Operating Manual

Model 995R
Pinning Head

Contents

Introduction

The 995R range of Pinning Heads are designed for use with the Meech IonCharge30 static generator. The 995R features resistively coupled emitter pins, rendering it near shockless and providing a controlled delivery of power.

Unpacking and Inspection

The Model 995R pinning head 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.

Package Contents

Standard

995R Pinning Head

Options

IonCharge30: 30kV static generator

(available as either a negative generator AIC30-15DC-N-00 or a positive generator (AIC30-15DC-P-00)

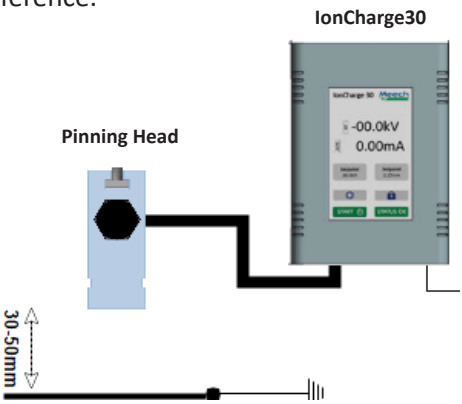
Features and Benefits of the 995R Pinning Head

Overall look

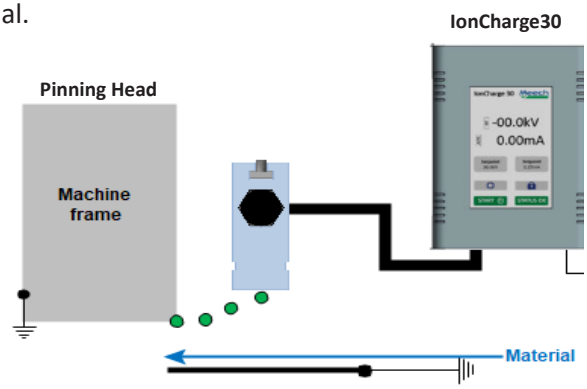
Feature	Benefit
Resistively coupled	Spark free, independent operation
High pin density	Powerful pinning

Installation

Correct positioning of the Pinning Head is vital for efficient operation. The 995R should be positioned directly opposite an earthed point/plate. Non-conductive materials passing between the Pinning Head and earth will be pinned together. The Pinning Head should typically be positioned 30 to 50mm away from the nearest earthed object but this is subject to set up conditions. If the IonCharge30 gives a TRIP error, the Pinning Head has been positioned too close to ground reference.



The Pinning Head should be positioned away from any other ground reference point. These may disrupt the ion stream and reduce the effectiveness of the Pinning Head and the degree of pinning achieved on the process material.



If the Pinning Head is positioned too close to the earth point, an intense blue haze will be seen between the emitter pin of the Pinning Head and the earth

point will be seen and result in a Trip Error alert on the IonCharge30. The Pinning Head should be repositioned further away from any earth point.

The High voltage system must be disconnected from the mains electrical supply before any adjustments to the position of the Pinning Head are made.

If the unit continues to trip then move the pinning head further from the earth point to prevent overload or consult with the manufacturer.

As this equipment may give an electrical shock if the pins are touched, the following procedure must be followed:

The supply voltage of the static generator 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 and operatives may gain access to the machine and our equipment there will be no danger of operatives receiving shocks.

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

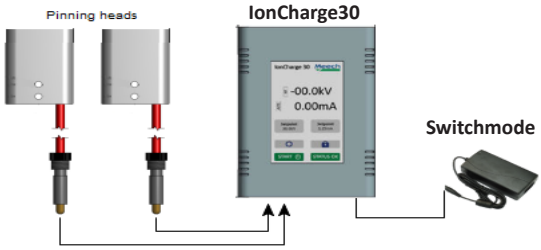
For permanently connected equipment a readily accessible disconnect device shall be incorporated in the fixed wiring. This disconnect device must have a minimum 3mm contact separation with appropriate current rating. For equipment fitted with a plug, the socket outlet shall be installed near the equipment and shall be easily accessible.

Connection of a Model 995R to a Meech IonCharge30 Static Generator

- Insert the plug of the pinning head into the High Voltage Connection Socket of the generator.
- Hold the conduit of the generator bar and tighten the fitting by hand until secure.
- If fitting two pinning heads, remove the red plug from the second High Voltage Connection Socket and fit the second pinning head in a similar way.
- Connect the electrical supply to the generator via the 24V socket on the rear of the unit using the 24V Power Cable.
- Switch on the electrical supply to the IonCharge30 Static Generator.

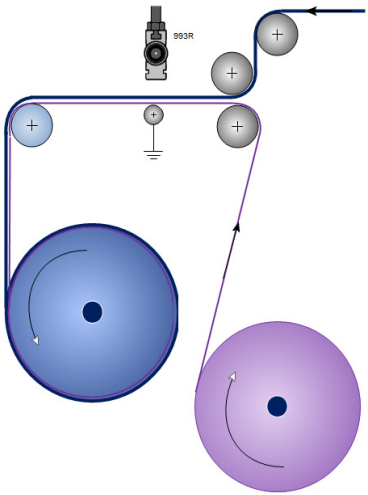
Operation

A typical charging system comprises one or more Pinning Heads connected to a Meech static generator (Model IonCharge30).



The static generator converts the primary electricity supply into a high voltage DC output. The Pinning Heads are connected to this output by means of a 30kV rated HV cable.

The resistively coupled electrodes of the Pinning Head are energised by the high voltage DC, supplied by the generator. The electrodes emit this energy in the form of a corona discharge. This electrical discharge creates an ion stream of a single polarity (defined by the type of static generator from which it is operating). Non-conductive materials passing through the ion stream, between the emitters of the head and a grounded plate, take on the same electrical charge and adhere to the ground plate (see below).



Maintenance

Pinning heads require periodic cleaning. During normal operation, dirt will buildup on the emitter pins and upon the body of the ioniser. This will cause a reduction in performance.

Before cleaning, ensure that the static generator is switched off. Emitter pins can be cleaned very effectively with a brush. A dry toothbrush is ideal.

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

Let dry for a minute and turn back on.

Note: The pinning head should not be washed down.

Fault Finding

Refer to IonCharge30 Operating Manual for fault finding instructions.

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. High voltage electrical equipment should not make contact with water. Should such an event occur, disconnect immediately and return equipment to the manufacturer for inspection.

The Model 995R pinning head forms part of a system, comprising of the pinning head and a static generator.

To verify where a fault may have occurred it is important to test each item of the system individually. Should more than one pinning head be connected to a power unit, these must be tested individually.

To check the ionising bar follow the procedure detailed below.

Switch off the electrical supply to the system and disconnect the IEC plug.

Follow the fault testing procedure found in the IonCharge30 Operating Manual.

If the voltage is below 4.0 kV then the bar should be returned to Meech for service and/or repair.

If there is more than one bar to test, disconnect the first item and repeat the above steps with subsequent bars.

Technical Construction

	4P2R	8P2R	12P2R
Operating Voltage	30kV DC		
Operating Current	0.25mA (stabilised)		
Operating Polarity	Either +VE or -VE		
Max Temperature	60°C		
Weight	410gms	460gms	510gms
Cable	2 metres of HV cable in flexible plastic conduit as standard, longer lengths can be specified when ordering.		
Construction	PTFE extrusion, titanium emitter pins		
Dimensions (W x H x D)	65x30x50	107x30x50	144x25x50
Suitable Power Supply	Meech IonCharge30		

Repairs And Warranty

The 995R Pinning Head 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 pinning head 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.

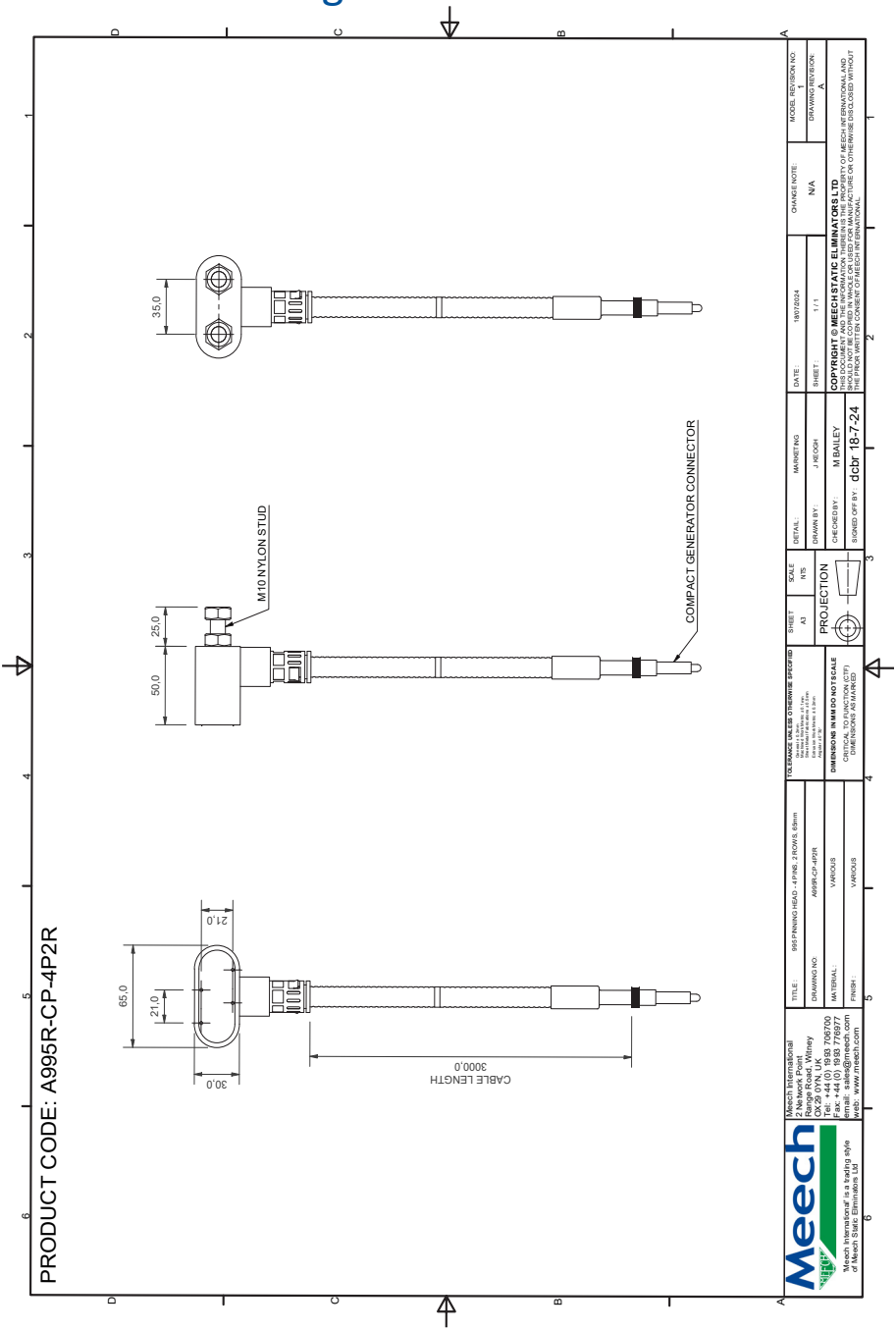
Field repairs should not be undertaken during the warranty period. Repair attempts by unqualified personnel will invalidate the warranty.

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.

Technical Drawing



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