[1] # EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**

[3] EU-Type Examination Certificate Number: **DEMKO 08 ATEX 0726988X Rev. 18**

[4] Product: **Electric Vibrating Motors, Type EX, SGX, SG2X, SG3X, SG4X, SG5X, and SG5HDX**

[5] Manufacturer: **Derrick Mfg. Corporation**

[6] Address: **590 Duke Road, Buffalo, NY 14225, USA**

[7] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report no. **US/UL/ExTR13.0098/13.**

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

**EN IEC 60079-0:2018** **EN 60079-1:2014** **EN 60079-31:2014**

Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule.

[10] If the sign "**X**" is placed after the certificate number, it indicates that the product is subject to the “Specific Conditions of Use” listed under item 17 of this certificate.

[11] This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.

[12] The marking of the product shall include the following (marking is provided in the Schedule as a part of item 15, if applicable):

**Ex II 2 G Ex db IIB T3 Gb (EX, SGX, SG2X, SG3X, SG4X, SG5X, and SG5HDX)**

**Ex II 2 D Ex tb IIIC T200°C Db (SGX, SG2X, SG3X, SG4X, SG5X, and SG5HDX)**

---

**Certification Manager**
Thomas Wilson

This is to certify that the sample(s) of the Product described herein (“Certified Product”) has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL’s prior written approval.

**Date of issue:** 2008-04-08
**Re-issued:** 2025-01-16

**Notified Body** UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com

[13] [14]

# Schedule
# EU-TYPE EXAMINATION CERTIFICATE No.
## DEMKO 08 ATEX 0726988X Rev. 18

[15] Description of Product

The series EX, SGX, SG2X, SG3X, SG4X, SG5X, and SG5HDX motors are totally enclosed non-ventilated industrial flameproof vibrating motor intended for continuous operation. Optionally, the series SGX, SG2X, SG3X, SG4X, SG5X, and SG5HDX motors are totally enclosed non-ventilated industrial flameproof and dust ignition protection by enclosure vibrating motors intended for continuous operation. The motors are provided with integral mounting pads and self-contained eccentric weights which Please note that the vibrators marked with 'tb' shall not utilize windows.

Nomenclature for type EX, SGX, SG2X, SG3X, SG4X, SG5X, and SG5HDX are as follows:

| EX | -230/460 | -5 | -003 |
|---|---|---|---|
| I | II | III | IV |

I – Series Designation

EX - EX series
SGX - SGX series
SG2X - SG2X series
SG3X – SG3X series
SG4X – SG4X series
SG5X – SG5X series
SG5HDX – SG5HDX series

II – Supply Voltage Rating

-215/220 - 215/220 VAC
-230 – 215/220/230/240 VAC
-230/240 -230/240 VAC
-380/400 -380/400 VAC
-400 – 380/400/415 VAC
-415 - 415 VAC
-440 - 440 VAC
-460 – 440/460/480 VAC
-460/480 - 460/480 VAC
-500/525 – 500/525 VAC
-575/600 - 575/600 VAC
-690 - 690/700 VAC

III – Frequency Rating (50 Hz or 60 Hz or variable frequency)

-5 – 50 Hertz Sinusoidal Power or 30-60 Hz Constant Torque, Frequency Converter Use
-6 – 60 Hertz Sinusoidal Power or 30-60 Hz Constant Torque, Frequency Converter Use

IV - Certified Designation

-003 – ATEX Constant
-014 – NEC/CEC/ATEX/IECEx Constant (Explosionproof and Flameproof only)
-016 – NEC/CEC/ATEX/IECEx Constant (Explosionproof, flameproof, and dust ignition protection by enclosure)

Temperature range

| Ambient Temperature Range, °C | Current, A | Temperature Class |
|---|---|---|
| –20°C to 55°C | 5.2 | T3, T200°C |
| –20°C to 40°C | 8.7 | T3, T200°C |

Electrical data
215/220 VAC, 8.7 A Max
215/220/230/240 VAC, 8.7 A Max
230/240 VAC, 8.7 A Max
380/400 VAC, 8.7 A Max
380/400/415 VAC, 8.7 A Max
415 VAC, 8.7 A Max
440 VAC, 8.7 A Max
440/460/480 VAC, 8.7 A Max
460/480 VAC, 8.7 A Max
500/525 VAC, 8.7 A Max
575/600 VAC, 8.7 A Max
690/700 VAC, 8.7 A Max

[13] [14]

# Schedule
# EU-TYPE EXAMINATION CERTIFICATE No.
## DEMKO 08 ATEX 0726988X Rev. 18

IP Code (Ingress Protection)
IP66*
6 = Dust Protection – No ingress of dust; complete protection against contact.
6 = Water Protection – Water projected in powerful jets (12.5 mm nozzle) against the enclosure from any direction shall have no harmful effects.
*Please note that while not 'tb', the EX motor can be marked for unclassified IP66.

Installation Instructions
Before opening the enclosure in a flammable atmosphere, the circuits must be interrupted.

The certification applies to equipment with and without cable glands and cables. All cable entry devices, elbows, and blanking elements shall be ATEX certified in type of explosion protection flameproof enclosure "db" and dust ignition protection by enclosure 'tb', suitable for the conditions of use and correctly installed.

Unused apertures shall be closed with ATEX certified suitable blanking elements.

Vibrators having ATEX Certification may be repaired only to the extent that the repair does not compromise the flameproof safety aspects of the enclosure. Consequently, repair is limited to parts external to the flameproof enclosure. All other repairs shall be performed at Derrick Corporation, or a Derrick approved ATEX authorized repair facility.

Vibrators with dust ignition protection by enclosure, 'tb', protection shall not be opened for installation and are to be marked "Warning – Do not open".

Routine tests
N/A

[16] Descriptive Documents
The scheduled drawings are listed in the report no. provided under item no. [ 8 ] on page 1 of this EU-Type Examination Certificate.

[17] Specific conditions of use:

- Flameproof joints are other than those specified in Table 1 of EN 60079-1. Contact Derrick for joint dimensions.
- Warning - To minimize the risk of electrostatic discharge, adequate earthing/grounding must be maintained.
- For motors for use with a frequency converter, use of the 145 ± 5°C thermostat is mandatory for appropriate direct thermal protection and marking of T3 temperature code.
- Vibrators with dust ignition protection by enclosure, 'tb', protection shall not be opened for installation and are to be marked "Warning – Do not open".

[18] Essential Health and Safety Requirements
The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information
The series EX, SGX, SG2X, SG3X, SG4X, SG5X, and SG5HDX motors have in addition passed the tests for Ingress Protection to IP 66 in accordance with EN60529:1991+A1:2000+A2:2013 for unclassified locations.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.