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Czech

INSPECTION CERTIFICATE

File number 11.465.617

Issued according to EN ISO/IEC 17020 to the organization:

FlowMont s.r.o.
Ohradní 1087/63
140 00, Praha 4
Czech Republic
CRN:24783722

On the basis of results conducted 07. 12. 2017, which are listed under Inspection report of TÜV SÜD Czech file No.: 11.465.606 we hereby certify the conformity of the installation implementation and testing procedures indicated below:

Name: **Implementation and testing procedures of dispensing pumps for windshield washer fluids and AdBlue V3H XX.X**

with the provisions of the standard EN 13617-1: 2012, in the scope of chapters 6.2.1 and 6.2.2.1.

Valid conditions:

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in Ostrava, on 3 January 2018

TÜV SÜD Czech s.r.o.

On behalf of TÜV SÜD Czech s.r.o. : Ing. Michal Svrček

Czech

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INSPECTION REPORT

reference number 11.465.606

issued as per ČSN EN ISO/IEC 17020

Inspection purpose: **the inspection of the implementation and testing procedures of dispensing pumps for windshield washer fluids and AdBlue V3H XX.X**

Customer:	**FlowMont s.r.o.** **Ohradní 1087/63** **140 00, Praha 4** **Czech Republic** **CRN: 24783722**
Order no., date:	**177H-2017 of 24 November 2017**
Contract TÜV SÜD Czech s.r.o.:	**5401709336**

The implementation and testing procedures concerning the equipment to be assessed

Name:	**The inspection of the implementation and testing procedures of dispensing pumps for windshield washer fluids and AdBlue V3H XX.X**
Intended use:	**The dispensing system is designed for the installation in the outdoor environment, the environmental class according to OIML D11 C** **The service fluid dispensing systems, type series FlowMont VH3 XX.X, with an electronic counter of delivery and price. It is intended to dispense electrically conductive fluids with a minimum conductivity of 5mS/cm^2 and with a flash point over 21 °C. They are designed for the installation in road gas stations, to the fleet premises, etc.** **The dispensing system must not be installed into potentially explosive atmospheres, zones 0, 1, 2, as specified in the standard ČSN EN 60079-10.** **The dispensing systems, type series FlowMont V3H XX.X, are designed as a central pressure system, where the flow source is a submersible pump located in a service tank; the service tank is an integral part of the dispensing system and it is fitted on the common frame of the dispensing system.**

Using a communication line, the dispensing pumps can be connected to the control system to be operated in the self-service mode. They can be operated either in the attended mode, or in the mode with a payment terminal; the terminal can be integrated into the system or a separate one.
The dispensing systems are structurally designed as self-supporting modular structures.

the basic elements of the dispensing system structures include:

- **Dispensing pump (dispenser)**
- **Tank cladding**
- **Service tank**
- **Supporting frame**

Marking:

- **Name, trademark and business address of the manufacturer FlowMont s.r.o., Praha, Czech Republic**
- **Data on the specification of the dispensing system application: Windshield washer fluid dispensing system**
- **Type**
- **The minimum delivery in the guaranteed accuracy [dm3]**
- **The maximum flow rate Qmax [dm3.min-1], for which the dispensing system is certified**
- **The minimum flow rate Qmin [dm3.min-1], for which the dispensing system is certified**
- **The maximum operating pressure pmax [MPa], specified for the operation of the dispensing system**
- **The minimum operating pressure pmin [MPa], specified for the operation of the dispensing system**
- **TAmb [°C], the range of the ambient temperature**
- **The type-approval of the meter by the metrological office and the number of the certificate issued by a notified body, CE-marking.**
- **The specific indication of explosion protection:**
  Ex II 2G IIB T3
- **Electric parameters, voltage of electronics and electric motor**
- **Serial number / year of manufacture, according to the records of the dispensing pump manufacturer**

The following standards and regulations were used as the specifications for the conformity assessment:

The inspection of the implementation and testing procedures of dispensing pumps for windshield washer fluids and AdBlue V3H XX.X
EN 13617-1: 2012, in the scope of chapters 6.2.1 and 6.2.2.1

and the following documentation:

- Order No. 177H-2017
- The installation, operation and maintenance instructions for the service tank of the windshield washer fluid dispensing system

- The EC type-examination certificate No. FTZÚ 11 ATEX 0054 for the Windshield Washer Fluid Dispensing Pump, type FlowControl V3H XX, issued by the NB 1026 - FTZÚ Ostrava Radvanice in Czech and English
- Amendment No. 1 to the EU-type certificate FTZÚ 11 ATEX 0054, issued by the NB 1026 - FTZÚ Ostrava Radvanice
- The opinion of the state-authorized testing laboratory No. 11/0023 - FTZÚ, AO 210, Ostrava Radvanice, on the assessment of suitability in terms of the use of the service tank of the EFC system - FC 1 windshield washer fluid dispensing system
- The EU-Type certificates No. TCM 141/16-5407 and No. TCM 141/17-5443, issued by ČMI (Czech Metrology Institute), the notified body No. 1383, for the metering system of the dispensing pump
- The installation, operation and maintenance instructions for the service fluid dispensing system FlowMont V3HXX
- The user and installation manual for the electronic counter ADP1/L, rev. 1.1
- The installation and operation instructions for the electromagnetic flow meter ModMAG M1000
- The implementation procedure of the windshield washer dispensing pump V3H1
- The assembling procedure of the body and wiring V3H1
- The sample assembly drawing of the pump FlowControl-V3H1
- The wiring diagram of the dispensing pump V3H1 (V3H A3 003)
- The inventory card of the pump V3H1, No. 00165
- The internal regulation governing the configuration procedures of the windshield washer fluid dispensing systems V3H, version 1-2017
- The form of check points of the V3H1 contract performance
- The sample of the report on the progress of routine electric tests and hydraulic tests according to chapters 6.2.1 and 6.2.2.1 of the standard EN 13617-1: 2012
- The EU Declaration of Conformity V3H - v. No. 6-2017, of 27 November 2017
- The report on the functional test concerning the RM module of 24 November 2017
- The table of pump type indication, including code explanations
- The calibration certificate of the Standard Measuring Tank No. 0013/321.13/16 and No. 0014/321.13/16 of 01/2016.
- The approval "Allgemeine bauaufsichtliche zulassung", No. Z-40.21-427, issued by DIBt, of 21 August 2014 for rotational-molded PE-LLD tanks, type Smart Home Base, volume 2800 L, manufactured by STORAGE Partners Sp. z. o.o.
- The approval "Allgemeine bauaufsichtliche zulassung", No. Z-40.21-319, issued by DIBt, of 16 May 2013, for blow-molded PE-HD tanks with an integrated drip tray, type KWT 750 I-C, 1000 I-C, 1000 I-R, 1500 I-R, volume 750 L, 1000 L and 1500 L, manufactured by ROTH Werke GmbH
- Records of attendance to the training for the staff of the company FlowMont s.r.o. of 02/2016
- The calibration sheet of the instrument for statutory inspection of electrical installations, issued on 6 September 2017, for the type UT595
- The certificate, reg. No. 10860/5/15/R-EZ-E2A of the engineering inspector, Mr. Kristián Mulidrán
- The certificate for the execution of works and installations on electrical equipment according to decree No. 50/78 Coll., sections 6, 7, 8, for Mr. K. Mulidrán
- The calibration sheet No. KL13486-17 for the deformation manometer of 23 November 2017.

Acts carried out

1. Checking the documentation, certificate of tests performed and random verification of check points in the procedures of implementation and testing of windshield washer fluid dispensing pumps with a selected item of the series V3HXX.X

2. The verification of electrical and hydraulic tests in the scope of chapters 6.2.1 and 6.2.2.1 of the standard EN 13617-1: 2012 on the selected item of the type series V3HXX.X

3. Photodocumentation

Inspection, measuring and testing equipment used

- Multimeter M3900, reg. No. PM-2125
- PU 194 Delta 10A, reg. No. PM-2193
- The instrument for measuring temperature and humidity ALMEMO 2290-4, reg. No. PM-2161
- Inspection measurement device Profitest 0100s, reg. No.: PM-2163
- HV test source HT 50530, reg. No. PM-2175

The instruments are subject to regular calibration

Inspection site and conditions

production hall at the site in Opava, Písecká 4
temperature 20.5 °C± 0.5 °C, humidity 58.9%±0.2 %

The Findings of the Inspection Performed on 07 December 2017

1. Checking the documentation of the implementation and testing procedures concerning the windshield washer fluid dispensing pumps, the selected type V3H1 MK. The order for Ing. David Hrbek. The serial number of the dispensing pump 06-2007. The documents listed and specified by the manufacturer in its implementation and testing procedures have been submitted.

   1.1. Checking the documentation for the selected type of dispensing pump demonstrated the conformity with the implementation and testing procedures prescribed by the manufacturer.

2. The verification of electrical and hydraulic tests in the scope of chapters 6.2.1 and 6.2.2.1 of the standard EN 13617-1: 2012 has been performed with the selected type V3H1 with the following result:

   2.1. Hydraulic tests

HYDRAULIC TESTS V3H1 Serial number: 06-2017			
TEST	REQUIREMENT	METHOD	RESULT
Pressurizing the system to the pressure value of 300 kPa	The pressure must not fall by 10 kPa for 2 seconds	6.2.2.1	passed
Tightness of the system at a flow rate of 2 L/min.	Without leakage after delivery of 150 L	-	passed

Tightness of the system at a flow rate of 8 L/min.	Without leakage after delivery of 150 L	-	passed

2.2. Electrical testing

2.1.1. Check of protective circuit continuity:
The protective circuit continuities between the supply terminal of the PE conductor and individual metal exposed conductive parts of the installation subject to the testing have been measured.
Measured with a test current of 10 A.

The highest measured value - 0.04 Ω

Estimation of measurement uncertainty:
Measurement uncertainty (extended): 3.6% (1.9 mΩ).

According to the article 6.1.9.1 of EN 13617, the measured value must be $R_p \leq 0.5$ Ω

The device has passed the test

2.1.2. Insulation resistance test:
The measurement of insulation resistance has been performed between the live part and the earthing terminal on the device. The measurement was performed with a test voltage of 500 V.

The lowest measured value - > 99 M Ω

Estimation of measurement uncertainty:
measurement uncertainty (extended): 4% (0.4 MΩ)

According to the article 6.1.9.2 of EN 13617, the measured resistance value must be > 1 MΩ

The device has passed the test

2.1.3. The resistance test of the dispensing nozzle
The resistance measurement of the dispensing nozzle has been performed between the protective earthing terminal and the dispensing nozzle. The measurement has been performed with a low-voltage ohmmeter.

The highest measured resistance value - 0.85 MΩ

Estimation of measurement uncertainty:
Measurement uncertainty (extended): 0.2 kΩ

The resistance of the dispensing nozzle to the ground must be lower than 1 MΩ

The device has passed the test

2.1.4. Voltage test

Test voltage 1000 V (acc. to 6.1.9.3 of EN 13617) applied between live parts and the PE terminal of the device.

During the test, no flashover or breakdown occurred

Estimation of measurement uncertainty:
N/A

The device has passed the test

2.3. The verification of electrical and hydraulic tests in the scope of chapters 6.2.1 and 6.2.2.1 of the standard EN 13617-1: 2012 demonstrated the conformity with the implementation and testing procedures prescribed by the manufacturer.

3. Photodocumentation

On the basis of the performed inspection, we provide the following

inspection conclusion:

Having checked the documents on the tests performed, on the random verification of check points in the manufacturer's documentation and check measurements, the conformity with the implementation and testing procedures indicated by the manufacturer concerning the windshield washer fluid dispensing pumps V3HXX.X with the provisions of chapters 6.2.1 and 6.2.2.1 of the standard 13617-1: 2012 has been demonstrated.

The above inspection conclusion is valid under the following conditions:

The inspection results contained herein apply only to the inspection subject under consideration. The inspection report may not be reproduced other than in full without the permission granted by TÜV SÜD Czech s.r.o. and the customer.

On the basis of this inspection report, the Inspection Certificate, reg. No. 11.465.617 has been issued.

Place: Ostrava, date: 20 December 2017

Inspector for TÜV SÜD Czech s.r.o.: **Ing. Jakub Orlík, Ing. Tomáš Liberda**

Head of TÜV SÜD Czech s.r.o business unit: **Ing. Michal Svrček**