

Operating Manual



261v2
Ion Nozzle

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Introduction



The Meech Model 261v2 Ion Nozzle has been designed to effectively eliminate localised static charges which exist in the work area.

Unpacking and Inspection

The Model 261v2 Ion Nozzle has been carefully packed at the factory in a container designed to protect it from accidental damage. Nevertheless, we recommend careful examination of the carton and contents for any damage. If damage is evident, do not destroy the carton or packing material and immediately notify the carrier of a possible damage claim. Shipping claims must be made by the consignee to the delivering carrier.

General

The Model 261v2 Ion Nozzle is a small, robust ionising nozzle. Available in several versions it provides an ionised airflow for cleaning and neutralising static charges. It is powered by a Meech Model 233v3, 233v4 or 977CM Pulsed DC Controller. The 261v2 is suitable for industrial, electronic and cleanroom environments and is quick to install and easy to use. The Model 261v2 features replaceable titanium emitters.

It is available in various versions with different inlet and outlet configurations. Drawings of these versions are available from the Meech website.

- | | |
|----------------------|--|
| ■ A261V2-32 | 6mm Input, Nozzle outlet. Good for general cleaning operations. |
| ■ A261V2-32-1/4 | 1/4"bsp Inlet, 1/4" bsp outlet. Inline nozzle. |
| ■ A261V2-32-1/4OUT | 6mm Input, 1/4" bsp outlet. Inline nozzle. |
| ■ A261V2-32-BULKHEAD | 6mm Input, Bulkhead fitting. For ducting and air conveying applications. |
| ■ A261V2-32-FLEX | 6mm Input, Flexible outlet pipe. For sheet separation and tight installations. |
| ■ A261V2-32-FLEX-1/4 | 1/4"bsp Inlet, Flexible outlet pipe. For sheet separation and tight installations. |
| ■ A261V2-32-SLOT | 1/4"bsp Inlet, Slotted Cap. For sheet feeding on presses. |

Installation

The Model 261v2 should be connected to the 233v3, 977CM or 977v3 Pulsed DC Controller. Connect each of the male plugs on the cable of the Model 261v2 to a high voltage socket on the Pulsed DC Controller. In the case of a multiple nozzle installations, use the appropriate pair of high voltage splitters.



Air Supply

Depending on which model of 261v2 is being used it may be installed with compressed air or pumped air.



Compressed Air

Connect your air supply directly to the Model 261v2 using 6mm push fit hose. A local compressed air shut-off valve should be installed (not supplied). For most applications, the compressed air supply should be regulated to 30 psi (2 bar). Maximum operating pressure is 100psi (7 bar).

Pumped Air

Versions of the nozzle with ¼" bsp inputs can be used with low pressure pumped air. Ensure that any fittings used have as side a bore as possible, to maximise the air-flow.

Interlocking of High Voltage

We recommend interlocking the state of the high voltage output to the running state of the machine. This can be achieved by switching the power supply to the Pulsed DC controller or by using the remote on/off input built into all Meech Pulsed DC controllers. See the relevant operating manual for more information.

For Best Results

1. Keep the target area clear and free from obstructions to the ion flow.
2. Keep the work area clear of all static generative materials.
3. Use only approved static control grounding methods and material handling equipment.
4. By properly using ionised air, all static potentials in the work area are greatly reduced, even when humidity levels decrease.

Technical Specification

Model 261 Ion Nozzle

Body	:	PTFE
Length	:	74 mm
Diameter	:	32 mm
Weight	:	0.06 kg (Without bracket)
Max Air Pressure rating	:	100 Psi(7 bar),
Typical Pressure	:	20 to 40Psi (1.5 to 3 Bar)
Noise level	:	68 dBA (20 Psi at 1m)(1.5 bar)
Emitter Pins	:	machined titanium (7mm)
Decay time	:	0.8 sec at 150mm at 30 Psi (2 bar) (1000V to100V)
Ozone	:	Less than 0.01 ppm
Input Voltage	:	+/- 9kV DC Nominal
Ion balance	:	+/- 10V or better at set up

Calibration and Balance Verification

For critical ESD installations, balance verification should be checked in accordance with the ESD protection Standard ANSI-EOS/ESD-S3.1-1991

Remember

It is important to verify calibration after any adjustments and before using your Ion Nozzle in the presence of sensitive electronics.

Maintenance

Cleaning your Meech Ioniser

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

Ionising nozzles may need their outlet cap to be removed to allow access to the pins. They should be checked for any oil or water contamination that might indicate a poor quality air supply that could cause permanent damage.



Typically, weekly cleaning is sufficient. However, equipment used in some heavy contamination areas, such as gravure printing or where plastic fumes are present, may require daily cleaning.

Before cleaning, ensure that the equipment is switched off.

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



Ionisers 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.

If the pins are worn and require replacement, the pins should be removed using a pair of round nose pliers and replacements fitted. Replacement pins are available from Meech, item code A-200-EMITP-10/1.0.

The exterior of the Ion Nozzle should be kept clean by wiping with a damp cloth.

Fault Finding

Tests must be completed by a qualified electrical engineer.

If in doubt contact Meech head office or your local distributor.

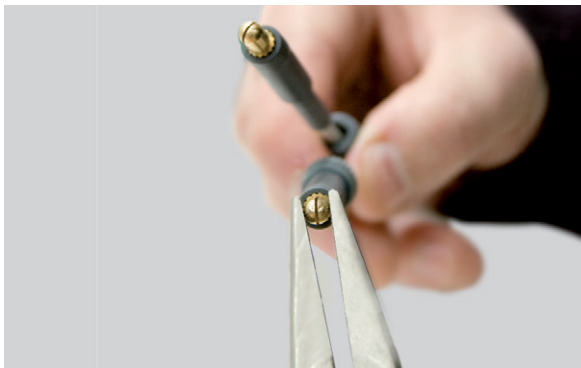
CAUTION: Whilst no danger to personnel exists, it is essential that any high voltage ionising equipment makes no contact with water or water based fluids. Should such an event occur, disconnect immediately and return equipment to Meech for water damage assessment.

Cable Plugs

Please note that, on leaving the factory, the brass ends of the cable plugs are configured to a standard size for fitment into the power sockets of the Pulsed DC Controller. Meech has found that occasionally during transportation and handling the ends of the plugs can become slightly mis-shaped which may cause difficulty with their location into the power sockets.



If you find this to be the case, then (1) if the plugs are too tight, you should lightly pinch together the two halves of the brass end of the plug with a pair of pliers, or (2) if the plugs are too loose, you should gently open out the slot in the brass end with the blade of a screw-driver or knife.



Repairs and Warranty

Your Ion Nozzle is warranted by Meech Static Eliminators Ltd to the original purchaser against defects in material and workmanship for one year after purchase. Should any malfunction occur, please return the Ion Nozzle directly to Meech or to your distributor. All products returned to the factory MUST be accompanied by a return authorisation number and must be shipped prepaid. Meech Static Eliminators Ltd. liability under this warranty is limited to replacing or repairing any unit returned by the purchaser that has not been subject to misuse, neglect, repair, alteration or accident. In no event shall Meech Static Eliminators Ltd be liable for collateral or consequential damages.

For prompt service, ship the unit to the factory with the return authorisation number shown clearly on the label. Be sure it is well packed in a sturdy carton with shock absorbing material. Include a note stating the nature of the problem as specifically as possible, and also include instructions for returning the Ion Nozzle to you. Meech will pay one-way return surface shipping costs on any repairs covered under the warranty.

Field repairs should not be undertaken during the warranty period. Repair attempts by unqualified personnel will invalidate the warranty.

Important

Your Ion Nozzle has been designed to minimise effects of localised static charges. If your processing involves generation of considerable static charges, however, you may need more powerful equipment. Meech Static Eliminators Ltd manufactures a complete range of Ionising Blowers, Air Guns, Bars and overhead room systems to meet all your Static Elimination requirements.

CE Approval

A CE Declaration of Conformity for this product exists in respect of the Electromagnetic Compatibility Directive 2014/30/EU.



Health and Safety

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

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