

FTAO CHRISTIAN  
MUD FOODS LTD

RISK ASSESMENT FOR THE NEW KITCHEN AT ST JAMES INDUSTRIAL ESTATE CHICHESTER

THE FOOD TO BE PREPARED IS MAINLY PIE AND PASTRY ITEMS AS ALREADY BEING  
PREPARED AT THE EXISTING SITE IN MIDHURST

FOLLOWING CRITERIA IMPACT RISK

- 1/ DISPERSION DISCHARGING 1METRE ABOVE RIDGE AT 15M/SEC GOOD SCORE 5
- 2/ LOCATION OF NEIGHBOURS CLOSEST NEIGHBOUR BETWEEN 20 AND 100M FROM  
EXTRACTION SYSTEM MEDIUM SCORE 5
- 3/SIZE OF KITCHEN MEDIUM SCORE 3
- 4/ COOKING TYPE MAINLY PIES AND PASTRY ITEMS , WILL GO FOR HIGH BUT SHOULDNT  
CAUSE ANY IMPACT ON THE NEIGHBOURHOOD SCORE 7

IMPACT RISK TOTAL SCORE FOR THIS KITCHEN IS 20

SO HIGH LEVEL OF ODOUR CONTROL REQUIRED , HAVE ALREADY PROPOSED 3 STAGE  
FILTRATION FINE PANEL, CP4 FIRE RATED BAG FILTER, CARBON BLOCK DWELL TIME 2-4  
SECONDS

I HAVE ALREADY SUPPLIED A COVERING LETTER WITH ALLTHE RELEVANT INFO , A  
MAINTANANCE SCHEDULE AND ALL THE SPECIFICATION SHEETS AS REQUIRED.

ALL THE COOKING IN THE PREMISES WILL BE ELECTRIC ( NO GAS)

ALL THE EXTRACTION WILL BE INTERNAL EXCEPT THE HIGH VELOCITY DISHCHARGH COWL  
2 600 X600 X1000 ATTENUATORS FITTED EACH SIDE OF THE EXTRACT FAN.

FAN PROPOSED IS A HELIOS GBD EC560 3 PHASE WITH LAGGED PANELS ON INSIDE FAN BOX.  
( SPEC SHEET ENCLOSED)

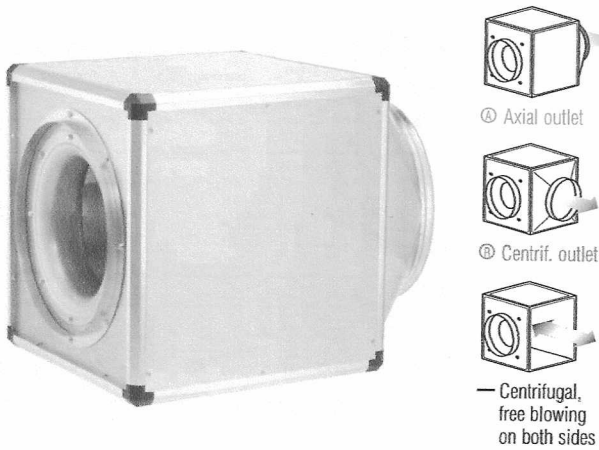
ONCE THE ATTENUATORS ARE FITTED IT SHOULD GIVE 14DB REDUCTION ON OUTLET .

THE EFFLUX VELOCITY AIMING FOR 12-15 M/S

HOPE THIS HELPS REGARDS GLENN

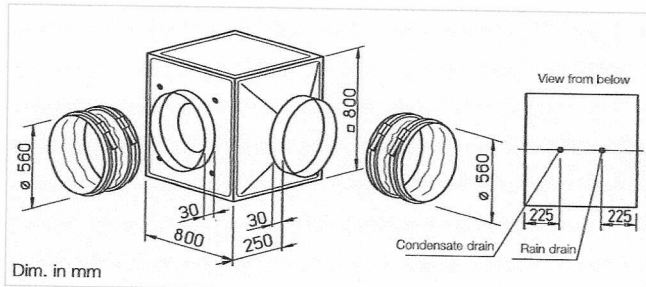
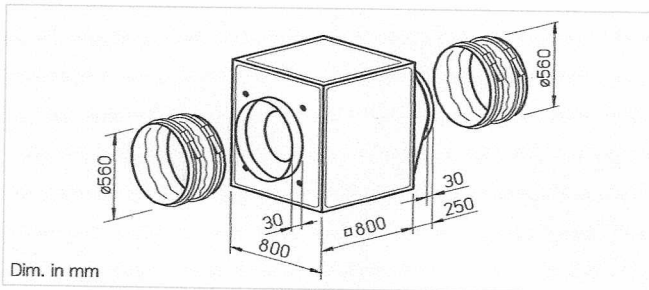
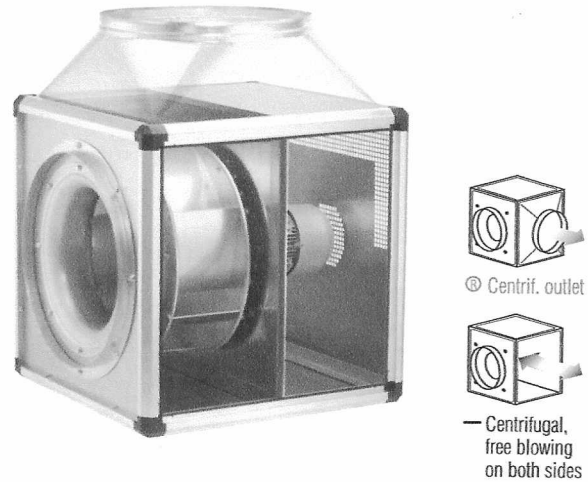
**GB EC**

Any installation position and location due to five possible outlet directions.



**GB EC T120**

For the delivery of contaminated, humid and hot air up to max. 120 °C. Motor located outside of air flow.



**Special features of the GB EC T120 series**

- Designed for the delivery of contaminated, humid and hot air up to max. 120 °C, e.g. as an extract air fan in commercial kitchens and many process technology applications.
- Motor located outside of air flow.
- Thermally insulated partition between motor and impeller, made of galvanised steel sheet, with 20 mm thick, non-flammable mineral wool.
- Complete motor-impeller unit can be removed without dismantling the system components.
- Inspection cover with handle, easily removable for cleaning and maintenance.
- Condensate tray with condensate drain as standard. Hole provided for rain drain (accessories) for outdoor installation.

**Installation GB EC T120**

Installation position with condensate drain below. Flexible installation due to three possible centrifugal outlet directions of the outlet fitting. Protected outdoor installation possible with weather protection roof and grille (accessories).

**Electrical connection**

Standard terminal box (IP 54) directly to the commutation electronics.

**Special feature**

**GB EC series installation**

Any installation position and flexible installation due to five possible outlet directions of the outlet fitting. The wall bracket (accessories) must be used for wall installation. Protected outdoor installation possible with weather protection roof and grille (accessories).

**Electrical connection**

Standard terminal box (IP 54) mounted to external cable.

**Description for both series**

**Casing**

Self-supporting frame construction made of aluminium hollow profiles. Double-walled, 20 mm thick side panels made of galvanised steel sheet, sound and heat insulated by non-flammable mineral wool lining. Nozzle on inlet side for optimal inflow as well as connectors and flexible connecting sleeve (for the respective max. permissible air flow temperature) for duct connection. Moulded part (square to round) on outlet side for low-loss outflow and flexible connecting sleeve to prevent structure-borne noise transmission. Simple positioning with crane hook as standard.

**Impeller**

Free-running high performance centrifugal impeller made of aluminium, directly driven. Energy-efficient with low noise emission. Dynamically balanced together with the motor in accordance with DIN ISO 21940-11 – quality grade 6.3.

**Drive**

Energy-saving, speed-controllable EC external rotor motor in protection category IP 54 with the highest level of efficiency. Maintenance-free and radio interference-free, ball bearing mounted.

**Motor protection**

Integrated electronic temperature monitoring system for EC motor and electronics.

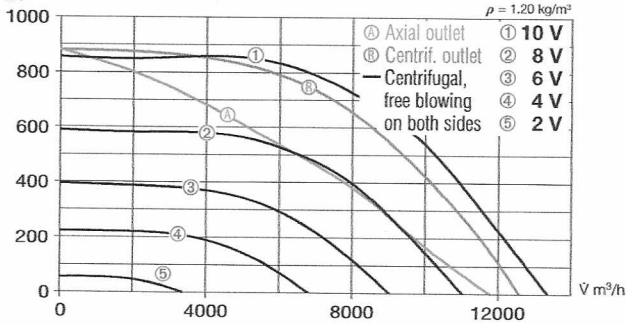
Type	Ref. no.	Connection Ø	Flow rate free blowing	Rated speed	Case-radiated sound pressure	Power consumption	Current consumption	Wiring diagram	Max. air flow temperature	Weight net approx.	Universal control system		Speed potentiometer			
											Type	Ref. no.	Type	Ref. no.	Type	Ref. no.
<b>Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP 54</b>																
GBD EC 560	05814	560	13367	1400	49	2.80	4.30	976	50	83.0	EUR EC <sup>1)2)</sup>	01347	PU 24 <sup>1)</sup>	01736	PA 24 <sup>1)</sup>	01737
<b>Three-phase current, 3~, 400 V, 50/60 Hz, EC motor, protection category IP 54</b>																
GBD EC 560 T120	06481	560	12100	1400	53	2.30	3.60	1214.1	120	102.0	EUR EC <sup>1)2)</sup>	01347	PU 10 <sup>1)</sup>	01734	PA 10 <sup>1)</sup>	01735

1) Multiple EC fans can normally be connected.

2) Alternative electronic diff. pressure/temperature controller (EDR/ETR, No. 01437/01438) or three level speed switch (SU/SA, No. 04266/04267).

**GBD EC 560**

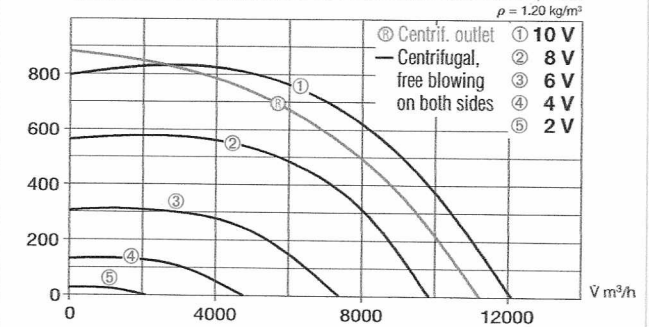
Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Radiation	dB(A)	69	60	67	58	57	56	55	49
L <sub>WA</sub> Inlet side	dB(A)	79	61	71	73	74	72	66	60
L <sub>WA</sub> Outlet side	dB(A)	84	65	74	79	80	75	70	62



Free blowing						
Voltage V	n min <sup>-1</sup>	V̇ m <sup>3</sup> /h	P W	I A	Lp dB(A)	SFP kW/m <sup>3</sup> /s
10	1400	13370	1847	2.90	49	0.49
8	1150	11030	1030	1.70	46	0.34
6	930	9030	578	1.00	43	0.23
4	710	6810	281	0.55	39	0.15

**GBD EC 560 T120**

Frequency	Hz	Tot.	125	250	500	1k	2k	4k	8k
L <sub>WA</sub> Radiation	dB(A)	70	48	49	47	47	47	43	37
L <sub>WA</sub> Inlet side	dB(A)	82	66	75	72	71	70	67	59
L <sub>WA</sub> Outlet side	dB(A)	85	76	77	79	79	77	72	64



Free blowing						
Voltage V	n min <sup>-1</sup>	V̇ m <sup>3</sup> /h	P W	I A	Lp dB(A)	SFP kW/m <sup>3</sup> /s
10	1400	12100	1350	7.20	53	0.40
8	1160	9680	794	4.90	49	0.30
6	860	7150	339	2.80	42	0.17
4	550	4620	112	1.50	33	0.09

**Power control**

Continuously variable speed control with potentiometer or continuously variable speed regulation with universal control system (see table). Performance levels are shown in the characteristic curve as an example.

**Noise**

The total level and range are specified above the performance diagram for:  
 - Radiated sound power  
 - Inlet side sound power  
 - Outlet side sound power.  
 The case-radiated noise as sound pressure at 4 m (free field conditions) is also specified in the type table and the table below the characteristic curve.

**Accessories for both series**

- Vibration dampers** for indoor installation. 1 set = 4 pcs.  
SDD-U Ref. no. 05627
- Wall bracket** for wall installation.  
GB-WK 560 Ref. no. 05626
- Weather protection grille** for outlet-side coverage.  
GB-WSG 560 Ref. no. 05640
- Weather protection roof** for protected outdoor installation.  
GB-WSD 560 Ref. no. 05749

**Special accessories**

- for GB EC series**  
**Condensate tray** with drain connectors (central) for duct/hose connection.  
 GB-KW 560 Ref. no. 05645  
 (a condensate tray with condensate drain is included in delivery for GB EC T120).
- for GB EC T120 series**  
**Rain drain** for outdoor installation (Hole in casing base already provided).  
 GB-RA Ref. no. 09418



References	Page
Planning information	10 ff.
General techn. information, power control	15 ff.
Accessory details	Page
Universal control system, electronic controllers, speed potentiometer	585 ff.