



# Operating Manual

**Model 957**  
**Ionised Air Curtain**

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# Introduction



Meech Ionised Air Curtains have unique static elimination capabilities and will give many years of excellent service, provided that the following instructions are observed closely.

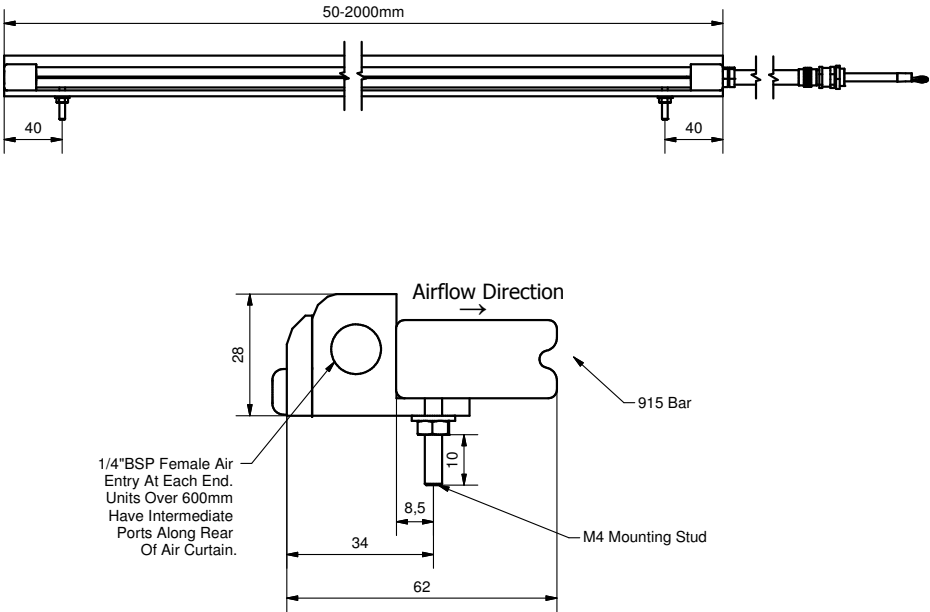
## General Notes On Operation

The typical Meech air curtain installation consists of one or more ionised air curtains connected to a Meech power unit.



The static eliminator bar may be either a 915 or 910/914. This bar converts the energy from the power unit to generate an ionised air corona. The corona is transported to the object by the air flow.

When a statically charged object enters the ionised air corona, the free moving ions are attracted to the opposite charge on the object. In this way the static electricity is neutralised. Unused ions in the corona recombine or are discharged to earth.



# Installation

The correct positioning of the air curtain is vital to its efficient operation. Please observe the following instructions.

## Distance From The Object

The air curtain should be positioned as close as possible to the object to be neutralised.

If we say that the neutralisation power at a distance of 10cm is 100% then the relative neutralisation performance at a longer distance is:

Distance From Object	Relative Performance
30 cm	90 %
50 cm	50 %
100 cm	20 %

The ionisation coverage will be greater when the air curtain is positioned at a 45 degree angle.

## Intervening Objects

If the ionised air is blown through earthed objects eg a machine frame or cross rods, these will absorb some of the ionisation and so reduce the neutralisation power. Avoid this where possible.

# Air Supply

- a. The air supply must be clean and dry. A 5 micron coalescing filter is recommended. The Meech warranty does not cover damage due to water or oil in the air supply.
- b. Reduce the air supply to the lowest pressure which achieves the required results. Excessive air is wasteful and also dilutes the ionisation unnecessarily.
- c. The female thread for the air fitting is 1/4 BSP.

Air Pressure	Consumption	Volume Out	Air Speed
	Per 150mm	Per 150 mm	
1 bar	238 lit/min	5950 lit/min	250 m/min
2 bar	336 lit/min	8400 lit/min	530 m/min
3 bar	448 lit/min	11200 lit/min	848 m/min
4 bar	500 lit/min	11400 lit/min	1363 m/min

**Caution:** When used in conjunction with a model 915 ionising bar this equipment will give an electrical shock if the pins are touched. The following procedure must be followed.

The supply voltage of the power supply must be interlocked with the ON/OFF control of the machine to which the equipment is fitted.

This will ensure that whilst the machine is switched off operatives may gain access to the machine and our equipment, with no danger of potential shocks from our equipment.

It is assumed that whilst the machine is switched ON, normal safety barriers are in place on the machine to ensure that operatives are unable to access the machine and our equipment.

## CE Approval

A CE Declaration of Conformity for this product exists in respect of the Low Voltage Directive: 72/23/EEC ("LVD") & Electromagnetic Compatibility Directive: 89/336/EEC ("EMCD")



## Health and Safety

Emission of Ozone: Considerably below international standard of 0.1ppm.



# Maintenance

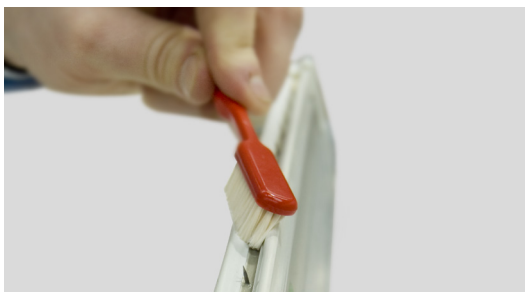
## Cleaning your Meech Ioniser

Ionisers require periodic cleaning. During normal operation, dirt will build-up on the emitter pins and on the body of the ioniser. This will cause a reduction in performance.

Typically, weekly cleaning is sufficient. However, equipment used in heavy contamination areas, such as gravure printing or where plastic fumes are present, daily cleaning is required. Equally, in a Class 100 area, cleaning may only be required on a monthly basis. Advanced systems with performance monitoring, e.g 977cm and 904cm, will alert the operator to clean the equipment before performance drops to an unacceptable level.

Before cleaning, ensure that the equipment is switched off.

Emitter pins can be cleaned very effectively with a brush. A dry toothbrush is ideal.



Ionising bars will need periodic wiping to clean grey deposits from the surface of the bar. A cloth moistened with a small amount of IPA or methylated spirits is recommended.







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