



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.:	<b>IECEX FMG 19.0013X</b>	Page 1 of 6	<u>Certificate history:</u> Issue 0 (2019-08-11)
Status:	<b>Current</b>	Issue No: 1	
Date of Issue:	2020-10-15		
Applicant:	<b>Tuthill Transfer Systems</b> 8825 Aviation Drive Fort Wayne IN 46809 <b>United States of America</b>		
Equipment:	<b>Rotary Vane Petrol Pumps; FR1200 / SD1200 / FR2400 / FR4200 / FR4400 / FR700</b>		
Optional accessory:			
Type of Protection:	<b>Flameproof "d"</b>		
Marking:	<b>Ex db IIA T4...T6 Gb</b>		

Approved for issue on behalf of the IECEx  
Certification Body:

**J. E. Marquedant**

Position:

**VP, Manager - Electrical Systems**

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 [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**FM Approvals LLC**  
1151 Boston-Providence Turnpike  
Norwood, MA 02062  
United States of America





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Manufacturer: **Tuthill Transfer Systems**  
8825 Aviation Drive  
Fort Wayne IN 46809  
**United States of America**

Additional  
manufacturing  
locations:

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 manufacturer's 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 equipment 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 60079-0:2017** Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

**IEC 60079-1:2014-06** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

This Certificate **does not** indicate compliance with 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 Reports:

[US/FMG/ExTR19.0016/00](#)

[US/FMG/ExTR19.0016/01](#)

Quality Assessment Report:

[US/FMG/QAR07.0002/04](#)



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

### Series FR1200 Ex db IIA T6 Gb

FR1205HE – Basic pump, nozzle, suction pipe

FR1210HE – Basic pump, hose, nozzle, suction pipe

FR1210HEA – Basic pump, hose, automatic nozzle, suction pipe

FR1211HE – Basic pump, hose, nozzle, suction pipe, gallon meter

FR1211HEA – Basic pump, hose, automatic nozzle, suction pipe, gallon meter

FR1211HEL – Basic pump, hose, nozzle, suction pipe, litre meter

FR1211HELA – Basic pump, hose, automatic nozzle, suction pipe, litre meter

### Series SD1200 Ex db IIA T6 Gb

SD1202HE – Basic pump, hose, manual nozzle, suction pipe

SD1202HEA – Basic pump, hose, automatic nozzle, suction pipe

SD1205HE – Basic pump

### Series FR2400 Ex db IIA T6 Gb

FR2405HE – Basic pump

FR2410HE – Basic pump, hose, nozzle, suction pipe

FR2410HEA – Basic pump, hose, automatic nozzle, suction pipe

FR2411HE – Basic pump, hose, nozzle, suction pipe, gallon meter

FR2411HEA – Basic pump, hose, automatic nozzle, suction pipe, gallon meter

FR2411HEL – Basic pump, hose, nozzle, suction pipe, litre meter

FR2411HELA – Basic pump, hose, automatic nozzle, suction pipe, litre meter

## SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Consult the manufacturer if dimensional information on the flameproof joints is necessary.
2. ISO Class 8.8, M6 hex-head screws (Yield Stress 640 MPa) shall be used to replace the FR700 Series terminal cover fasteners.
3. ISO Class 10.9, M8 hex-head screws (Yield Stress 940 MPa) shall be used to replace the FR700 Series motor tie-rod fasteners.
4. ISO Class 4.6, M5 socket-head screws (Yield Stress 240 MPa) shall be used to replace the DC Motor terminal cover fasteners.
5. ISO Class 8.8, M6 socket-head screws (Yield Stress 640 MPa) shall be used to replace the DC Motor tie-rod fasteners.
6. An electrically conductive hose and nozzle must be used with flammable liquids. To minimize static electricity buildup, always keep the nozzle in contact with the container being filled during the fueling process.



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## Equipment (continued):

### Series **FR4200** Ex db IIA T5 Gb

FR4205HE – Basic pump

FR4210HE – Basic pump, hose, nozzle, suction pipe

FR4210HEB – Basic pump, hose, high flow automatic nozzle, suction pipe

FR4211HE – Basic pump, hose, nozzle, suction pipe, gallon meter

FR4211HEL – Basic pump, hose, nozzle, suction pipe, litre meter

FR4211HEB – Basic pump, hose, high flow auto nozzle, suction pipe, gallon meter

FR4211HEBL – Basic pump, hose, high flow auto nozzle, suction pipe, litre meter

### Series **FR4400** Ex db IIA T5 Gb

FR4405HE – Basic pump

FR4410HE – Basic pump, hose, nozzle, suction pipe

FR4410HEB – Basic pump, hose, high flow automatic nozzle, suction pipe

FR4411HE – Basic pump, hose, nozzle, suction pipe, gallon meter

FR4411HEL – Basic pump, hose, nozzle, suction pipe, litre meter

FR4411HEB – Basic pump, hose, high flow auto nozzle, suction pipe, gallon meter

FR4411HEBL – Basic pump, hose, high flow auto nozzle, suction pipe, litre meter

### Series **FR700** Ex db IIA T4 Gb

FR705VE – Basic pump

FR700VE – Basic pump, nozzle, hose

FR700VEA – Basic pump, hose, automatic nozzle

FR701VE – Basic pump, hose, nozzle, gallon meter

FR701VEL – Basic pump, nozzle, hose, litre meter

FR701VEA – Basic pump, automatic nozzle, hose, gallon meter

FR701VEAL – Basic pump, automatic nozzle, hose, litre meter

FR708VER – Basic cabinet pump, gallon meter

FR708VELR – Basic cabinet pump, litre meter

FR708VERU – Basic cabinet pump, gallon meter, universal boot

FR708VELRU – Basic cabinet pump, litre meter, universal boot

FR702VER – Basic cabinet pump, gallon meter, hose, nozzle

FR702VELR – Basic cabinet pump, litre meter, hose, nozzle

FR702VERU – Basic cabinet pump, gallon meter, hose, automatic nozzle, universal boot

FR702VELRU – Basic cabinet pump, litre meter, hose, automatic nozzle, universal boot

FR710VE - 1" inlet/outlet basic pump, hose automatic nozzle



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FR711VEL - 1" inlet/outlet basic pump, hose automatic nozzle, litre meter

FR715VE - 1" inlet/outlet basic pump

FR715VEL - 1" inlet/outlet basic pump, litre meter

FR705VEL – Basic pump, litre meter

FR713VE – Basic pump for remote installation (minus nozzle boot and switch lever)



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

Supplement 01: Evaluation of revised terminal compartment and revised flamepath dimensions for motor compartment for dc motors FR1200, FR2400, FR4200, and FR4400. The check valve for the FR700 has been relocated from the outlet to the inlet.