1 # EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3 EC - Type Examination Certificate Number: **Baseefa03ATEX0564X**

4 Equipment or Protective System: **ANTISTATIC BAR MODEL 910 Ex**

5 Manufacturer: **MEECH STATIC ELIMINATORS LTD**

6 Address: **2 Network Point, Range Road, Witney, Oxfordshire, OX29 0YD**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa (2001) Ltd. Notified body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No. **03(C)0090**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + Amds 1 & 2 **EN 50028: 1987 + Amd 1**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

Ⓔx II 2 G **Gas Group IIA** **Temperature Class T6**

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. **1402** Project File No. **03/0090**

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa (2001) Ltd.

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13 # Schedule

14 ## Certificate Number Baseefa03ATEX0564X

15 Description of Equipment or Protective System

The Antistatic Bar Model 910Ex, rated at up to 7kV 50/60Hz, is designed for the elimination of electrostatic problems associated with the processing of highly resistive web materials. The unit is intended for use with Group IIA gases and has a Temperature Classification of T6. The bar is available in active lengths from 100mm to 3000mm in 20mm increments and comprises the following parts:

- an aluminium extruded hollow section bar
- active electrode moulded assemblies
- aluminium entry block
- aluminium termination block
- insulated end stop and through block
- flexible conduit and cable entry device
- high voltage cable

The active electrodes, in the form of a coil spring of 15 turns of stainless steel wire moulded in polyethylene, are located in the aluminium hollow section bar. They slide over and are capacitively coupled to, the high voltage supply cable. Each end of the coil spring is finished in a straight length which protrudes from the polyethylene moulding forming the discharge points of the bar.

A flexible steel conduit is fixed to the aluminium entry block by means of a threaded cable entry device. The steel conduit provides mechanical protection for the high voltage cable and earthing conductor, which is suitably fixed to the aluminium hollow section bar.

The secondary insulation of the high voltage cable is removed for the length of cable within the active length of the bar. The exposed end of the cable is closed by a moulded polyethylene end stop, sealed to the cable by an epoxy cement. A blank through end stop at the entry end provides appropriate location for the active electrode assembly within the aluminium hollow section bar.

The entry and termination blocks are completely filled with a polyurethane encapsulating compound.

Mounting of the bar is by means of pressed in M4 studs fixed to the extruded aluminium hollow section bar.

Variation 0.1

Use of alternative high voltage cables. The cables are Rowe Industries AWM Style 3239 and Sumitomo Type TV-30 XLHDPE. For these cables, the outer sheath is not removed when installing the cable within the bar.

Variation 0.2

Optional replacement of the aluminium termination block with a plastic moulding.

Variation 0.3

Optional reduction in size of the blank through end stop, to permit any length from 1mm to 40mm.

Variation 0.4

Alternative cable entry arrangements to the aluminium entry block, when using Rowe Industries AWM Style 3239 and Sumitomo Type TV-30 XLHDPE cables.

16 Report Number

03(C)0090

17 Special Conditions for Safe Use

1. The 910Ex antistatic bar shall be used in conjunction with only power supplies Meech Types 903 or 904 as defined in drawings DMEE025, issue 0, dated 20.9.94 or CD403235.
2. The bar shall be installed according to the manufacturer's installation instructions - Model 910EX Bar Shockless AC Eliminator, issue 5, dated 23/9/03.
3. The user must determine, in consultation with the manufacturer, the suitability of the apparatus for use with particular solvents.
4. For Variation 0.2, the plastic moulding must be protected from impact.

18 Essential Health and Safety Requirements

As follows, in addition to those covered by the standards at item 9.

Clause	Subject	Compliance
1.2.7	Protection Against Other Hazards	Baseefa Report 03(C)0090, Clause 4.3.1
1.3.1	Hazards Arising From Different Ignition Sources	Baseefa Report 03(C)0090, Clause 4.3.2

19 Drawings and Documents

Number	Issue	Date	Description
dmee044(A)	2	04.08.03	General Arrangement
dmee044(B)	3	04.08.03	Parts List
dmee045	2	04.08.03	Sectional Arrangement
dmee046	2	04.08.03	Aluminium Bar Extrusion
dmee047	3	04.08.03	Inlet and Termination Blocks
dmee048	2	04.08.03	Flexible Conduit
dmee049	2	04.08.03	Swivel Joint Cable Entry Device
dmee050	4	04.07.03	HV Cable Specification
dmee057	2	04.08.03	Earth Cable Specification
dmee051	2	04.08.03	Active Electrode Detail
dmee052	2	04.08.03	Blank End Stop
dmee054	2	04.08.03	Through End Block
dmee053	2	04.08.03	Encapsulant Specification
dmee058	2	04.08.03	Epoxy Resin Specification
dmee055	2	04.08.03	Fasteners Detail
dmee056	2	04.08.03	Eyelet Detail
dmee0295	3	23.09.03	ATEX Label
dmee060	2	04.08.03	Mounting Pin
dmee0228	2	04.08.03	Electrode Coating Detail

Number	Issue	Date	Description
dmee0277pl	4	24.06.03	910Ex Bar Build Options
dmee0281	2	20.05.03	Ex TT Block/Cap

List of certificates covered by Baseefa ATEX QA Notification: 1402

held by: **Meech Static Eliminators Limited**

Baseefa03ATEX0564X

Date: 03 October 2003