

ELECTROSTATIC ELIMINATORS

Static electricity is a problem which affects many areas of industry, especially those handling non-conductive materials, such as plastics, paper, board, and textiles. Typical problem areas are:

MISBEHAVIOUR OF THE PRODUCT:

Electrostatic attraction (or repulsion) causes materials to stick to machinery, or to each other, causing quality and productivity problems.

DUST ATTRACTION:

Attraction of dust and other contaminants is important in many areas of industry, where it causes serious quality problems.

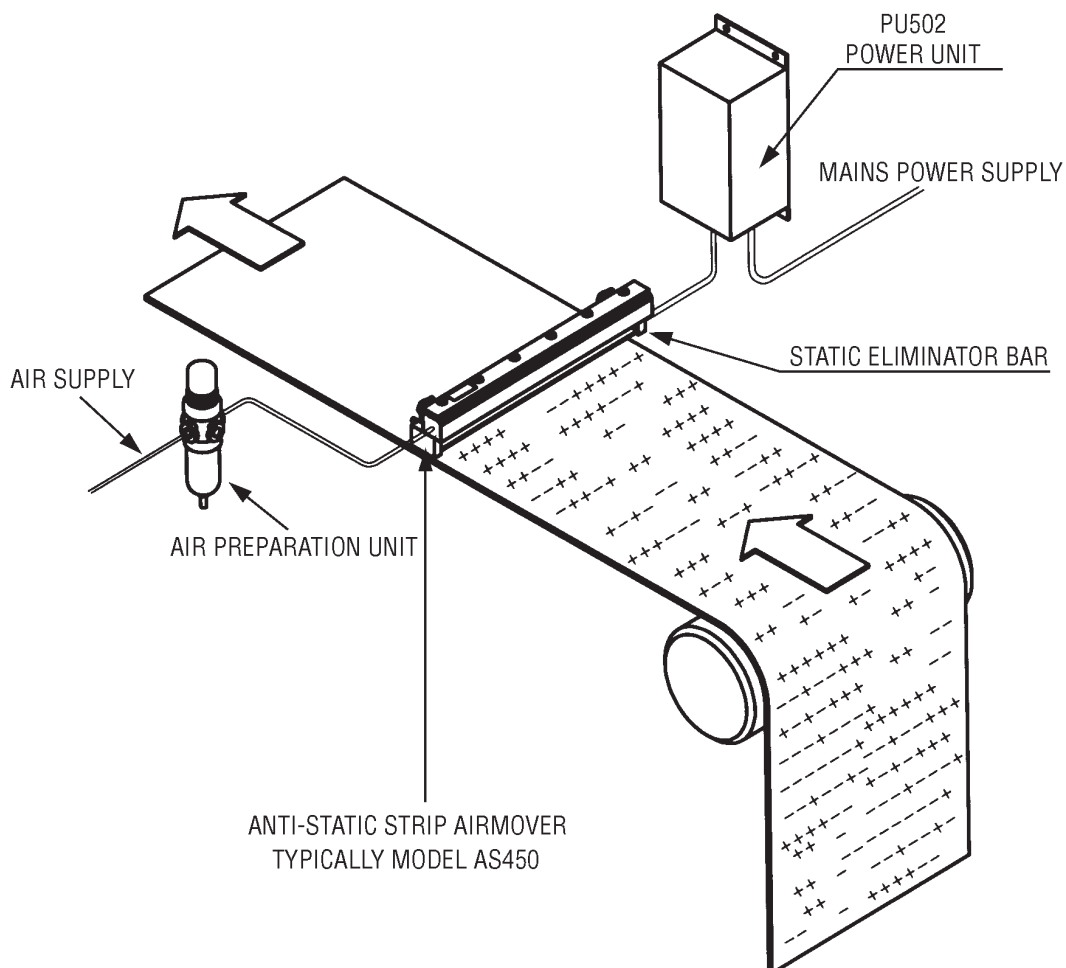
SAFETY:

Shocks to personnel are unpleasant and dangerous and do not have to be tolerated in the workplace. Static discharges also cause fires where combustible solvents are used.

DAMAGE TO ELECTRONICS:

Electrostatic discharges cause degradation and failure of electronic components. This includes sensors, weighers and print heads in industrial applications.

ANTI-STATIC TYPICAL APPLICATION



ELECTROSTATIC ELIMINATORS

THE BEST WAY TO NEUTRALISE STATIC CHARGES.

Static electricity is an electrical imbalance on the surface of a material. A static charge on a conductive material is destroyed by allowing it to flow to earth in the form of current. On a non-conductive material this is not possible because the charge will not move. Here the static charge needs to be supplied with charged particles, or ions, of the opposite polarity to cancel its electrical imbalance.

The best way of providing these ions is with ionised air. Ionised air consists of free moving positive and negative ions which readily combine with the electrical imbalance in the material to neutralise the charge.

BRAUER PRODUCTS

Brauer products produce ionised air in two ways:

High Voltage

Ionisation is produced when electricity at a high voltage is applied to a sharp point. All Brauer electrical static eliminators use this principle. Safety is ensured by reducing the current to a low level with resistors. All Brauer products are shockless and safe to touch. Brauer electrical static eliminators are available in the form of Bars, Blowers, Guns, Air Nozzles, Strip Airmovers.

Passive:

Passive static eliminators (anti-static brushes and tinsel) do not need to touch the material to neutralise the static charge. Positioned a few millimetres from the product, their fine filaments concentrate the electrostatic field to produce ionised air, which provides ions of the opposite polarity to neutralise the charge. (Anti-static brushes & tinsel available upon request)

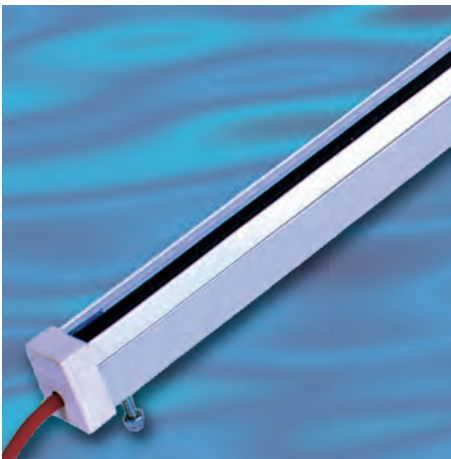
The following pages give details on the complete range of Brauer static control equipment, including instruments for measuring static electricity and static generation equipment.

Brauer products are used by leading manufacturing companies throughout the world.

ANTI-STATIC BARS

Static eliminator bars produce an intense field of ionised air for shorter range static neutralisation. They are the most popular type of static eliminator. They are used to neutralise webs, sheets and shallow 3-dimensional products throughout the plastics, packaging, converting, moulding, textile and related industries. Neutralizes static charge at a distance of 20mm-50mm.

ANTI-STATIC ELIMINATOR BARS



Model No.
AB150
AB300
AB450
AB600
AB750
AB900

Construction: Anodised aluminium, stainless steel emitter pins, PVC, epox resin.

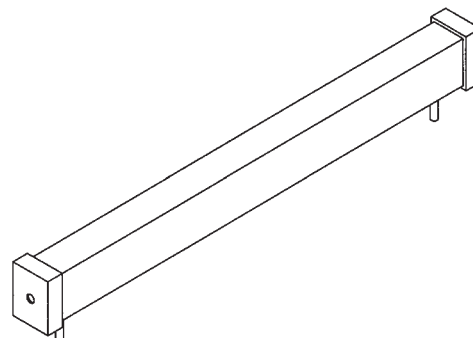
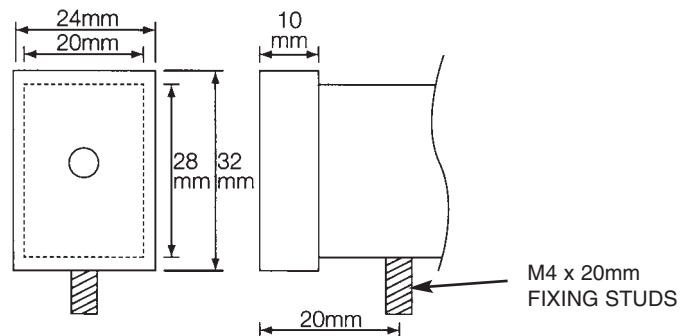
STD Lengths: 150mm, 300mm, 450mm, 600mm, 750mm, 900mm
Lengths to 4m available
Effective length is 40mm less than overall length

Cable: 2m of HT cable, unless otherwise specified

Power Unit: Use with PU502 or PU504

Options: Combination Bar with PassiveDischarger.
Air assistance for extra range

Safety: Resistively coupled for shockless operation

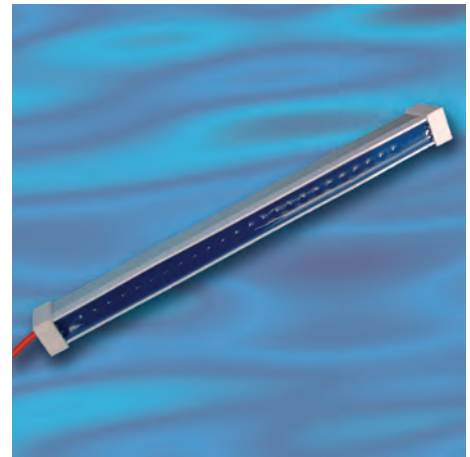
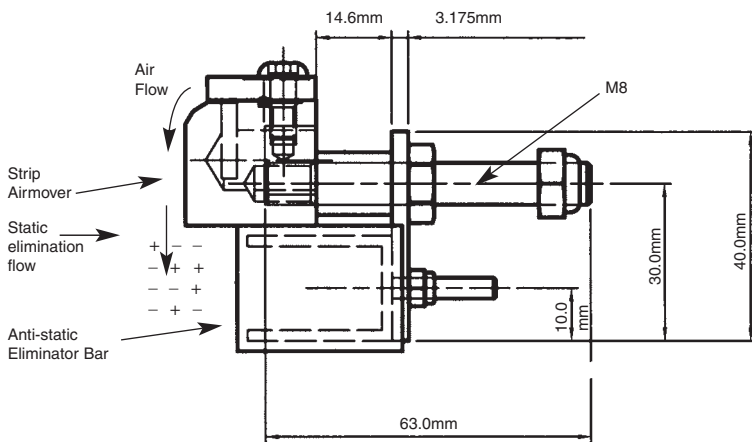


The Anti-Static Eliminator Bar offers static neutralisation at distances from 20mm to 150mm. It offers new levels of cost-effective performance.

COMPRESSED AIR STATIC ELIMINATORS

When ordinary compressed air is used to remove dust, its efficiency is limited. If the static charge holding the dust to the product is not neutralised, both the dust and the product will remain charged and capable of re-contamination. With ionised air, the static charge is eliminated, allowing high quality cleaning.

ANTI-STATIC STRIP AIRMOVERS



Model range AS combines a powerful static eliminator with an Strip Airmover which amplifies compressed air by a factor of 25 to produce a high speed, high volume sheet of ionised air. It is used to remove dust from mouldings, sheets and electrical assemblies.

Construction: Model AB, Eliminator bar fitted to Aluminium or Stainless Steel Strip Airmover.

Size: Available in lengths of 150mm, 300mm, 450mm, 600mm, 750mm, 900mm.

Power Unit: Use with PU50 range Power Unit

Cable: 2m of HT cable - other lengths can be specified at time of order.

Air supply: The output of the Strip Airmover is regulated by the incoming air pressure. The air pressure may be 1-7 Bar. The air should be clean and dry. It is important that the air supply and pipe work can deliver the required volume of compressed air.

Model Numbers	
Aluminium Model No.	Stainless Steel Model No.
AS150	AS150SS
AS300	AS300SS
AS450	AS450SS
AS600	AS600SS
AS750	AS750SS
AS900	AS900SS

Supply Pressure in Bar	Vol in m ³ /min
2	0.019
3	0.022
4	0.027
5	0.033
6	0.039

ANTI-STATIC SINGLE POINT PROBE SP1260



Length: Metal barrel: 72mm x 12mm

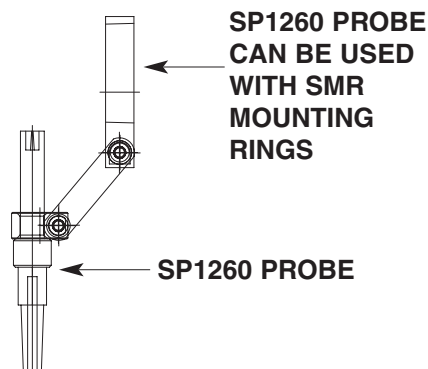
Cable: 2m of screened HT cable is supplied
Customer may specify up to 10m.

Options: Air assistance see AN150, AN300 single point nozzles

Max. Temperature: 60°C

Safety: 100MOhm resistance for shockless operation

Power Unit: PU504 Power Unit (5.5kV)



Compact, high performance static eliminator suitable for neutralising the static charge on trim, tapes, yarn and other small objects.

Performance

Resistively coupled design produces large volume of ionisation for neutralising fast speed and high charges.

The design geometry projects the ionisation to give an operating distance of up to 80mm.

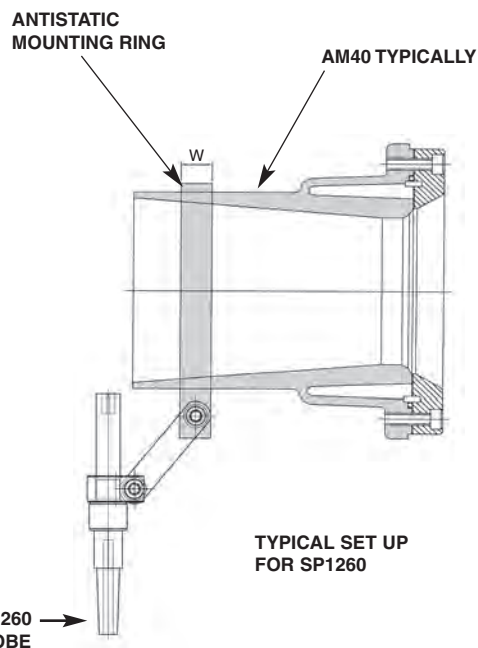
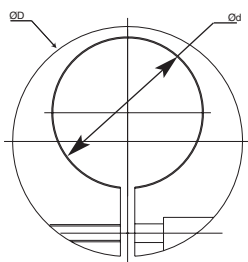
Construction

Robust stainless steel and PVC body, with nylon cable gland.

All critical parts are encapsulated for a long life and market-leading reliability.

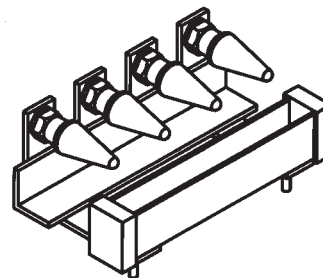
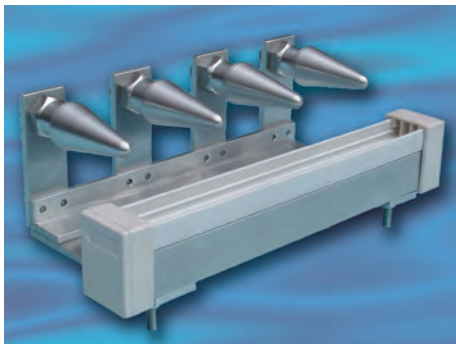
Compact and easy to install.

ANTI STATIC PROBE MOUNTING RINGS SMR

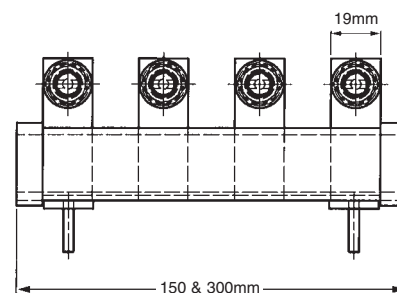
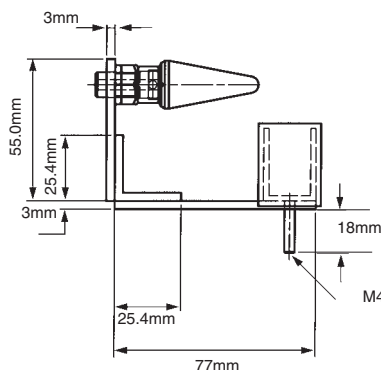


MODEL NO.	AIRMOVER	Ød/mm	ØD/mm	w/mm
SMR 10	AM10	19	35	12
SMR10A	SS10A, AA10A, AM10A	20.5	35	12
SMR 20	AM20	31.6	50	15
SMR 20A	SS20A, AA20A, AA20A	30.5	50	15
SMR 40	AM35, AM40	52	80	15
SMR 40A	AM35A, SS40A, AA40A, AM40A	50.5	80	15
SMR 60A	AM60A, SS60A, AA60A	76.5	108	15
SMR 75A	AM75A, SS75A, AA75A	96.5	130	15

AN150, AN300 ANTISTATIC AIR NOZZLE BARS



Model	Available length (mm)
AN150	150
AN300	300

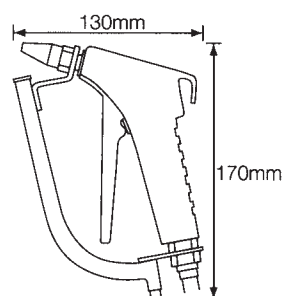


Custom machine mounted air nozzle systems can be designed to meet the customers exact requirements - from a single nozzle operated by a footpedal to large automatic systems. These are particularly useful for cleaning large mouldings before paint spraying.

4100 IONISED AIRGUN



Model 4100 is a heavy duty ionised airgun for removing dust and other contaminants from sheets, mouldings, optics, electronic assemblies, automobile bodies and extrusions. It kills the static charge on both the dust and the substrate to allow a thorough cleaning.



Construction: Stainless steel ionisation head and guard, plastic handle, aluminium nozzle

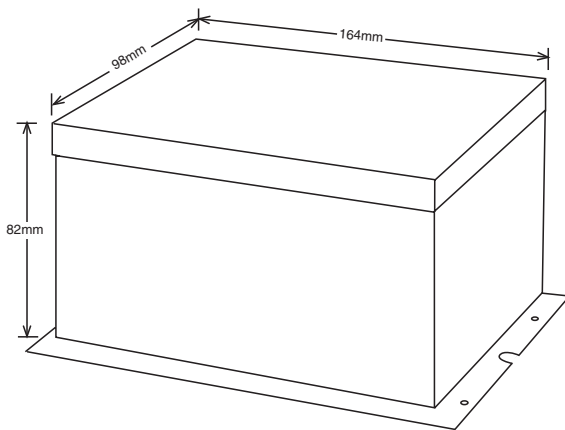
Airflow: The air nozzle amplifies the compressed air by 20:1 to produce a high volume of fast-moving air. Air pressure up to 7 Bar. At typical working pressure of 4 Bar the air consumption is 220 SLPM.

Health & Safety: The ionisation head is completely shockless. The air nozzle cannot be dead-ended so it meets OSHA and other safety standards. The full-hand trigger is comfortable to use and reduces fatigue. The 4100 is quiet - at 4 Bar the noise level is 65dBA.

POWER UNITS

The power units provide the power for most Brauer static eliminators. The PU50 power unit is the heart of the Brauer static control equipment e.g. AB Bars, Strip Airmovers, 4100 Guns, Nozzles and SP1260 Probe. The PU50 produces high voltage, low current in a controlled and safe way. It has a compact size and is suitable for most industrial environments.

POWER UNIT PU502



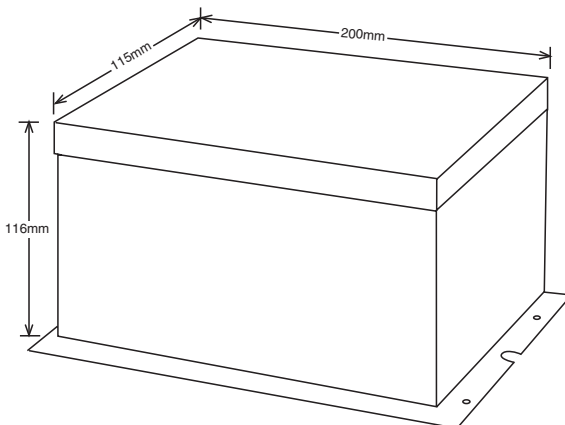
Construction: Steel, dry powder coated case, with totally encapsulated windings.

Safety: The PU502 is current limited to 5mA. If a fault in the system tries to draw more than 5mA the PU502 will cut out.

Performance: The PU502 has two connectors/outputs. The maximum load which they can supply is:
AB Bars: 12m of combined bar and HT cable.
4100 Guns: 2 units with maximum total cable length of 10m.

Electrical: On/off switch. Suitable for 50Hz or 60Hz. IEC connector with integrated fuse. A 2m cable and plug to suit country of order will be supplied unless otherwise ordered. Maximum temperature 55°C. Should be kept dry and oil-free.

POWER UNIT PU504



Same specification as PU502, but with four connections/outputs.

ELECTROSTATIC MEASURING INSTRUMENTS

Static electricity is a difficult subject. In an industrial environment it is almost impossible to understand it without a method of measuring to see what is actually happening. Brauer Static Meters assist the industrial engineer in understanding the problem and enable them to control and monitor it scientifically.

A good static meter allows the industrial engineer to analyse static, how the static is generated, its magnitude and its polarity. The static meter monitors the effectiveness of the action taken to solve the problem. If the solution involves static elimination equipment, the meter shows the most effective positioning for this equipment and can monitor its performance. A static meter allows the engineer to set standards to avoid future problems. Brauer Static Meters are the leading instruments in their class - easy to use, accurate and reliable. They conform to the latest international standards and offer an unrivalled specification.

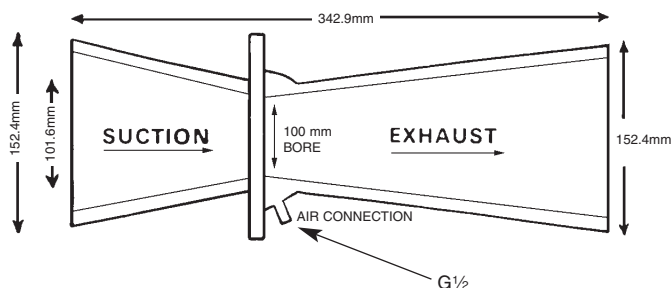
STATIC METERS 710 / 710E



The 710 Static Meter is an advanced instrument for general factory use. It was developed to provide industrial engineers with an accurate, reliable and cost-effective method of analysing industrial static problems. It is equally useful in production, technical, quality and service departments.

Specification	710	710E
Range / Resolution:	0 - 150kV / 100V	0 - 20kV / 10V
Drift:	< 0.1 % in 10secs	As 710
Standard:	EN-500081-1	As 710
Calibration:	BS7506-2	As 710
Size, Weight:	142 x 66 x 32mm, 330g	As 710
Construction:	Aluminium case with recessed sensing plate for maximum integrity and accuracy.	
Operation:	Push button to zero and make reading of surface voltage at distance of 100mm.	
Equipment:	Supplied with carrying case, PP3 9V battery, earth lead and certificate of calibration.	

ANTI-STATIC EXTRACTOR VENTILATOR AEV4



Material: GRP.

Weight: 1.75Kg

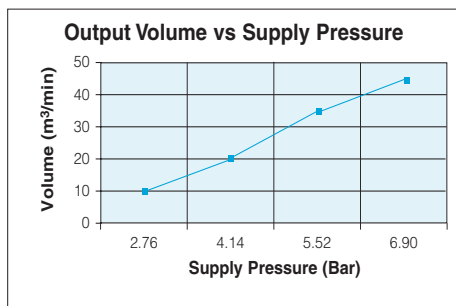
dB(A) at: 5.5 bar is 85

Takes 152mm ducting

Standard Inlet Threads: G $\frac{1}{2}$

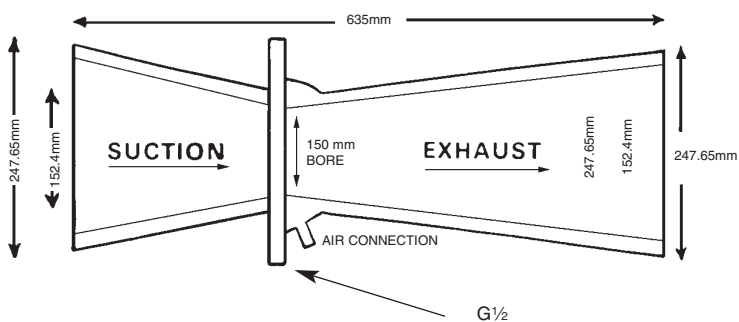
Option: $\frac{1}{2}$ " NPT

Please specify on order



Bar	Vol out m³/min
2.76	10.2
4.14	20.4
5.52	35.4
6.90	45.3

ANTI-STATIC EXTRACTOR VENTILATOR AEV6



Material: GRP.

Weight: 5Kg

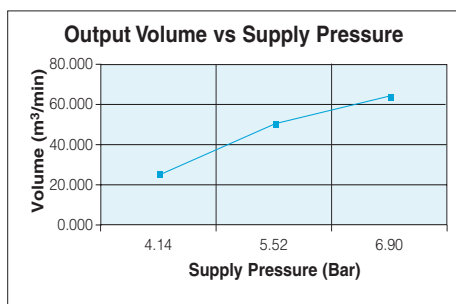
dB(A) at: 5.5 bar is 78

Takes 254mm ducting

Standard Inlet Threads: G $\frac{1}{2}$

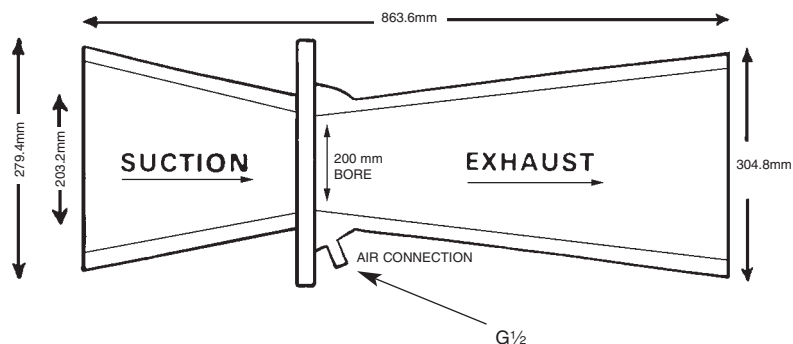
Option: $\frac{1}{2}$ " NPT

Please specify on order



Bar	Vol out m³/min
4.14	27.8
5.52	51.0
6.90	65.0

AEV8 ANTI-STATIC EXTRACTOR VENTILATOR



Material: GRP.

Weight: 7.5Kg

dB(A) at: 5.5 bar is 75

Takes 305mm ducting

Standard Inlet Threads: G $\frac{1}{2}$

Option: $\frac{1}{2}$ " NPT
Please specify on order

Bar	Vol out m ³ /min
4.14	56.6
5.52	76.5
6.90	96.3

