

Operating Manual



954v3
Ionising Air Gun

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Introduction



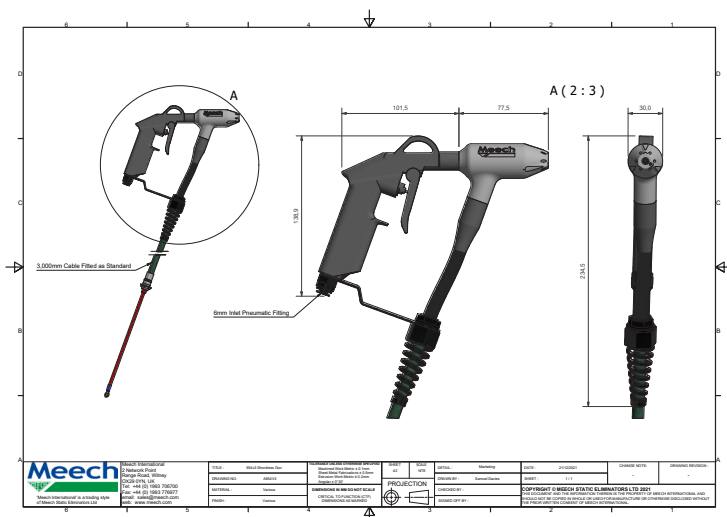
The Meech 954v3 Ionising Air Gun is an upgraded model, that provides exceptional performance when neutralising static charges and removing dust and contamination on a wide range of industrial processes.

Unpacking and Inspection

The Model 954v3 Ionising Air Gun 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 Notes On Operation

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



The power unit provides the high voltage AC supply that is required for effective ionisation. The ionising airgun is connected to the power unit by a tough, flexible conduit and high voltage cable. The high voltage is fed to a sharp titanium emitter pin via a safety resistor that renders the pin safe to touch. A corona is generated at the tip of the pin, ionising the surrounding airflow.

The ionised airflow will neutralise the target surface, releasing the surface contamination and allowing it to be blown off.

Installation

Compressed Air

The compressed air supply must be clean and dry. Meech recommend the use of a 5 micron coalescing filter. Water or oil in the air will damage this product. The Meech guarantee does not cover this. The use of a pressure regulator will allow the pressure to the gun to be set to the correct level for the application.

A typical operating pressure for the 954v3 is 3.5 bar / 50 psi. This gives a good balance of ionisation and cleaning performance. However, depending on the application, higher or lower pressures may be required. Air Connection to the 954v3 is via a standard 6mm push-fit fitting.

Electrical connection

Electrical connection is to a Meech Model 906 power supply. Please refer to the 906 Power Supply operating instructions to ensure that your ionising gun is correctly and safely connected to its power supply. A copy of this can be downloaded from www.meech.com

Performance

5000V to 500V decay tests were carried out at 150mm distance in accordance with ESD Association standard S3.1

Pressure PSI	Noise dBA	Decay +5000 to <100V
30	74	0.8
40	76	0.4
50	79	0.4
60	80	0.3
70	80	0.3
80	81	0.3

Technical Specification

Model 954v3

Max pressure	:	6.8 Bar/100PSI
Recommended pressure	:	3.4 Bar/ 50PSI
Operating voltage	:	7kV from Meech 906 power unit
Max Temperature	:	85°C.
Construction	:	Gun handles – cast aluminium Nozzle body - Nylon
Weight	:	300 g approx
Cable	:	3 metres of H.T. cable supplied as standard, longer lengths can be specified when ordered.

Maintenance

Ionisers require periodic cleaning. During normal operation, dirt may build-up on the emitter pin. The rate of this contamination will depend on the cleanliness of the compressed air supply. The contamination will cause a reduction in performance. Typically, weekly inspection/cleaning is sufficient.

The emitter and the inside of the nozzles can usually be cleaned using a cotton bud. If the emitter has become very dirty, it may need to be removed before cleaning. To remove the emitter, insert a 3mm nut spinner into the end of the nozzle and unscrew it counter-clockwise.

The nut spinner Meech uses is a BAHCO (BE-7803)



Once removed, the pin can be cleaned. A toothbrush is ideal for this.



The exterior of the nozzle can be wiped down with a damp cloth.



Should you have any additional questions regarding the maintenance of Meech equipment please contact Meech International directly or your local Meech distributor.

Fault Finding

For details on fault finding, please refer to the operating manual for the Meech Power Unit connected to the 954V3 Ionising Gun. i.e. the Meech Model 906 Power unit (or 904 power unit, discontinued June 2025).

For further help, consult your local Meech distributor or contact one of our worldwide offices. Contact details are available on the Meech website: www.meech.com.

Repairs And Warranty

The 954v3 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 bar directly to Meech Static Eliminators or your local distributor. All products returned to the factory MUST be accompanied by a return authorisation number and must be shipped prepaid. 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 bar to you. We 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.

CE Approval

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



Health And Safety

Ozone: Considerably below international standard of 0.1ppm

Dead End Pressure: Meets 30 psi safety pressure at maximum usage pressure of 100psi

Meech International

2 Network Point
Range Road
Witney, Oxfordshire
OX29 0YN
United Kingdom
Tel: +44 (0)1993 706700
Email: sales@meech.com

Meech Static Eliminators USA

1298 Centerview Circle
Akron, Ohio 44321
United States
Tel: +1 330 564 2000
Fax: +1 330 564 2005
Email: info@meech.com

Meech Static Eliminators (Shanghai)

7G, 7F, LP Tower
#25 Xianfeng Road
201103 Shanghai
China
Tel: +86 400 820 0102
Fax: +86 21 6405 7736
Email: china@meech.com

Meech Shavotech

29/2, Kharadi
Off Pune-Nagar Road
Old Kharadi Mundhwa Road
Pune: 411014, Maharastra
India
Tel: +91 (0)703 093 8211 / +91 (0)741 000 4817
Fax: +91 (080) 28395963
Email: india@meech.com

Meech Elektrostatik SA

Kaiserbaracke 166
B-4780 St. Vith
Belgium
Tel: +32 (0)80 670 204
Fax: +32 (0)80 862 821
Email: mesa@meech.com

Meech International (Singapore)

7 Temasek Boulevard
12 - 07 Suntec Tower One
Singapore
038987
Tel: +65 65918859
Email: singapore@meech.com

Meech CE

Gábor László utca 2
Budapest 1041
Hungary
Tel: +36 1 7977039 / +36 30 2803334
Email: ce@meech.com

