



Stainless Steel Fabrication

Commercial Kitchen Design and Installation

Ventilation strategy for the below address

Address

28 Market Pl
Heywood
OL10 4NL

Installation of extraction system proposed at the above address to *EMAQ Guidance Control of Odour and Noise from Commercial Kitchen Exhaust Systems*

All canopy and ductwork to *BESA DW172 DW144*

If required a noise assessment can be undertaken we recommend noiseharvest.com

Canopy dimensions to Dw172 in mm

Length	Width	Depth Back	Depth Front
Canopy 1 3700	1200	450	300
Canopy 2 2500	1200	600	600
Canopy 3 2000	1200	450	300

Extraction Filtration

Longar type 3 baffle filters

Supply Air Filtration

Longar G4 Filter

Odour control

1 x Rydair ry500 electrostatic precipitation unit



Stainless Steel Fabrication
Commercial Kitchen Design and Installation

UNIT 5 FIREFLY SQUARE PLANTATION ROAD BURSCOUGH L408JT

Tel: 01704-893945 Fax: 0844-4122296

Email: fusionhot1@gmail.com Web: www.facebook.com/fusionhot

Stainless Steel Fabrication Commercial Kitchen Design and Installation

Extract Fan Model	Maximum absorbed power (W)	Maximum absorbed current (A)		Maximum air volume (m3/h)	Sound pressure level* (dB(A)3m)	Speed (r.p.m.)	Weight (Kg)
		230v	400v				
TCBTx2/4-450	1309	5.2	3	7250	74	1430	42
Supply Air Fan	Maximum absorbed power (W)	Maximum absorbed current (A)		Maximum air volume (m3/h)	Sound pressure level* (dB(A)3m)	Speed (r.p.m.)	Weight (Kg)
		230V	400V				
TBCHCBB/4-450/H	626	2.8		7180	65	1410	13

Attenuation Octave – Band Mid Frequencies (Hz)									
Diameter	Length	63	125	250	500	1000	2000	4000	8000
450 1D	450	2	3	6	12	13	11	10	6
450 1D	450	2	3	6	12	13	11	10	6

Cleaning and maintenance

Cleaning and maintenance schedule to be supplied to client to TR19 guidelines
This must be carried out by a competent registered BESA Ductwork cleaner no longer than 12 month intervals or earlier

TYPICAL CANOPY DIMENSIONS

TYPICAL CANOPY DIMENSIONS OVER HOB

TYPICAL CANOPY DIMENSIONS OVER OVEN



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Risk Assessment for Odour EMAQ

Odour control must be designed to prevent odour nuisance in a given situation. The following score methodology is suggested as a means of determining odour control requirements using a simple risk assessment approach. The odour control requirements considered here are consistent with the performance requirements listed in this report.

Criteria	Score	Score	Details
Dispersion	Very poor	20	Low level discharge, discharge into courtyard or restriction on stack.
	Poor	15	Not low level but below eaves, or discharge at below 10 m/s.
	Moderate	10	Discharging 1m above eaves at 10 -15 m/s.
	Good	5	Discharging 1m above ridge at 15 m/s.
Proximity of receptors	Close	10	Closest sensitive receptor less than 20m from Kitchen discharge.
	Medium	5	Closest sensitive receptor between 20 and 100m from kitchen discharge.
	Far	1	Closest sensitive receptor more than 100m from kitchen discharge ¹ .
Size of kitchen	Large	5	More than 100 covers or large sized take away.
	Medium	3	Between 30 and 100 covers or medium sized take away.
	Small	1	Less than 30 covers or small take away ¹ .
Cooking type (odour and grease loading)	Very high	10	Pub (high level of fried food), fried chicken, burgers or fish & chips. <i>Turkish, Middle Eastern or any premises cooking with solid fuel</i>
	High	7	Vietnamese, Thai, Indian, <i>Japanese, Chinese, steakhouse</i>
	Medium	4	<i>Cantonese, Italian, French, Pizza (gas fired),</i>
	Low	1	<i>Most pubs (no fried food, mainly reheating and sandwiches etc), Tea rooms¹</i>



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Premises type	Dispersion	Proximity of receptors	Size of Kitchen	Cooking Type	Total Score
Takeaway	10	10	1	10	31

Impact Risk	Odour Control Requirement	Significance Score*
Low to Medium	Low level odour control	Less than 20
High	High level odour control	20 to 35
Very High	Very high level odour control	More than 35
* based on the sum of contributions from dispersion, proximity of receptors, size of kitchen and cooking type:		



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Odour Arrestment Plant Performance	
Low to medium level control may include:	1. Fine filtration or ESP followed by carbon filtration (carbon filters rated with a 0.1 second residence time). 2. Fine filtration followed by counteractant/neutralising system to achieve the same level of control as 1.
High level odour control may include	1. Fine filtration or ESP followed by carbon filtration (carbon filters rated with a 0.2 - 0.4 second residence time). 2. Fine filtration or ESP followed by UV ozone system to achieve the same level of control as 1.
Very high level of odour control may include:	1. Fine filtration or ESP followed by carbon filtration (carbon filters rated with a 0.4 0.8 second residence time). 2. Fine filtration or ESP followed by carbon filtration and by counteractant/neutralising system to achieve the same level of control as 1. 3. Fine filtration or ESP followed by UV ozone system to achieve the same level of control as 1.

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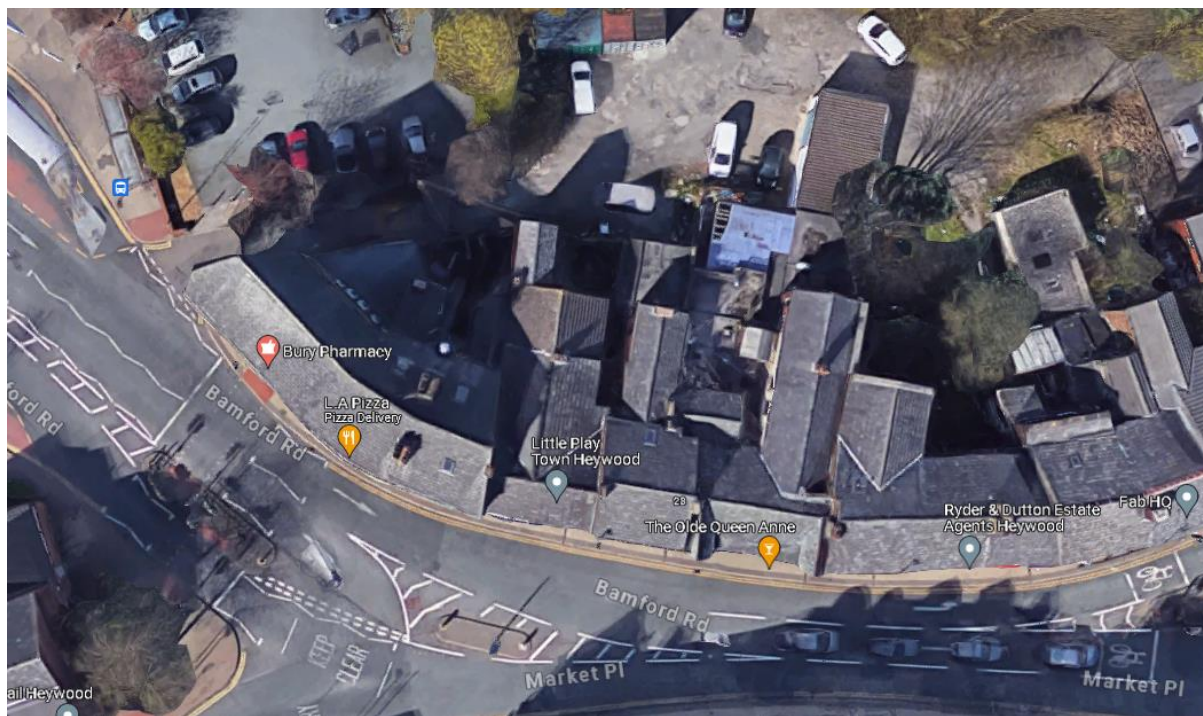
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Google Maps

28 Market Pl

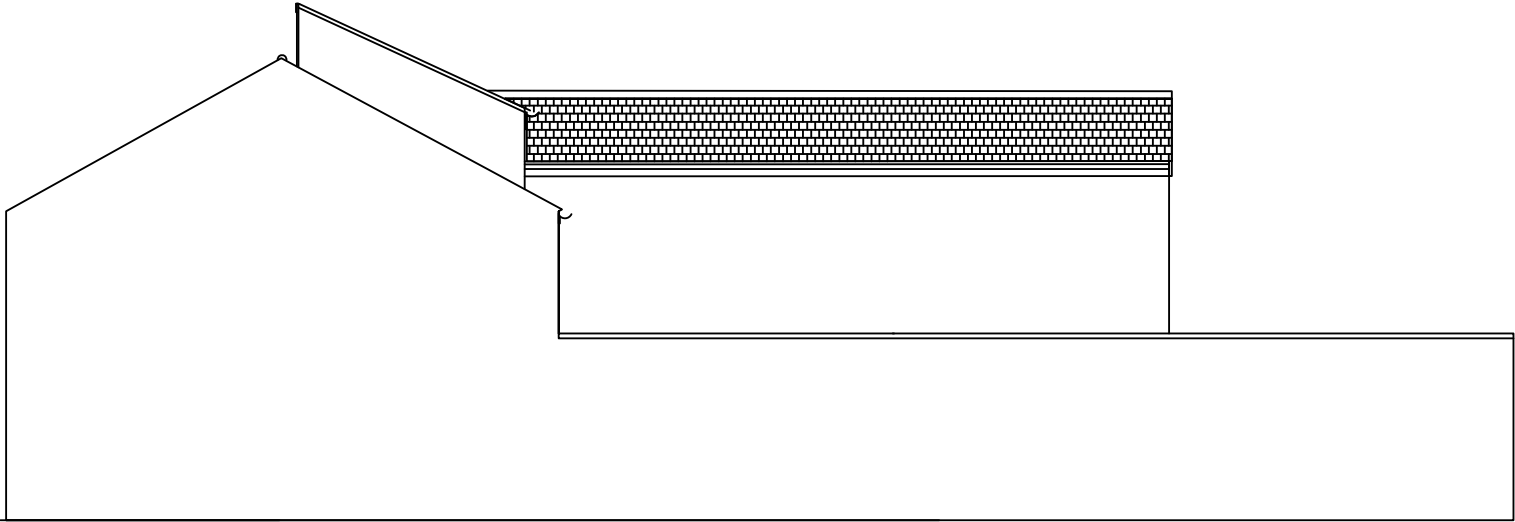
nearest receptor



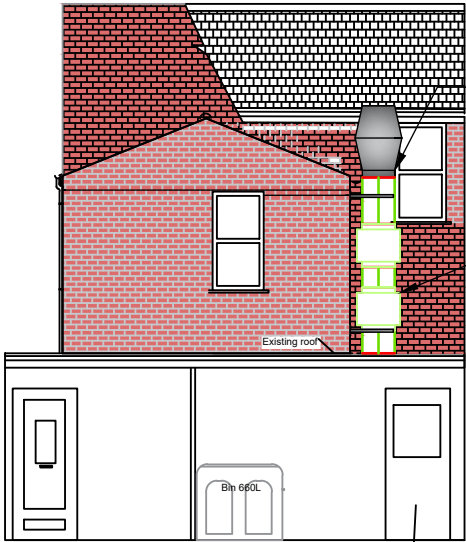
Imagery ©2023 Google, Imagery ©2023 Airbus, The GeoInformation Group, Map data ©2023 5 m

Measure distance

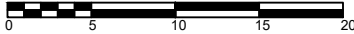
Total distance: 3.09 m (10.13 ft)



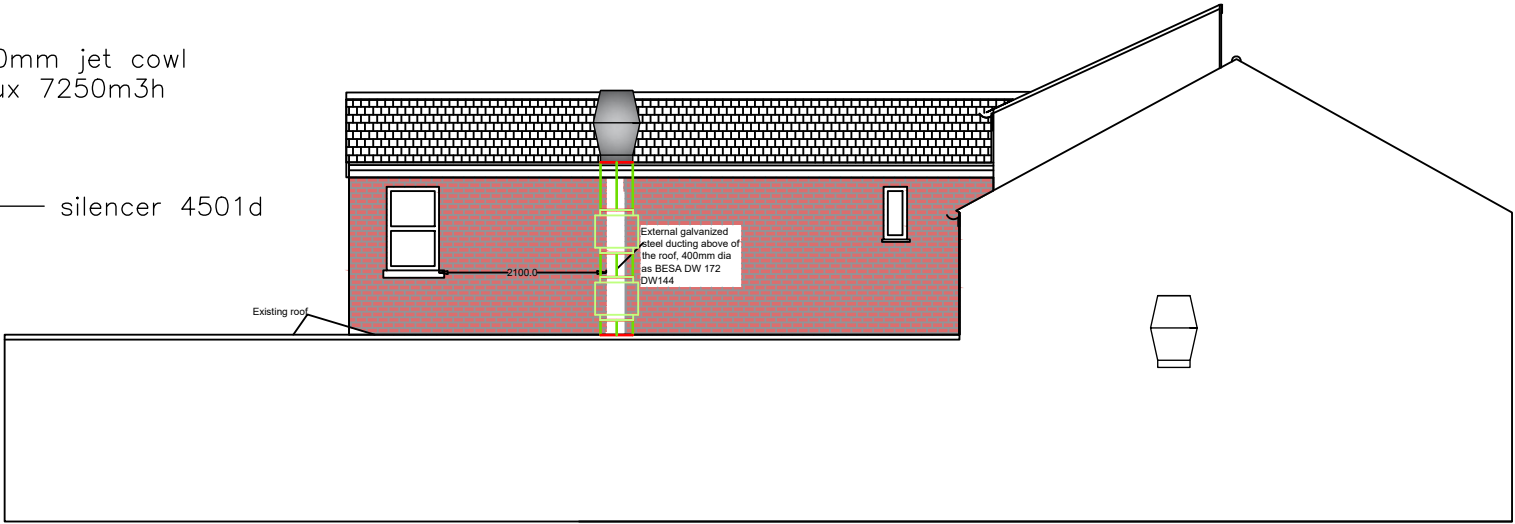
Proposed side elevation



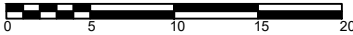
Proposed rear elevation



SCALE BAR 1:100



Proposed side elevation



SCALE BAR 1:100

- All level and dimension must be checked on site by the contractor prior to commencement of works. Any variations must be immediately reported to the Designer.
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- This plans is to be read in conjunction with the planning and Building Regulations, drawings and recommendations. All regulated building works to be carried out in according with all current building regulations.
- All the work to be carried out the satisfaction of the Building Control Local Authority and in full compliance relevant British standard code of practice (BSCP).
- Any work undertaken prior to building regulations approval is done, at the contractors and property owner responsibility.
- Under CDM regulations for the works are subject to CDM regulations 2015. KK Design Solution have taken on the role as draft plan layout details for existing building.
- At the commencement of works the appointed contractor shall take full responsibility for all aspects of health and safety on site during the construction period.

Email:kk1855246@gmail.com

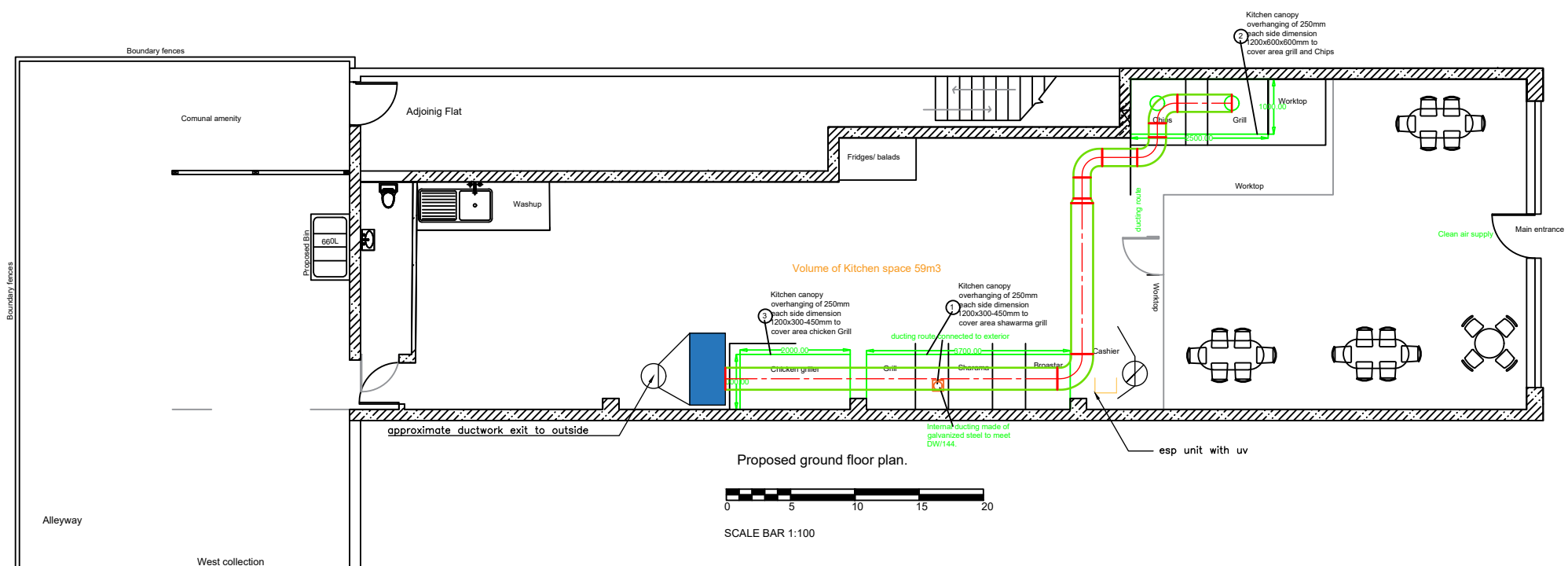
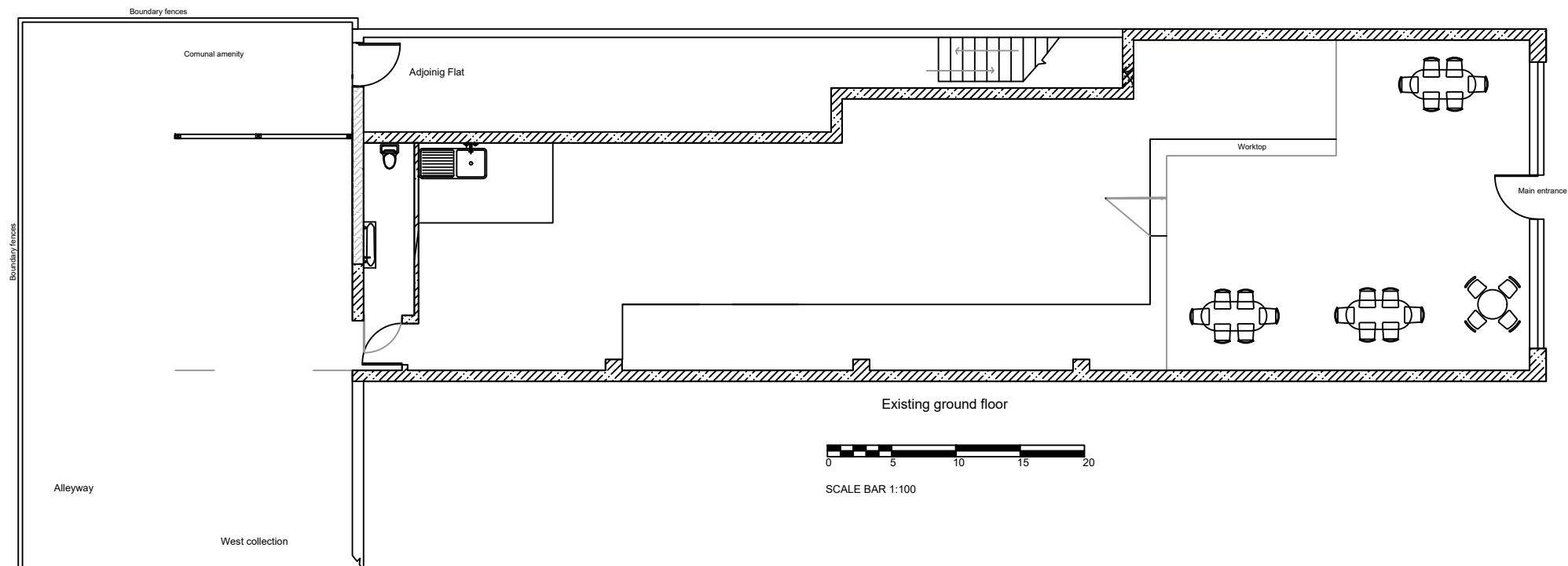
Tel: 07731868560

Unit 6 Manchester Road Manchester BL9 9GF

Project Title
28 Market Place Heywood OL10 4NL

Drawing Title
proposed side and rear elevations

Drawn NK	Checked	Date: 21/11/23
Drawing number KK/1/22		Revision :
Do not Scale : 1:50&1:100		
Drawing Status info Approval Tender Construction As Built		
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Tel: 07731868560
Unit 6 Manchester Road Manchester BL9 9GF

Project Title
28 Market Place Heywood OL10 4NL

Drawing Title
Existing and proposed floor plan

Drawn NK	Checked	Date: 21/11/23
		Sheet: A3
Drawing number KK/1/20	Do not Scale : 1:50&1:100	Revision :1
Drawing Status info Approval Tender Construction As Built		
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LONGAR® Type 3

Low Pressure Baffle Filter



*Stainless steel 240 grit finish - standard handles



*Stainless steel bright annealed finish - optional fixed high temp handles

LONGAR® TYPE 3 FEATURES:

- Low pressure loss
- Polished finish or 240 grit dull grain finish
- Fully welded construction – all stainless steel construction
- Robust construction, our strongest filter yet
- Folding handles and drain holes standard (optional rigid handle available)
- Meets HVCA DW172 requirements
- Stock Sizes 2-3 days delivery, custom sizes available
- Cutsafe safety edges

APPLICATIONS

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

LONGAR® TYPE 3 BAFFLE FILTER

For use in commercial kitchens and ventilation to extract grease laden air and offer a barrier to flame. The Type 3 has been developed for customers that require a lower pressure baffle filter, it still holds many of the features of the premium Type 2 yet offer a lower resistance to air. The Type 3 is available in standard depths of 20mm and 45mm. Custom sizes available on request. Meets DW172 and ISO9001.

CONSTRUCTION / MATERIAL SPECIFICATION

As standard all baffles are manufactured with Stainless Steel 430 polished finish and 240 Grit Dull Grain Finish. Maximum Operating temperature 400C or 750F.

FITTING INSTRUCTIONS

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

HANDLING

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

MAINTENANCE

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

PACKAGING

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

FILTER CLASSIFICATION:

- Filter Class G2.
- UL Class 2.

MANUFACTURED TO:

- DW172.
- ISO9001.

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

LONGAR® Type 3

Low Pressure Baffle Filter

TECHNICAL SPECIFICATIONS

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

SIZE ORDERING GUIDE (TOLERANCES +/- 2mm)			
Part Number	Actual Size HxWxD	Nominal Size HxWxD	Weight
TYPE3ST10X20	243 x 496 x 45mm	254 x 508 x 50mm	1.47kgs
	9.57 x 19.53 x 1.77"	10 x 20 x 2"	3.23lbs
TYPE3ST12X20	295 x 496 x 45mm	304 x 508 x 50mm	1.79kgs
	11.61 x 19.53 x 1.77"	12 x 20 x 2"	3.94lbs
TYPE3ST16X16	395 x 395 x 45mm	406 x 406 x 50mm	1.90kgs
	15.55 x 15.55 x 1.77"	16 x 16 x 2"	4.18lbs
TYPE3ST16X20	395 x 496 x 45mm	406 x 508 x 50mm	2.39kgs
	15.55 x 19.53 x 1.77"	16 x 20 x 2"	5.26lbs
TYPE3ST18X18	444 x 444 x 45mm	457 x 457 x 50mm	2.42kgs
	17.48 x 17.48 x 1.77"	18 x 18 x 2"	5.32kgs
TYPE3ST20X16	496 x 395 x 45mm	508 x 406 x 50mm	2.39kgs
	19.53 x 15.55 x 1.77"	20 x 16 x 2"	5.26lbs
TYPE3ST20X20	496 x 496 x 45mm	508 x 508 x 50mm	2.87kgs
	19.53 x 19.53 x 1.77"	20 x 20 x 2"	6.31lbs
TYPE3ST24X24	597 x 597 x 45mm	609 x 609 x 50mm	4.35kgs
	23.50 x 23.50 x 1.77"	24 x 24 x 2"	9.57lbs
FINAL RECOMMENDED PRESSURE DROP: 400 PASCALS			



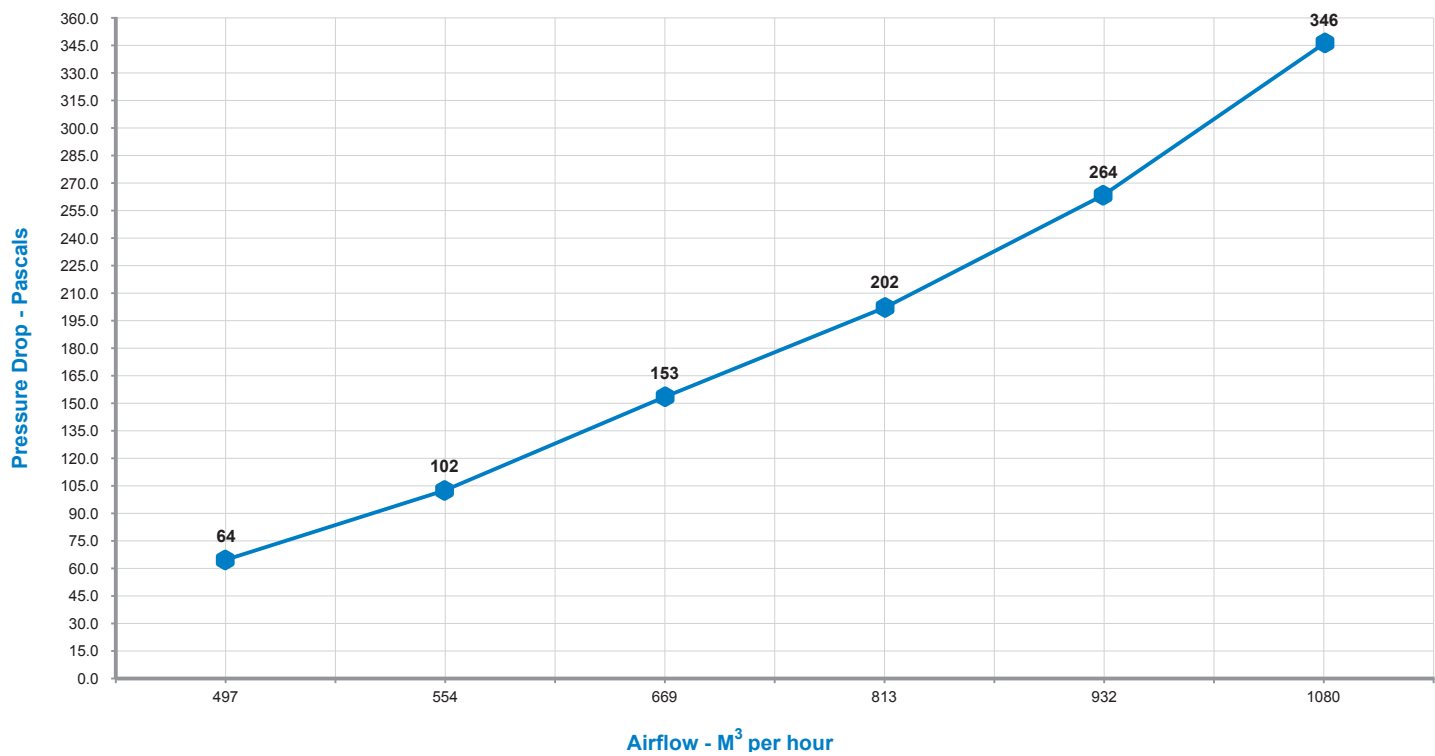
LONGAR INDUSTRIES

FILTERS AND FABRICATIONS FOR A CLEANER ENVIRONMENT

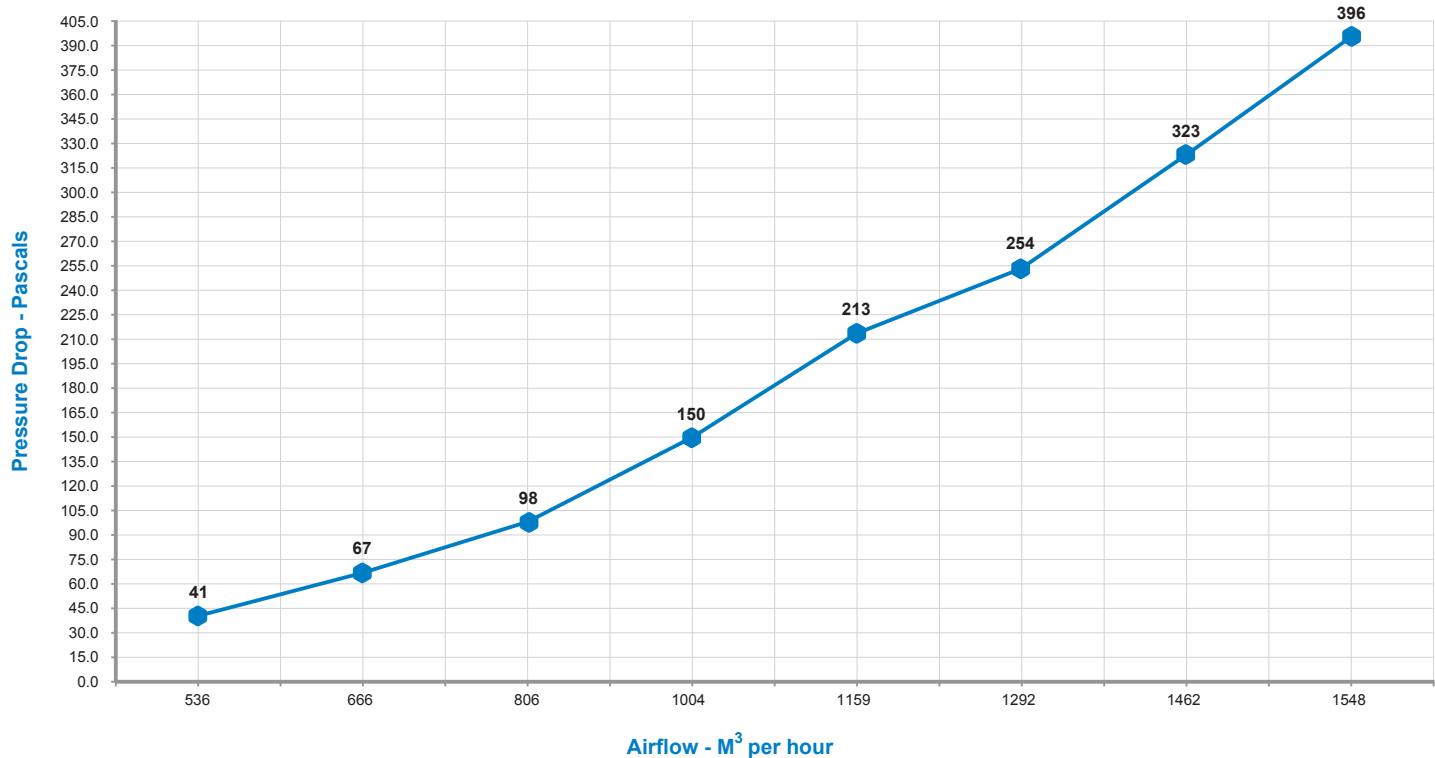
Longar Industries Limited, Unit 25, Glenmore Business Park, Colebrook Way Weyhill Road, Andover, Hampshire SP10 3GZ United Kingdom
 T +44 (0)1264 332 993 F +44 (0)1264 332 994 E info@longarind.com W www.longarind.com

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

LONGAR® Type 3 - Low PD - Baffle Filter - 243x495x45mm



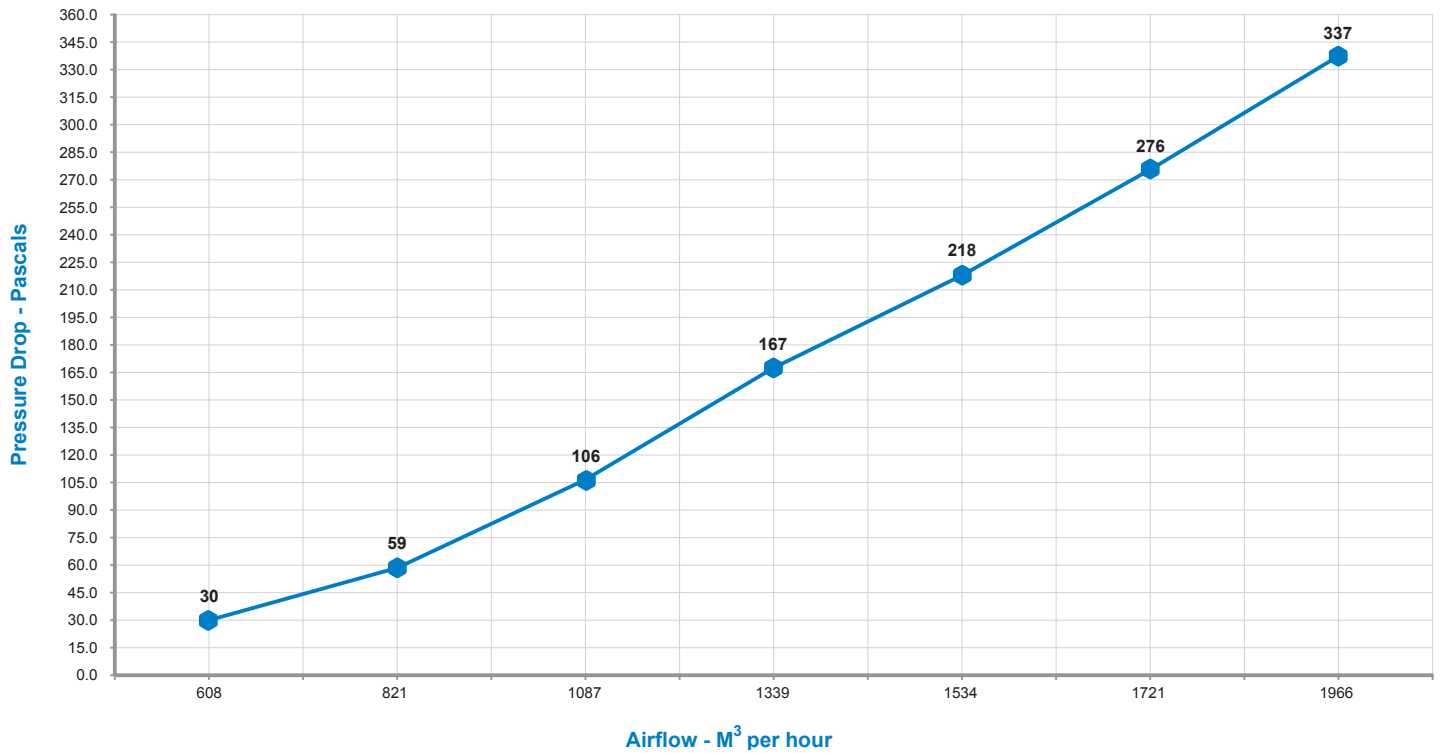
LONGAR® Type 3 - Low PD - Baffle Filter - 395x395x45mm



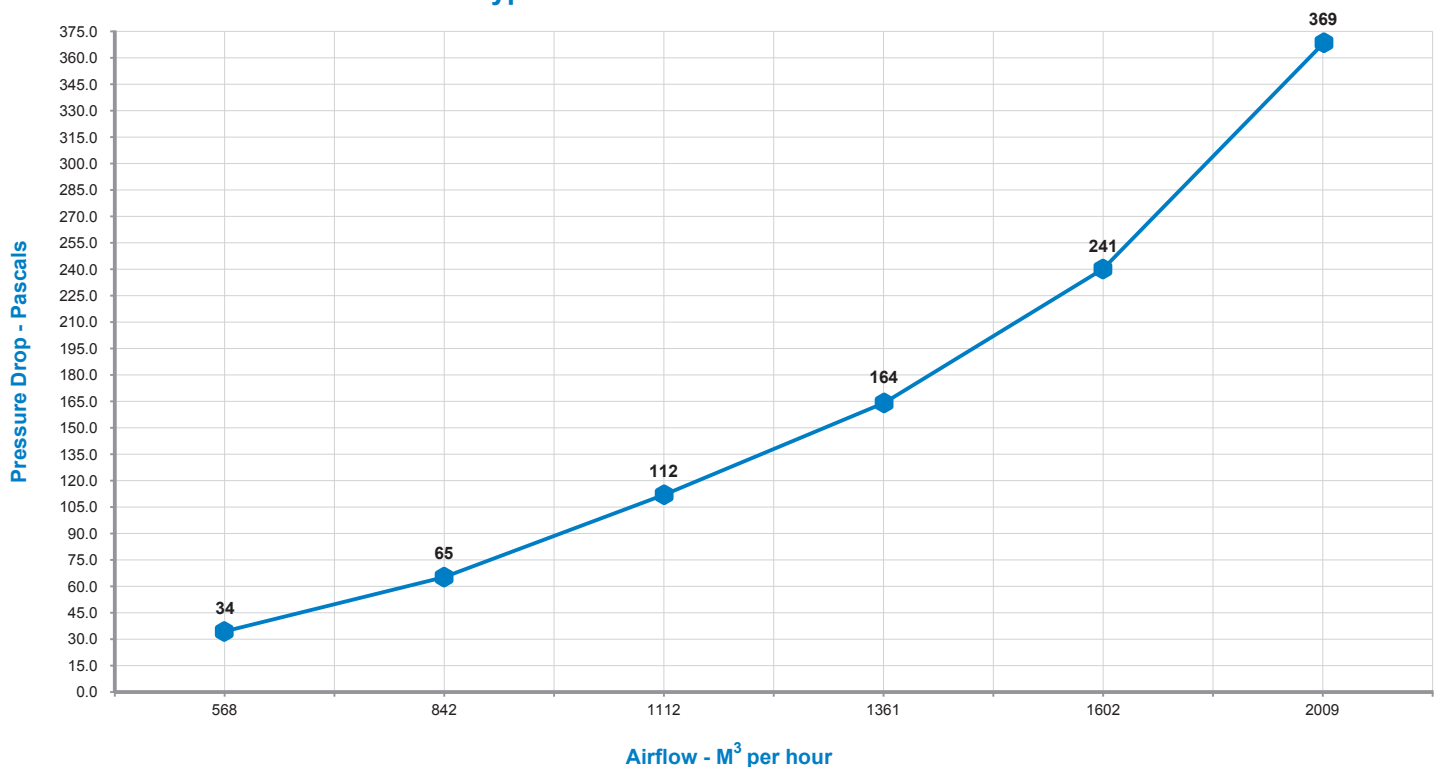
LONGAR INDUSTRIES

FILTERS AND FABRICATIONS FOR A CLEANER ENVIRONMENT

LONGAR® Type 3 - Low PD - Baffle Filter - 395x496x45mm



LONGAR® Type 3 - Low PD - Baffle Filters - 444x444x45mm



LONGAR INDUSTRIES

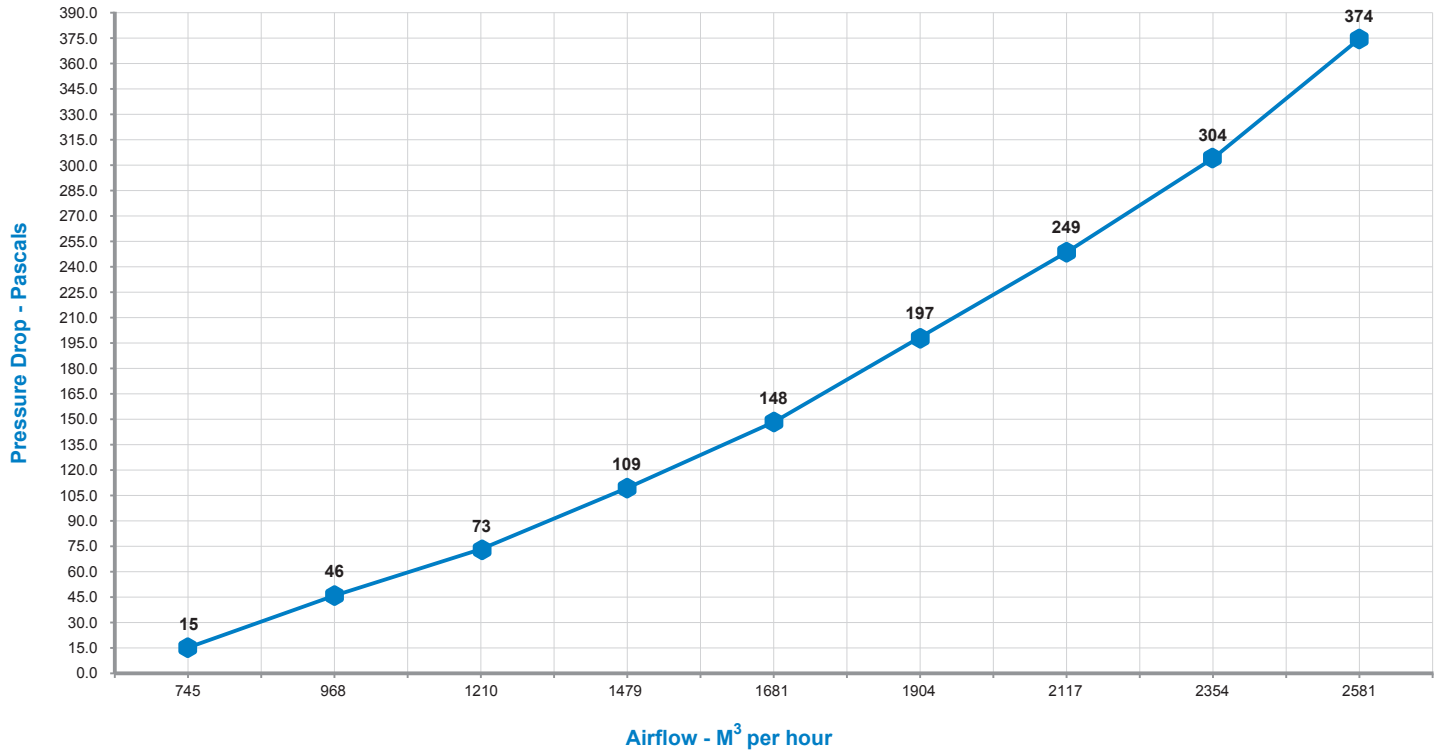
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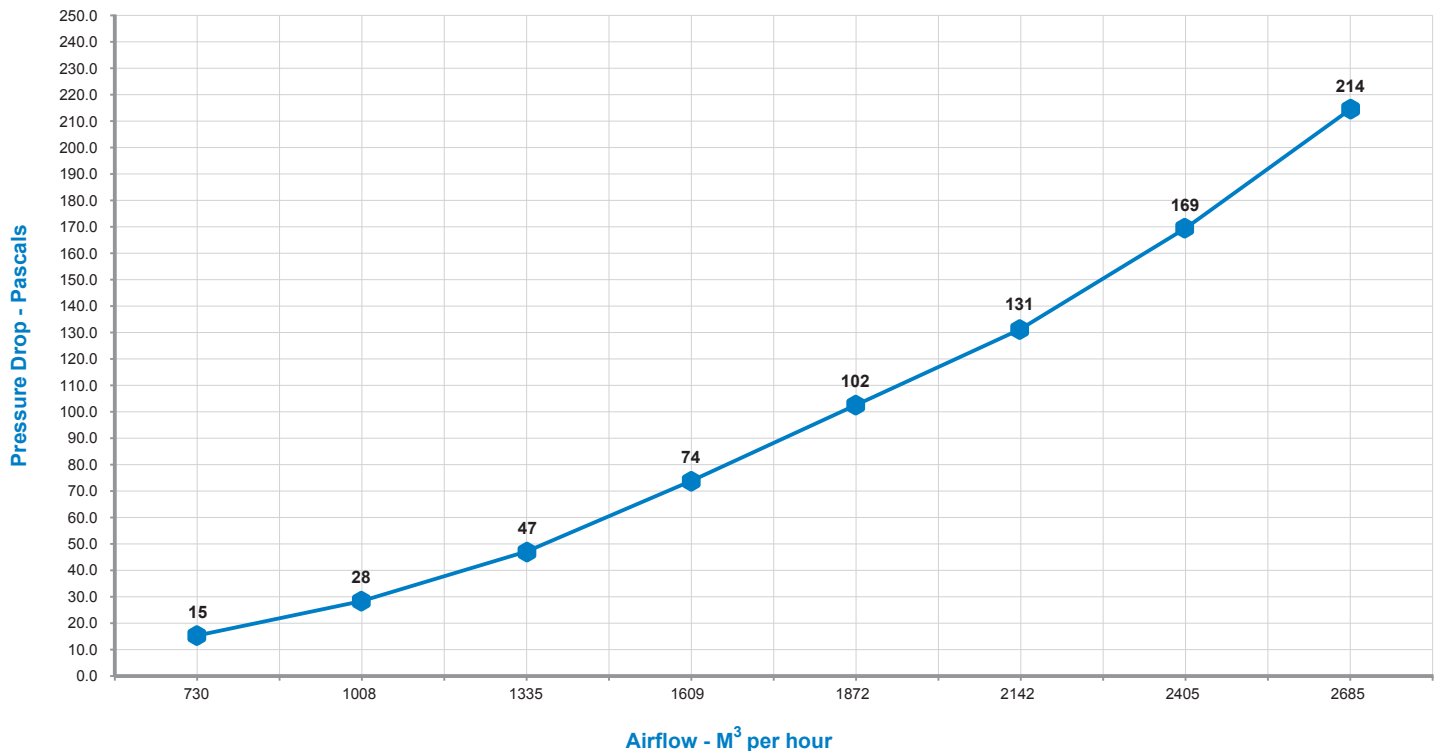
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LONGAR® Type 3 - Low PD - Baffle Filters - 496x496x45mm



LONGAR® Type 3 - Low PD - Baffle Filters - 597x597x45mm



LONGAR INDUSTRIES

FILTERS AND FABRICATIONS FOR A CLEANER ENVIRONMENT

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RY 2500B

Electrostatic Air Cleaner (Without Blower)

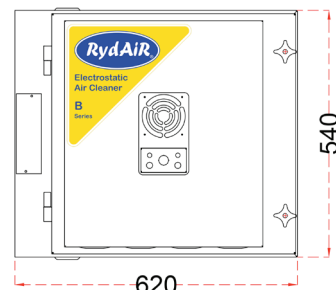


Industrial grade Electrostatic Air Cleaners for collection of dry and wet particulates like dust, oil mist, cooking fumes and various pollutants. Typical application include commercial kitchen exhausts, Air Handling Units (AHUs), factories, workshops, CNC machine shops and many other premises.

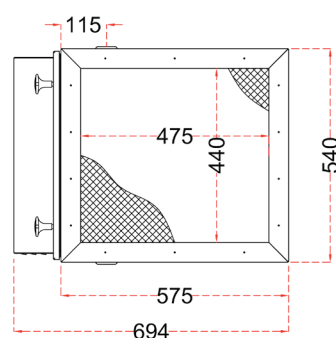


SPECIFICATIONS

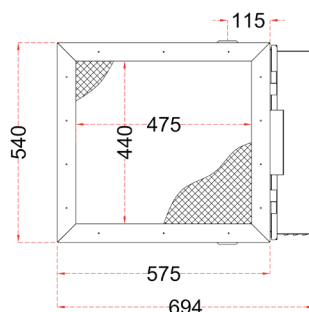
Dimensions/Weight	H: 540 x W: 694 x L: 620 mm / 55Kg
Cabinet	Galvanized Steel, 1.4mm / 16 Gauge
Finishing	Powder Coated, Dark Blue
Air Volume (Rated-Max)#	CFM: 1500-2000max; CMH: 2500-3500max; L/s: 700-970max
Static Pressure	50 pa / 0.2"
Voltage & Power	230 VAC +/-10% , 50/60Hz, 50Watts
Ionising Voltages	High Voltage: 12KVdc, Low Voltage: 6KVdc
Air Flow Direction	Default : Right to Left; Reversible : Left to Right
Power Supply	High Frequency solid state and self regulating design
Features	*Short circuit, arc protection and auto restore power supply *BMS (Building Management System) terminals provided *Auto power cut-off when door is opened *Indicator LEDs for normal or wash indicator *Set of Terminals for remote LED normal or wash indicator
Particle size	From 0.01 microns - 10 microns
Efficiency	DOP Test, up to 95% single pass, up to 99% double pass, calculated. ASHRAE 52.2-2012, up to 96% single pass, up to 99% double pass, calculated. NIOSH 5026 OIL MIST FIELD TEST : UP TO 96%
MERV Ratings	Meets MERV 15 at velocity of 2.5m/s to 3.8m/s
Pre-Filter	Aluminum wire mesh, Washable x 1
Electrostatic Cell	H: 472mm, W: 550mm, L: 340mm
No of Cells / Weight	16.5Kg
No Of Plates per Cell	59
Total Collecting Area	6.07 Sq meters
Post Filter (Optional)	Aluminum Wire Mesh, Washable x 1
Installation	Ceiling Suspended; Wall or Frame Mounted, Multiple Units Stack



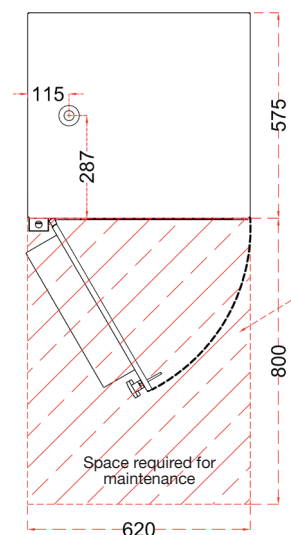
Front View



End View Air Inlet

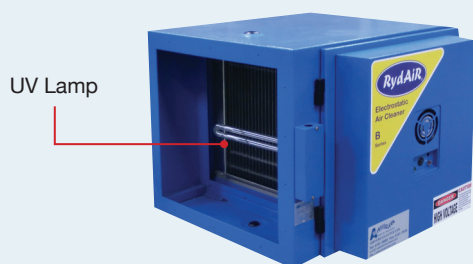


End View



Top View

RY2500B with UV Ozone Lamp



RY2500B-UV03

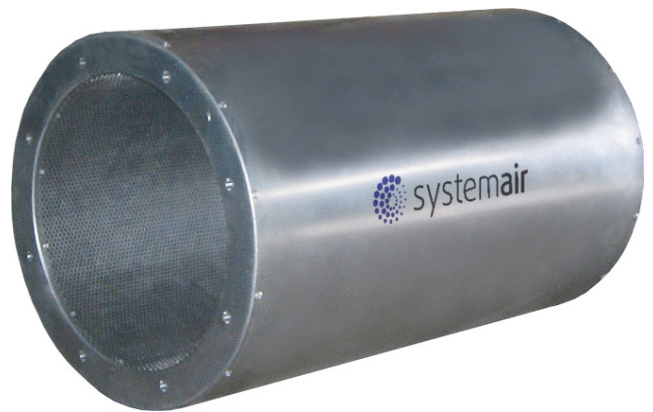
ODOUR CONTROL OPTION:

- UV ozone Lamp fitted after electrostatic cell
- Lamp Wattage : 65 Watts
- Ozone output : 6 Grams/Hour
- Lamp Life : 13,000 Hours
- Lamp Operation Blue LEDs on Unit's Panel
- All accessories are contained in RY Unit

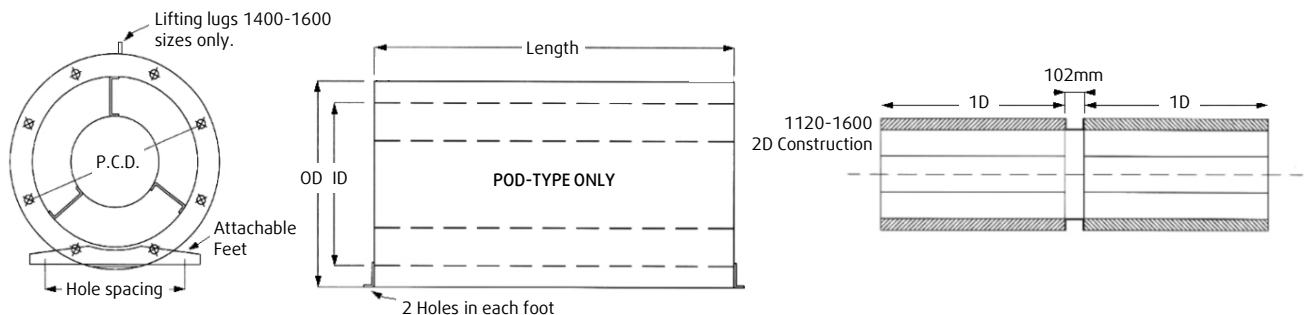
CYLINDRICAL SILENCERS (TYPE LP AND HP)

Features

- Casing are rolled, pre-galvanised sheet steel with spun end rings incorporating tapped inserts for fixing.
- Absorbent material is acoustic grade mineral fibre with a layer of erosion resistant facing and is further protected by a sheet of pre-galvanised perforated steel.
- Moisture resistant lining available for wet conditions or critically clean applications.
- Type LP silencer bore diameters range from 315mm to 1600mm in lengths of equal to or twice the bore diameter (1D or 2D). Pressure loss for type LP silencers is the same as a plain duct.
- Type HP silencers have a centrally mounted absorbent pod in the airway for increased attenuation.



Dimensions



In metric

Metric (mm)									Weight (kg)			
Sizes		No. of Holes	P.C.D.	Thread	Mounting Foot		Length		Type LP		Type HP	
ID	OD				Holes Dia.	Spacing	1D	2D	1D	2D	1D	2D
315	415	8	355	M8	10	265	315	630	10	17	13	19
355	455	8	395	M8	10	305	355	710	12	20	15	24
400	500	8	450	M8	12	350	400	800	15	25	18	30
450	600	8	500	M8	12	400	450	900	20	33	24	39
500	650	12	560	M8	12	450	500	1000	25	41	29	48
560	710	12	620	M8	12	510	560	1120	30	50	35	58
630	780	12	690	M8	12	580	630	1260	35	61	42	72
710	860	16	770	M8	12	660	710	1420	44	76	53	90
800	1000	16	860	M8	12	750	800	1600	55	96	66	116
900	1100	16	970	M12	14	850	900	1800	70	129	84	150
1000	1200	16	1070	M12	14	950	1000	2000	82	157	100	182
1120	1320	20	1160	M12	14	1070	1120	2342	100	211	118	247
1250	1450	20	1320	M12	18	1150	1250	2540	127	266	147	306
1400	1600	20	1470	M12	18	1300	1400	2902	193	399	220	453
1600	1800	24	1680	M16	18	1500	1600	3302	311	637	362	739

Acoustic Performance

TYPE LP Attenuation

Metric (mm)									
Bore Dia. mm	Length	Octave – Band Mid Frequencies (Hz)							
		63	125	250	500	1000	2000	4000	8000
315	1D	1	2	4	9	11	10	9	7
	2D	1	2	5	11	16	12	11	10
355	1D	1	2	4	10	12	10	9	7
	2D	1	3	6	13	17	14	11	11
400	1D	1	3	5	10	13	11	9	8
	2D	2	4	7	14	18	15	11	12
450	1D	2	3	6	12	13	11	10	6
	2D	3	4	8	17	18	15	11	11
500	1D	2	3	6	13	14	10	10	5
	2D	3	4	8	19	18	14	11	10
560	1D	2	4	7	14	14	9	10	7
	2D	3	5	9	19	18	14	12	11
630	1D	2	5	7	15	13	8	9	8
	2D	3	6	9	19	19	14	13	12
710	1D	2	5	7	15	13	9	9	8
	2D	4	6	9	19	17	13	12	11
800	1D	3	5	8	16	12	9	9	8
	2D	4	6	10	19	15	12	11	10
900	1D	3	5	10	17	13	11	10	8
	2D	4	6	12	19	15	12	11	10
1000	1D	3	5	11	16	11	10	8	9
	2D	4	6	13	19	14	12	11	11
1120	1D	4	5	11	17	11	9	8	8
	2D	4	6	13	19	14	12	11	8
1250	1D	4	6	12	17	10	9	8	7
	2D	4	6	14	19	14	11	11	9
1400	1D	4	6	12	16	10	8	7	6
	2D	4	7	14	18	13	10	10	8
1600	1D	4	7	12	16	10	8	7	6
	2D	4	8	15	18	12	10	9	7

TYPE HP Attenuation

Metric (mm)									
Bore Dia. mm	Length	Octave – Band Mid Frequencies (Hz)							
		63	125	250	500	1000	2000	4000	8000
315	1D	2	5	5	9	18	20	18	15
	2D	2	6	6	12	20	25	20	17
355	1D	2	5	6	9	18	22	19	16
	2D	2	6	7	13	25	27	21	17
400	1D	2	6	6	10	19	24	20	17
	2D	3	7	8	14	29	29	23	18
450	1D	2	4	7	13	20	23	22	17
	2D	2	5	9	16	29	29	21	20
500	1D	2	3	8	16	21	22	21	17
	2D	2	4	10	20	29	30	20	26
560	1D	3	5	8	16	20	18	19	15
	2D	4	5	10	20	29	28	21	23
630	1D	3	5	8	15	19	16	14	12
	2D	5	6	10	19	29	25	21	20
710	1D	3	5	8	15	19	15	14	12
	2D	5	6	10	20	26	23	18	17
800	1D	4	5	8	16	19	15	14	13
	2D	5	7	11	22	23	21	16	14
900	1D	4	5	9	17	19	15	14	13
	2D	5	7	12	24	23	21	16	15
1000	1D	5	5	12	18	19	15	14	13
	2D	5	7	13	26	24	20	16	16
1120	1D	5	7	11	19	18	14	13	12
	2D	5	8	13	25	23	18	16	13
1250	1D	5	8	12	19	17	14	12	10
	2D	5	8	14	25	17	17	17	12
1400	1D	5	8	12	18	16	13	11	9
	2D	5	9	15	23	22	17	15	10
1600	1D	5	8	13	17	16	13	11	8
	2D	6	10	17	21	20	17	14	9



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

Motors

All the motors are IP65, Class F insulation (1), equipped with thermal protection. Single phase motors are variable voltage [Excepted TCBBX2/4-630]. Three phase motors suitable for inverter control.

Electrical supplies:

Single phase 230V-50Hz (Capacitor located inside the wiring terminal box)
Three phase 230/400V-50Hz.

(1) Working temperatures from -40°C up to 70°C.



Contra rotating: High pressure

Contra rotating system with two complementary impellers allowing the duplication of the pressure with the same air volume.



Corrosion resistance

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



Terminal box

Wiring terminal box with cable gland PG-11.



Impeller dynamically balanced

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

CONTRA ROTATING CASED AXIAL FANS

TCBBx2 / TCBTx2 Series



TECHNICAL CHARACTERISTICS

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

Model	Speed (rpm)	Diameter (mm)	Maximum absorbed power (W)	Maximum absorbed current (A)		Sound pressure level* (dB(A))	Maximum air volume (m³/h)	Weight (kg)	Speed controller RMB/T	Variable frequency inverter			
				to 230 V	to 400 V					VFTM		VFKB	
										1/230V**	3/400V	1/230V**	3/400V
SINGLE PHASE													
TCBBx2/4-450	1420	450	1316	5,7	–	74	7.430	42	RMB-8	–	–	–	–
TCBBx2/4-500	1370	500	1957	9,0	–	76	9.950	50	RMB-10	–	–	–	–
TCBBx2/4-560	1370	560	2972	13,6	–	78	13.930	66	–	–	–	–	–
TCBBx2/4-630	1400	630	3671	16,3	–	79	16.560	80	–	–	–	–	–
THREE PHASE													
TCBTx2/4-450	1430	450	1309	5,2	3	74	7.250	42	RMT-5	VFTM MONO 1,1	VFTM TRI 1,1	VFKB 27	VFKB 45
TCBTx2/4-500	1390	500	1700	5,8	3,4	76	9.800	50	RMT-5	VFTM MONO 1,1	VFTM TRI 1,5	VFKB 27	VFKB 45
TCBTx2/4-560	1390	560	3173	10,0	5,8	78	15.170	66	–	VFTM MONO 2,2	VFTM TRI 3	–	VFKB 48
TCBTx2/4-630	1445	630	4014	–	7,4	79	17.810	80	–	–	VFTM TRI 4	–	VFKB 48

* Sound pressure level, measured in free field condition at a distance equivalent of three times the diameter of the impeller or a minimum of 1.5 meters whichever is the greater.

** Only for fans fitted with three phase motors 230/400V.

ACOUSTIC CHARACTERISTICS

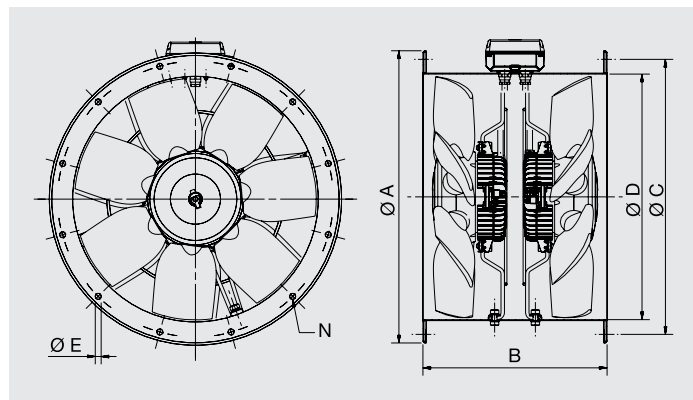
The sound levels –NPS– shown in the technical characteristic chart, correspond to the value of sound pressure dB(A), measured in free field conditions at a distance equivalent to three times the diameter of the impeller with a minimum of 1.5 meters.

The following table shows the sound power level spectrums in dB(A) measured with the fan ducted, at both inlet and discharge sides.

Model	Air volume m³/h	63	125	250	500	1000	2000	4000	8000	Global
450 Inlet	6.600	46	73	85	82	85	79	72	64	90
	5.850	46	73	84	81	83	79	71	64	88
	4.300	58	70	80	80	83	79	71	64	87
450 Outlet	6.600	63	75	86	85	87	82	74	67	92
	5.850	53	73	85	84	87	81	74	67	91
	4.300	58	70	82	83	86	82	74	67	90
500 Inlet	9.000	48	78	87	85	87	81	74	67	92
	7.500	52	76	85	85	85	80	73	65	90
	6.000	60	73	83	82	85	80	73	66	89
500 Outlet	9.000	65	76	87	88	90	84	77	70	94
	7.500	62	75	86	87	88	83	76	69	92
	6.000	59	72	86	85	88	83	76	69	92

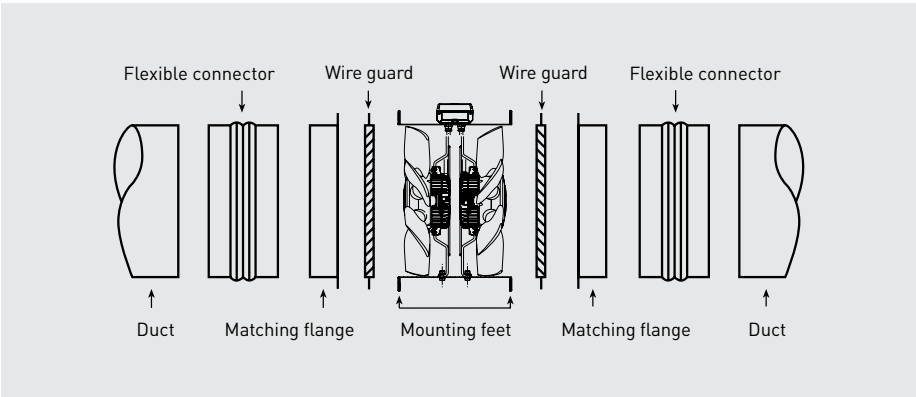
Model	Air volume m³/h	63	125	250	500	1000	2000	4000	8000	Global
560 Inlet	13.720	50	85	87	88	91	85	78	73	95
	10.800	57	79	83	86	89	84	78	72	93
	9.000	63	79	81	86	89	84	78	72	92
560 Outlet	13.720	74	86	85	91	94	88	81	75	97
	10.800	70	82	84	88	92	87	81	74	95
	9.000	74	81	85	89	92	87	81	74	95
630 Inlet	17.500	51	85	91	89	93	87	80	74	97
	15.600	55	85	85	88	91	86	80	73	95
	12.000	64	80	84	88	90	86	80	73	94
630 Outlet	17.500	73	87	88	93	95	89	83	77	99
	15.600	71	87	86	91	94	89	83	76	98
	12.000	67	84	86	90	94	89	84	76	97

DIMENSIONS (mm)



Model	Ø A	B	Ø C	Ø D	Ø E	Number of holes N
450	537	375	500	450	12	8
TCBBx2/4-500	595	520	560	500	12	12
TCBTx2/4-500	595	375	560	500	12	12
560	655	520	620	560	12	12
630	725	520	690	630	12	12

MOUNTING ACCESSORIES

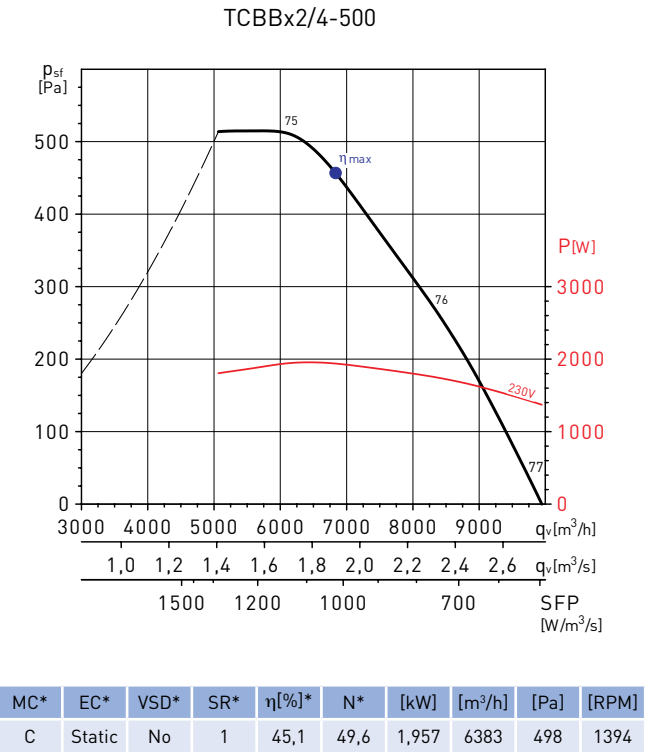


PERFORMANCE CURVES TCBBx2 / TCBTx2

- q_v : Air volume in m^3/h and m^3/s .
- p_{st} : Static pressure in Pa.
- SFP: Specific fan power in $W/m^3/s$.
- P: Input power in W.
- Measurement category: C or D depending on the models.
- Efficiency category: Static or Total depending on the models.
- Fan tested with inlet bellmouth.
- Fan efficiency without VSD.
- Air flow data in accordance with ISO 5801.
- Sound pressure level dB(A), measured in a free field distance equal to 3 times the diameter, with a minimum of 1,5 m.

MC	Measurement category
EC	Efficiency category
VSD	Speed control: supplied with the fan
SR	Specific ratio
η [%]	Efficiency
N	Efficiency grade
[kW]	Absorbed power
[m^3/h]	Air volume
[Pa]	Static pressure
[RPM]	Speed

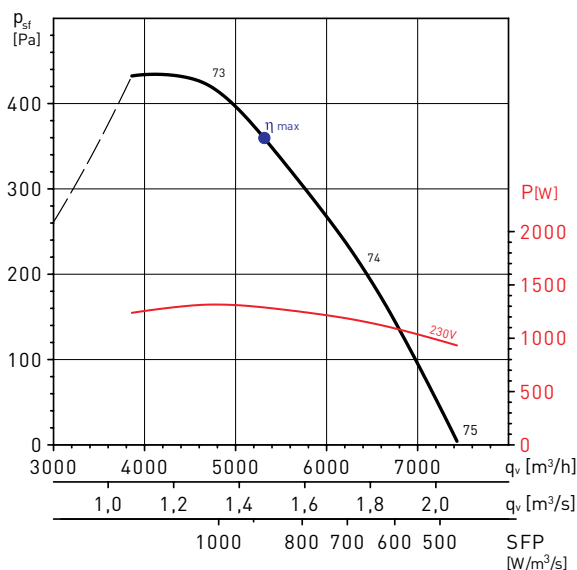
EXAMPLE CURVE



* See example curve.

PERFORMANCE CURVES – 4 POLE MOTOR

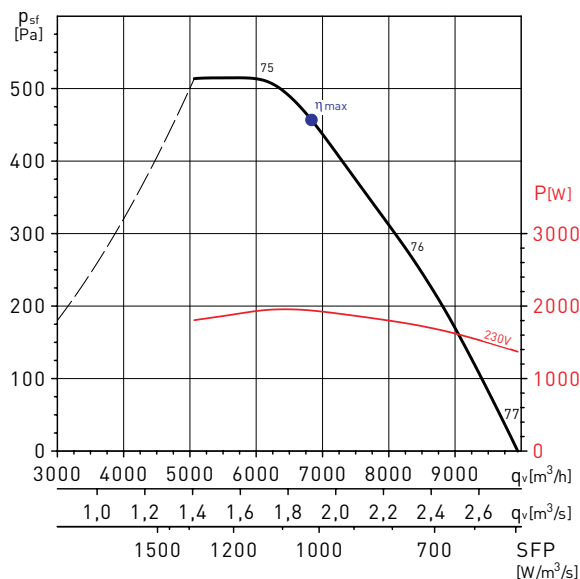
TCBBx2/4-450



MC*	EC*	VSD*	SR*	η [%]*	N*	[kW]	[m³/h]	[Pa]	[RPM]
C	Static	No	1	41,9	47,5	1,316	4842	411	1349

* See example curve.

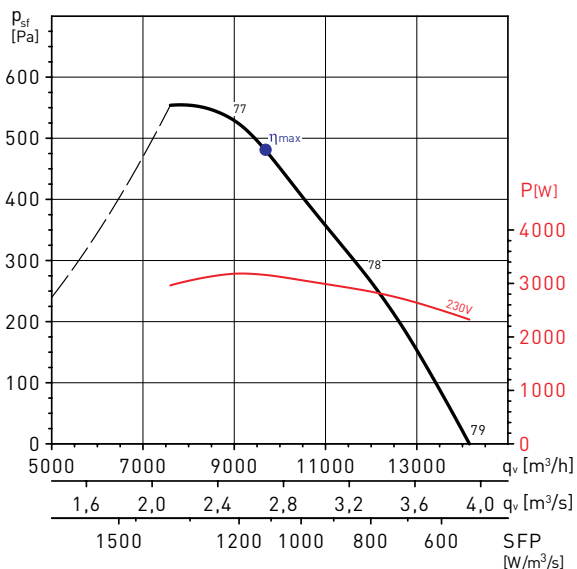
TCBBx2/4-500



MC*	EC*	VSD*	SR*	η [%]*	N*	[kW]	[m³/h]	[Pa]	[RPM]
C	Static	No	1	45,1	49,6	1,957	6383	498	1394

* See example curve.

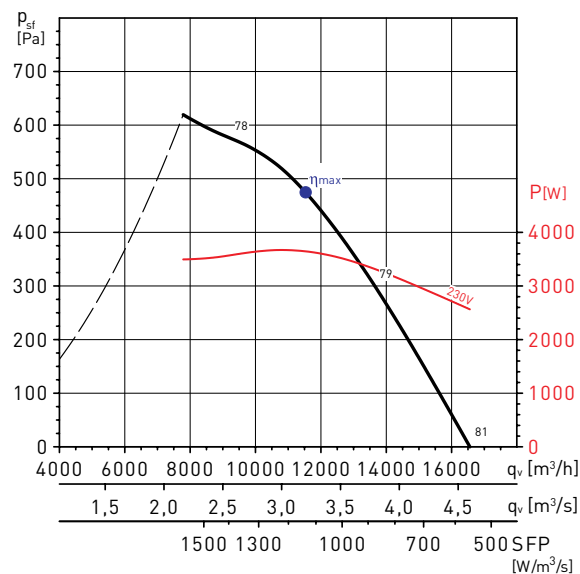
TCBBx2/4-560



MC*	EC*	VSD*	SR*	η [%]*	N*	[kW]	[m³/h]	[Pa]	[RPM]
C	Static	No	1	41,9	45,2	2,970	8741	513	1311

* See example curve.

TCBBx2/4-630

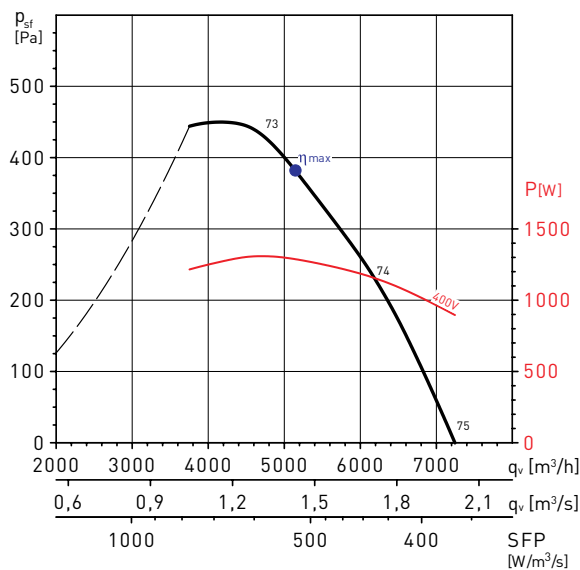


MC*	EC*	VSD*	SR*	η [%]*	N*	[kW]	[m³/h]	[Pa]	[RPM]
C	Static	No	1	42,4	45,2	3,665	10542	536	1285

* See example curve.

PERFORMANCE CURVES – 4 POLE MOTOR

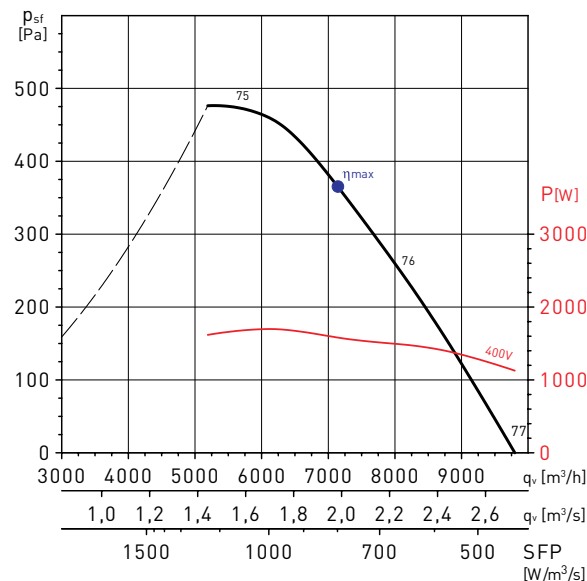
TCBTx2/4-450



MC*	EC*	VSD*	SR*	η [%]*	N*	[kW]	[m³/h]	[Pa]	[RPM]
C	Static	No	1	43,0	48,6	1,309	4705	432	1375

* See example curve.

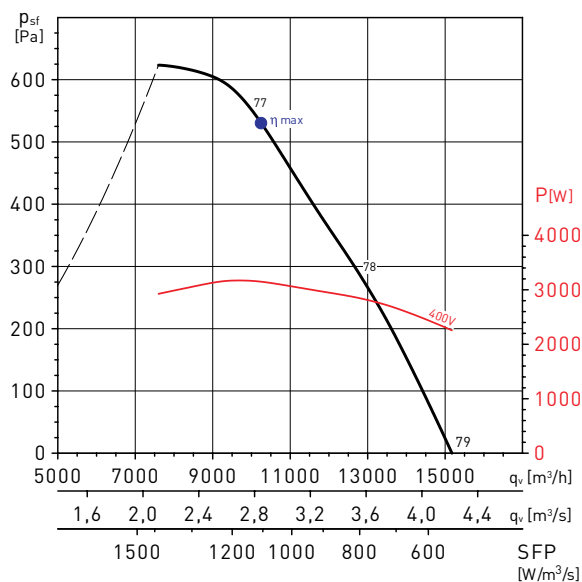
TCBTx2/4-500



MC*	EC*	VSD*	SR*	η [%]*	N*	[kW]	[m³/h]	[Pa]	[RPM]
D	Total	No	1	53,5	58,6	1,581	7145	427	1348

* See example curve.

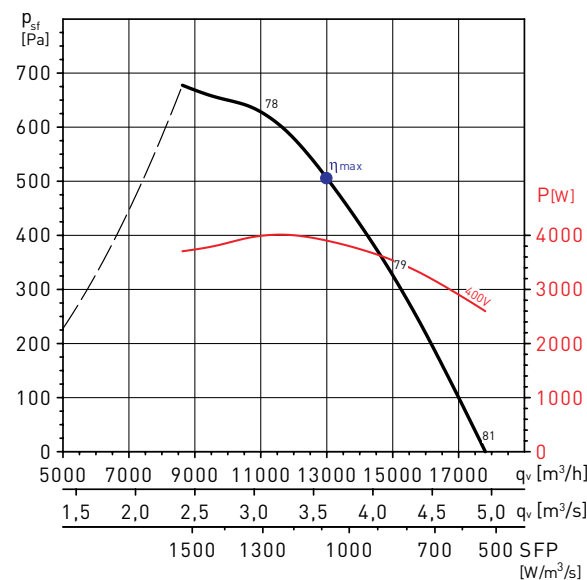
TCBTx2/4-560



MC*	EC*	VSD*	SR*	η [%]*	N*	[kW]	[m³/h]	[Pa]	[RPM]
D	Total	No	1	55,0	58,2	3,148	10254	611	1365

* See example curve.

TCBTx2/4-630



MC*	EC*	VSD*	SR*	η [%]*	N*	[kW]	[m³/h]	[Pa]	[RPM]
D	Total	No	1	54,2	56,8	3,903	12997	587	1387

* See example curve.

PLATE MOUNTED AXIAL FLOW FANS

COMPACT HCBB / HCBT series

Range of low profile plate mounted axial fans fitted with aluminium impellers and single phase motor (HCBB) or three phase motor (HCBT) IP65 (1) Class F insulation (2), equipped with thermal protection (3).
(1) Models 800, 900 and 1000 are IP55.

(2) Working temperatures from -40°C up to +70°C.

Except models Ø 800, 900 and 1000 suitable for usage in environments from -20°C to +40°C.

(3) Except models Ø 800 to 1000.



Motors

Available, depending upon the model, with single or three phase motors in 4 poles. All motors are speed controllable by auto-transformer except models /4-630, B/710, T/4-710, T/800, T/900 and T/1000. Three phase models are speed controllable by inverter.

Electrical supplies:

Single phase 230V-50Hz.(except HCBB/4-250H 230~50/60Hz.

(Capacitor located inside the wiring terminal box).

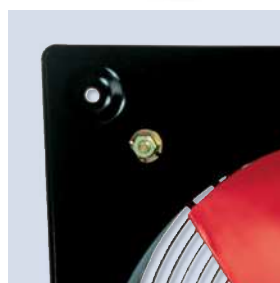
Three phase 230/400V-50Hz or 400V-50Hz.

Standard air direction: form (A) configuration. (Motor over Impeller).



Configuration for models Ø 800 to 1000

Special design of motor over impeller, which provides compactness and tightness IP55.



Corrosion resistance

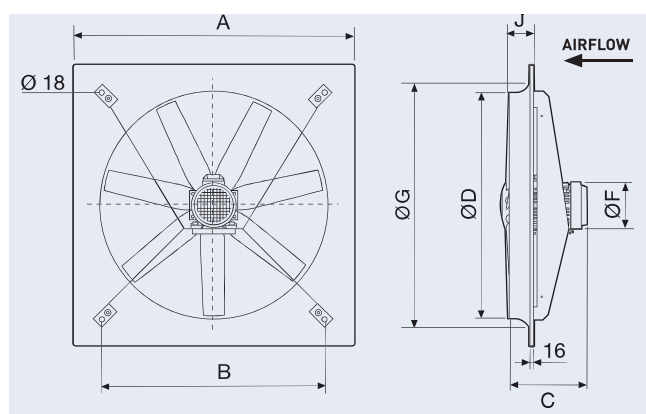
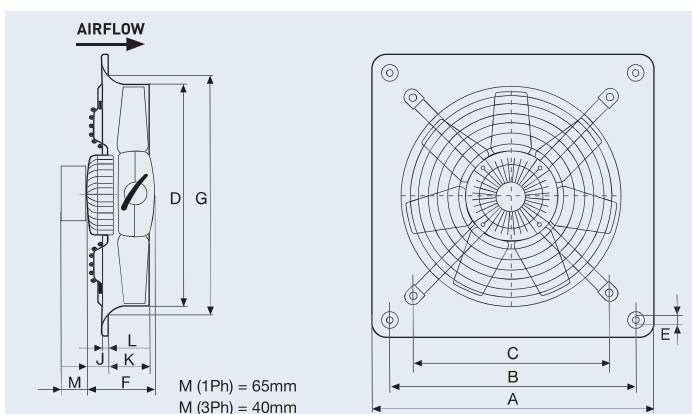
Mounting plate, motor support and finger proof guard protected by cataforesis primer and black polyester paint finish. Stainless steel screws.



Terminal box

Wiring terminal box with cable gland PG-11.

DIMENSIONS (mm)



Model	□A	□B	C	ØD	ØE	F	ØG	J	K	L
250	315	260	220	254	10	122	294	59	53	12
315	400	330	280	315	10	122	329	32	68	12
355	450	380	315	355	10	129	371	45	75	12
400	500	420	355	400	10	129	422	40.5	78	12
450	560	480	400	450	10	150	476	48	91	12
500	630	560	450	500	10	150	536	44.5	97	12
560	710	630	510	560	10	218.5	596	110.5	98.5	12
630	800	710	580	630	12	218.5	674	110.5	103	12
710	900	800	636	710	12	218.5	733	134	91.5	16.5

Model	□A	□B	ØD	J	ØG	C		ØF	
						L	H	L	H
800	1000	800	800	92	926	345	380	181	203
900	1120	900	900	120	1060	392	439	203	280
1000	1250	1000	1000	110	1154	380	485	203	280

TECHNICAL DATA

Model	Speed (r.p.m.)	Maximum absorbed power (W)	Maximum current (A)		Sound pressure level @3m (dB(A))	Maximum air volume (m³/h)	Weight (Kg)	Speed controller		Inverter Control	
			230 V	400 V				ELECTRONIC	AUTO- TRANSFORMER	S&P VFD*	
SINGLE PHASE 4 POLE											
HCBB/4-250/H	1325	84	0,4		49	1.130	5	REB-1	REV-3N		
HCBB/4-315/H	1295	140	0,7		55	2.310	7	REB-1	REV-3N		
HCBB/4-355/H	1385	193	0,9		59	3.560	8	REB-3	REV-3N		
HCBB/4-400/H	1360	315	1,5		62	4.830	9	REB-3	REV-5N		
HCBB/4-450/H	1410	626	2,8		65	7.180	13	REB-3	REV-5N		
HCBB/4-500/H	1365	787	3,4		68	8.810	16	REB-5	REV-5N		
HCBB/4-560/H	1370	1266	5,7		70	12.580	22	REB-8	REV-7N		
HCBB/4-630/H	1360	1879	8,3		71	16.550	25	–	–		
THREE PHASE 4 POLE											
HCBT/4-250/H	1330	81	0,3	0,2	49	1.120	5		–	-M 10A	-T 5A
HCBT/4-315/H	1320	162	0,7	0,4	55	2.370	7		–	-M 10A	-T 5A
HCBT/4-355/H	1370	182	0,8	0,5	59	3.480	8		–	-M 10A	-T 5A
HCBT/4-400/H	1320	288	1,1	0,6	62	4.880	9		–	-M 10A	-T 5A
HCBT/4-450/H	1350	511	1,6	0,9	65	6.310	13		–	-M 10A	-T 5A
HCBT/4-500/H	1390	809	2,7	1,6	68	9.030	16		–	-M 10A	-T 5A
HCBT/4-560/H	1390	1287	4,0	2,3	70	12.760	22		–	-M 10A	-T 5A
HCBT/4-630/H	1385	1736	5,4	3,1	73	16.840	25		–	-M 10A	-T 5A
HCBT/4-710/H	1350	2554	7,6	4,4	74	22.330	27		–	-M 10A	-T 6.8A
HCBT/4-800/L-X (1,5 kW)	1410	2632	7,3	4,2	78	23.290	37		–	-M 10A	-T 5A
HCBT/4-800/H-X (3 kW)	1440	4595	12,8	7,4	84	33.100	52		–	-M 16A	-T 9A
HCBT/4-900/L-X (3 kW)	1450	3909	12,0	6,9	82	34.270	96		–	-M 16A	-T 9A
HCBT/4-900/H-X (5,5 kW)	1455	7893		13,4	87	46.270	112		–		-T 17A
HCBT/4-1000/L-X (3 kW)	1415	5048	14,2	8,2	86	39.910	67		–	-M 16A	-T 9A
HCBT/4-1000/H-X (7,5 kW)	1470	8675		14,6	93	53.700	101		–		-T 17A

* Inverter control: VFD-M - 1-Phase 230V Input, 3-Phase 400V Output.
VFD-T - 3-Phase 400V Input, 3-Phase 400V Output.

PERFORMANCE DATA

Airflow m³/s @ Static Pressure Pa

Model	0	25	50	75	100	125	150	175	200	250	300	350	400
SINGLE PHASE 4 POLE													
HCBB/4-250/H	0.314	0.268											
HCBB/4-315/H	0.633	0.567	0.439										
HCBB/4-355/H	0.996	0.921	0.836	0.718									
HCBB/4-400/H	1.394	1.299	1.191	1.045	0.839								
HCBB/4-450/H	1.889	1.807	1.720	1.613	1.470	1.326	1.194						
HCBB/4-500/H	2.458	2.369	2.271	2.150	1.993	1.824	1.651	1.463					
HCBB/4-560/H	3.721	3.620	3.512	3.390	3.245	3.074	2.886	2.685	2.482	2.283			
HCBB/4-630/H	4.604	4.495	4.346	4.194	4.039	3.879	3.707	3.514	3.278	2.969			
THREE PHASE 4 POLE													
HCBT/4-250/H	0.311	0.263											
HCBT/4-315/H	0.661	0.593	0.481										
HCBT/4-355/H	0.979	0.896	0.812	0.673									
HCBT/4-400/H	1.394	1.299	1.191	1.045	0.839								
HCBT/4-450/H	1.889	1.807	1.720	1.613	1.470	1.326	1.194						
HCBT/4-500/H	2.539	2.450	2.356	2.247	2.097	1.909	1.744						
HCBT/4-560/H	3.598	3.485	3.368	3.242	3.096	2.916	2.705	2.483	2.202				
HCBT/4-630/H	4.677	4.543	4.405	4.258	4.093	3.906	3.694	3.462	3.224				
HCBT/4-710/H	6.203	6.024	5.842	5.653	5.452	5.235	4.992	4.714	4.379	3.488			
HCBT/4-800/L-X (1,5kW)	6.468	6.314	6.156	5.993	5.817	5.624	5.408	5.159	4.882	4.315	3.525	2.862	2.395
HCBT/4-800/H-X (3kW)	9.193	9.029	8.862	8.690	8.511	8.319	8.107	7.871	7.601	6.925	6.117	5.268	4.475
HCBT/4-900/L-X (3kW)	9.519	9.312	9.103	8.890	8.668	8.435	8.188	7.922	7.635	6.982	6.227	5.395	4.386
HCBT/4-900/H-X (5,5kW)	13.819	13.566	13.314	13.061	12.809	12.555	12.298	12.033	11.757	11.137	10.401	9.545	8.591
HCBT/4-1000/L-X (3kW)	11.193	10.924	10.655	10.384	10.110	9.831	9.546	9.249	8.936	8.226	7.408	6.561	5.760
HCBT/4-1000/H-X (7,5kW)	14.855	14.551	14.287	13.661	13.970	13.388	13.099	12.756	12.406	11.688	11.004	10.166	9.246

Circular duct

SR



Description

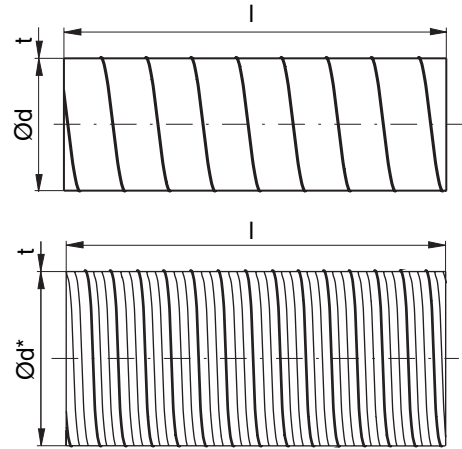
Circular duct.

Ducts are always produced locally and can therefore have different thicknesses and other specifications per country.

The ducts can be produced both with and without click function (notches).

Please specify when ordering.

Dimensions



Ød std nom	O πd m	A $\pi d^2/4$ m ²	t std [mm]	l std [mm]	ml std kg/m
63	0,198	0,003	0,5	3000	0,89
80	0,251	0,005	0,45	3000	0,91
100	0,314	0,008	0,45	3000	1,14
112	0,352	0,010	0,5	3000	1,42
125	0,393	0,012	0,45	3000	1,41
140	0,440	0,015	0,5	3000	1,76
150	0,471	0,018	0,5	3000	1,89
160	0,503	0,020	0,5	3000	2,02
180	0,565	0,025	0,5	3000	2,26
200	0,628	0,031	0,5	3000	2,56
224	0,704	0,039	0,6	3000	3,42
250 *	0,785	0,049	0,5	3000	3,18
280	0,880	0,062	0,55	3000	3,92
300 *	0,942	0,071	0,55	3000	4,20
315 *	0,990	0,078	0,55	3000	4,41
355 *	1,115	0,099	0,55	3000	4,96
400 *	1,257	0,126	0,55	3000	6,01
450 *	1,414	0,159	0,7	3000	8,60
500 *	1,571	0,196	0,7	3000	9,54
560 *	1,759	0,246	0,8	3000	12,2
600 *	1,885	0,283	0,7	3000	13,1
630 *	1,979	0,312	0,7	3000	12,0
710 *	2,231	0,396	0,8	3000	15,5
800 *	2,513	0,503	0,8	3000	17,4
900 *	2,827	0,636	0,9	3000	21,7
1000 *	3,142	0,785	0,9	3000	24,1
1120 *	3,519	0,985	0,9	3000	27,0
1250 *	3,927	1,227	0,9	3000	30,2
1400 *	4,398	1,539	1,25	2400	48,0
1500 *	4,712	1,767	1,25	2400	51,4
1600 *	5,027	2,011	1,25	2400	54,8

* With outturned stiffening corrugation.

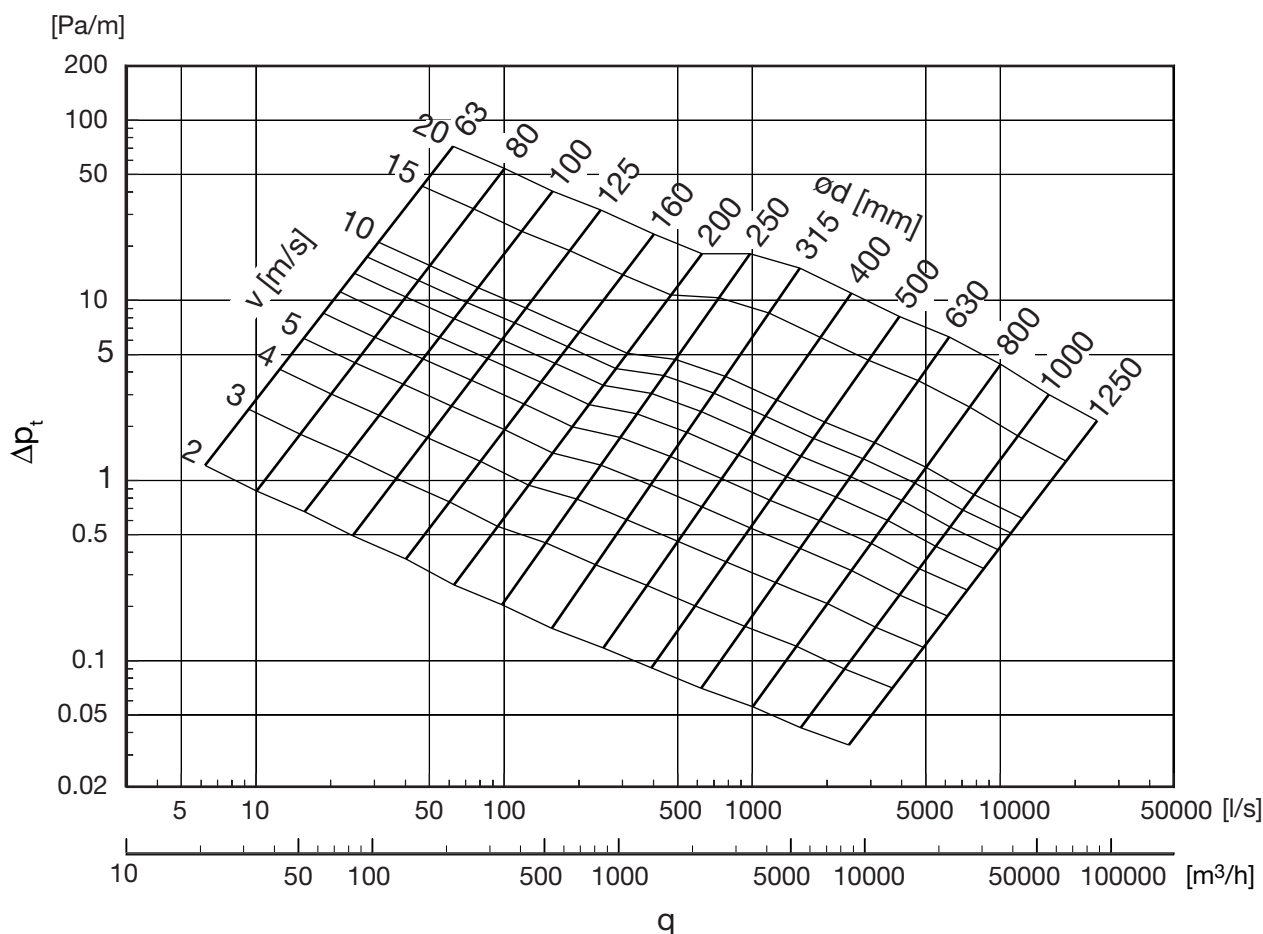
Ordering example

	SR	200	3000	CLIC
Product				
Dimension Ød				
Length l				
Type				

Circular duct

SR

Technical data



Special versions

We can supply ducts with the following special designs:

- In intermediate dimensions, see page 15.
- Extra tight, with nitrile rubber seal in the lock seam
- In other sheet metal thicknesses

Extra tight, with seam seal

When extremely good sealing is required in the spiral seam, the ducts can also be supplied with a special rubber seal in the seam.

This seal is very effective at stopping leakage of vegetable oils and greases, and most petroleum products including white spirit.

Other sheet metal thicknesses

If extra stability is needed in ducts, because of high negative pressure etc., they can be supplied with thicker sheet metal than standard. Remember that the thickness increase always reduces the inner diameter. Fittings for such special ducts must be specified separately and sometimes have to be made specially.

Reinforcement corrugations

Ducts of $\phi 250$ mm and above are normally given stiffening corrugations to increase radial stiffness.



Circular duct

SR

Technical data

Strength

Positive pressure

In case of high positive pressure, the seal moulding lips will first start to whistle. At considerably higher pressure, the joints between the ducts will be forced apart. If you manage to fix the connections very well, the ducts will burst at their seams at even higher pressure. The high pressures needed for this to happen are not relevant to ventilation installations.

Negative pressure

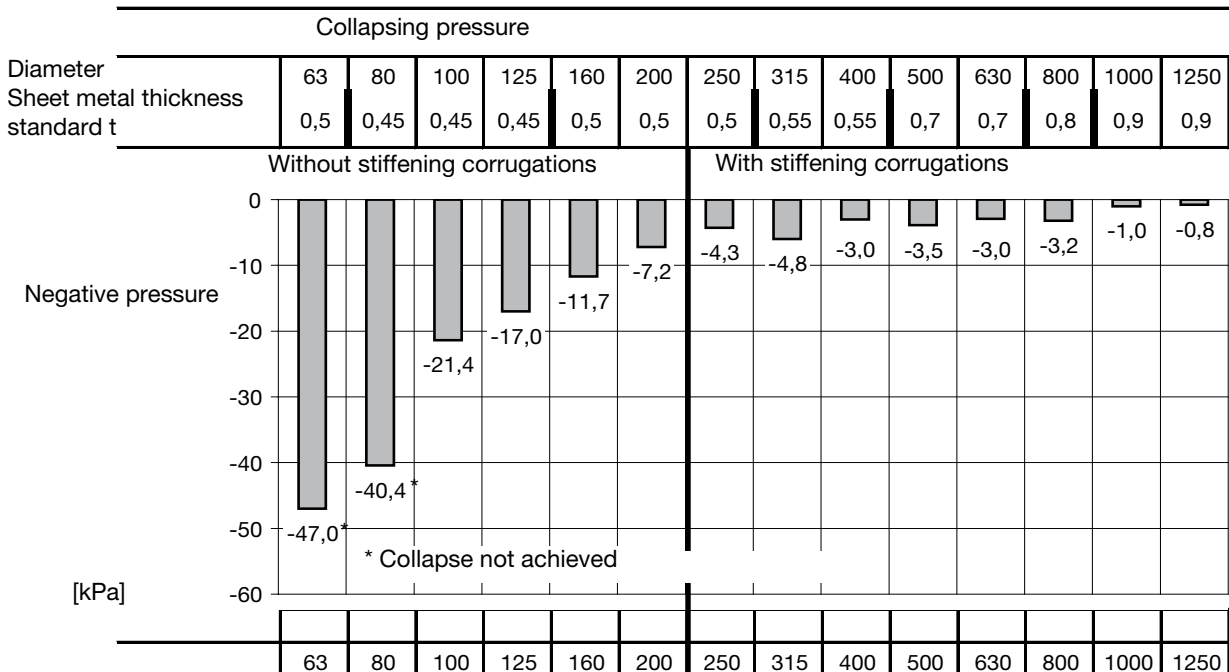
In installations with high negative pressure, there is a risk that the ducts could collapse.

This phenomenon is referred to as buckling, and can suddenly happen at the weakest point in the system. Buckling wanders along the duct, which can be completely flattened. The weakest point is frequently a "transport dent" on a duct. For this reason, only use undamaged ducts in systems which are close to the critical pressure!

Strength and leakage

The performance of the gasket ability for tightness is different from the pressure limits and is shown in the table below.

In exceptional cases, additional strong ducts and fittings are needed. Lindab has developed a system that can withstand down to 5000 Pascal's negative pressure. To minimize costs and to be sure of the performance of the specific system, contact Lindab for precise dimensioning.



	Min Dim [nom]	Max Dim [nom]	Max Negative pressure [Pa]	Min Positive pressure [Pa]
Safe Gasket stability	63	1600	-5000	3000
Duct system Eurovent certified	63	315	-5000	2000
Duct system Eurovent certified	400	1250	-750	2000
Duct system according to EN 12237	63	1250	-750	2000
Duct system - Strong solution on request	63	1600	-5000	3000

Roof hood

HF



Description

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

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

The hood has a flange connection, which includes a mating flange.

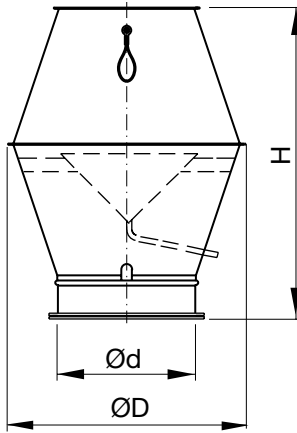
To avoid damage to the net in the opening the hood is supplied with transport protection. This must be removed before the hood is taken into service.

The hood is delivered with three turnable lifting and anchoring wire-loops. A single wire-loop shall not be exposed for forces exceeding 1500 N.

Ordering example

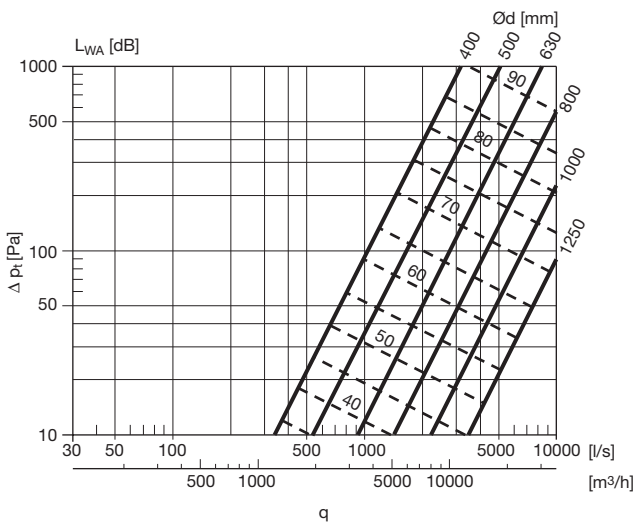
Product code **HF**
Dimension $\varnothing d$ **630**

Dimensions



				Roof through con- nection TGR	
Ød nom	ØD mm	H mm	m kg	50 mm	100 mm
				Size	
400	685	905	11,1	5	6
500	855	1055	20,0	6	7
630	1075	1295	38,0	8	9
800	1360	1640	63,0	9	10
1000	1600	2110	89,1	11	12
1250	2020	2615	118	14	15

Technical data



Product Data Sheet



Product Code:

Issue No.

Issue Date:

Issue by:

TC103-60

A

03.10.09

D.B.P

Description

Light Duty Cantilever Arm Support - 600mm

Features

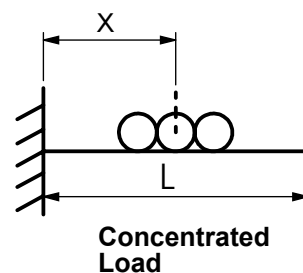
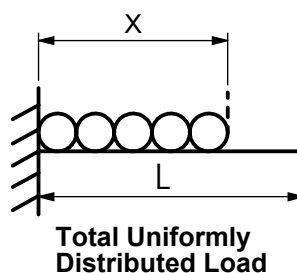
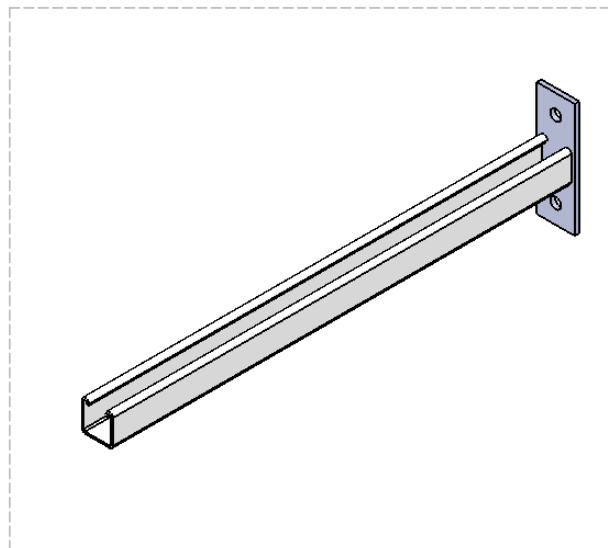
Brackets are designed to comply with BS6946

Manufactured from 6mm thick steel

Special Finish: All channel brackets are post hot dipped galvanised to BS729

General Characteristics

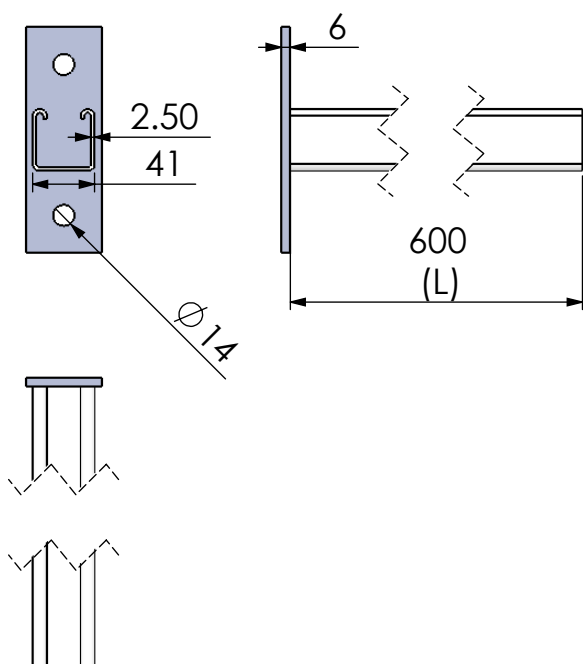
Material	Low carbon steel strip (BSEN10142:2000)
Finish	Hot Dipped Zinc
Cantilever Arm	41 x 41mm strut 2.5mm channel
Cantilever length	600mm
Suitable for Tray width	450mm



Recommended Safe Loads (kg)

x (m)	Total Uniformly Distributed Load (kg)	Concentrated Load (kg)
0.10	684	342
0.15	608	342
0.20	542	283
0.25	452	226
0.30	377	188
0.35	323	162
0.40	283	141
0.45	251	126
0.50	226	113
0.55	206	103
0.60	188	94
0.65	174	87
0.70	162	81
0.75	151	75

Dimensions



Stainless Steel Fabrication Commercial Kitchen Design and Installation

Anti Vibration Mounts (A.V. Mounts)



Load range per mount 5Kg -28Kg

Anti Vibration Mounts (A.V. Mounts) attach to the bottom of Mounting Feet.

A.V. Mounts are used to isolate the fan from the system to prevent vibration transfer through fixings or structures.

A.V. Mounts can be used to isolate any products from the main system to prevent vibration transfer

The main uses A.V. Mounts for are, Axial flow fans, Box fans, Centrifugal fans, in fact A.V. Mounts can be used with anything that causes vibration.



Stainless Steel Fabrication

Commercial Kitchen Design and Installation

System Maintenance

It is important that the system is well maintained in order to operate a system that is functional on providing a high level of performance.

Maintenance requirements will vary, subject to the intensity of use and type of cooking. Therefore, frequency of cleaning and filter replacement will be adjusted to suit. The Tenant will ensure the following minimum levels of maintenance are adhered to.

The most advanced filtration systems and ductwork designs will quickly become completely ineffective at mitigating grease, smoke and odour, when the detailed maintenance regime is not followed the table below provides requirements for the type and frequency of maintenance in accordance with EMAQ guidelines.

We would recommend the following in accordance with BESA TR19 guidance guidelines on cleaning and maintenance.

Cleaning of ductwork – 1 month Heavy use 3 months Medium use and every 6 months light use.

Canopy on each session before or after session

G4 filters every 3 weeks or if system seems to have reduced suction/ performance (Extract & Supply) **if installed**

Cleaning baffle filters – after each service

Carbon filters – 3 months heavy use 6 months medium use 8 month light use. **If Installed**

Extract— 1 Month heavy used 3 Months moderate use 6 Months light use.

Extract full services – 12 months. For your insurance this is required

ESP Filter changing/cleaning – 3 months heavy use 6 months medium use 8 months light use. **If Installed**



Stainless Steel Fabrication
Commercial Kitchen Design and Installation

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Stainless Steel Fabrication

Commercial Kitchen Design and Installation

Kitchen extract component	Recommended maintenance intensity
Grease Smoke and Solid Filtration	
Grease filter – mesh/baffle/cartridge/water wash	Daily cleaning
Canopy UV	Quarterly clean replace lamps after 8000 hours of operation
Cold water mist hood	Daily cleaning
Electrostatic Precipitation	Clean every 4 weeks
Low intensity odour control	
3 stage fine filters	Replacement every 2 weeks or replace when system is reduced performance
Odour control	
UV odour control	Clean every 4 weeks annual lamp replacement
Ozone Injection unit	self-sufficient no need to clean
Ozone generation unit	No need to clean out of airstream
Adsorption activated carbon filter	3 to 5 months filter replacement of when system has reduced performance

Usage	Frying time	Minimum clean frequency
Heavy Use	12-16 hours per day	3 Monthly
Moderate use	6-12 hours per day	6 Monthly
Low Use	2-6 hours per	12 Monthly

All duct work should be cleaned by a qualified tr19 person, who should issue a certificate after cleaning, this is important for your insurance.

Please note these are only guidelines as all systems are designed differently

TERMS AND CONDITIONS

By ordering the goods you agree to be bound by our terms and conditions below and recognise the services/products we have not included in our quotation for you unless otherwise stated.

- Ventilation system to EMAQ Guidelines (subject to further quotation).
- Odour control.
- Noise management.
- Fire rated ductwork.
- Fire rated insulation.
- Fire rating of walls that ductwork passes through.
- Planning permission (client's responsibility – work will not start without sufficient authority approval).
- Hanging of canopies over 4500mm from FFL.
- Infill panels to make good between the top of the canopy and ceiling.
- Masking gaps that occur during canopy installation due to inaccuracies in the building structure.
- Any specialist fixings to suit building structure.
- Balancing and commissioning of canopies.
- All electrical works.
- Final electrical connections and controls commissioning.
- Gas works including gas valve (interlock).
- Pipe work and inclusion of valves.
- Builders works and weather proofing of openings (scaffolding or lifting equipment).
- Structural works to roof area.
- Protection to flooring internal.
- Lifting of plant to roof level / scaffolding.
- Edge protection.
- Thermal insulation.
- Boarding to ceiling void areas.
- Canopy protection on completion of installation.
- Fire suppression.
- Strip out / Removal of existing canopies / ductwork.
- Any items not specifically itemized within your quotation are excluded.
- Earth bonding.
- Out of hours working (Normal working hours being Mon-Fri 8.30-5.30pm excluding bank holidays, hours include travelling time) any extra hours due to any unforeseen circumstances will be charged at £50ph payable direct to fitters.
- Notifications to local authorities, building, planning, fire etc.
- Builders, joiners, scaffolding, electrical, plumbing, roofing works.
- Waterproofing of walls and roofs where ductwork terminates exits (roofer will be required to seal roofs).
- Ductwork insulation.
- Inspection hatches to TR19 to be installed by others.
- Extraction canopy fan/speed control wiring to mains/board.
- All new fans are covered under manufactures warranty if claiming for a fault a new fan must be purchased and the fan in question sent back to the manufacture for inspection at your cost, if fan is found at fault under warranty, they will reimburse the cost of the fan.
- Fan inspection and warranty call outs to inspect/replace fans are not covered, and labour costs paid by the client.
- Extraction fan / controller fail due to incorrect wiring, replacement parts to be paid by client and parts send back to manufacturer for inspection at clients cost.
- Heater battery for air input system.
- Provision of grease traps if required.
- Finding of asbestos all works must stop until made safe by others.
- Return visit to site due to services being incorrect or not live and enabled for commissioning, a chargeable site instruction. would be required for any visits beyond our control.
- We specifically exclude any works not mentioned.
- VAT.
- Once payment made any refund will be subject to a 25% restocking charge and fee incurred.
- The company (FUSIONHOT LTD) is suppliers. Fitting is carried out by a third-party company and is the customer's responsibility to check all relevant details of that company, any problems with the fitting is between the customer and the third-party company. All correspondence should be between these two and not FUSIONHOT LTD.