IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx BAS 05.0081X** Issue No.: **1**

Status: **Current**

Date of Issue: **2006-11-28** Page **1** of **4**

Applicant: **LMK Thermosafe LTD**
10/12 Spring Rise
Falconer Road
Haverhill
Suffolk
CB9 7XU
United Kingdom

Electrical Apparatus: **Thermosafe Type A and Type B Drum Heater**
Optional accessory: **'Top Hat' Drum Heater Cover Accessory**

Type of Protection: **Types of protection 'e' and 'tD'**

Marking: **IECEx BAS 05.0081X**
Ex e tD II T*
*** see schedule for range of temperature classification options**

Approved for issue on behalf of the IECEx Certification Body: R S Sinclair

Position: Managing Director

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

Baseefa (2001) Ltd.
Rockhead Business Park
Staden Lane
Buxton
Derbyshire
SK17 9RZ
United Kingdom

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Manufacturer: **LMK Thermosafe Limited**
10/12 Spring Rise
Falconer Road
Haverhill
Suffolk
CB9 7XU
United Kingdom

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacture'rs quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:
The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-7 : 2001 Edition: 3	Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety 'e'
IEC 61241-0 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-1 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

GB/BAS/ExTR06.0077/01

Quality Assessment Report:

GB/BAS/QAR06.0067/00

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

The Thermosafe Induction Heater Type A is intended for heating the contents of a steel drum by induction. The Thermosafe Induction Heater Type B is a smaller version of the Type A heater, approximately half the height of a full size drum. It works in an identical manner, intended for heating the contents of a steel drum by induction. A Type A or Type B heater may be used on their own in order to heat a single drum with a capacity of 45 gallons (55 US gallons) / 210 litres. Alternatively, two Type B heaters may be stacked one on top of the other in order to heat a single drum of capacity 45 gallons (55 US gallons) / 210 litres.

The construction of both Thermosafe models takes the form of a cylinder which is open at both ends, the cylinder being of such a size that it will fit snugly around the diameter of an ISO 15750 drum or equivalent.

The cylinder is formed of an inner and outer concentric shell, each manufactured from an impregnated glass fibre mat. The two shells are bonded together with a winding in between.

Connections between the end of the winding and the supply cable are made in one of a number of terminal enclosures coded II 2 GD EEx e II T6 IP66. The supply cable entry is via an ATEX certified gland with a minimum ingress protection rating of IP66. The earth terminal in the certified terminal enclosure need not be connected as this is a double insulated apparatus.

The Thermosafe 'Top Hat' Drum Heater Cover Accessory consists of an impregnated glass fibre cover which is designed to sit snugly around the outer diameter and across the upper end of a drum, sitting on top of either Thermosafe drum heater. This accessory is intended to limit heat losses at the upper end of the drum being heated.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The apparatus must be fed from a supply having close excess current protection
2. The apparatus is certified for the purpose of heating magnetic steel drums of capacity 45 gallons / 55 US gallons / 210 litres with the temperature class dependent on the voltage as shown in the table annexed. The apparatus is not intended for use with any other ferromagnetic substance.
3. The apparatus may be used for heating smaller magnetic steel drums of capacity up to 45 gallons / 55 US gallons / 210 litres. In this arrangement, the Type A Thermosafe may be used at voltages up to 240 Volts and the Type B at up to 120 Volts. The temperature classification in all cases is T3 (170°C) T170° C if the 'Top Hat' drum heater cover accessory is not used. The temperature classification is T3 T200°C in all cases if the 'Top Hat' drum heater cover is used.
4. Additionally, plastic or non-magnetic metallic drums or containers may be used; in this arrangement the unit acts simply as a resistance heater. With these drums the Type A Thermosafe drum heater may be used at voltages up to 127 Volts. The Type B Thermosafe drum heater may be used with these drums at voltages up to 59 Volts. The Temperature Classification in all cases is 170°C T3 T170°C if the 'Top Hat' drum heater cover is not used. The Temperature Classification is T3 T200°C in all cases if the 'Top Hat' drum heater cover is used.
5. The apparatus must only be switched on whenever a drum is fitted
6. The supply cable must be appropriate for the current and the mechanical and chemical environment in which it is used.
7. Precautions must be taken to ensure that the drums do not become pressurised during heating.
8. Any release of gas during heating must be handled by appropriate ventilation.
9. The installer / user must ensure that precautions are taken to prevent unwanted re-heating after a power failure.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 1.1

Corrections to the original text in “Equipment” and “Conditions of Certification” and re-issue of the Annex.

Annexe: IECEx BAS 05.0081X Annex Issue 1.pdf