Roof Extract Units 50 HZ - Direct Driven

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FläktWoods

General Information - Colchester Range

Mechanical Details

Weather cap, Motor Compartment and base

These compartments are moulded in ultra violet stabilised polyester resin, glass reinforced, rendered fire retardant to BS 476: Part 7, Class 2.
Standard Colourant to BS 4800: 08B-21 is built in. Or other B.S. and R.A.L. colours available.
This material is strong, light in weight, gives excellent resistance to atmospheric corrosion and is suitable for operational use in a wide range of climatic conditions.
The unit has been load tested to ensure a generous structural factor of safety enabling the units to withstand all normally encountered weather conditions. The caps are secured to the mounting brackets by stainless steel screws.

Mountings

Fan support arms are of mild steel, resiliently mounted to the base.

Mounting position

The units have been designed to operate efficiently when mounted horizontally or on a pitched roof up to an angle of 30° from the horizontal. DSP, DSM & DSC units can be wall-mounted, (see page 41). Roof angles above 30° please enquire.

Purlin mounting

Purlin boxes, soaker sheets and direct mounting sheets for most popular profiles are available for most units.

Motor Specification

Totally enclosed motors, single and three phase

Metric sized, ball bearing, squirrel cage induction type, for direct on line starting. All have Class F insulation. Ratings comply generally with BS 5000:Pt 99 and IEC 34-1, with degree of motor protection IP 55 to IEC 34-5.

Single phase motor types

BT4, BT5, BT9, CT5, CT9: capacitor start and run with a motor mounted pre-wired capacitor, where possible. F22: Capacitor start and run with a separate wall mounting capacitor box.

Two speed motors

These are available as shown in the tables.
Single phase: series parallel reconnection
Three phase: BT5, BT9, CT5, CT9, F22, D132, D160 - Pole changing (full and half speed) or P.A.M. - Pole Amplitude Modulation (full and approx two thirds speed). D132-Dual wound.

DSP and DVP- please enquire for further information.

Flameproof Motors

Some units can be supplied with flameproof motors type EExd certified for Groups 11A and 11B in Zone 1 applications. Insulation is Class F. Cable entries: Tapped hole for conduit or cable gland.
Note: Single phase flameproof motor capacitors are mounted within the motor enclosure. Isolators are not available with flameproof motors.

The Colchester Roof Unit Range

DSP, DSJ, DSC, DSM

DVP, DVC, DVM

Speed Regulation

Please refer to page 46 for full details

Electrical Supply, 50 Hz

Fans

Single phase: 220-240 V
Three phase: 380-420 V or 220-240 V/380-420 V.
Available also for alternative voltages.

Overheat protection

Fitted as standard on all non-flameproof single phase motors, (except F22 frames). Available on all others - please enquire.

Lubrication

Motor bearings are prelubricated with high quality grease. In ambient temperatures up to 50°C (122°F) relubrication is recommended after 30,000 hours running or five years intermittent use. Where lubricators are fitted (normally F22/D132/D160) the motors should be relubricated after two years.

General Information - Colchester Range

Test Procedures

Aerodynamic

The complete units are air tested according to British Standard BS 848: Part 1, 1980 using the chamber method detailed in Paragraph 26.7 (Fan powered exhaust ventilators).

Sound Levels

The Sound Power Level data presented has been established from tests in accordance with BS 848 Part II, 1966 HEVAC Supplement-Free Field and semi reverberant methods.

The Sound Power Level in each octave band is calculated from the measured sound pressure levels.

The spectra quoted are average figures for the performance characteristic. The Sound Power Levels shown are for Open Inlet conditions i.e. without ductwork connected. To obtain the Sound Power Level, when ductwork is connected to the unit without an abrupt change of area, the values shown in the table 'Correction for In-Duct Sound Power Levels' should be applied.

The Sound Pressure Level quoted is the level calculated in dBA at 3 metres distance over a sphere, under free field conditions and is presented for comparative purposes. The data refers to a unit mounted in a non-reverberant area, in practice the unit will be mounted in a semi-reverberant area which will result in a higher sound pressure level than indicated by the dBA figure.

Correction for in-duct sound power levels

Fan Size DSC, DVC, DSM, DVM	Fan Size DSP, DVP	Curb Inlet Area m^2	Hz							
			63	125	250	500	1K	2K	4K	8K
200	-	0.0625	15	9	2	0	-1	-4	-2	-3
250	315/355	0.106	12	7	1	0	-2	-3	-2	-3
330	400	0.16	10	4	1	-1	-2	-3	-3	-3
400	450/500	0.25	9	2	0	-1	-4	-2	-3	-2
500	630	0.49	6	1	0	0	-3	-3	-3	-2
630	710/800	0.64	4	1	-1	-2	-3	-3	-3	-2
760	1000	1.0	2	0	-1	-4	-2	-3	-2	-1

Order Specification

Example

- Type of unit — DSM
- Fan size — 400 mm
- Curb or purlin mounting — Curb Mounted
- Impeller rev/min — 900 RPM
- Electrical supply - volts, Hz, phase — 220/-240V/50Hz/1ϕ
- Volume flow — 0.4m^3/s
- Static Pressure — 150 Pa
- Quotation ref. — Q12345/A

Anti-backdraught shutters

The use of shutters does not reduce fan performance, but will improve weathering under extreme conditions. On side discharge units aluminium shutters are an optional extra.

All vertical discharge units are fitted with aluminium shutters as standard, being opened by air movement and closed by stainless steel springs.

Where shutters are fitted synthetic rubber buffers are provided to ensure quiet operation.

Side Discharge DSP

Specification

The type DSP roof extract unit is designed to satisfy the consultants functional requirement for a direct drive propeller fan unit of guaranteed performance, and the architects aesthetic need for a very low contour glass fibre reinforced cowl.

The fan is of Woods 2101 GP series powered by a metric motor giving high efficiency in terms of airflow per Watt and consequent low running costs. The impeller is designed to give maximum volume at minimum noise level for minimum power consumption.

The range comprises nine sizes with fan inlet diameters from 315 to 1000 mm and air volume flows of up to 7.2 m^3/s.

All units are available for curb or purlin mounting. Automatic anti-backdraught shutters, isolators, bird guards, burglar bars, motorised dampers, pre-fabricated curbs and soaker sheets are available as optional extras.

Most motors have excellent speed control characteristics and can be regulated down to 20-30% of full speed. Two speed motors are available. Motors are rated for continuous running in ambient temperatures of up to 50°C (122°F).
DSP units are despatched completely assembled and packed.

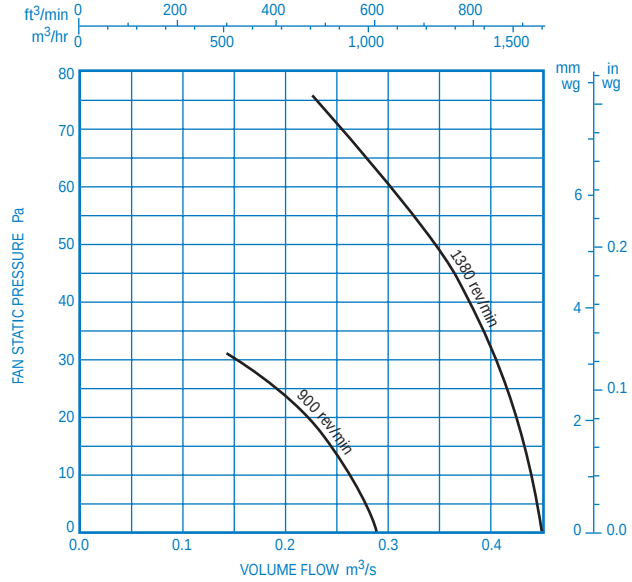
Impellers

Fan diameters 315-710 mm are of aluminium clad steel. Fan diameters 800-1000 mm are of hot dipped galvanised steel blade with aluminium hub.

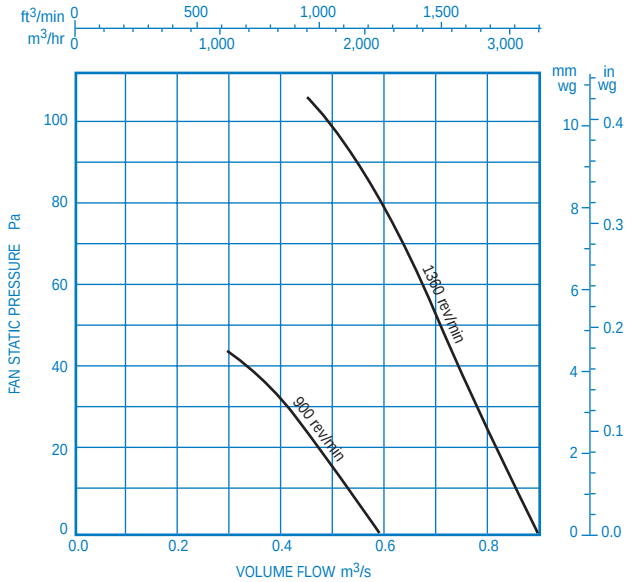
Balanced to BS6861 Part 1 (ISO 1940, 1986) grade G6.3. Corrosion resistant and suitable for continuous outside use.

Performance Data

315 mm

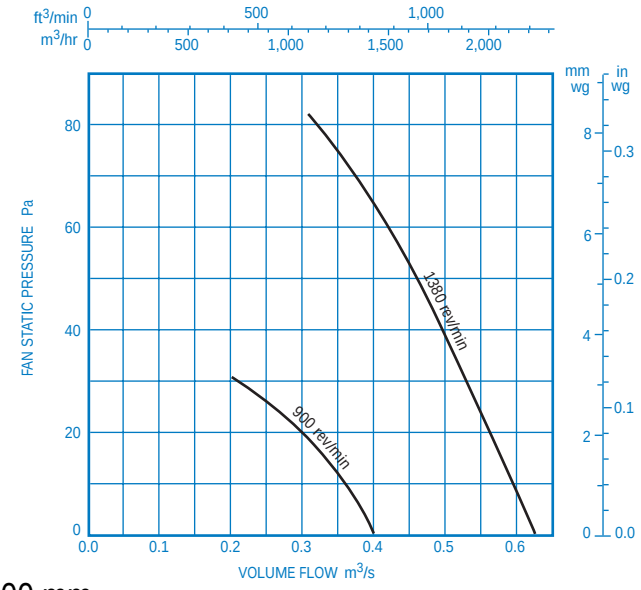


355 mm

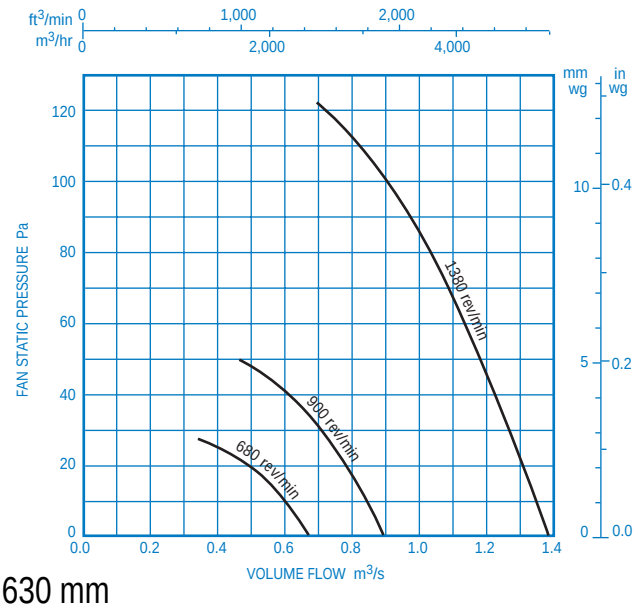


Side Discharge DSP

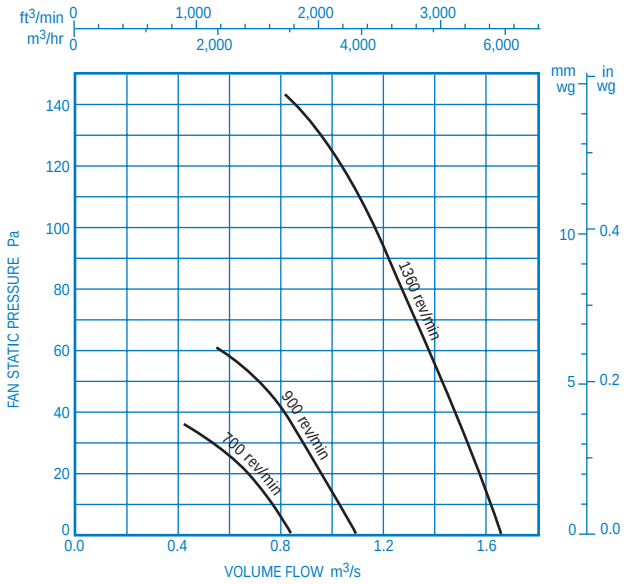
400 mm



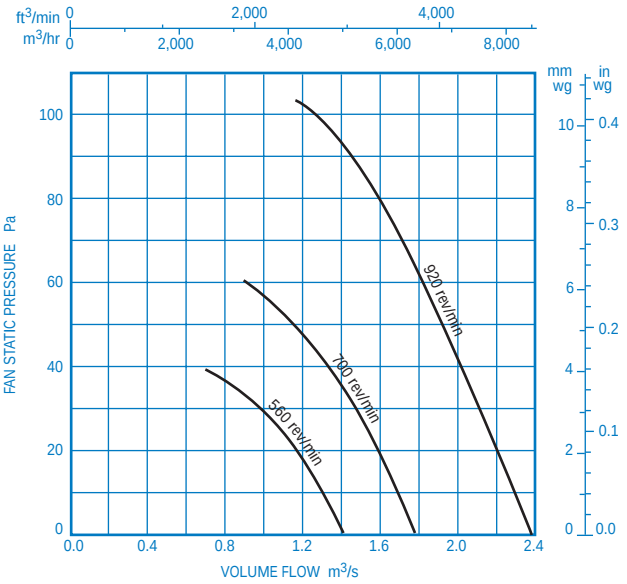
450 mm



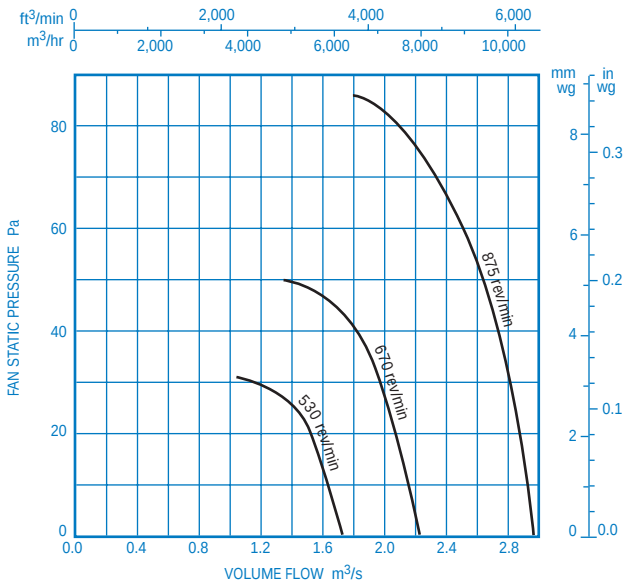
500 mm



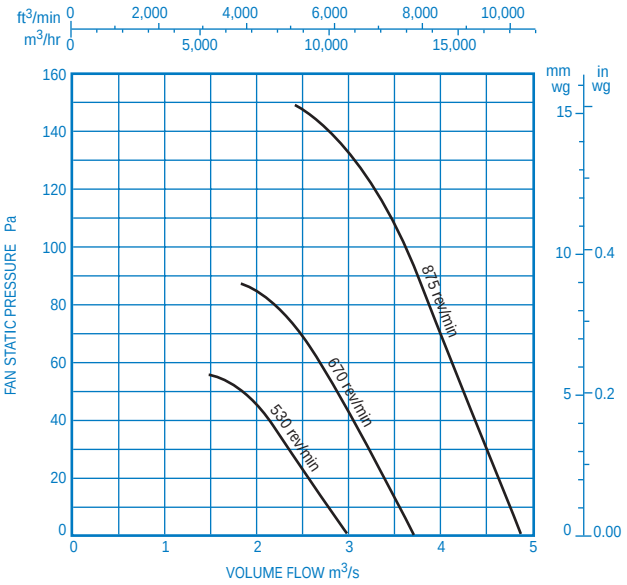
630 mm



710 mm



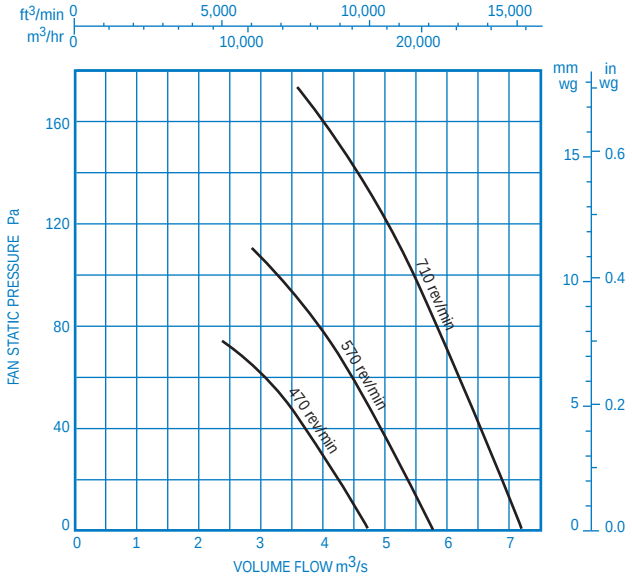
800 mm



Side Discharge DSP

Performance Data

1000 mm



Sound Levels

Code	Speed rev/min	Open inlet Sound Power Level in dB re 1 pW in Octave Bands								Free Field Sound Pressure Level at 3 m dBA re 20µPa
		63	125	250	500	1K	2K	4K	8K	
315	900 1380	68 73	67 76	61 75	57 69	51 64	47 61	43 58	39 53	38 47
355	900 1380	72 77	71 80	65 79	61 73	55 68	51 65	47 62	43 47	42 51
400	900 1360	75 80	74 83	68 78	64 72	58 67	54 64	50 61	46 56	45 54
450	680 900 1380	72 79 84	71 78 87	65 72 82	61 68 76	55 62 71	51 58 68	47 54 65	43 50 60	42 49 58
500	700 900 1360	75 82 87	74 81 90	68 75 85	64 71 79	58 65 74	54 61 71	50 57 68	46 53 63	45 52 61
630	560 700 920	79 83 90	77 82 89	71 76 83	66 72 79	61 66 73	57 62 69	53 58 65	49 54 61	47 53 60
710	530 670 875	81 86 92	79 85 91	73 79 85	68 75 81	63 69 75	59 65 71	55 61 67	51 57 63	49 56 62
800	530 670 875	82 86 92	80 87 93	79 84 90	75 80 86	72 77 83	61 74 80	63 70 76	56 62 68	57 62 68
1000	470 570 710	85 89 93	81 87 94	80 86 91	77 82 87	75 79 84	71 76 81	64 70 77	59 63 69	59 64 69

Side Discharge DSP

Electrical Data

Code	220-240 V / 50 Hz / 1ϕ							380-420 V / 50 Hz / 3 ϕ				
	Speed rev/min	Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Speed Controllers		Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)	Speed Controllers	
						Electronic	Transformer				Electronic	Transfomer
315	900 1380	BT4 BT4	0.02 0.065	0.25 0.5	0.4 1.0	ME1.1 ME1.1	MT1.1 MT1.1	0.035 0.10	0.15 0.35	0.4 1.3	ME3.5S ME3.5S	MT3.0.5 MT3.0.5
355	900 1380*	BT4 BT4	0.035 0.10	0.35 0.8	0.6 1.5	ME1.1 ME1.1	MT1.1 MT1.1	0.035 0.10	0.15 0.45	0.4 2.0	ME3.5S ME3.2D	MT3.0.5 MT3.0.5
400	900* 1380*	BT5 BT5	0.05 0.18	0.46 1.4	0.67 2.6	ME1.1 ME1.3	MT1.1 MT1.5	0.04 0.15	0.24 0.58	0.5 2.4	ME3.2D ME3.2D	MT3.0.5 MT3.1
450	600 900* 1380*	BT5 BT5 BT9	0.032 0.083 0.31	0.45 1.0 2.2	0.65 1.8 5.9	ME1.1 ME1.1 ME1.3	MT1.1 MT1.1 MT1.5	0.032 0.075 0.31	0.24 0.37 0.95	0.4 0.80 3.2	ME3.5S ME3.2D ME3.2D	MT3.0.5 MT3.0.5 MT3.1
500	700* 900* 1360*	CT5 CT5 CT5	0.075 0.19 0.45	1.1 1.8 2.8	1.4 3.0 6.0	ME1.3 ME1.3 ME1.6	MT1.5 MT1.5 MT1.5	0.060 0.13 0.45	0.30 0.45 1.2	0.60 1.1 4.5	ME3.2D ME3.2D ME3.2D	MT3.0.5 MT3.0.5 MT3.2
630	560* 700* 920*	CT9 CT9 CT9	0.08 0.16 0.43	1.2 1.9 3.3	1.6 3.4 7.5	ME1.3 ME1.3 ME1.6	MT1.5 MT1.5 MT1.5	0.10 0.16 0.41	0.55 0.75 1.5	1.0 1.7 5.3	ME3.2D ME3.2D ME3.2D	MT3.1 MT3.1 MT3.2
710	530* 670* 875*	CT9 CT9 CT9	0.12 0.21 0.49	1.8 2.3 3.8	3.0 3.7 8.2	ME1.3 ME1.3 ME1.6	MT1.5 MT1.5 MT1.5	0.12 0.21 0.49	1.10 1.25 1.8	1.7 2.6 4.3	ME3.2D ME3.2D ME3.2D	MT3.2 MT3.2 MT3.2
800	560* 700* 920*	F2265 F2265/9+ F2269	0.30 0.60 -	2.8 4.4	4.0 11.0	ME1.3 ME1.6	MT1.5 MT1.5	0.3 0.6 1.3	1.75 2.0 3.5	3 6.0 16.0	ME3.2D ME3.2D ME3.5S	MT3.2 MT3.2 -
1000	470 570 710	D132/26 D132/26 D132/26	- - -					0.75 1.3 2.5	3.3 4.4 7	10 18 32	ME3.10S ME3.10S ME3.10S	- - -

*By connecting 3ϕ fans in star, a second speed will be obtained approximately 75% of the scheduled speed.

+ F2265 motor for 3ϕ, F2269 motor for 1ϕ

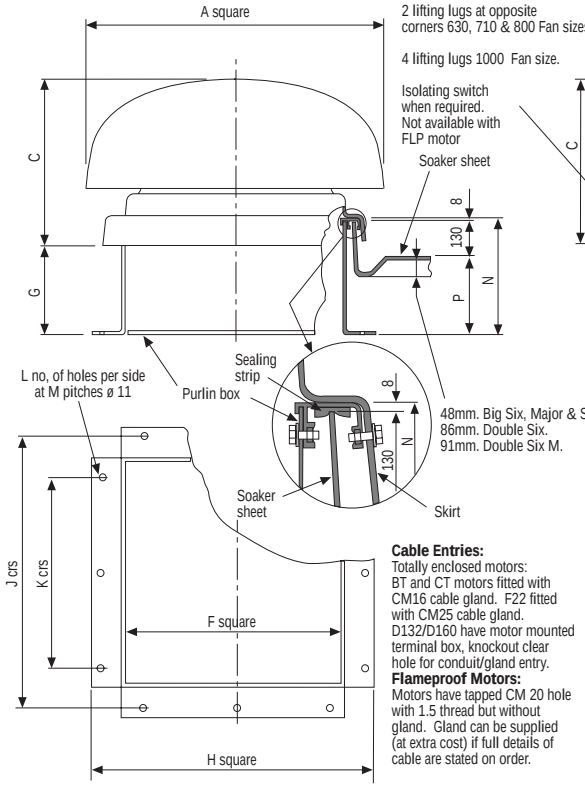
Flameproof Motors

Code	Nominal Speed rev/min	220-240 V / 50 Hz / 1ϕ					380-420 V / 50 Hz / 3ϕ			
		Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Capacitor (µF)	Motor	Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) d.o.l (A)
315	900 1400	PENV89M PENV89M	0.075 0.30	0.9 2.1	3.2 9.4	10.0 10.0	ENV89M ENV89M	0.075 0.30	0.30 0.75	1.1 3.6
355	900 1400	PENV89M PENV89M	0.075 0.30	0.9 2.1	3.2 9.4	10.0 10.0	ENV89M ENV89M	0.075 0.30	0.30 0.75	1.1 3.6
400	900 1400	PENV89M PENV89M	0.075 0.30	0.9 2.1	3.2 9.4	10.0 10.0	ENV89M ENV89M	0.075 0.30	0.30 0.75	1.1 3.6
450	900 1400	PENV89M PENV89M	0.075 0.30	0.9 2.1	3.2 9.4	10.0 10.0	ENV89M ENV89M	0.075 0.30	0.30 0.75	1.1 3.6
500	900 1400	PENV89L PENV89L	0.18 0.50	1.8 3.1	7.2 15.0	10.0 20.0	ENV89M ENV89M	0.18 0.50	0.60 1.20	2.1 6.0
630	700 940	PENV89M PENV89L	0.28 0.63	2.1 6.3	4.5 17.5	20.0 20.0	ENV89M ENV89M	0.28 0.63	0.92 1.95	3.2 7.8
710	700 920	PENV89M PENV89L	0.28 0.63	2.1 6.3	4.5 17.5	20.0 20.0	ENV89M ENV89M	0.28 0.63	0.92 1.95	3.2 7.8
800	700	-					ENV89M	0.60	2.10	8.4

Side Discharge DSP

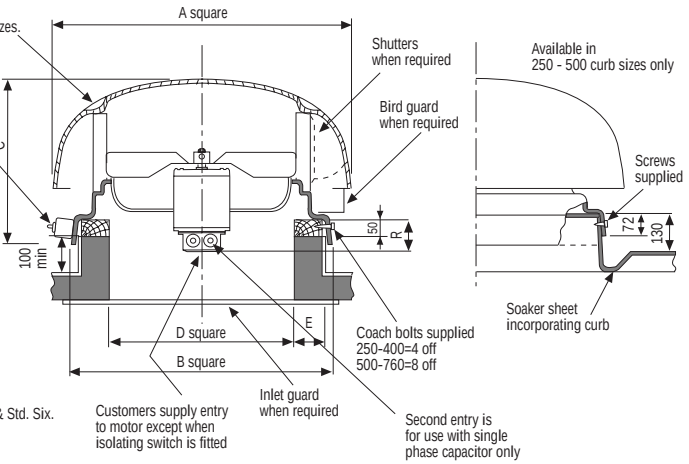
Dimensions & Weights

Purlin Mounting



Cable Entries:
Totally enclosed motors:
BT and CT motors fitted with CM16 cable gland. F22 fitted with CM25 cable gland.
D132/D160 have motor mounted terminal box, knockout clear hole for conduit/gland entry.
Flameproof Motors:
Motors have tapped CM 20 hole with 1.5 thread but without gland. Gland can be supplied (at extra cost) if full details of cable are stated on order.

Roof Sheet Curb Mouting



Curb Mounting

Curb Size	Fan Size DSP	Motor	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	Weight Unit (kg)	Weight Purlin Box	Flameproof Motors		
																				Motor	R	Weight Unit (kg)
325	315	BT4	600	525	310	325	75	420	200	595	550	320	2	320	272	134	135	17	8.8	ENV89MP	233	41
	355	BT4	600	525	310	325	75	420	200	595	550	320	2	320	272	134	135	19	8.8			
400	400	BT5	710	600	355	400	75	495	200	670	625	400	3	200	272	134	130	20	10.3	ENV89MP	228	43
	450	BT5	820	700	400	500	75	595	230	770	725	500	3	250	302	164	120	25	16.2			
500	450	BT9	820	700	400	500	75	595	230	770	725	500	3	250	302	164	155	27	16.2	ENV89MP	218	49
	500	CT5	820	700	400	500	75	595	230	770	725	500	3	250	302	164	141	29	16.2	ENV89LP ENV89MP	262 218	56 52
700	630	CT9	1030	900	475	700	75	792	250	970	925	690	4	230	322	184	161	46	22.6	ENV89LP ENV89MP	242 198	69 65
	710	CT9	1300	1050	550	800	100	942	270	1120	1075	840	5	210	342	204	141	50	34.5	ENV89MP ENV89LP	178 222	70 74
800	800	F2265	1300	1050	550	800	100	942	270	1120	1075	840	5	210	342	204	250	72	34.5			
	800	F2269	1300	1050	550	800	100	942	270	1120	1075	840	5	210	342	204	304	85	34.5	ENV89MP	231	77
1000	1000	D132	1700	1250	710	1000	100	1140	280	1320	1275	1000	5	250	352	214	270	125	42.7	-		

All dimensions in mm

Side Discharge DSJ

Specification

The DSJ roof extract unit incorporates the Woods JMP (Plate mounted JM fan) installed within a side discharge cowl. The cowl and fan are supplied separately for simple assembly before installation.

The range comprises of five sizes with fan inlet diameters from 315mm to 500mm and air volumes of up to 1.44m^3/s.

All units are available for curb or purlin mounting. Automatic anti-backdraft shutters, pre-fabricated curbs and soaker sheets are available as optional extras.

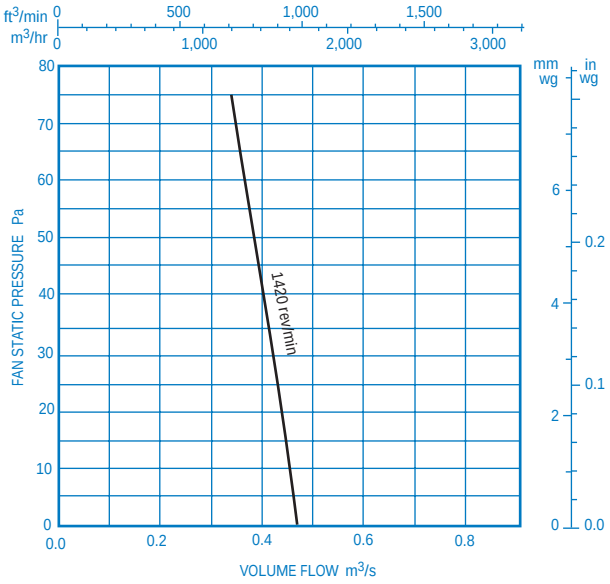
All motors are speed controllable with overheat protection as standard on single phase motors.

Impellers

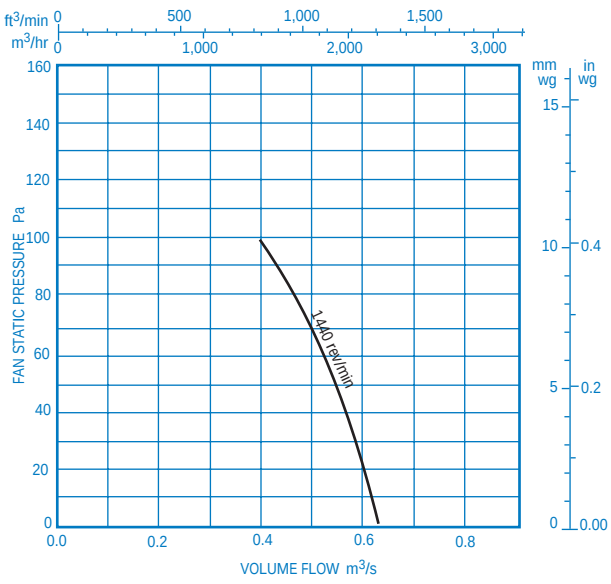
A unique high efficiency aerofoil section blade. All Woods JMP impellers are high pressure die cast to offer thin aerofoil sections for low generation of noise levels. Every rotating die cast component is x-rayed using Real Time Radiography inspection prior to assembly.

Performance Data

315 mm



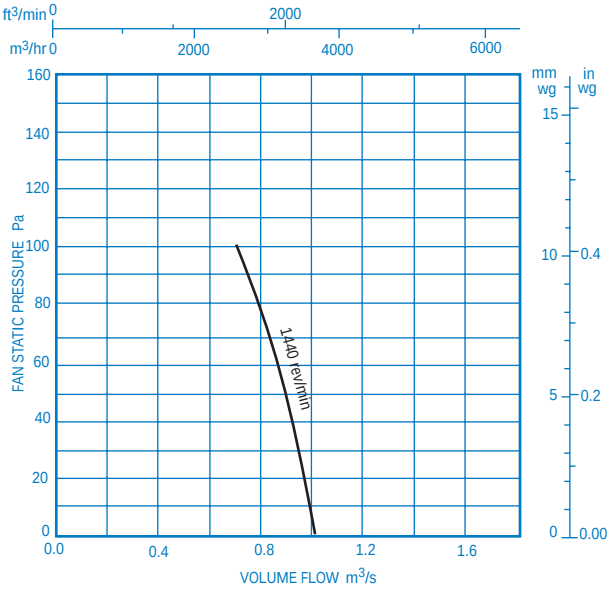
355 mm



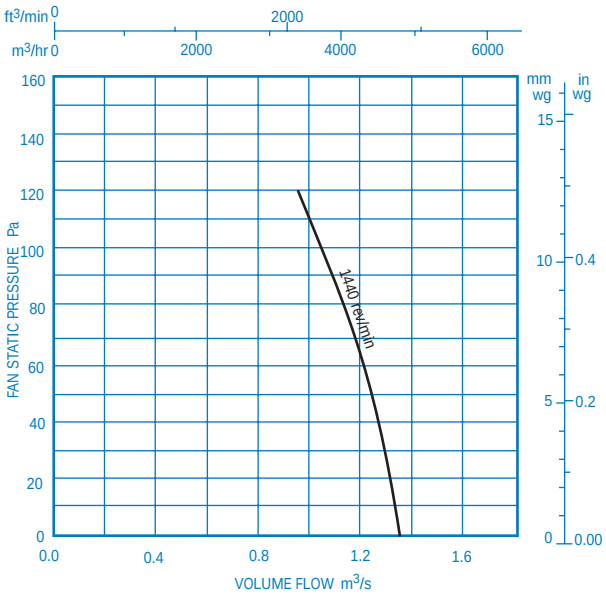
Side Discharge DSJ

Performance Data

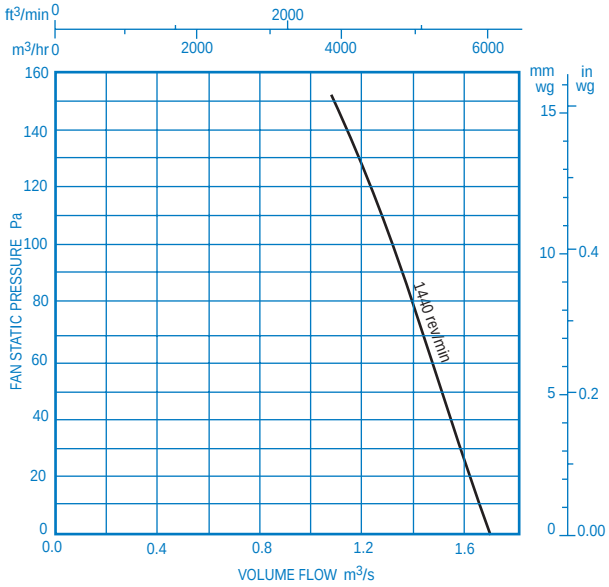
400 mm



450 mm



500 mm



Sound Levels

Code	Speed rev/min	Open inlet Sound Power Level in dB re 1 pW in Octave Bands								Free Field Sound Pressure Level at 3 m dB(A) re 20 µPa
		63	125	250	500	1K	2K	4K	8K	
315	1420	69	73	70	68	64	61	58	52	49
355	1440	73	76	76	72	68	65	62	56	53
400	1440	74	74	79	76	71	68	65	60	57
450	1440	80	84	84	80	76	73	69	64	61
500	1440	84	88	87	84	79	76	73	67	64

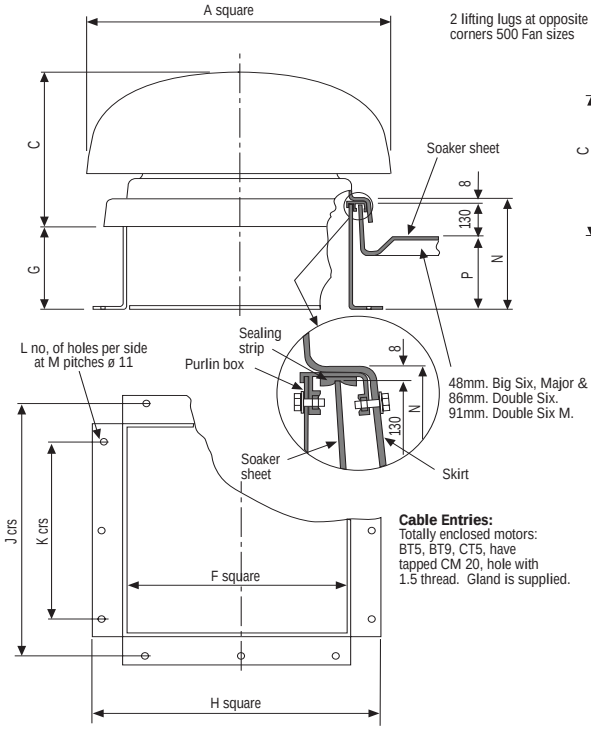
Side Discharge DSJ

Electrical Data

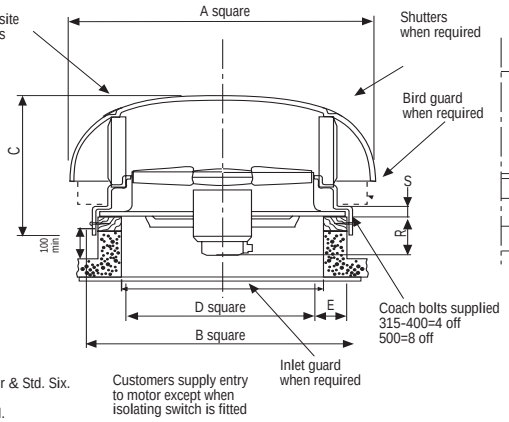
Code	Speed (rev/min)	Motor	220-240 V / 50 Hz / 1 ϕ					380-420 V / 50 Hz / 3 ϕ				
			Motor Rating (kW)	Full Load Current (at 200V) (A)	Starting Current (A)	Speed Controller		Motor Rating (kW)	Full Load Current (at 400V) (A)	Starting Current (A)	Speed Controller	
						Electronic	Transformer				Electronic	Transformer
DSJ315	1420	BT4	0.13	1.0	2.0	ME1.1	MT1.1	-	-	-	-	-
DSJ355	1440	BT4	0.13	1.0	2.0	ME1.1	MT1.1	-	-	-	-	-
DSJ400	1440	BT9	0.3	2.1	5.3	ME1.3	MT1.5	-	-	-	-	-
DSJ450	1440	CT5	0.55	3.7	5.5	ME1.6	MT1.5	0.58	1.7	6.5	ME3.2D	MT3.2
DSJ500	1440	CT5	0.55	3.7	5.5	ME1.6	MT1.5	0.58	1.7	6.5	ME3.2D	MT3.2

Dimensions and Weights

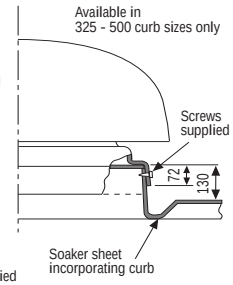
Purlin Mounting



Roof Sheet Curb Mouting



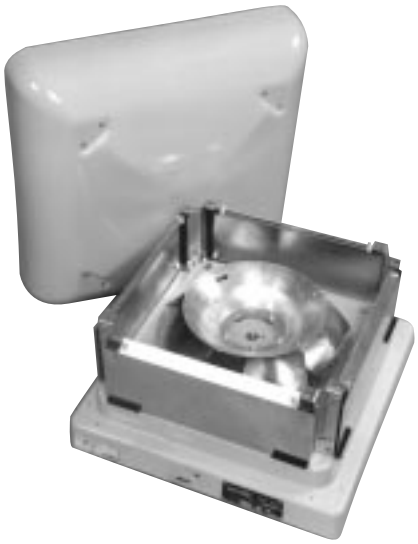
Curb Mounting



Curb Size	Fan Size DSJ	Motor	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	Weight Unit (kg)	Weight Purlin Box
325	315	BT4	600	525	310	325	75	420	200	595	550	320	2	320	272	134	153	3	25	8.8
400	355	BT4	710	600	355	400	75	495	200	670	625	400	3	200	272	134	146	3	28	10.3
400	400	BT9	710	600	355	400	75	495	200	670	625	400	3	200	272	134	185	13	31	10.3
500	450	CT5	820	700	400	500	75	595	230	770	725	500	3	250	302	164	158	13	39	16.2
500	500	CT5	820	700	400	500	75	595	230	770	725	500	3	250	302	164	139	13	41	16.2

All dimensions shown in mm

Side Discharge DSM



Specification

The DSM roof extract unit is designed to satisfy the consultants functional requirement for a direct drive, mixed flow fan unit of guaranteed performance, and the architects aesthetic need for a very low contour cowl.

The result is a highly efficient fan unit for use on extract systems requiring pressure development, or in free air conditions where a low noise level is important.

The range comprises seven sizes with fan inlet diameters from 200 to 760 mm with air volumes of up to 9.2 m^3/s.

All units are available for curb or purlin mounting. Automatic anti-backdraught shutters, isolators, bird guards, burglar bars, motorised dampers, pre-fabricated curbs and soaker sheets are available as optional extras.

Most motors have excellent speed control characteristics and can be regulated down to 20-30% of full speed. Two speed motors are available. Motors are rated for continuous running in ambient temperatures of up to 50°C (122°F).

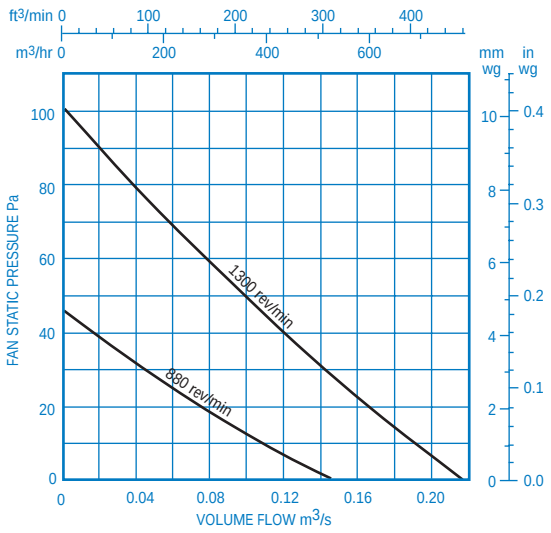
DSM units are despatched completely assembled and packed.

Impellers

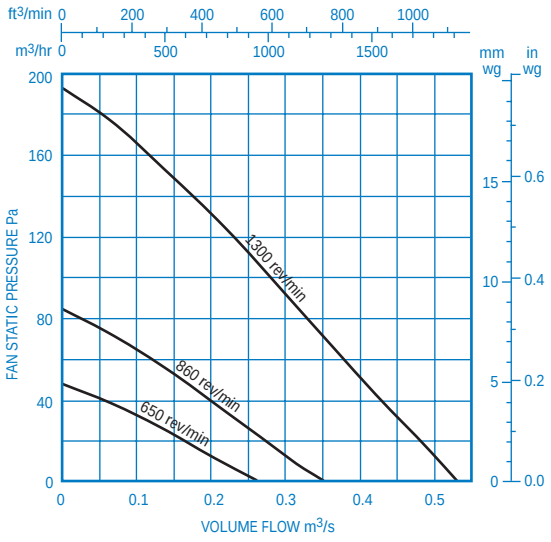
The impeller is aluminium and of Woods patented design. Air is discharged radially, thus eliminating the losses which occur when a vertical airflow is converted to a horizontal discharge by the weather cap

Performance Data

200 mm



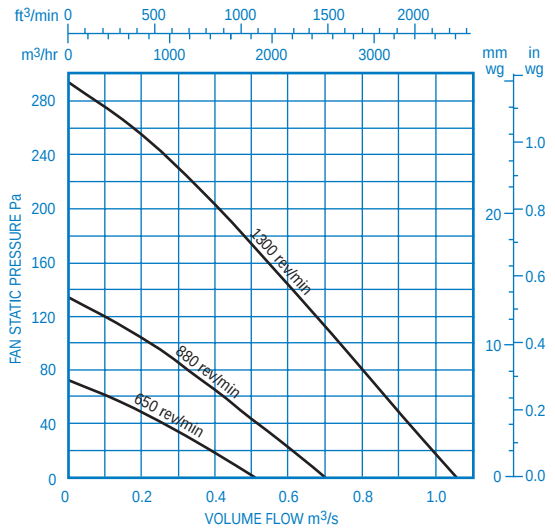
250 mm



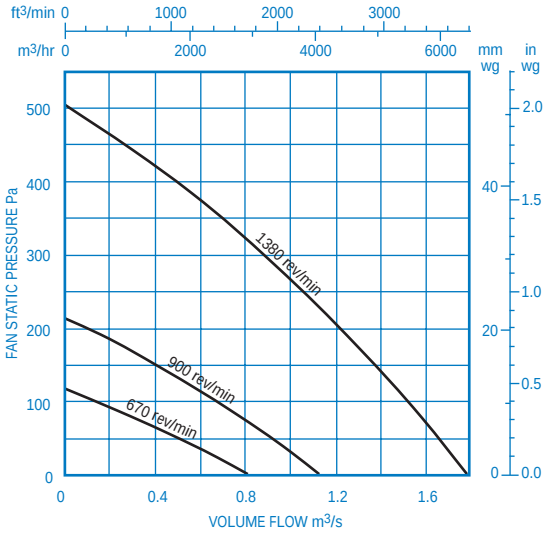
Side Discharge DSM

Performance Data

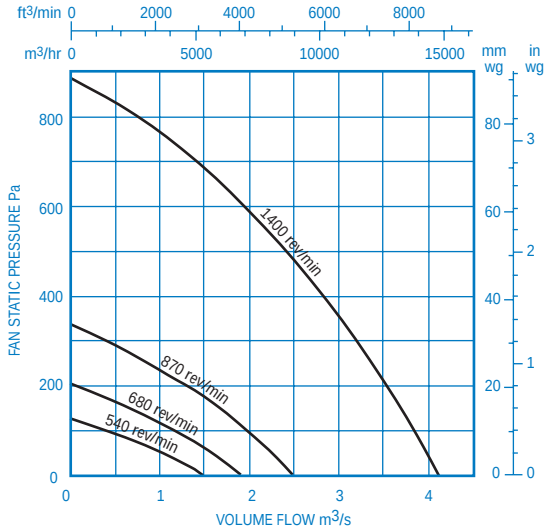
330 mm



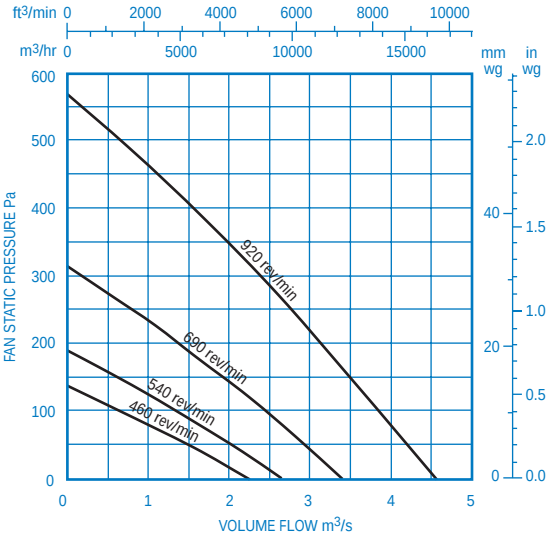
400 mm



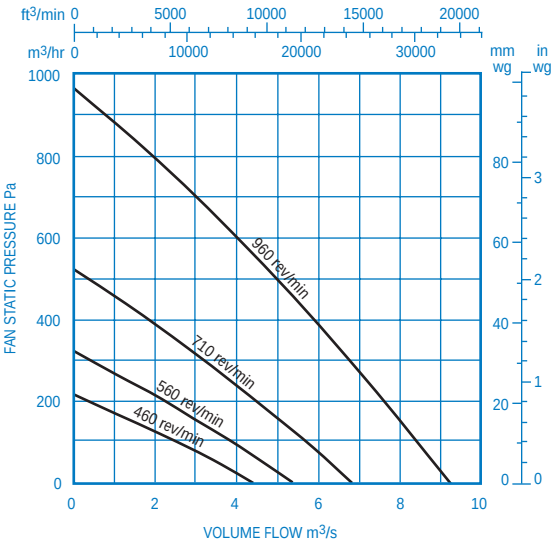
500 mm



630 mm



760 mm



Side Discharge DSM

Sound Levels

Code	Speed rev/min	Open inlet Sound Power Level in dB re 1 pW in Octave Bands								Free Field Sound Pressure Level at 3 m dB(A) re 20µPa
		63	125	250	500	1K	2K	4K	8K	
200	880	58	64	53	55	49	48	42	33	35
	1300	67	73	62	64	58	57	51	42	44
250	650	63	62	54	50	52	50	46	42	35
	860	67	66	58	54	56	54	50	46	39
	1300	73	76	69	65	67	65	61	57	50
330	650	68	69	63	56	55	52	50	41	39
	880	73	74	68	61	60	57	54	46	46
	1300	78	83	78	71	71	69	64	57	57
400	670	68	69	66	61	61	58	55	46	46
	900	73	74	71	66	66	63	60	51	51
	1380	81	84	83	77	77	74	70	65	61
500	540	75	75	74	66	65	61	56	52	50
	680	77	77	76	69	68	64	59	54	53
	870	82	81	80	74	72	69	64	59	58
	1400	91	93	92	88	86	83	79	74	71
630	460	78	78	77	68	66	62	57	52	52
	540	81	81	80	72	70	66	61	56	56
	690	85	84	83	76	75	71	66	62	60
	920	90	89	89	84	81	78	74	69	67
760	460	84	84	82	75	72	68	63	59	57
	560	89	86	86	81	78	73	68	64	62
	710	94	90	90	86	83	80	73	69	67
	960	98	95	95	94	91	88	81	76	76

Electrical Data

			220-240 V / 50 Hz / 1ϕ						380-420 V / 50 Hz / 3ϕ				
Code	Speed rev/min	Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Capa-citor (µF)	Speed Controllers		Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)	Speed Controllers	
							Electronic	Transformer				Electronic	Transformer
200	880	BT4	0.02	0.26	0.4	2.0	-	-	0.015	0.08	0.3	-	-
200	1300	BT4	0.065	0.5	1.0	2.5	ME1.1	MT1.1	0.04	0.15	0.7	ME3.5s	MT3.0.5
250	650	BT5	0.02	0.35	0.48	2.5	ME1.1	MT1.1	0.02	0.22	0.6	ME3.5s	MT3.0.5
250	860	BT4	0.035	0.35	0.6	4.0	ME1.1	MT1.1	0.035	0.15	0.4	ME3.5s	MT3.0.5
250	1300	BT4	0.1	0.8	1.5	2.5	ME1.1	MT1.1	0.1	0.35	1.3	ME3.5s	MT3.0.5
330	650	BT5	0.04	0.65	1.0	2.5	ME1.1	MT1.1	0.032	0.24	0.4	ME3.5s	MT3.0.5
330	880	BT5	0.083	1.0	1.8	5.0	ME1.1	MT1.1	0.083	0.37	0.95	ME3.5s	MT3.0.5
330	1300	BT5	0.22	1.8	2.7	8.0	ME1.3	MT1.5	0.22	0.7	2.5	ME3.5s	MT3.1
400	670	BT9	0.07	0.8	1.3	5.0	ME1.1	MT1.1	0.07	0.45	0.8	ME3.5s	MT3.0.5
400	900	BT9	0.14	1.25	2.3	8.0	ME1.3	MT1.1	0.18	0.8	1.8	ME3.5s	MT3.1
400	1380	CT5	0.5	3.4	5.5	20.0	ME1.6	MT1.5	0.5	1.3	5.5	ME3.5s	MT3.2
500	540	CT9	0.12	1.8	2.6	10.0	ME1.3	MT1.5	0.12	1.1	1.7	ME3.5s	MT3.1
500	680	CT9	0.25	2.1	3.0	15.0	ME1.3	MT1.5	0.21	1.25	2.6	ME3.5s	MT3.2
500	870	CT9	0.43	3.3	7.5	15.0	ME1.6	MT1.5	0.49	1.8	5.3	ME3.5s	MT3.2
500	1400	F2249	2.3	14.5	50.0	100.0	-	MT1.12	2.3	5.5	30.0	ME3.10s	AT.7
630	460	F2265	0.23	2.3	3.5	12.0	ME1.3	MT1.5	0.23	1.3	2.2	ME3.5s	MT3.2
630	540	F2265	0.4	3.3	4.6	20.0	ME1.6	MT1.5	0.4	2.2	3.8	ME3.5s	AT3.5
630	690	F2265	0.75	6.0	12.0	30.0	ME1.12	MT1.8	0.75	2.5	6.0	ME3.5s	AT3.5
630	920	F2269	1.8	9.8	24.0	50.0	-	-	1.8	4.5	16.0	-	-
760	460	D132/19	-						0.7	2.9	8.0	-	-
760	560	D132/19	-						1.8	5.2	16.0	-	-
760	710	D132/19	-						3.0	7.7	33.0	-	-
760	960	D132/26	-						6.3	13.9	77.0	-	-

Side Discharge DSM

Flameproof Motors

			220-240 V / 50 Hz / 1ϕ			380-420 V / 50 Hz / 3ϕ			
Code	Speed rev/min	Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Motor	Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)
400 400 400	700 900 1400	PENV89MP PENV89MP PENV89MP	0.09 0.18 0.5	1.3 1.8 3.1	2.7 7.2 15.0	ENV89MP ENV89MP ENV89MP	0.09 0.18 0.5	0.38 0.6 1.2	1.2 2.1 6.0
500 500 500 500	560 700 920 1400	- PENV89MP PENV89MP -	0.37 0.63	3.4 6.3	15.0 17.5	ENV89MP ENV89MP ENV89MP	0.37 0.63 2.5	1.3 1.9 5.2	6.2 7.6 26.0
630 630 630 630	460 560 700 940	- - - -				ENV89MP ENV112MP	0.75 1.8	2.5 4.6	10.0 20.0

Two Speed Totally Enclosed Motors

			220-240 V / 50 Hz /ϕ						380-420 V / 50 Hz / 3 ϕ				
Code	Speed rev/min	Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Capa-citor (µf)	Winding Type	Change-over Panel*	Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)	Winding Type	Change-over Panel
330 330 330 330	880/540 1290/770 1300/650 1300/860	BT5 BT5 BT9 BT9	0.06/0.013 0.22/0.045	0.65/0.4 1.8/0.85	1.2/0.4 2.7/1.0	4.0 8.0	SP SP	EDC28 EDC28	- - 0.22/0.033 0.22/0.057	0.65/0.25 0.9/0.42	1.5/0.5 3.3/1.0	PC PC	EDC19 EDC19
400 400 400 400 400 400	670/400 900/540 1380/830 900/670 1380/670 1380/900	BT9 BT9 CT5 CT5 CT9 CT5	0.07/0.015 0.14/0.03 0.5/0.11 - - -	0.8/0.45 1.2/0.7 3.4/2.0	1.3/0.5 2.0/0.8 5.5/2.0	5.0 8.0 20.0	SP SP SP	EDC28 EDC28 EDC28	- - - 0.14/0.07 0.5.0.06 0.5/0.14	0.9/0.4 1.4/0.52 1.3/0.7	1.9/0.6 5.3/1.3 4.8/1.4	PC PC PC	EDC19 EDC19 EDC19
500 500 500 500 500	680/430 870/535 680/460 870/460 870/680	CT9 CT9 F2265 F2265 CT9	0.25/0.065 0.55/0.12 - - -	3.0/2.2 5.0/2.5	3.0/2.5 7.0/3.0	15.0 25.0	SP SP	EDC28 EDC28	- - 0.25/0.075 0.55/0.08 0.55/0.25	1.2/0.65 1.9/0.75 2.8/1.5	2.3/1.4 6.0/1.25 5.7/1.7	PC PC PC	EDC19 EDC19 EDC19
630 630 630 630	460/275 540/350 690/460 920/690	F2265 F2265 F2269 F2269	0.23/0.06 0.4/0.1 - -	2.4/1.4 3.6/1.65	3.5/1.5 5.5/2.0	15.0 20.0	SP SP	EDC28 EDC28	0.75/0.23 1.8/0.76	2.7/1.7 5.8/3.0	7.5/3.1 25.0/7.0	PC PC	EDC19 EDC19
760 760 760	710/460 970/460 970/720	D132/26 D160/27 D160/27	- - -						2.8/0.76 5.5/0.6 5.5/2.25	8.0/3.8 14.0/3.8 16.0/7.2	37.0/12.5 35.0/14.0 80.0/25.0	DW PC PC	EDC22 EDC19 EDC19

* Key to Winding Type

SP = Series Parallel
PC = Pole Change
DW = Dual Wound

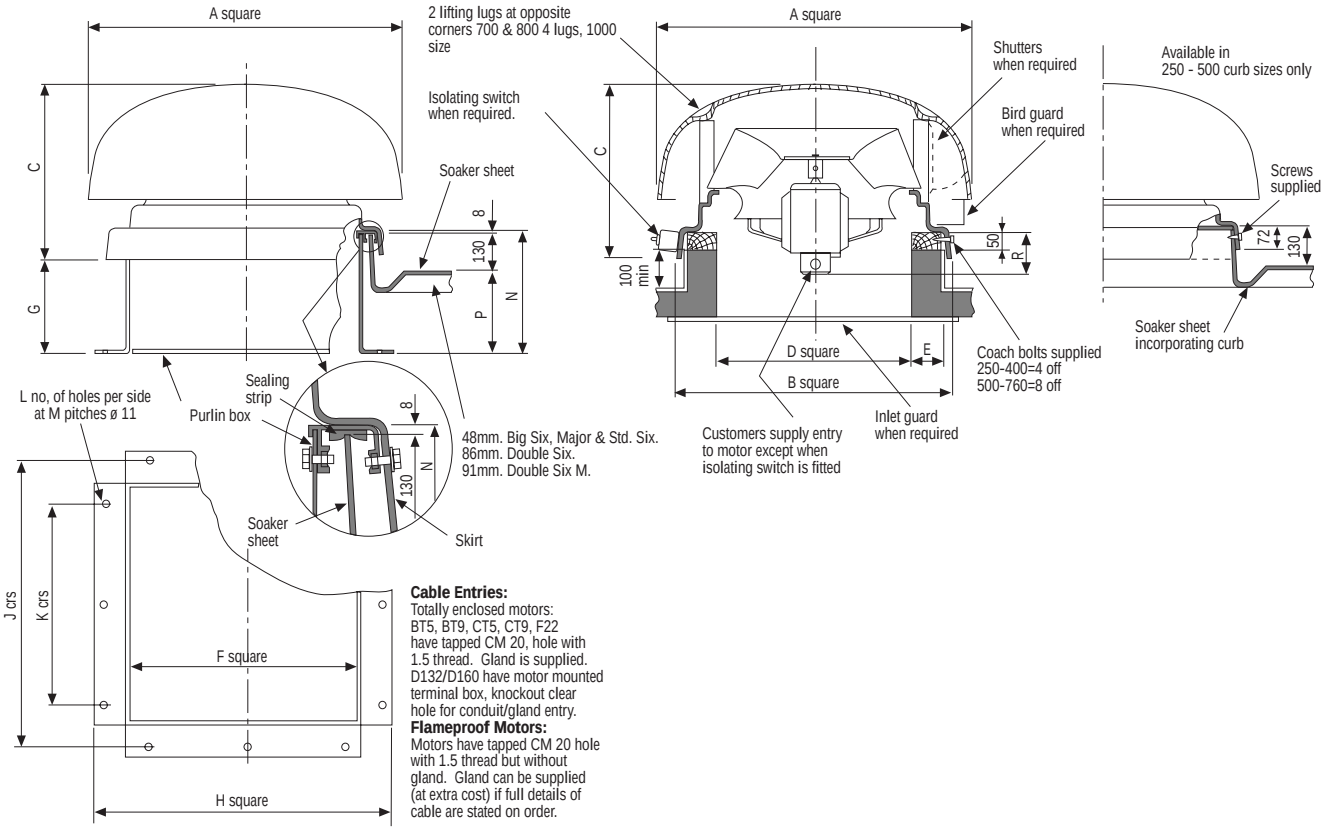
Side Discharge DSM

Dimensions and Weights

Purlin Mounting

Roof Sheet Curb Mouting

Curb Mounting



Curb Size	Fan Size DSM	Motor	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	Weight Unit (kg)	Weight Purlin Box	Flameproof Motors		
																				Motor	R	Weight Unit (kg)
250	200	BT4	480	450	280	250	75	345	200	520	475	250	2	250	272	134	132	16	7.2	-		
325	250	BT4 BT5	600 600	525 525	310 310	325 325	75 75	420 420	200 200	595 595	550 550	320 320	2 2	320 320	272 272	134 134	127 127	20 22	8.8 8.8	-		
400	330	BT5 BT9	710 710	600 600	355 355	400 400	75 75	495 495	200 200	670 670	625 625	400 400	3 3	200 200	272 272	134 134	122 157	24 26	10.3 10.3	-		
500	400	BT9 CT5 CT9	820 820 820	700 700 700	400 400 400	500 500 500	75 75 75	595 595 595	230 230 230	770 770 770	725 725 725	500 500 500	3 3 3	250 250 250	302 302 302	164 164 164	127 118 158	32 33 37	16.2 16.2 16.2	ENV89MP	154	54
700	500	CT9 F2265 F2249	1030 1030 1030	900 900 900	475 475 475	700 700 700	75 75 75	792 792 792	250 250 250	970 970 970	925 925 925	690 690 690	4 4 4	230 230 230	322 322 322	184 184 184	138 132 132	58 64 75	22.6 22.6 22.6	ENV89MP ENV89LP	107 157	66 78
800	630	F2265 F2269	1300 1300	1050 1050	550 550	800 800	100 100	942 942	270 270	1120 1120	1075 1075	840 840	5 5	210 210	342 342	204 204	95 150	75 85	34.5 34.5	ENV89LP	113	92
1000	760	D132 D160	1700 1700	1250 1250	710 710	1000 1000	100 100	1140 1140	280 280	1320 1320	1275 1275	1000 1000	5 5	250 250	352 352	214 214	103 245	129 161	42.7 42.7	-		

All dimensions are shown in mm

Side Discharge DSC

Specification

The fan is a high efficiency backward curved centrifugal developed by Woods specifically for application in this range of roof extractors.
The range comprises seven sizes with fan inlet diameters from 200 to 760 mm with air volumes of up to 10.6 m^3/s.

All units are available for curb or purlin mounting. Automatic anti-backdraught shutters, isolators, bird guards, burglar bars, motorised dampers, pre-fabricated curbs and soaker sheets are available as optional extras.
Most motors have excellent speed control characteristics and can be regulated down to 20-30% of full speed. Two speed motors are available.
Motors are rated for continuous running in ambient temperatures of up to 50°C (122°F).
DSC units are despatched completely assembled and packed.

The type DSC roof extract unit is designed to satisfy the needs of consultants, contractors and users for a compact direct-driven centrifugal roof unit with a guaranteed performance and high efficiency on extract systems with a significant static pressure requirement.

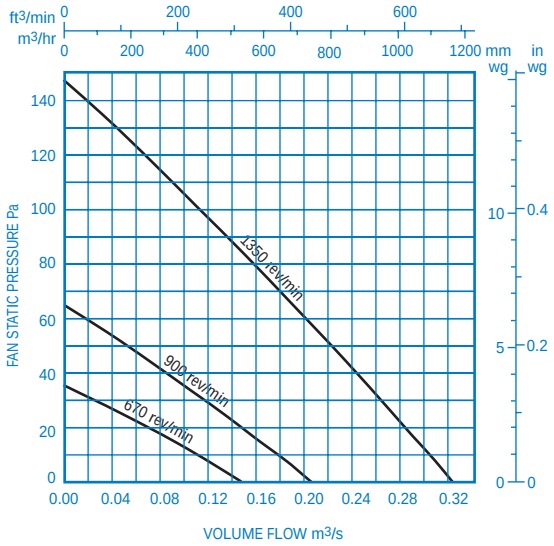
The unit provides excellent resistance to atmospheric corrosion. The weather cap and base are moulded in fire retardant glass fibre reinforced resin.

Impellers

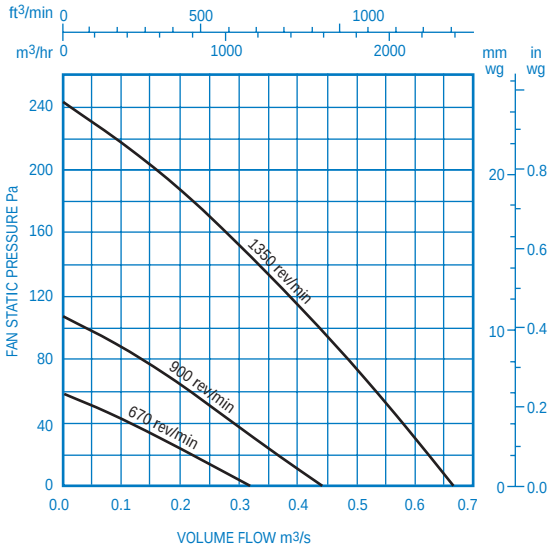
High efficiency, backward curved centrifugal, designed by Woods specifically for applications in this range of roof extract units.

Performance Data

200 mm



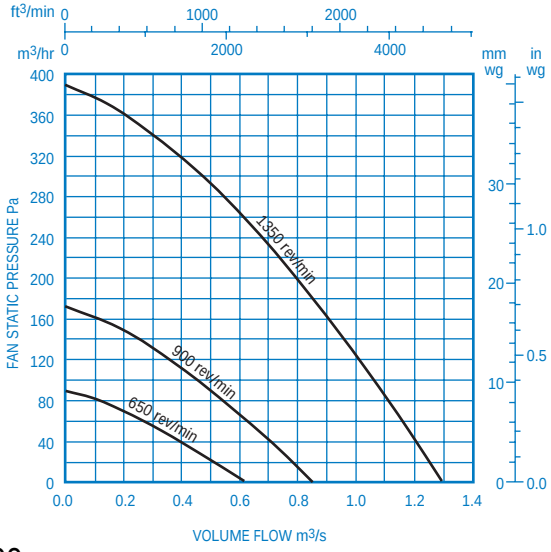
250 mm



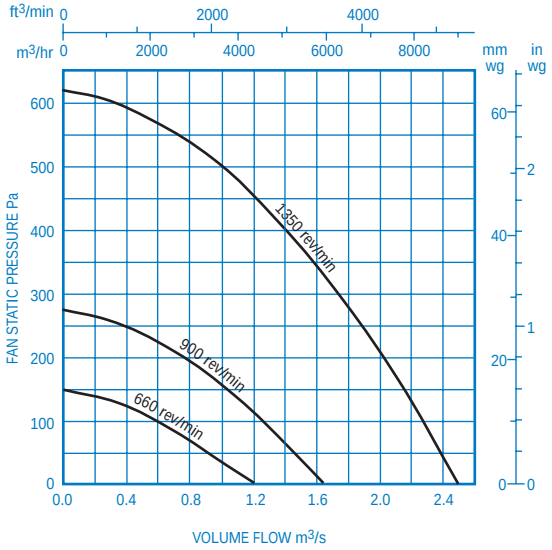
Side Discharge DSC

Performance Data

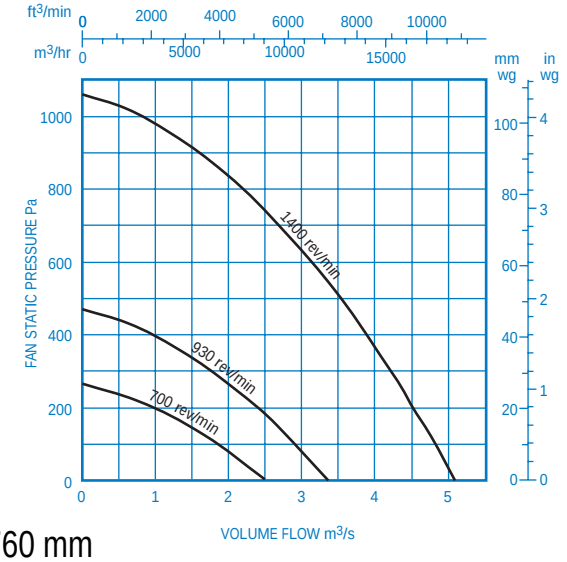
330 mm



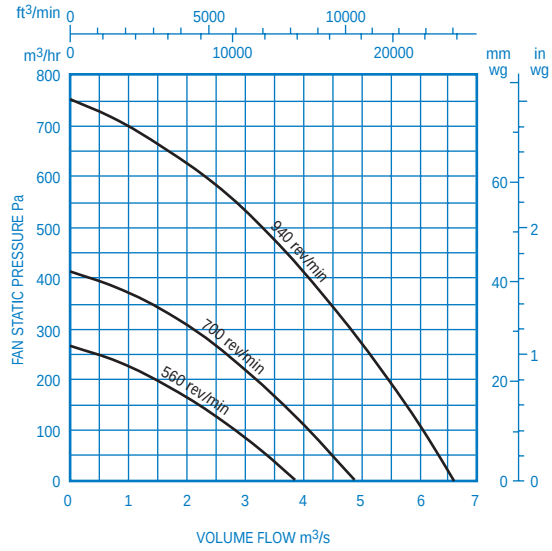
400 mm



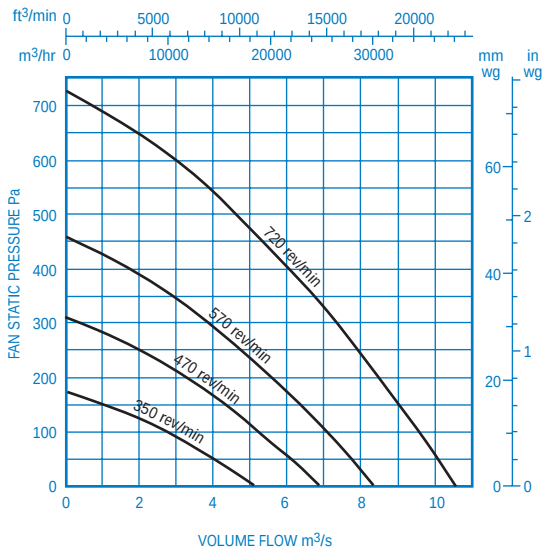
500 mm



630 mm



760 mm



Side Discharge DSC

Sound Levels

Code	Speed rev/min	Open inlet Sound Power Level in dB re 1pW in Octave Bands								Free Field Sound Pressure Level at 3 m dB(A) re 20 µPa
		63	125	250	500	1K	2K	4K	8K	
200	670	54	55	53	49	45	38	38	30	29
	900	61	62	60	56	52	45	40	37	36
	1350	69	71	70	67	62	56	51	46	45
250	670	60	61	59	55	51	44	39	36	35
	900	67	68	66	62	58	51	46	43	42
	1350	75	77	76	73	68	62	57	52	51
330	650	69	67	63	59	53	48	42	38	39
	900	73	74	71	67	62	57	51	46	47
	1350	80	84	83	79	75	70	64	59	58
400	660	76	74	70	66	60	55	49	46	46
	900	80	81	78	74	69	64	58	53	54
	1350	86	90	89	85	81	76	70	65	64
500	700	82	80	76	72	66	61	55	52	52
	930	88	88	84	80	75	70	64	60	60
	1400	95	98	95	91	87	81	77	71	72
630	560	83	81	80	77	74	72	64	61	58
	700	88	86	84	81	78	76	71	68	63
	940	95	93	91	88	85	83	78	75	70
760	350	78	77	76	74	68	65	58	53	54
	470	85	83	82	80	75	72	66	63	60
	570	91	89	87	84	81	79	74	71	66
	720	96	94	92	89	86	84	79	76	71

Electrical Data

			220-240 V / 50 Hz / 1ϕ						380-420 V / 50 Hz / 3ϕ				
Code	Speed rev/min	Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Capa-citor (µF)	Speed Controller		Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)	Speed Controller	
							Electronic	Transformer				Electronic	Transformer
200	670	BT4	0.01	0.2	0.35	1.0	-	-	0.01	0.17	0.35	-	-
200	900	BT4	0.02	0.26	0.4	2.0	-	-	0.015	0.08	0.3	-	-
200	1350	BT4	0.065	0.5	1.0	2.5	ME1.1	MT1.1	0.04	0.15	0.7	ME3.5S	MT3.05
250	670	BT5	0.02	0.35	0.48	2.5	ME1.1	MT1.1	0.02	0.22	0.6	ME3.5S	MT3.0.5
250	900	BT5	0.04	0.45	0.7	2.5	ME1.1	MT1.1	0.05	0.25	0.65	ME3.5S	MT3.0.5
250	1350	BT5	0.11	0.9	1.7	5.0	ME1.1	MT1.1	0.12	0.37	1.2	ME3.5S	MT3.0.5
330	650	BT5	0.04	0.65	1.0	2.5	ME1.1	MT1.1	0.032	0.24	0.4	ME3.5S	MT3.0.5
330	900	BT9	0.14	1.25	2.3	8.0	ME1.3	MT1.5	0.18	0.8	1.8	ME3.5S	MT3.1
330	1350	CT5	0.45	3.1	7.5	20.0	ME1.3	MT1.5	0.5	1.3	5.5	ME3.5S	MT3.2
400	660	CT9	0.16	1.9	3.4	8.0	ME1.3	MT1.5	0.18	0.7	1.7	ME3.5S	MT3.1
400	900	CT9	0.43	3.3	7.5	15.0	ME1.6	MT1.5	0.49	1.8	5.3	ME3.5S	MT3.2
400	1350	CT9	1.3	8.0	23.0	50.0	-	MT1.8	1.3	3.3	12.0	ME3.5S	AT5
500	700	F2269	0.6	4.8	11.0	25.0	ME1.6	MT1.8	0.6	2.0	6.5	ME3.5S	MT3.2
500	930	F2269	1.4	9.2	24.0	50.0	ME1.12	MT1.12	1.4	4.0	16.0	ME3.10S	-
500	1400	F2249	-						4.2	9.0	52.0	-	-
630	560	D132/19	-						1.8	5.2	16.0	-	-
630	700	D132/19	-						3.0	7.7	33.0	-	-
630	940	D132/19	-						4.5	10.5	63.0	-	-
760	350	D132/19	-						0.7	4.5	10.0	-	-
760	470	D132/19	-						1.7	6.0	24.0	-	-
760	570	D160/27	-						3.0	9.0	38.0	-	-
760	720	D160/27	-						5.2	13.5	50.0	-	-

Side Discharge DSC

Two Speed Totally Enclosed Motors

			220-240 V / 50 Hz / 1ϕ						380-420 V / 50 Hz / 3ϕ				
Code	Speed rev/min	Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Capa-citor (µF)	Winding Type	Change-over Panel	Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)	Winding Type	Change-over Panel
250	900/650	BT5	0.03/0.01	0.04/0.25	0.7/0.3	2.5	SP	EDC28	-				
250	1350/900	BT5	0.12/0.035	0.9/0.52	1.8/0.6	5.0	SP	EDC28	-				
330	900/600	BT9	0.11/0.035	1.0/0.6	1.7/0.7	6.0	SP	EDC28	-				
330	1350/900	CT5	0.36/0.11	2.5/1.4	4.0/1.5	12.0	SP	EDC28	-				
330	1350/700	CT5	-						0.36/0.045	0.95/0.4	2.7/0.8	PC	EDC19
330	1350/900	CT5	-						0.36/0.11	1.05/0.55	3.9/1.2	PC	EDC19
400	900/600	CT9	0.33/0.1	3.3/1.4	5.2/1.5	10.0	SP	EDC28	-				
400	1350/960	CT9	1.1/0.2	7.0/4.0	20.0/5.0	50.0	SP	EDC28	-				
400	1440/720	F2245	-						1.5/0.19	3.5/1.2	19.0/4.2	PC	EDC19
400	1440/940	F2245	-						1.5/0.42	3.9/1.6	20.0/5.5	PC	EDC19
500	950/710	F2269	-						1.3/0.55	5.0/2.4	25.0/7.0	PC	EDC19
630	950/720	D132/26	-						3.6/1.5	11.0/5.7	66.0/22.0	DW	EDC22
760	720/350	D160/27	-						6.0/0.75	15.5/6.5	64.0/20.0	PC	EDC19

* Key to Winding Type

SP = Series Parallel
PC = Pole Change
DW = Dual Wound

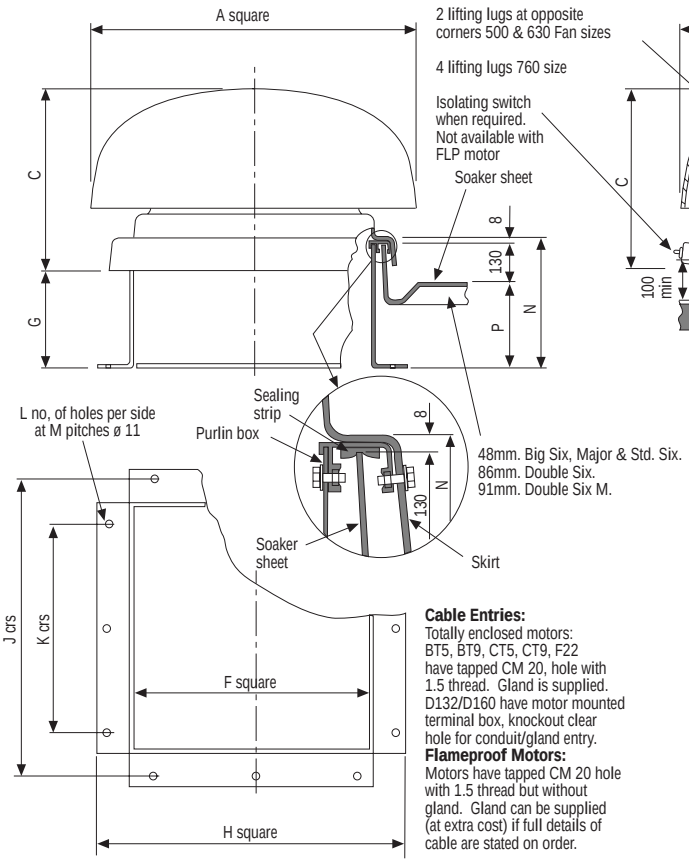
Flameproof Motors

		220-240 V / 50 Hz / 1ϕ				380-420 V / 50 Hz / 3ϕ			
Code	Speed rev/min	Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Motor	Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)
400	700	PENV89MP	0.28	2.1	4.5	ENV89MP	0.28	0.92	3.2
400	900	PENV89MP	0.63	6.3	17.5	ENV89MP	0.63	1.95	7.8
400	1440	-				ENV89MP	1.3	4.0	20.0
500	700	-				ENV89MP	0.6	2.1	8.4
500	940	-				ENV89MP	1.1	3.3	13.2
630	700	-				ENV89LP	1.3	4.1	16.5

Side Discharge DSC

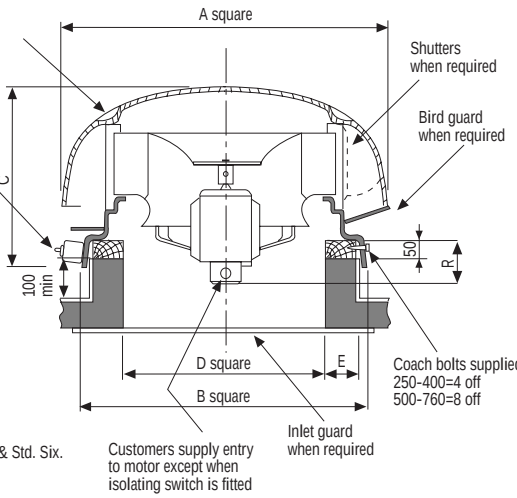
Dimensions & Weights

Purlin Mounting

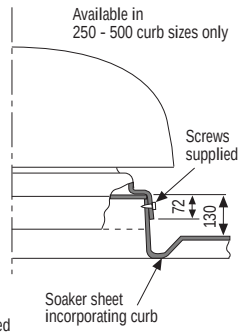


Cable Entries:
Totally enclosed motors: BT5, BT9, CT5, CT9, F22 have tapped CM 20, hole with 1.5 thread. Gland is supplied. D132/D160 have motor mounted terminal box, knockout clear hole for conduit/gland entry.
Flameproof Motors:
Motors have tapped CM 20 hole with 1.5 thread but without gland. Gland can be supplied (at extra cost) if full details of cable are stated on order.

Roof Sheet Curb Mouting



Curb Mounting



Curb Size	Fan Size DSC	Motor	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	Weight Unit (kg)	Weight Purlin Box	Flameproof Motors		
																				Motor	R	Weight Unit (kg)
250	200	BT4	480	450	280	250	75	345	200	520	475	250	2	250	272	134	79	17	7.2	-		
325	250	BT5	600	525	310	325	75	420	200	595	550	320	2	320	272	134	71	22	8.8	-		
400	330	CT5	710	600	355	400	75	495	200	670	625	400	3	200	272	134	67	25	10.3	-		
		BT5	710	600	355	400	75	495	200	670	625	400	3	200	272	134	122	27	10.3			
		BT9	710	600	355	400	75	495	200	670	625	400	3	200	272	134	157	28	10.3			
500	400	CT9	820	700	400	500	75	595	230	770	725	500	3	250	302	164	106	42	16.2	ENV89MP	154	56
		F2245	820	700	400	500	75	595	230	770	725	500	3	250	302	164	106	42	16.2			
700	500	F2265	1030	900	475	700	75	792	250	970	925	690	4	230	322	184	132	67	22.6	ENV89MP	107	70
		F2269/49	1030	900	475	700	75	792	250	970	925	690	4	230	322	184	187	77	22.6	ENV89LP	151	82
800	630	D132	1300	1050	550	800	100	942	270	1120	1075	840	5	210	342	204	145	109	34.5	ENV89LP	113	101
1000	760	D132	1700	1250	710	1000	100	1140	280	1320	1275	1000	5	250	352	214	103	134	42.7	-		
		D160	1700	1250	710	1000	100	1140	280	1320	1275	1000	5	250	352	214	245	166	42.7			

All dimensions are shown in mm

Vertical Discharge DVP

Specification

The type DVP roof extract unit is designed to satisfy the consultants functional requirement for a direct drive propeller fan unit of guaranteed performance, and the architects aesthetic need for a very low contour glass fibre reinforced cowl.

The fan is of Woods 2101 GP series powered by a metric motor giving high efficiency in terms of airflow per Watt and consequent low running costs. The impeller is designed to give maximum volume at minimum noise level for minimum power consumption.
The range comprises eight sizes with fan inlet diameters from 355 to 1000 mm and air volume flows of up to 9.2 m^3/s.

All units are available for curb or purlin mounting. Isolators, bird guards, burglar bars, motorised dampers, pre-fabricated curbs and soaker sheets are available as optional extras.

Most motors have excellent speed control characteristics and can be regulated down to 20-30% of full speed. Two speed motors are available. Motors are rated for continuous running in ambient temperatures of up to 50°C (122°F).

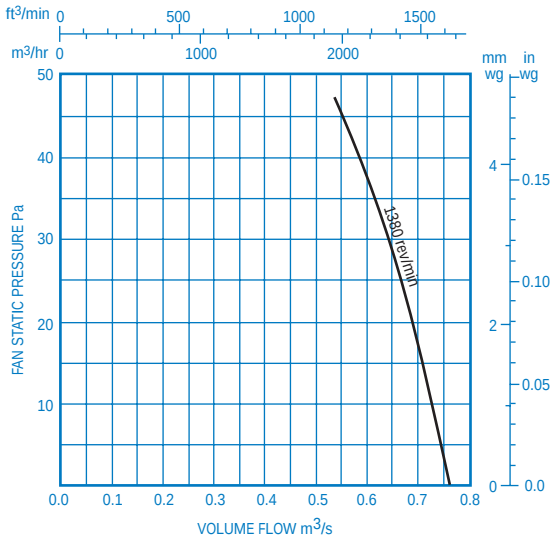
DVP units are despatched completely assembled and packed.

Impellers

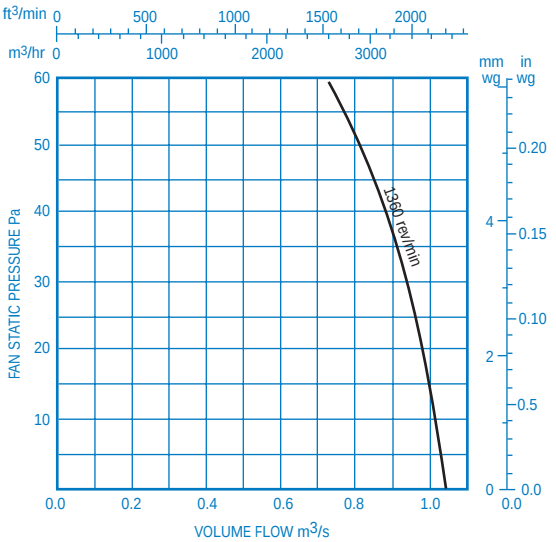
Fan diameters 355-710 mm are of aluminium clad steel. Fan diameters 800-1000 mm are of hot dipped galvanised steel blade with aluminium hub.
Balanced to BS6861 Part 1 (ISO 1940, 1986) grade G6.3. Corrosion resistant and suitable for continuous outside use.

Performance Data

355 mm



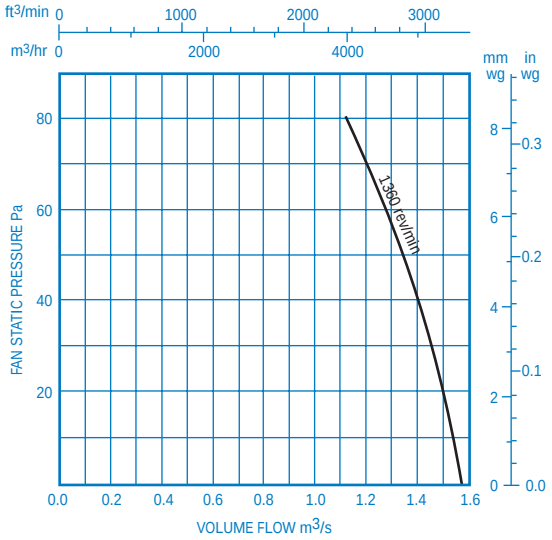
400 mm



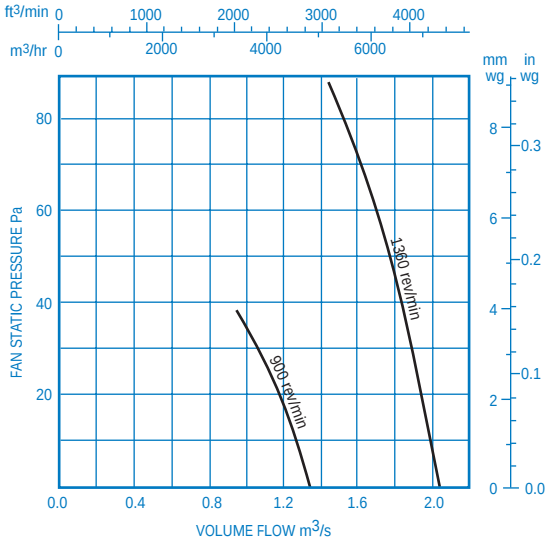
Vertical Discharge DVP

Performance Data

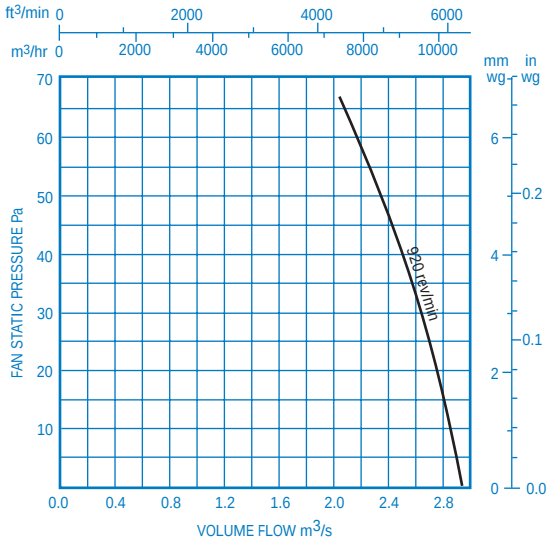
450 mm



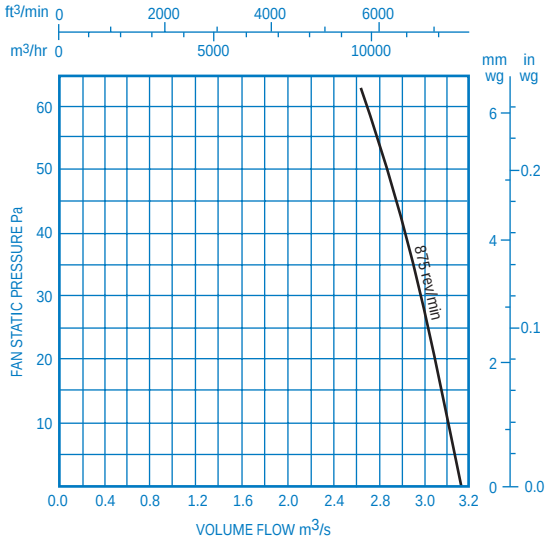
500 mm



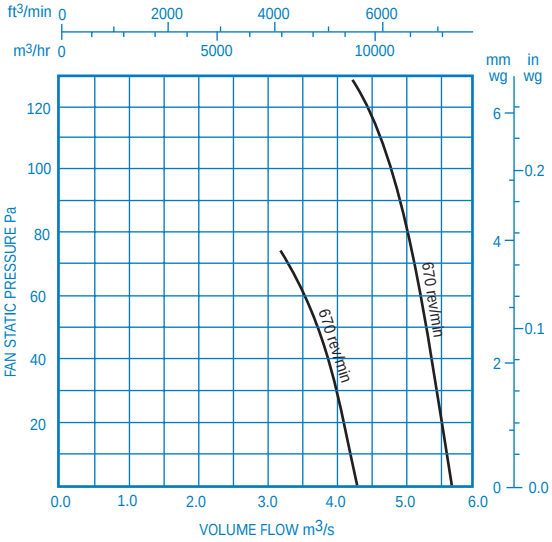
630 mm



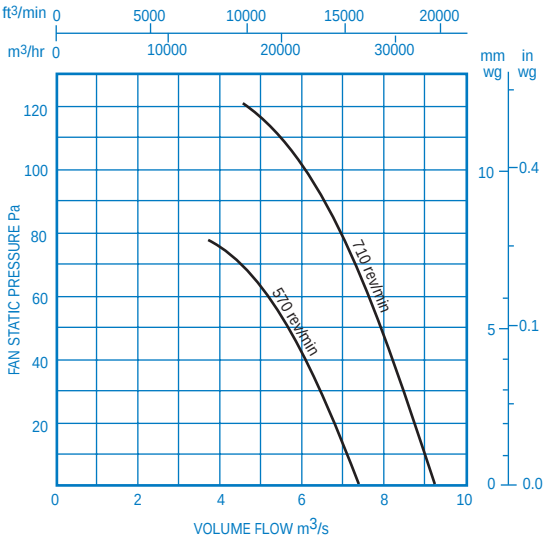
710 mm



800 mm



1000 mm



Vertical Discharge DVP

Sound Levels

Code	Speed rev/min	Open inlet Sound Power Level in dB re 1 pW in Octave Bands								Free Field Sound Pressure Level at 3 m dBA re 20µPa
		63	125	250	500	1K	2K	4K	8K	
355	1380	77	80	79	73	68	65	62	47	51
400	1360	80	83	78	72	67	64	61	56	54
450	1380	84	87	82	76	71	68	65	60	58
500	900	82	81	75	71	65	61	57	53	52
	1360	87	90	85	79	74	71	68	63	61
630	920	90	89	83	79	73	69	65	61	60
710	875	92	91	85	81	75	71	67	63	62
800	670	86	87	84	80	77	74	70	62	62
	875	92	93	30	86	83	80	76	68	68
1000	570	89	87	86	82	79	76	70	63	64
	710	93	94	91	87	84	81	77	69	69

Electrical Data

Code	Speed rev/min	Motor	220-240 V / 50 Hz / 1ϕ					380-420 V / 50 Hz / 3ϕ				
			Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Speed Controllers		Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)	Speed Controllers	
						Electronic	Transformer				Electronic	Transformer
355	1380	BT4	0.1	0.8	1.5	ME1.1	MT1.1	0.10	0.40	2.0	ME3.2D	MT3.0-5
400	1360	BT5	0.18	1.4	2.6	ME1.3	MT1.1	0.15	0.50	2.4	ME3.2D	MT3.1
450	1360	BT9	0.31	2.2	5.9	ME1.3	MT1.5	0.31	0.95	3.2	ME3.2D	MT3.1
	900	CT5	0.19	1.8	3.0	ME1.3	MT1.5	0.13	0.45	1.1	ME3.2D	MT3.0-5
500	1360	CT5	0.45	2.8	6.0	ME1.6	MT1.5	0.45	1.2	4.5	ME3.2D	MT3.2
630	920	CT9	0.43	3.3	7.5	ME1.6	MT1.5	0.41	1.5	5.3	ME3.2D	MT3.2
710	875	CT9	0.49	3.8	8.2	ME1.6	MT1.5	0.49	1.8	4.7	ME3.2D	MT3.2
800	670	F2265/9+	0.6	4.4	11.0	ME1.6	MT1.5	0.6	2.0	6.0	ME3.2D	MT3.2
	875	F2269	-					1.3	3.5	16.0	ME3.5s	-
1000	570	D132/26	-					1.3	4.4	18.0	ME3.10s	-
	710	D132/26	-					2.5	7.0	32.0		

+ F2265 motor for 3ϕ, F2269 motor for 1ϕ

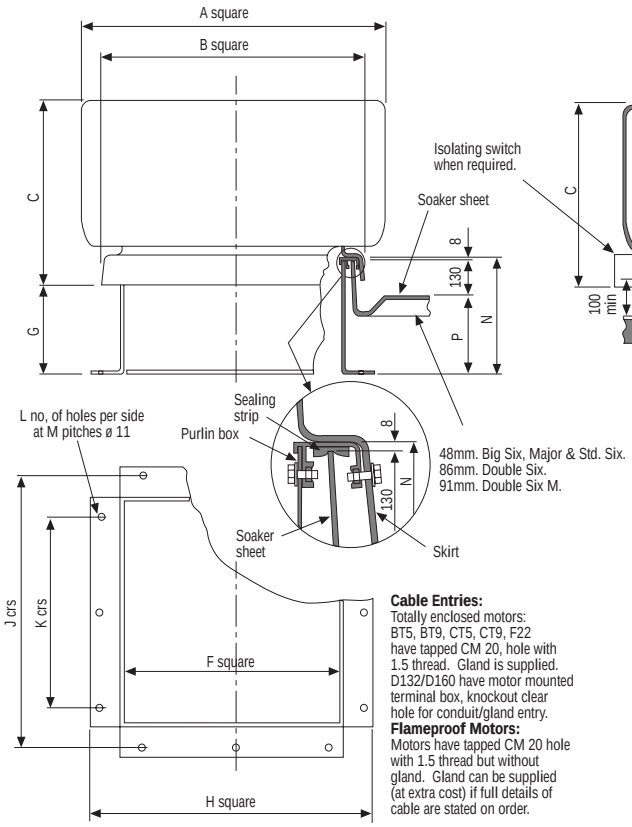
Flameproof Motors

Code	Nominal Speed rev/min	220-240 V / 50 Hz / 1ϕ					380-420 V / 50 Hz / 3ϕ			
		Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Capacitor (µF)	Motor	Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) d.o.l (A)
355	1400	PENV89M	0.30	2.1	9.4	10	ENV89M	0.30	0.75	3.6
400	1400	PENV89M	0.30	2.1	9.4	10	ENV89M	0.30	0.75	3.6
450	1400	PENV89M	0.30	2.1	9.4	10	ENV89M	0.30	0.75	3.6
500	900	PENV89L	0.18	1.8	7.2	10	ENV89M	0.18	0.60	2.1
	1400	PENV89L	0.50	3.1	15	20	ENV89M	0.50	1.20	6.0
630	940	PENV89L	0.63	5.5	17	20	ENV89M	0.63	1.95	7.8
710	920	PENV89L	0.63	5.5	17	20	ENV89M	0.63	1.95	7.8
800	700	-	-				ENV89M	0.60	2.10	8.4

Vertical Discharge DVP

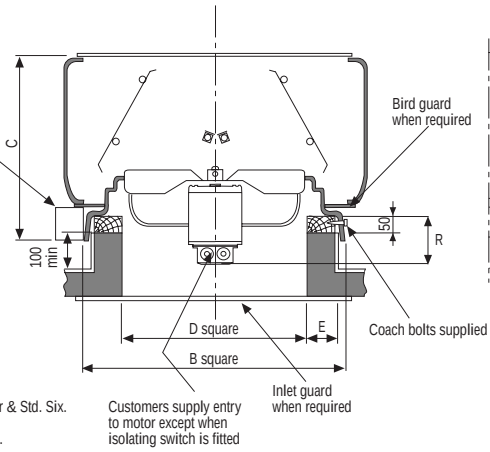
Dimensions & Weights

Purlin Mounting

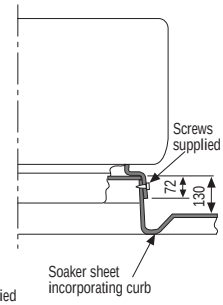


Cable Entries:
Totally enclosed motors:
BT5, BT9, CT5, CT9, F22 have tapped CM 20, hole with 1.5 thread. Gland is supplied.
D132/D160 have motor mounted terminal box, knockout clear hole for conduit/gland entry.
Flameproof Motors:
Motors have tapped CM 20 hole with 1.5 thread but without gland. Gland can be supplied (at extra cost) if full details of cable are stated on order.

Curb Mounting



Roof Sheet Curb Mounting



Curb Size	Fan Size DVP	Motor	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	Weight Unit (kg)	Weight Purlin Box	Flameproof Motors		
																				Motor	R	Weight Unit (kg)
325	355	BT4	470	525	415	325	75	420	200	595	550	320	2	320	272	134	135	19	8.8	ENV89MP		41
400	400	BT5	530	600	460	400	75	495	200	670	625	400	3	200	272	134	130	20	10.3	ENV89MP		43
500	450	BT9	630	700	530	500	75	595	230	770	725	500	3	250	302	164	155	27	16.2	ENV89MP	218	49
	500	CT5	630	700	530	500	75	595	230	770	725	500	3	250	302	164	141	29	16.2	ENV89MP	218	52
700	630	CT9	780	900	630	700	75	792	250	970	925	690	4	230	322	184	161	46	22.3	ENV89MP		65
800	710	CT9	950	1050	750	800	100	942	270	1120	1075	840	5	210	342	204	141	50	34.5	ENV89MP	178	70
	800	F2265	950	1050	750	800	100	942	270	1120	1075	840	5	210	342	204	250	72	34.5	ENV89MP	231	77
	800	F2265	950	1050	750	800	100	942	270	1120	1075	840	5	210	342	204	304	85	34.5			
1000	1000	D132	1180	1250	880	1000	100	1140	280	1320	1275	1000	6	250	352	214	270	125	42.7	-		

All dimensions in mm

Vertical Discharge DVM

Specification

The type DVM roof extract unit combines the technical advantages of Woods mixed flow impeller with a low contour vertical discharge cowl.
The design provides the consultant /contractor with a high efficiency unit where it is required to discharge the extracted air at high velocity away from roof level.

The wind shield and base are moulded in fire retardant glass fibre reinforced resin which provides excellent resistance to atmospheric corrosion.

The range comprises of six fan sizes from 250 to 760 mm and air volumes up to 8.3m³/s.

The unit is designed to give excellent performance characteristics with high volume flow and stable pressure development without stall. The fan is of Woods mixed flow series powered by a metric motor giving high efficiency in terms of air flow per Watt and consequent low running costs.
All units are available for curb of purlin mounting.

Isolators, bird guards, burglar bars, motorised dampers, pre-fabricated curbs and soaker sheets are available as optional extras.

Motors are rated for continuous running in ambient temperatures of up to 50°C (122°F).

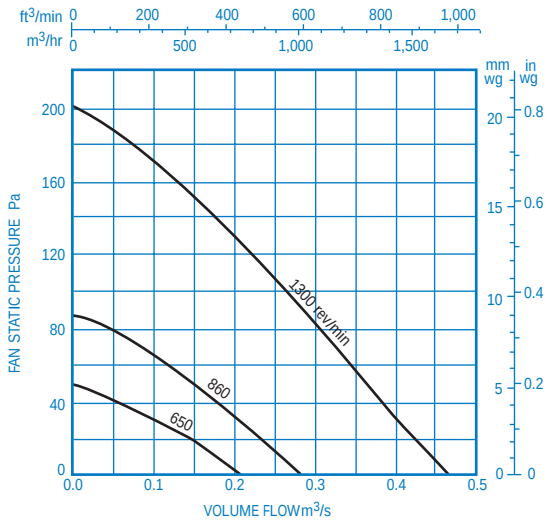
DVM units are despatched completely assembled and packed.

Impellers

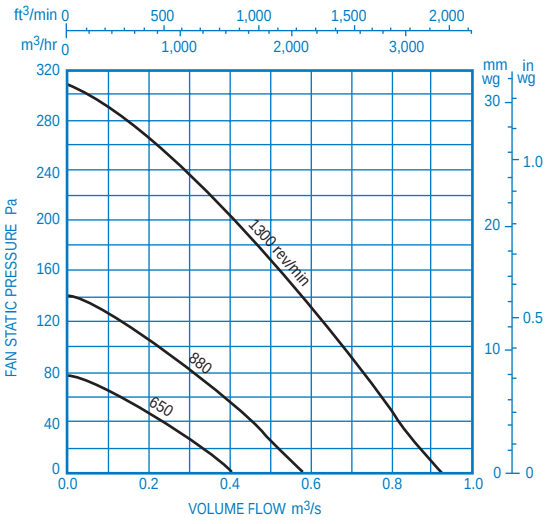
The impeller is aluminium and of Woods patented mixed flow design.

Performance

250mm



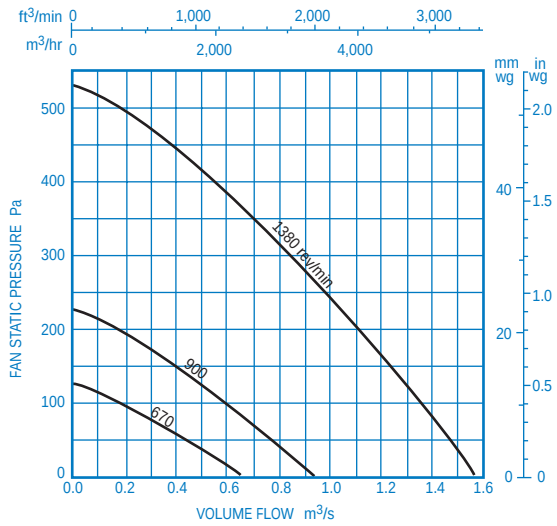
330 mm



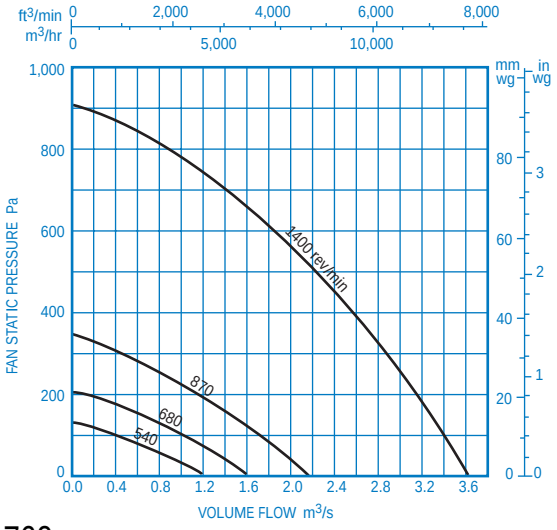
Vertical Discharge DVM

Performance

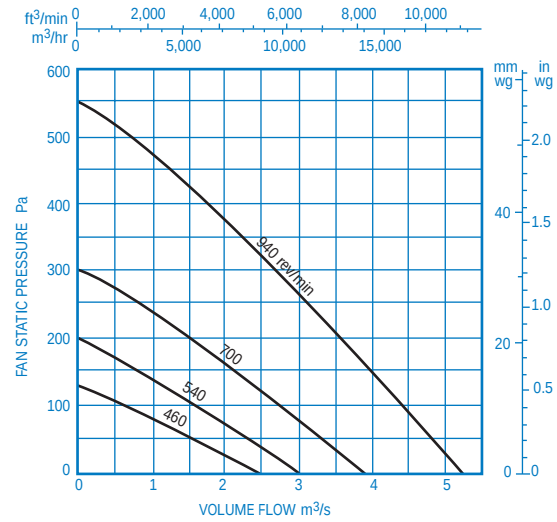
400 mm



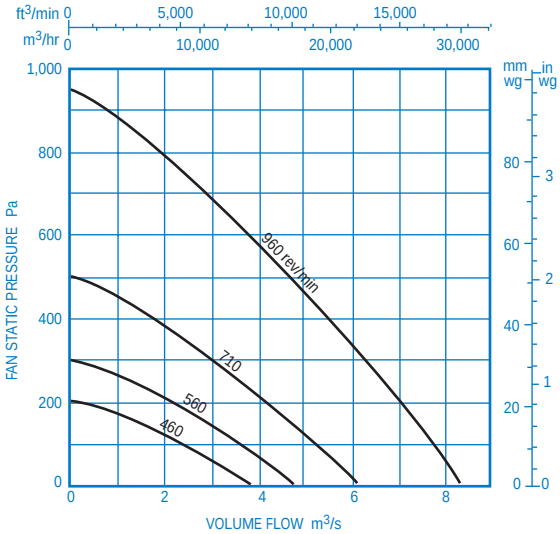
500mm



630 mm



760 mm



Sound Levels

Code	Speed rev/min	Open inlet Sound Power Level in dB re 1 pW in Octave Bands								Free Field Sound Pressure Level at 3 m dB(A) re 20 µPa
		63	125	250	500	1K	2K	4K	8K	
250	650	63	62	54	50	52	50	46	42	35
	860	67	66	58	54	56	54	50	46	39
	1300	73	76	69	65	67	65	61	57	50
330	650	68	69	63	56	55	52	50	41	39
	880	73	74	68	61	60	57	54	46	46
	1300	78	83	78	71	71	69	64	57	57
400	670	68	69	66	61	61	58	55	46	46
	900	73	74	71	66	66	63	60	51	51
	1380	81	84	83	77	77	74	70	65	61
500	540	75	75	74	66	65	61	56	52	50
	680	77	77	76	69	68	64	59	54	53
	870	82	81	80	74	72	69	64	59	58
	1400	91	93	92	88	86	83	79	74	71
630	460	78	78	77	68	66	62	57	52	52
	540	81	81	80	72	70	66	61	56	56
	700	85	84	83	76	75	71	66	62	60
	940	90	89	89	84	81	78	74	69	67
760	460	84	84	82	75	72	68	63	59	57
	560	89	86	86	81	78	73	68	64	62
	710	94	90	90	86	83	80	73	69	67
	960	98	95	95	94	91	88	81	76	76

Vertical Discharge DVM

Electrical Data

			220-240 V / 50 Hz / 1ϕ				380-420 V / 50 Hz / 3ϕ		
Code	Speed rev/min	Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Capa-citor (µF)	Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)
250	650	BT5	0.02	0.35	0.48	2.5	0.02	0.22	0.6
250	860	BT4	0.035	0.35	0.6	4.0	0.035	0.15	0.4
250	1300	BT4	0.1	0.8	1.5	2.5	0.1	0.35	1.3
330	650	BT5	0.04	0.65	1.0	2.5	0.032	0.24	0.4
330	880	BT5	0.083	1.0	1.8	5.0	0.083	0.37	0.95
330	1300	BT5	0.22	1.8	2.7	8.0	0.22	0.7	2.5
400	670	BT9	0.07	0.8	1.3	5.0	0.07	0.45	0.8
400	900	BT9	0.14	1.25	2.3	8.0	0.18	0.8	1.8
400	1380	CT5	0.5	3.4	5.5	20.0	0.5	1.3	5.5
500	540	CT9	0.12	1.8	2.6	10.0	0.12	1.1	1.7
500	680	CT9	0.25	2.1	3.0	15.0	0.21	1.25	2.6
500	870	CT9	0.43	3.3	7.5	15.0	0.49	1.8	5.3
500	1400	F2249	2.3	14.5	50.0	100.0	2.3	5.5	30.0
630	460	F2265	0.23	2.3	3.5	12.0	0.23	1.3	2.2
630	540	F2265	0.4	3.3	4.6	20.0	0.4	2.2	3.8
630	700	F2265	0.75	6.0	12.0	30.0	0.75	2.5	6.0
630	940	F2269	1.8	9.8	24.0	50.0	1.8	4.5	16.0
760	460	D132/19	-				0.7	2.9	8.0
760	560	D132/19	-				1.8	5.2	16.0
760	710	D132/19	-				3.0	7.7	33.0
760	960	D132/26	-				6.3	13.9	77.0

Two Speed totally Enclosed Motors

			220-240 V / 50 Hz / 1 ϕ					380-420 V / 50 Hz / 3 ϕ			
Code	Speed rev/min	Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Capa-citor (µF)	Change-over Panel	Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)	Change-over Panel
330	880/540	BT5	0.06/0.013	0.65/0.4	1.2/0.4	4.0	EDC28	-			
330	1290/770	BT5	0.22/0.045	1.8/0.85	2.7/1.0	8.0	EDC28	-			
330	1300/650	BT9	-					0.22/0.033	0.65/0.25	1.5/0.5	EDC19
330	1300/860	BT9	-					0.22/0.057	0.9/0.42	3.3/1.0	EDC19
400	670/400	BT9	0.07/0.015	0.8/0.45	1.3/0.5	5.0	EDC28	-			
400	900/540	BT9	0.14/0.03	1.2/0.7	2.0/0.8	8.0	EDC28	-			
400	1380/830	CT5	0.5/0.11	3.4/2.0	5.5/2.0	20.0	EDC28	-			
400	900/670	CT5	-					0.14/0.07	0.9/0.4	1.9/0.6	EDC19
400	1380/670	CT9	-					0.5/0.06	1.4/0.52	5.3/1.3	EDC19
400	1380/900	CT5	-					0.5/0.14	1.4/0.7	4.8/1.4	EDC19
500	680/430	CT9	0.25/0.065	3.0/2.2	3.5/2.5	20.0	EDC28	-			
500	870/535	CT9	0.55/0.12	5.0/2.5	7.0/3.0	25.0	EDC28	-			
500	680/460	F2265	-					0.25/0.075	1.2/0.85	2.3/1.4	EDC19
500	870/460	F2265	-					0.55/0.08	1.9/0.75	6.0/1.25	EDC19
500	870/680	CT9	-					0.55/0.25	2.8/1.5	5.7/1.7	EDC19
630	460/275	F2265	0.23/0.06	2.4/1.4	3.5/1.5	15.0	EDC28	-			
630	540/350	F2265	0.4/0.1	3.6/1.65	5.5/2.0	20.0	EDC28	-			
630	690/460	F2269	-					0.75/0.23	2.7/1.7	7.5/3.1	EDC19
630	920/690	F2269	-					1.8/0.76	5.8/3.0	25.0/7.0	EDC19
760	710/460	D132/26	-					2.8/0.76	8.0/3.8	37.0/12.5	EDC22
760	970/460	D160/27	-					5.5/0.6	14.0/3.8	35.0/14.0	EDC19
760	970/720	D160/27	-					5.5/2.25	16.0/7.2	80.0/25.0	EDC19

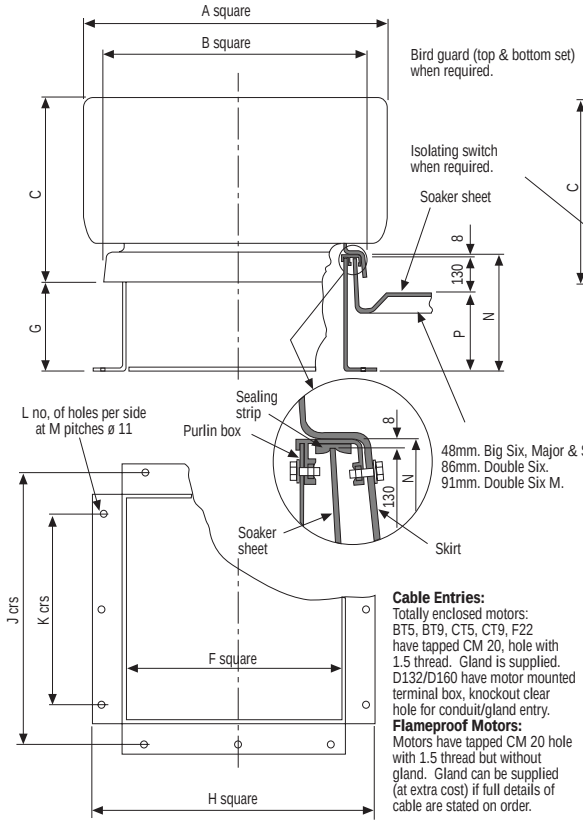
Flameproof Motors

			220-240 V / 50 Hz / 1ϕ			380-420 V / 50 Hz / 3ϕ			
Code	Speed rev/min	Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Motor	Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)
400	670	PENV89MP	0.09	1.3	2.7	ENV89MP	0.09	0.38	1.2
400	900	PENV89MP	0.18	1.8	7.2	ENV89MP	0.18	0.6	2.1
400	1380	PENV89MP	0.5	3.1	15.0	ENV89MP	0.5	1.2	6.0
500	680	PENV89LP	0.37	3.4	15.0	ENV89MP	0.37	1.3	6.2
500	870	PENV89LP	0.63	6.3	17.5	ENV89MP	0.63	1.9	7.6
500	1400	-				ENV89LP	2.5	5.2	26.0
630	700	-				ENV89LP	0.75	2.5	10.0
630	940	-				ENV112MP	1.8	4.6	20.0

Vertical Discharge DVM

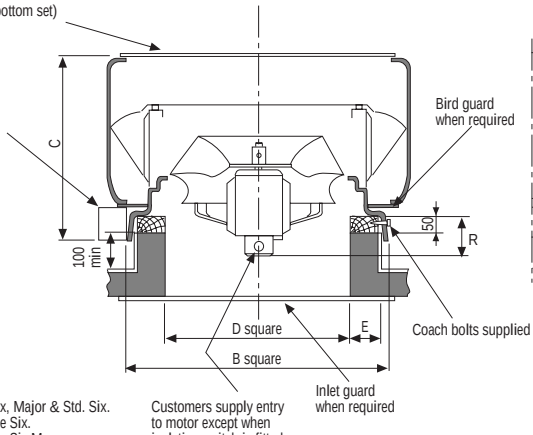
Dimensions and Weights

Purlin Mounting

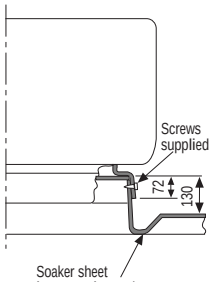


Cable Entries:
Totally enclosed motors:
BT5, BT9, CT5, CT9, F22 have tapped CM 20, hole with 1.5 thread. Gland is supplied.
D132/D160 have motor mounted terminal box, knockout clear hole for conduit/gland entry.
Flameproof Motors:
Motors have tapped CM 20 hole with 1.5 thread but without gland. Gland can be supplied (at extra cost) if full details of cable are stated on order.

Curb Mounting



Roof Sheet Curb Mounting



Curb Size	Fan Size DVM	Motor	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	Weight Unit (kg)	Weight Purlin Box	Flameproof Motors		
																				Motor	R	Weight Unit (kg)
325	250	BT4 BT5	600 600	525 525	372 372	325 325	75 75	420 420	200 200	595 595	550 550	320 320	2 2	320 320	272 272	134 134	127 127	22 24	8.8 8.8	-		
400	330	BT5 BT9	710 710	600 600	420 420	400 400	75 75	495 495	200 200	670 670	625 625	400 400	3 3	200 200	272 272	134 134	122 157	26 28	10.3 10.3	-		
500	400	BT9 CT5 CT9	820 820 820	700 700 700	480 480 480	500 500 500	75 75 75	595 595 595	230 230 230	770 770 770	725 725 725	500 500 500	3 3 3	250 250 250	302 302 302	164 164 164	127 118 158	35 36 40	16.2 16.2 16.2	ENV89MP	154	62
700	500	CT9 F2245	1030 1030	900 900	565 565	700 700	75 75	792 792	250 250	970 970	925 925	690 690	4 4	230 230	322 322	184 184	138 132	62 68	22.6 22.6	ENV89MP ENV89LP	107 151	68 80
800	630	F2265 F2269	1260 1260	1050 1050	670 670	800 800	100 100	942 942	270 270	1120 1120	1075 1075	840 840	5 5	210 210	342 342	204 204	95 150	79 89	34.5 34.5	ENV89LP	113	100
1000	760	D132 D160	560 1560	1250 1250	790 790	1000 1000	100 100	1140 1140	280 280	1320 1320	1275 1275	1000 1000	5 5	250 250	352 352	214 214	103 245	134 166	42.7 42.7	-		

All dimensions are shown in mm

Vertical Discharge DVC

Specification

The type DVC roof extract unit provides the consultant/contractor and user with a high efficiency unit where it is required to discharge the extracted air at high velocity away from roof level. It employs a compact, direct driven centrifugal fan with a guaranteed performance for extract systems with a significant static pressure requirement.
The wind shield and base are moulded in fire retardant glass fibre reinforced resin which provides excellent resistance to atmospheric corrosion.

The range comprises of six fan sizes from 250 to 760 mm and air volumes up to 9.7m³/s.

All units are available for curb of purlin mounting.
Isolators bird guards, burglar bars, motorised dampers, pre-fabricated curbs and soaker sheets are available as optional extras.

Motors are rated for continuous running in ambient temperatures of up to 50°C (122°F).

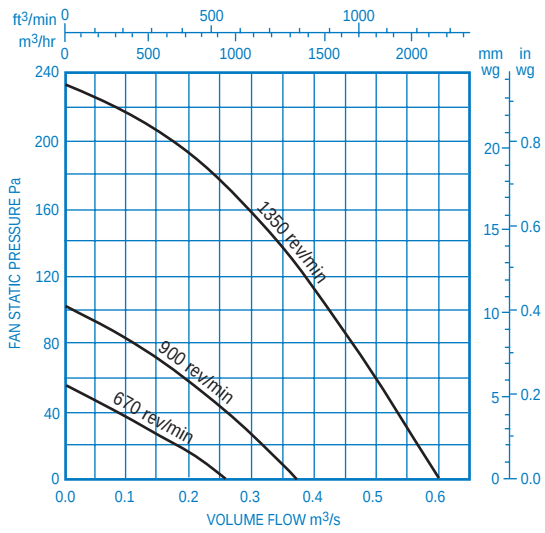
DVC units are despatched completely assembled and packed.

Impellers

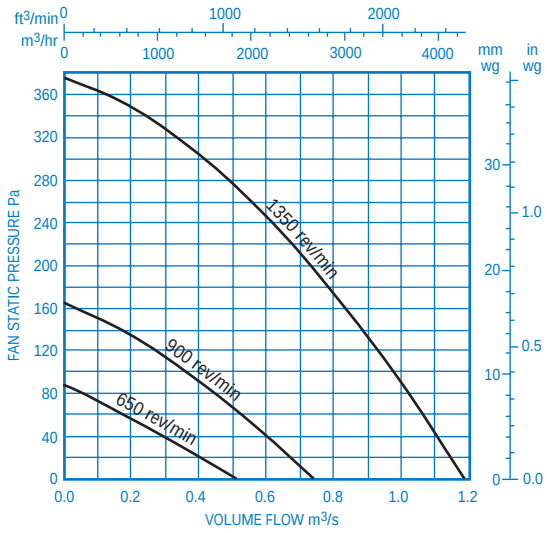
High efficiency, backward curved centrifugal, designed by Woods specifically for applications in this range of roof extract units.

Performance Data

250 mm



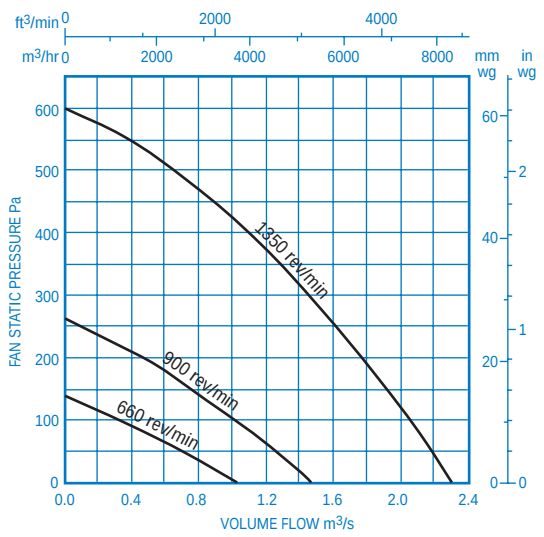
330 mm



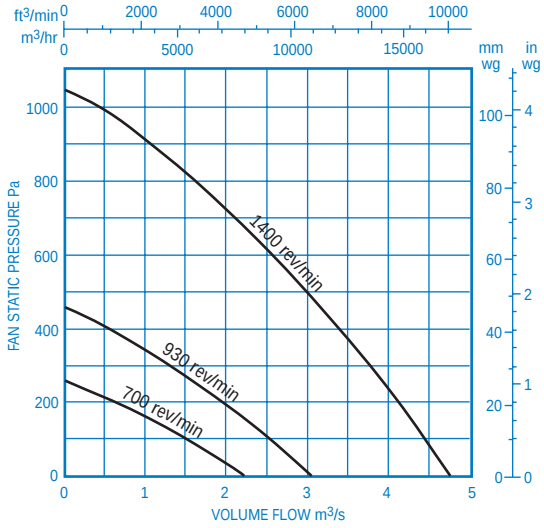
Vertical Discharge DVC

Performance Data

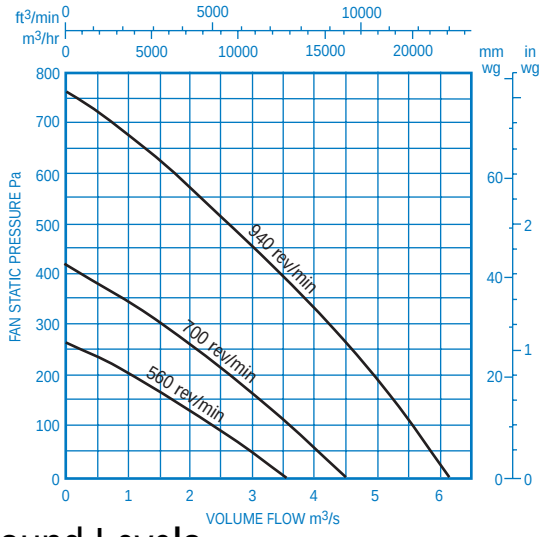
400 mm



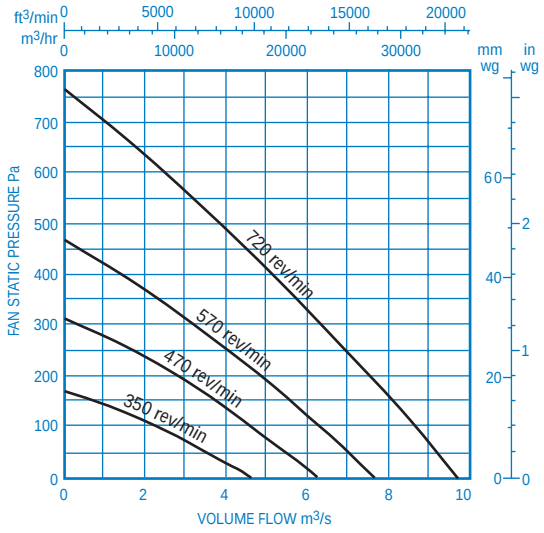
500 mm



630 mm



760 mm



Sound Levels

Code	Speed rev/min	Open inlet Sound Power Level in dB re 1 pW in Octave Bands								Free Field Sound Pressure Level at 3 m dB(A) re 20µPa
		63	125	250	500	1K	2K	4K	8K	
250	670	60	61	59	55	51	44	39	36	35
	900	67	68	66	62	58	51	46	43	42
	1350	75	77	76	73	68	62	57	52	51
330	650	69	67	63	59	53	48	42	38	39
	900	73	74	71	67	62	57	51	46	47
	1350	80	84	83	79	75	70	64	59	58
400	660	76	74	70	66	60	55	49	46	46
	900	80	81	78	74	69	64	58	53	54
	1350	86	90	89	85	81	76	70	65	64
500	700	82	80	76	72	66	61	55	52	52
	930	88	88	84	80	75	70	64	60	60
	1400	95	98	95	91	87	81	77	71	72
630	560	83	81	80	77	74	72	64	61	58
	700	88	86	84	81	78	76	71	68	63
	940	95	93	91	88	85	83	78	75	70
760	350	78	77	76	74	68	65	58	53	54
	470	85	83	82	80	75	72	66	63	60
	570	91	89	87	84	81	79	74	71	66
	720	96	94	92	89	86	84	79	76	71

Vertical Discharge DVC

Electrical Data

			220-240 V / 50 Hz / 1ϕ				380-420 V / 50 Hz / 3 ϕ		
Code	Speed rev/min	Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Capa-citor (µF)	Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)
250	670	BT5	0.02	0.35	0.48	2.5	0.02	0.22	0.6
250	900	BT5	0.04	0.45	0.7	2.5	0.05	0.25	0.65
250	1350	BT5	0.11	0.9	1.7	5.0	0.12	0.37	1.2
330	650	BT5	0.04	0.65	1.0	2.5	0.032	0.24	0.4
330	900	BT9	0.14	1.25	2.3	8.0	0.18	0.8	1.8
330	1350	CT5	0.45	3.1	7.5	20.0	0.5	1.3	5.5
400	660	CT9	0.16	1.9	3.4	8.0	0.18	0.7	1.7
400	900	CT9	0.43	3.3	7.5	15.0	0.49	1.8	5.3
400	1350	CT9	1.3	8.0	23.0	50.0	1.3	3.3	12.0
500	700	F2265	0.6	4.8	9.5	20.0	0.6	2.0	6.5
500	930	F2265	1.4	9.2	27.0	50.0	1.4	4.0	16.0
500	1400	F2249	-				4.2	9.0	52.0
630	560	D132/19	-				1.8	5.2	16.0
630	700	D132/19	-				3.0	7.7	33.0
630	940	D132/19	-				4.5	10.5	63.0
760	350	D132/19	-				0.7	4.5	10.0
760	470	D132/19	-				1.7	6.0	24.0
760	570	D160/27	-				3.0	9.0	38.0
760	720	D160/27	-				5.2	13.5	50.0

Two Speed totally Enclosed Motors

			220-240 V / 50 Hz / 1 ϕ					380-420 V / 50 Hz / ϕ			
Code	Speed rev/min	Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Capa-citor (µF)	Change-over Panel	Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)	Change-over Panel
250	900/650	BT5	0.03/0.01	0.04/0.25	0.7/0.3	2.5	EDC28	-			
250	1350/900	BT5	0.12/0.035	0.9/0.52	1.8/0.6	5.0	EDC28	-			
330	900/600	BT9	0.11/0.035	1.0/0.6	1.7/0.7	6.0	EDC28	-			
330	1350/900	CT5	0.36/0.11	2.5/1.4	4.0/1.5	12.0	EDC28	-			
330	1350/700	CT5	-					0.36/0.045	0.95/0.4	2.7/0.8	EDC19
330	1350/900	CT5	-					0.36/0.11	1.05/0.55	3.9/1.2	EDC19
400	900/600	CT9	0.33/0.1	3.3/1.4	5.2/1.5	10.0	EDC28	-			
400	1350/960	CT9	1.1/0.2	7.0/4.0	20.0/5.0	50.0	EDC28	-			
400	1440/720	F2245	-					1.5/0.19	3.5/1.2	19.0/4.2	EDC19
400	1440/940	F2245	-					1.5/0.42	3.9/1.6	20.0/5.5	EDC19
500	950/710	F2269	-					1.3/0.55	5.0/2.4	25.0/7.0	EDC19
630	950/720	D132/26	-					3.6/1.5	11.0/5.7	66.0/22.0	EDC22
760	720/350	D160/27	-					6.0/0.75	15.5/6.5	64.0/20.0	EDC19

Flameproof Motors Electrical Data

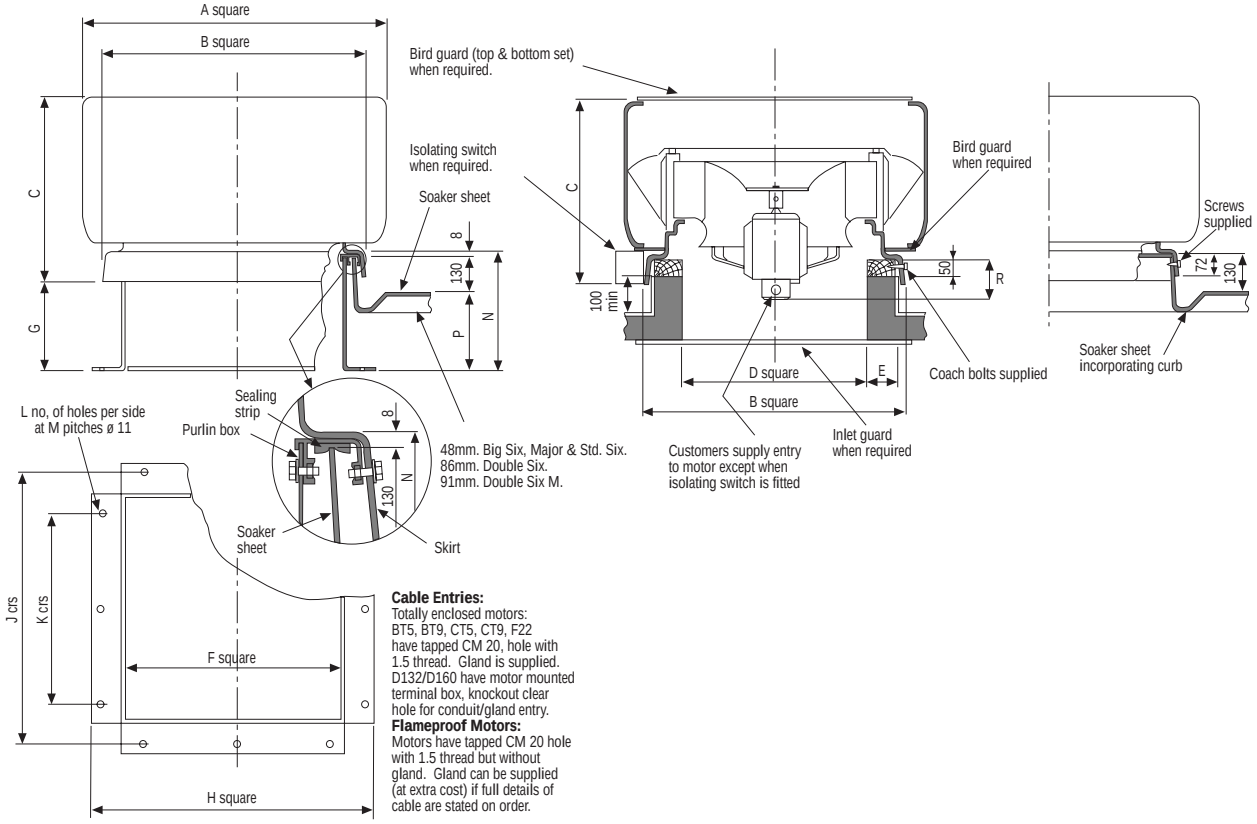
		220-240 V / 50 Hz / 1ϕ				380-420 V / 50 Hz / 3ϕ			
Code	Speed rev/min	Motor	Motor Rating (kW)	Full Load Current (at 230 V) (A)	Starting Current (at 230 V) (A)	Motor	Motor Rating (kW)	Full Load Current (at 400 V) (A)	Starting Current (at 400 V) (A)
400	700	PENV89MP	0.28	2.1	4.5	ENV89MP	0.28	0.92	3.2
400	900	PENV89MP	0.63	6.3	17.5	ENV89MP	0.63	1.95	7.8
400	1440	-				ENV89MP	1.3	4.0	20.0
500	700	-				ENV89MP	0.6	2.1	8.4
500	940	-				ENV89MP	1.1	3.3	13.2
630	700	-				ENV89LP	1.3	4.1	16.5

Dimensions and Weights

Purlin Mounting

Curb Mounting

Roof Sheet Curb Mounting



Curb Size	Fan Size DVC	Motor	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	Weight Unit (kg)	Weight Purlin Box	Flameproof Motors		
																				Motor	R	Weight Unit (kg)
325	250	BT5	600	525	372	325	75	420	200	595	550	320	2	320	272	134	71	24	8.8	-		
400	330	BT5	710	600	420	400	75	495	200	670	625	400	3	200	272	134	67	28	10.3			
		BT9	710	600	420	400	75	495	200	670	625	400	3	200	272	134	102	29	10.3	-		
		CT5	710	600	420	400	75	495	200	670	625	400	3	200	272	134	87	31	10.3			
500	400	CT9	820	700	480	500	75	595	230	770	725	500	3	250	302	164	106	39	16.2			
		F2245	820	700	480	500	75	595	230	770	725	500	3	250	302	164	146	46	16.2	ENV89MP	154	64
700	500	F2265	1030	900	565	700	75	792	250	970	925	690	4	230	322	184	132	72	22.6	ENV89MP	107	73
		F2269	1030	900	565	700	75	792	250	970	925	690	4	230	322	184	187	82	22.6	ENV89MP	151	85
		F2249	1030	900	565	700	75	792	250	970	925	690	4	230	322	184	187	82	22.6	ENV89MP	151	85
800	630	D132/19	1260	1050	670	800	100	942	270	1120	1075	800	5	210	342	204	145	115	34.5	ENV89LP	113	106
1000	760	F3264	1560	1250	790	1000	100	1140	280	1320	1275	1000	5	250	352	214	79	134	42.7			
		D132/19	1560	1250	790	1000	100	1140	280	1320	1275	1000	5	250	352	214	103	141	42.7	-		
		D160/27	1560	1250	790	1000	100	1140	280	1320	1275	1000	5	250	352	214	245	173	42.7			

All dimensions shown in mm

Wall Extract Units Colchester Range

Introduction

Woods Wall Units represent another part of the flexibility and family concept of the Colchester Roof Unit Range.

The DSP, DSM, DSC units are readily converted to the wall mounted WDP, WDM, WDC by means of a wall adaptor and lourve shutters. Performance data may be taken from pages 11-15 (DSP), 19-23 (DSM), and 24-28 (DSC).

The adaptor has been load tested to ensure a generous structural factor of safety enabling it to withstand all normally encountered weather conditions.

The wall unit is secured to the adaptor by stainless steel screws.

Specification

Wall Adaptor

The adaptor is moulded in ultra violet stabilized polyester resin, glass reinforced, rendered fire retarant to BS.476: Part 7.

Colourant to BS.4800:08B-21 is built in.

Dimensions and Weights

Shutters

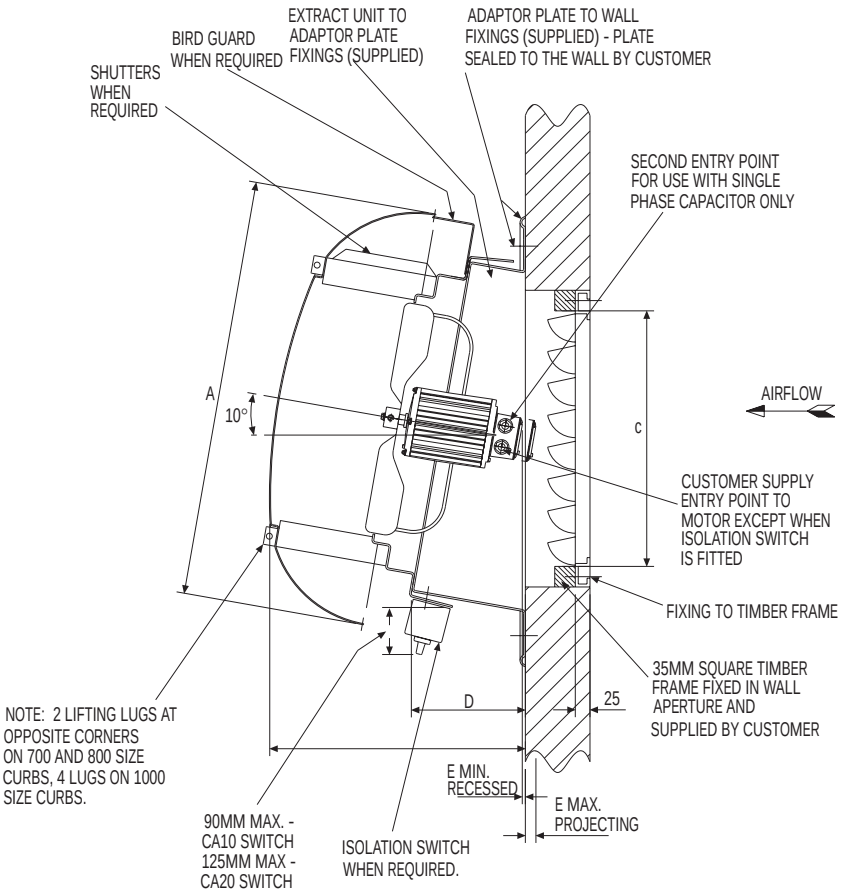
An attractive unit with rigid PVC vanes and aluminium frame. Operated by fan pressure, shutters are enclosed when fan stops. These replace the roof unit shutters.

Fan performance loss is small but varies with fan type, size and duty pressure.

Shutters should only be used with the two higher fan speeds in each size.

Performance Data

Wall Unit	Max. Volume m^3/s	Max. Static Pressure Pa	For Air Performance Data See Page
WDP	1.65	140	DSP Page 11-15
WDM	1.80	400	DSM Page 19-23
WDC	2.5	500	DSC Page 24-28



Fan Size	A	B	C	D	E	G	H	J	Weight (Wall Adaptor) kg
WDP 250, WDM 200, WDC 200	480	347	285	168	45	270	600	355	2.4
WDP315/355, WDM 250,WDC 250	600	383	385	181	22	310	670	455	2.8
WDP 400, WDM 330, WDC 330	710	435	435	194	18	350	750	505	3.4
WDP 450/500, WDM 400, WDC 400	820	495	535	212	0	400	850	605	4.0

All dimensions shown in mm

Acoustic Curbs Colchester Range

Woods WAC Acoustic curbs have been designed for use with Woods Air Movement range of Roof Extract Units.

They are suitable for mounting through the roof opening, with varying projection above or below the roof structure, or for mounting directly on top of builders' roof curb.

Construction

The curb consists of square section casing fabricated from pre-galvanised steel sheet, containing a vertical assembly of acoustic splitters and liners.

The splitters have pre-galvanised steel frames and the absorbent material is resin bonded mineral fibre with an erosion resistant facing.

An impervious moisture resistant lining is available for moist air applications. The use of the lining also allows the curb to be low pressure steam cleaned. Some reduction in attenuation due to the lining will be experienced.

The skirts and flanges are also produced from galvanised sheet steel.

Lifing Lugs are provided on all sizes.

Mounting

The curb may be mounted on the builders' roof curb, purlin box surrounding the roof opening in one of two ways.

Recessed Mounting

For this method a skirt is attached to the outside of the casing for mounting the unit within the roof opening. The position of the skirt can be factory-set, to offer a range of the sound attenuating curb above or below the roof opening.

Base Mounting

The unit is positioned on top of the builders' roof curb with the unit covering the timber.

Coachscrews and sealing washers are provided with both forms of mounting, for assembly to the builders' curb. Customers should provide flashing where wooden curbs are exposed.

Electrical Connection

Electrical connections to the roof unit fan motor terminal box may be taken from a junction box installed adjacent to the sound attenuating curb via a flexible conduit led up through one of the curb airways.

Order details

When ordering a sound attenuating curb state the WAC size and whether to be Recessed Mounting or Base Mounting. If for Recessed Mounting state dimensions F - necessary for the setting of the mounting height. See drawing opposite. When no dimension is given the maximum dimension F is supplied.

When required for use with roof units employing flameproof motors, please specify as 'WACF' plus the size. The use of flameproof motors necessitates the rearrangement of the splitters with some loss of attenuation.

Curb Size	ROOF UNIT SIZE					
	DVC	DSC	DVP	DSP	DVM	DSM
WAC10		200		250		200
WAC11	250	250	355	315/355	250	250
WAC12	330	330	400	400	330	330
WAC13	400	400	450/500	400/500	400	400
WAC14	500	500	630	630	500	500
WAC15	630	630	710/800	710/800	630	630
WAC16	760	760	1000	1000	760	760

Table 1 Curb/Roof Unit Combination

	Attenuation dB Octave band mid-frequency Hz							
Size	63	125	250	500	1K	2K	4K	8K
WAC 10-12	4	7	12	16	21	22	20	13
WAC 13-16	5	9	12	18	23	21	17	14

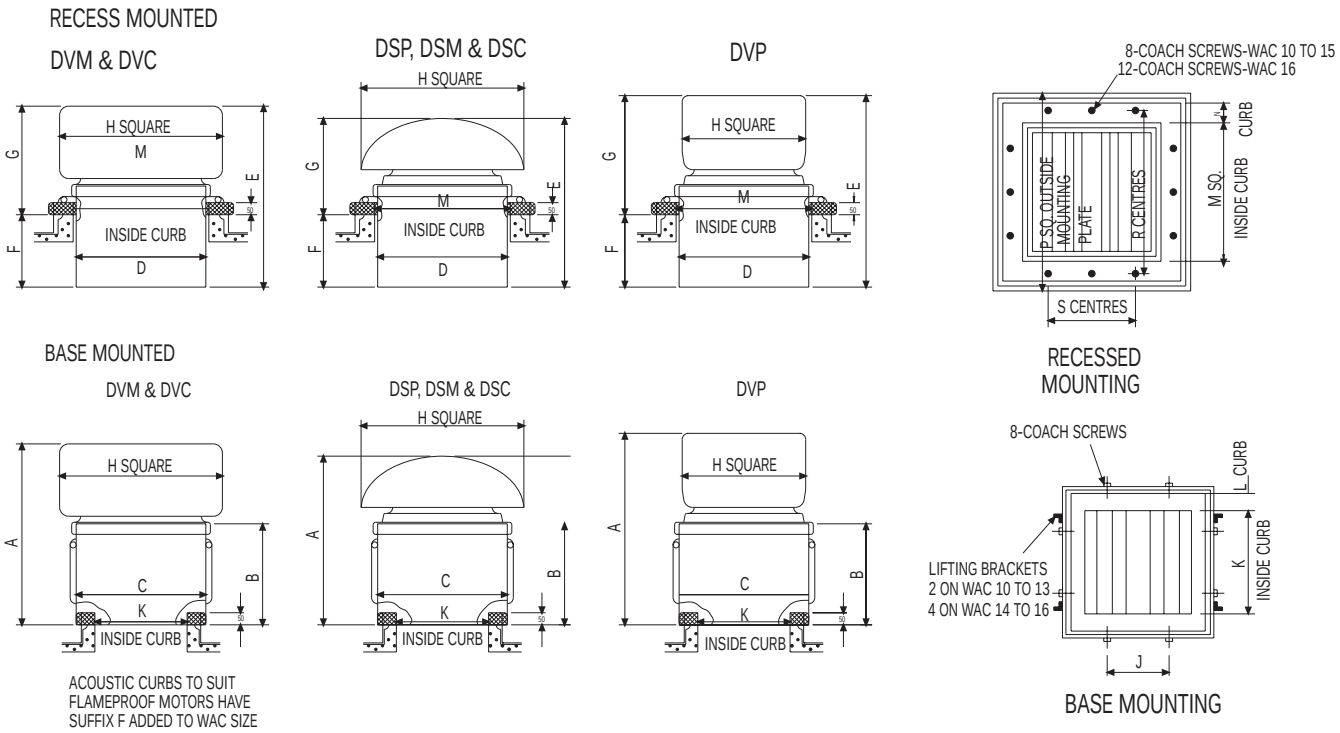
Table 2 Attenuation

Curb Size	Volume m^3/s	Pressure loss Pa	Curb Size	Volume m^3/s	Pressure loss Pa
WAC10/11	0.5	8	WAC14	3.0	17
WAC12	1.0	10	WAC15	4.3	12
WAC13	1.5	9	WAC16	5.0	8

Table 3 Pressure Loss

Acoustic Curbs Colchester Range

Dimensions and Weights



ACOUSTIC CURBS TO SUIT FLAMEPROOF MOTORS HAVE SUFFIX F ADDED TO WAC SIZE

		WAC10	WAC11			WAC12			WAC13			WAC14			WAC15			WAC16		
DIM		DSP 250 DSM 200 DSC 200	DSP 315/355 DSM 250 DSC 250	DVM 250 DVC 250	DVP 355	DSP 400 DSM 330 DSC 330	DVM 330 DVC 330	DVP 400	DSP 450/500 DSM 400 DSC 400	DVM 400 DVC 400	DVP 450/500	DSP 630 DSM 500 DSC 500	DVM 500 DVC 500	DVP630	DSP 710/800 DSM 630 DSC 630	DVM 630 DVC 630	DVP 710/800	DSP 1000 DSM 760 DSC 760	DVM 760 DVC 760	DVP 1000
A		708	813	875	918	888	953	993	943	1023	1073	1053	1143	1208	1228	1348	1428	1478	1558	1648
B		500	575			605			615			650			750			840		
C		420	495			570			670			870			1020			1220		
D		420	495			570			670			870			1020			1220		
E		708	813	875	918	888	953	993	943	1023	1073	1053	1143	1208	1228	1348	1428	1478	1558	1648
F	MAX	330	405			435			446			480			580			670		
	MIN	50	55			85			96			60			90			110		
G	MAX	658	758	820	863	803	868	908	847	927	977	993	1083	1148	1138	1258	1338	1368	1448	1538
	MIN	378	408	470	513	453	518	558	497	577	627	573	663	728	648	768	848	808	888	978
H		480	600	600	470	710	710	530	820	820	630	1030	1030	780	1300	1260	950	1700	1560	1180
J		150	200			250			350			550			650			850		
K		250	325			400			500			700			800			1000		
L		75	75			75			75			75			100			100		
M		500	600			600			700			900			1200			1500		
N		75	75			75			75			100			100			100		
P		684	784			784			884			1140			1440			1740		
R		575	675			675			775			1000			1300			1600		
S		260	320			320			360			450			800			980		
Weights		18 kg	25kg			31kg			37kg			55kg			74kg			109 kg		
curb Weights recess		25 kg	33kg			38kg			37kg			70kg			100kg			147 kg		

All dimensions shown in mm

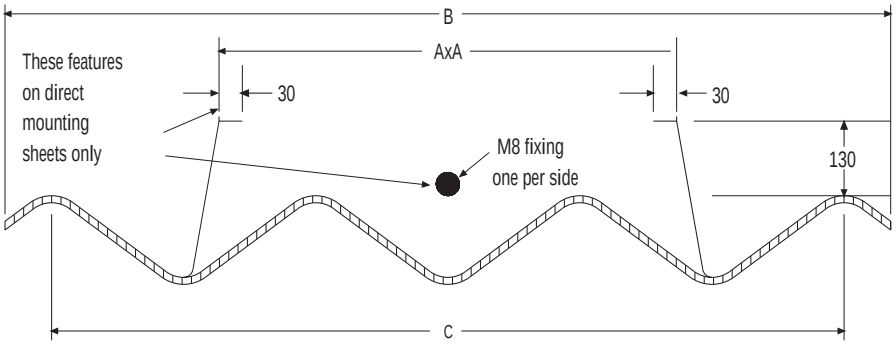
Soaker Sheet Colchester Range

Soaker Sheet can be supplied for the common roof profiles listed below.

Purlin mounted Soaker Sheets are available for all sizes and have a plain upstand.

Direct mounting Soaker Sheet can also be supplied for the four smaller sizes. These are complete with 4 x M8 fixings and 30mm wide seating.

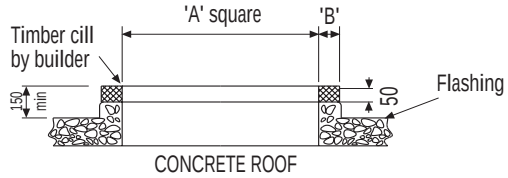
Mouldings are in ultra violet stabilised glass reinforced polyester resin, rendered fire retardant to BS476 Part 7 Class 2. Colourant (built in) is to BS4800:08 B21.



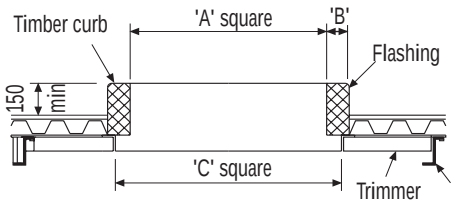
Profile			Double Six		Double Six M		Bic 6		Length
DSP DVP	DSM DVM DSC DVC	A	B	C	B	C	B	C	
250	200	476	1041	914	1300	1200	1086	1022	1676
315/355	250	500	1041	914	1300	1200	1086	1022	1676
400	330	576	1041	914	1300	1200	1086	1022	1676
450/500	400	676	1041	914	1300	1200	1086	1022	1676
630	500	-	1346	1219	1300	1200	1378	1314	1676
710/800	630	-	1346	1219	1300	1200	1378	1314	1676
1000	760	-	1651	1524	1300	1800	1524	1460	2100

Roof Mounting Details

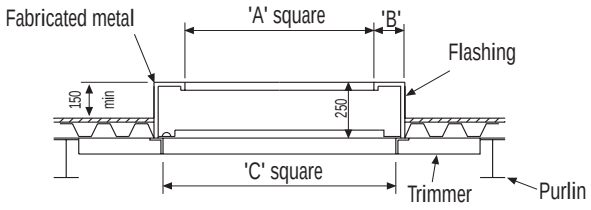
Curb mounted



CONCRETE ROOF



DECKING ROOF, BUILDERS UPSTAND

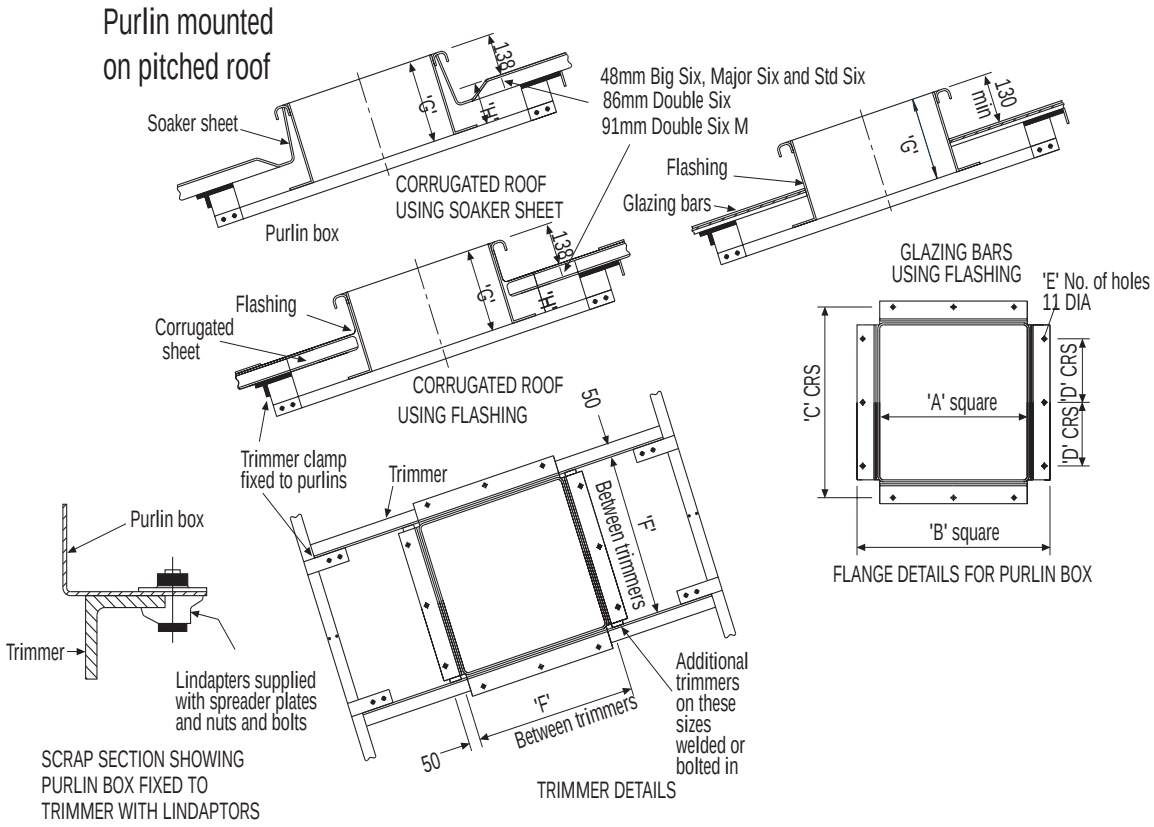


DECKING ROOF, METAL UPSTAND (OPTIONAL EXTRA)
FLAT ROOFS

Fan Size								
DSP	DVP	DSM DSC	DVM	DVC	A	B	C	D
250		200			250	75	325	426
315 355	355	250	250	250	325	75	400	500
400	400	330	330	330	400	75	475	576
450 500	450 500	400	400	400	500	75	575	676
630	630	500	500	500	700	75	775	
710 800	710 800	630	630	630	800	100	900	
1000	1000	760	760	760	1000	100	1100	

All dimensions shown in mm

Purlin/Ancillaries Colchester Range



SIZES 630mm to 1000mm

Fan Size												
DSP	DVP	DSM DSC	DVM	DVC	A	B	C	D	E	F	G	H
250		200			345	520	475	250	8	360	272	134
315 355	355	250	250	250	420	595	550	320	8	435	272	134
400	400	330	330	330	495	670	625	200	12	510	272	134
450 500	450 500	400	400	400	595	770	725	250	12	610	302	164
630	630	500	500	500	792	970	925	230	16	810	322	184
710 800	710 800	630	630	630	942	1120	1075	210	20	960	342	204
1000	1000	760	760	760	1140	1320	1275	250	20	1160	352	214

All dimensions are shown in millimetres

Ancillary Items

Anti-backdraught shutters

Shutters are of aluminium and are an optional extra. Synthetic rubber buffers are provided to ensure quiet operation. Use of shutters does not reduce fan unit performance, but will improve weathering under extreme conditions.

Inlet Guard

A flat square wire guard can be supplied to close off the opening in a ceiling slab. See unit drawing. Fixings not supplied.

Bird Guards

Guards can be provided to prevent entry of birds via air discharge openings. Fixings supplied.

Burglar Bars

Robustly manufactured in steel, with double row of steel bars for extra security.

Motorised Dampers

To meet requirements where heat loss is critical - motorised dampers mount into the ceiling opening.
Manufactured in aluminium with opposed multileaf blades, supplied complete with motor.

Prefabricated Metal Upstand

Where it is not convenient to form a timber or concrete upstand, Woods can provide a preformed pre-galvanised steel curb.

Speed Controllers & Changeover Panels

Speed Regulation - Vertical Discharge

To maintain a high discharge velocity, speed regulation is not recommended with vertical discharge units.

Speed Regulation - Side Discharge

A comprehensive range of speed controllers has been developed to work in conjunction with the fans which power the roof unit range, (see publication B16).
Note: All speed controllers are non-flameproof.

Solid State Electronic Range
The range has two basic types of units, the Manual Speed Controller (ME.) and the Automatic Speed Controller (AE.).

ME1.1, 3, 6, 12

Current range 1-3-6-12 Amp
Standard electrical supply -
220-240 V 1 phase 50 Hz.
Speed Control - down to 20/30% of full speed.
Mounting - surface. Enquire for flush mounting.
Construction - plastic box except ME1.6 & ME1.12 (metal box) all splashproof.

ME3.5s, 10s

Current range 5-10 Amp
Standard electrical supply -
380-420 V 3 phase 50 Hz plus neutral.
Speed Control - down to 20/30% of full speed.
Mounting - Surface mounting only.
Construction - Metal splashproof box.

AE1.3, 6, 12

The AE electronic controller through the thermistor control circuit offers a means of speed/volume control under varying conditions thus providing an energy saving benefit.
Current range 3-6-12 Amp
Standard electrical supply -
220-240 V 50 Hz 1 phase.
Sensor- thermistor supplied
Speed Control - down to 20/30% of full speed.
Mounting - surface mounting only.
Construction - metal splashproof box.

Auto-Transformer Range

A range of auto-transformer type regulators is available and offers regulation without the increase in motor noise which is generally associated with all electronic regulators.
All MT speed controllers provide 5 steps of speed plus off.

MT1.1

Current Range 1 Amp
Used with small single phase fans.
Standard supply -200-240 V 1 phase 50/60 Hz. Other voltages - enquire.
Speed Control - down to 20/30% of full speed.
Mounting - surface
Construction - totally enclosed plastic, dustproof box.

MT1.5,8,12 / MT3.0·5,1,2

This range of large controllers can be used as an alternative to the ME1.1,3,6,12 electronic controllers.
Current Range - MT1. 5, MT1.8, MT1.12 Amp
MT3.0·5, MT3.1, MT3.2 Amp
Standard electric supply-
220-240 V 1 phase 50 Hz
380-420 V 3 phase 50 Hz
Other supplies - please enquire.
Speed Control - down to 30% of full speed, approximately

Changeover Panels

A complete range of changeover panels is available for all two speed motors shown in this catalogue. These are offered in three types to complement the pole change, dual wound three phase and series/parallel single phase motors used. Note: All changeover panels are non flameproof.

EDC19

This panel is suitable for all pole change or PAM wound motors and is a self contained, steel enclosed starter panel with manual high/low/off facility complete with high/low speed visual indication. The protection category is IP54 and is suitable for all three phase supply applications.

EDC22

This panel is suitable for all dual wound motors and is a self contained steel enclosed starter panel with high/low/off facility complete with high/low speed visual indication. Protection category is IP54 and is suitable for all three phase supply applications.

EDC28

This panel is suitable for series parallel type motors and is a self contained steel enclosed starter panel with high/low/off facility complete with high/low speed visual indication.
Protection category is IP54 and is suitable for all single phase supply

Other Units Available

High Temperature Units

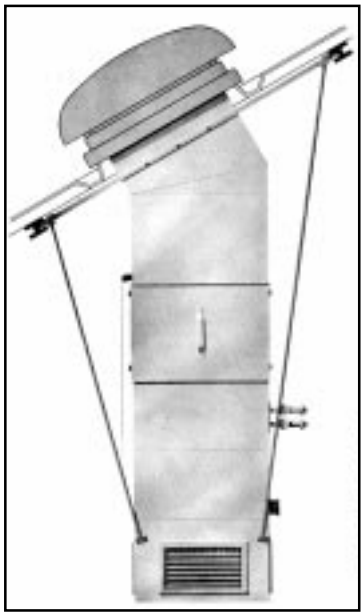
Fan Type - DVA

- Vertical discharge.
- 4 Unit Sizes up to 500mm to 1000mm.
- Volume Flow up to 10m³/s.
- Air Pressure up to 500 Pa available.
- Incorporating Woods H.T. Aerofoil Fans.

Fan Type - UDA

- Side discharge.
- 12 Unit Sizes 315 mm to 2000 mm.
- Volume Flow up to 45 m³/s.
- Air Pressure up to 1000 Pa available.
- Incorporating Woods H.T. Aerofoil Fans.

Roof Input Units



Fan Type - ASP Input Units

- Three alternatives
- Part assembled for easy installation
- For flat or pitched roof
- Fresh Air Input
- Recirculation for heat recovery
- Filtration
- Heating
- Adjustable air distribution

Fan Type - MF-TAF Input Units

- Mixed Flow Roof Input Unit
- Units suitable for flat roof or sloping roof.
- Bird guards are fitted as standard.
- Filters can be disposable synthetic fibre or glass fibre, washable foam, 25mm or 50mm thickness.
- Units available without fans.
- Available for wall mounting.

Fan Type - DPI

- 2101 GP fan powered roof input unit
- Suitable for curb or purlin mouting.
- Basic fan details as DSP unit (Less Shutters).
- Performance offered is 90% of DSP volume flow.

Fan Type - DMI

- Mixed Flow roof input unit.
- Suitable for curb or purlin mounting.
- Basic fan details as DSM unit (Less Shutters).
- Available in 3 sizes, 500, 700 and 1000mm only.
- Performance as equivalent DSM unit