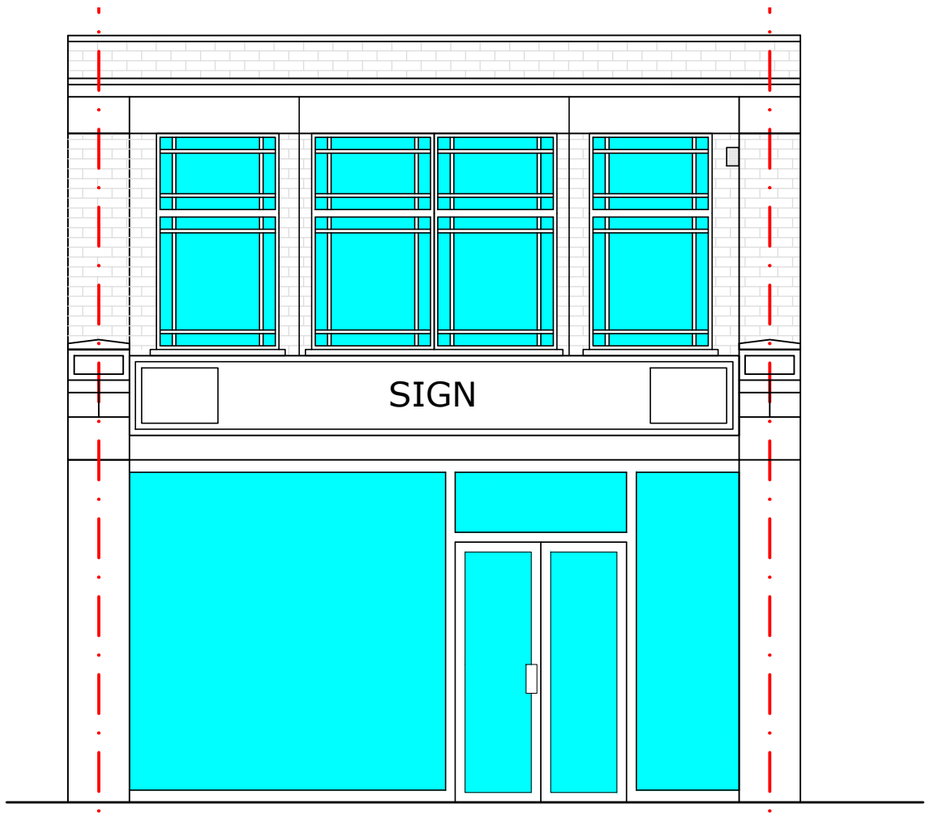
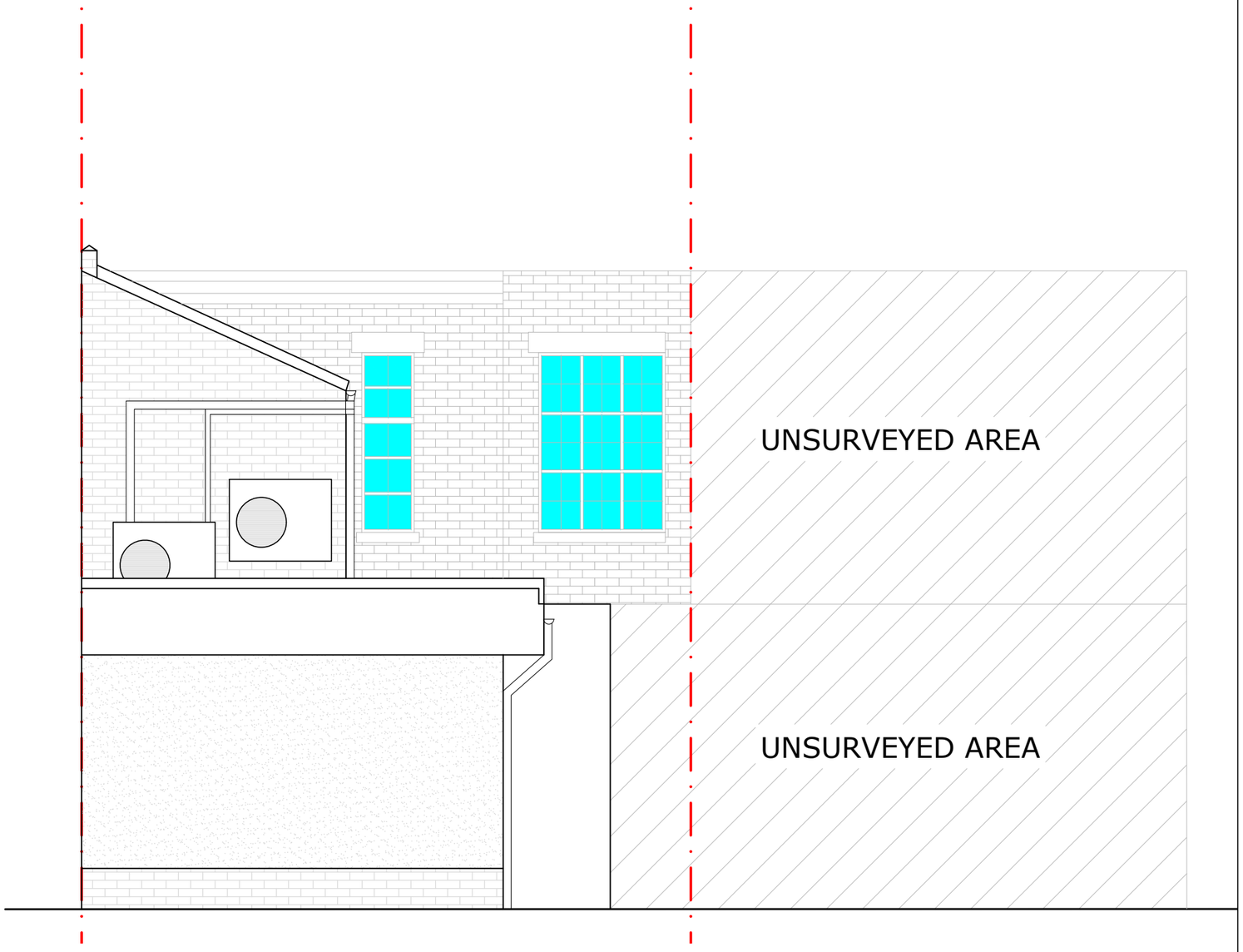


EXISTING FRONT ELEVATION



EXISTING REAR ELEVATION

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Scale (@ A3) 1 : 50

0.25m 0.5 1 1.5 2 2.5

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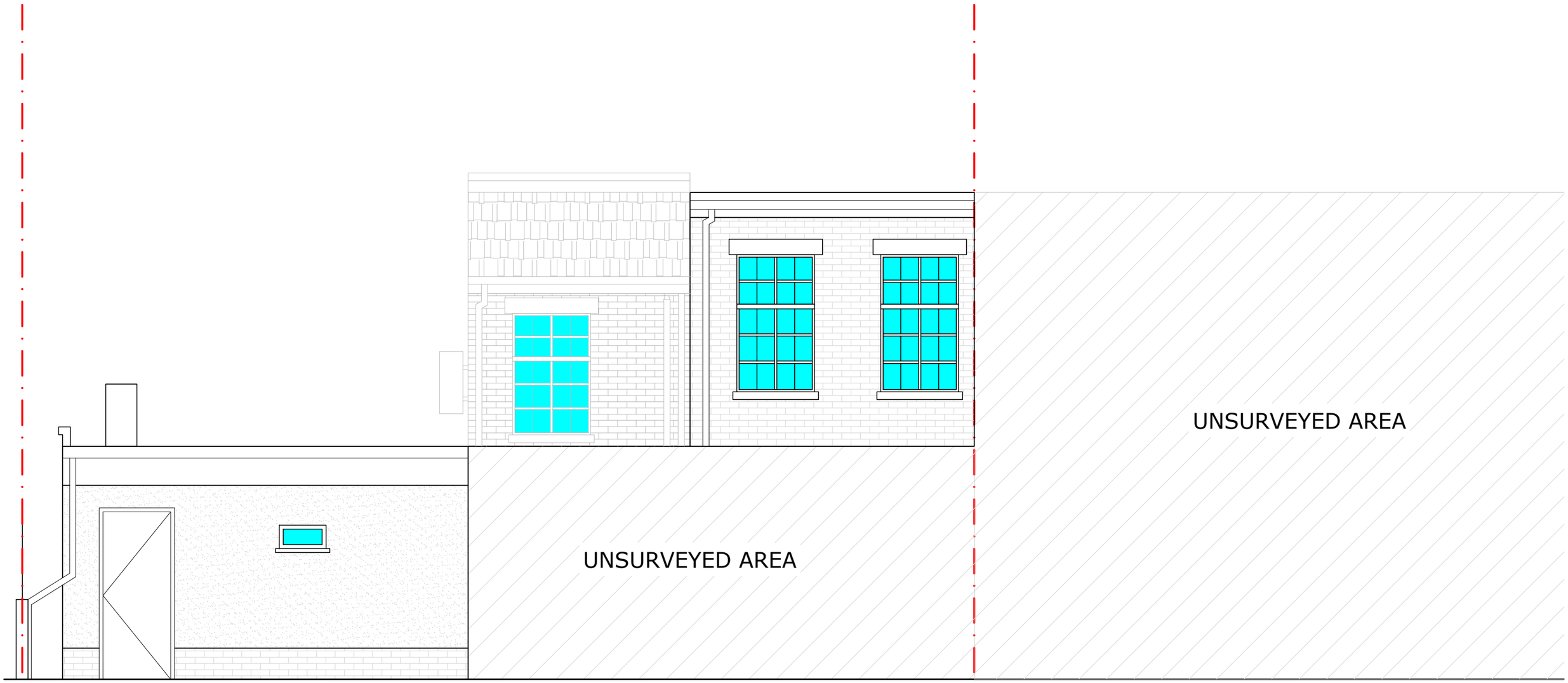

EXISTING SIDE ELEVATION

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Scale (@ A3) 1 : 50

0.25m 0.5 1 1.5 2 2.5

Drawn By	IE	PROJECT STATUS	PLANNING	PROJECT	161 FORE STREET, EDMONTON, N18 2XB	SHEET	ELEVATIONS	DRAWING NUMBER	P102	REV
Checked By	KK		EXISTING ELEVATION			JOB No.	22.011	DATE	25/02/22	

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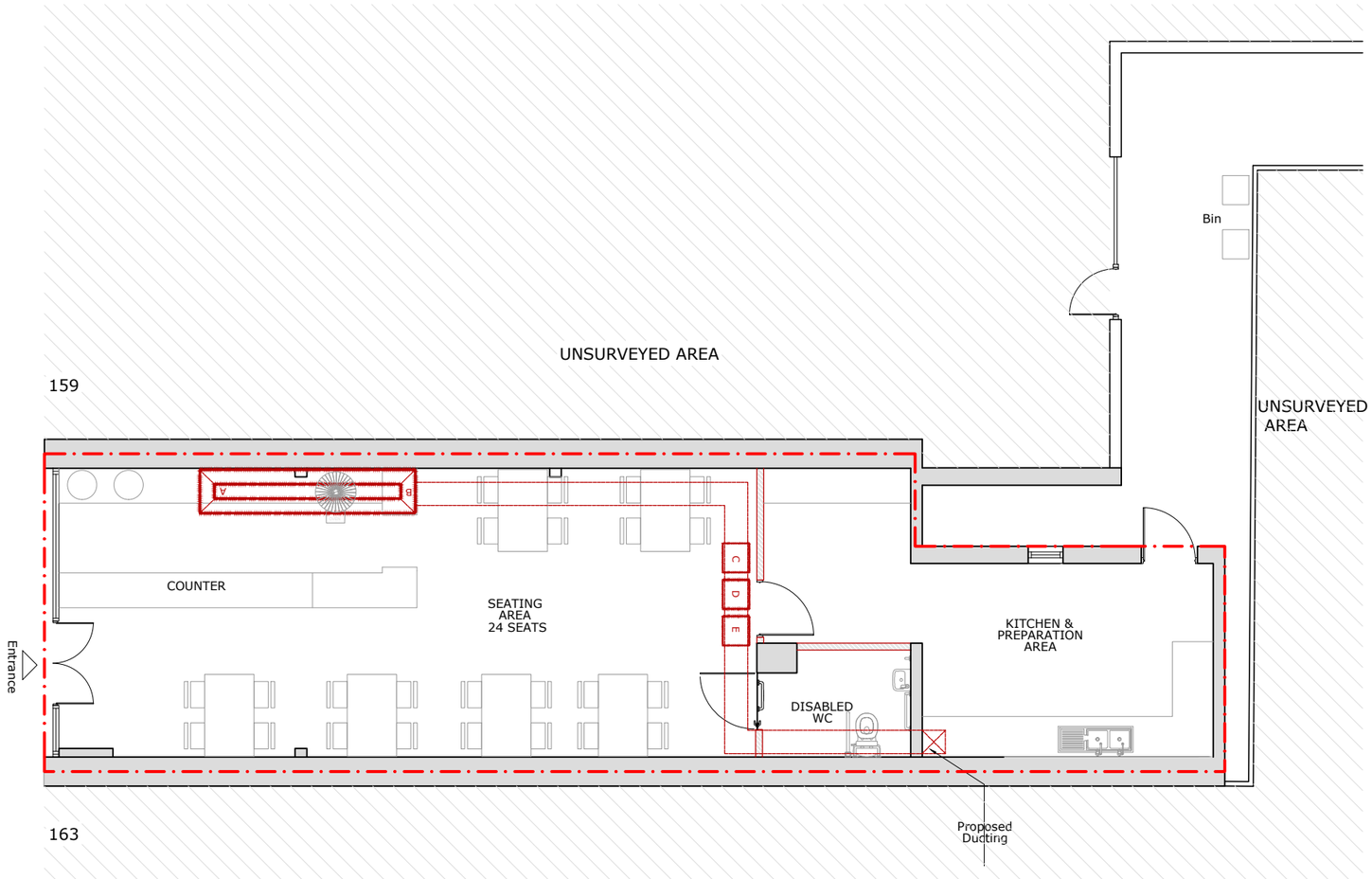

SCHEMATIC DIAGRAM OF A KITCHEN VENTILATION SYSTEM LEGEND

A. COOKING AREA

B. CANOPY
GFBE JASUN BAFFLE GREASE FILTERS CODE:GFBEx-1818
SIZE:445X445X45MM.
RATED AIRFLOW M3/HR :1069 FILTERS TO BE INSTALLED AT ANGLE OF NOT LESS THAN 45° AT FROM HORIZONTAL

C. ACTIVATED CARBON FILTERS
WIRE MESH SUPPORTED PLEATED SYNTHETIC MEDIA (EU4)
PREFILTER MUST BE REPLACED EVERY 2-4 WEEKS

D. FAN/ MOTOR UNIT
MODEL NO : GBW500.1.1
HELIOS CENTRIFUGAL FAN

E. SOUND ATTENUATORS

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Scale (@ A3) 1 : 100

0.5m 1 2 3 4 5

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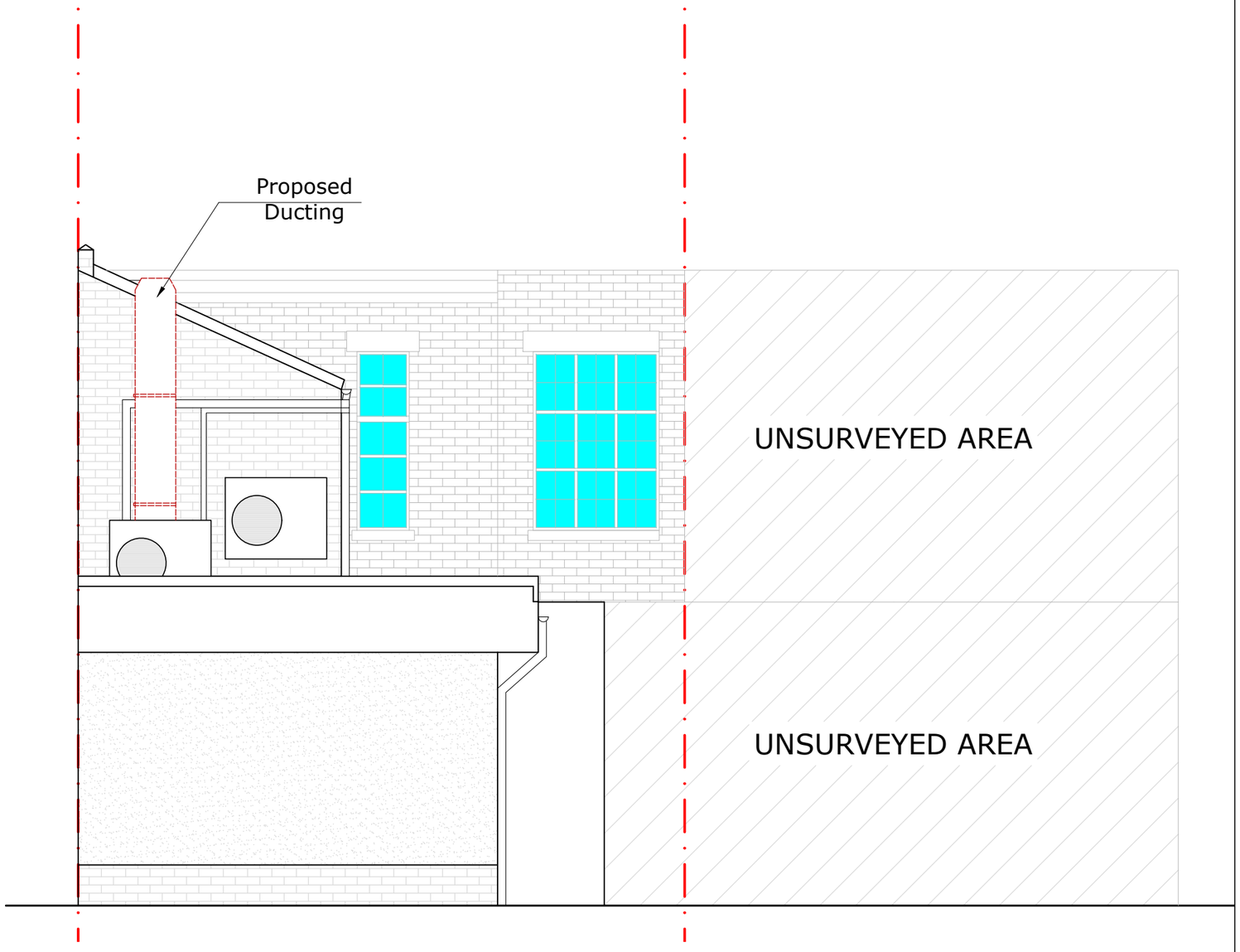
PROPOSED FRONT ELEVATION



PROPOSED REAR ELEVATION

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Scale (@ A3) 1 : 50

0.25m 0.5 1 1.5 2 2.5

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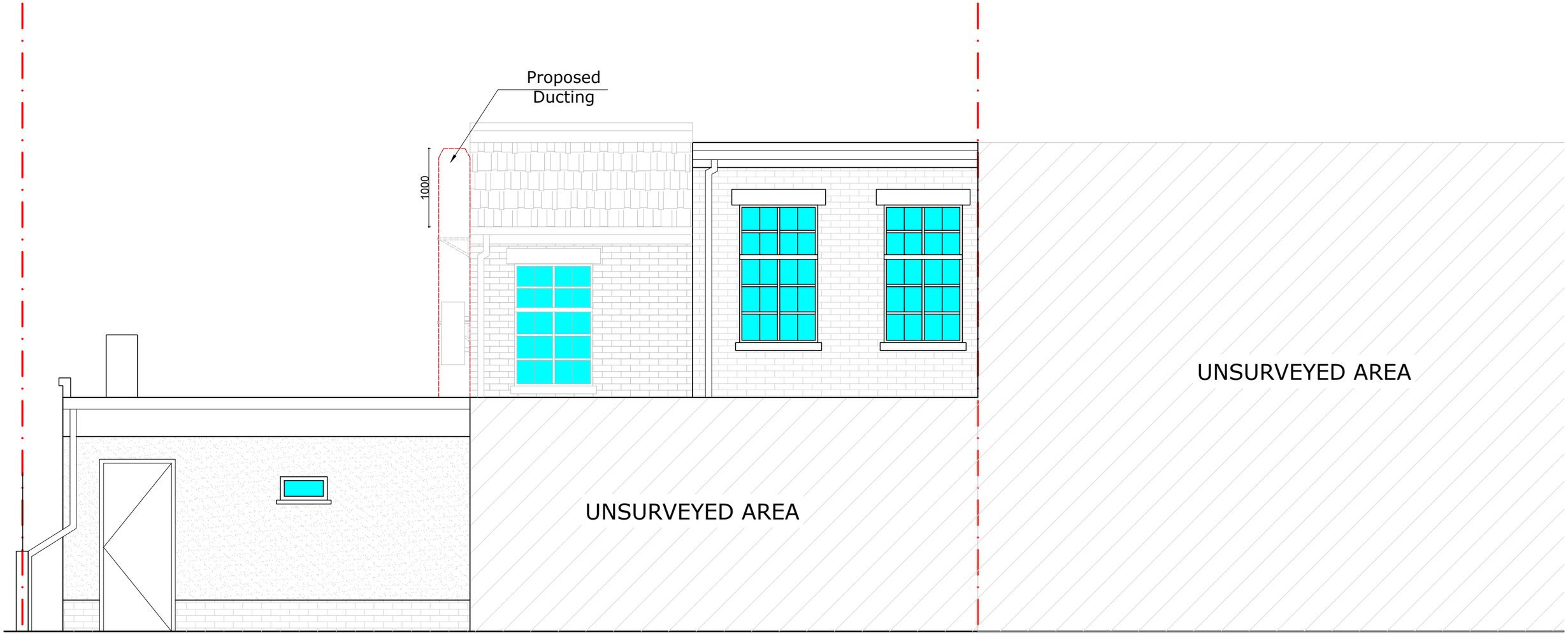

PROPOSED SIDE ELEVATION

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Scale (@ A3) 1 : 50

0.25m 0.5 1 1.5 2 2.5

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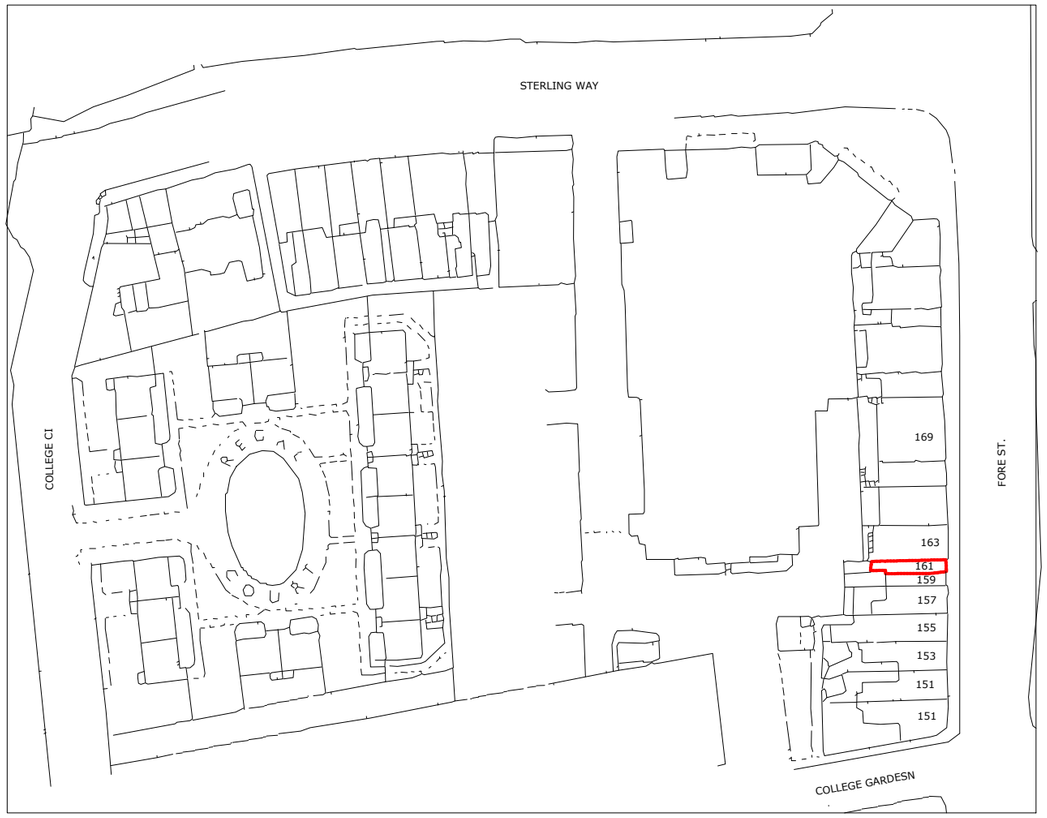

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Scale (@ A3) 1 : 1250

0 12.5 25 37.5 50

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