



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 03ATEX9302X** Issue: **8**

4 Equipment: **Sump Pumps**

5 Applicant: **Flowserve Pumps GB Limited** **Flowserve Spain SLU**
Flowserve SIHI (Spain) S.L. **Flowserve SIHI (Spain) S.L.**

6 Address: **Hawton Lane, Balderton** **Av. Fuentemar 26-28**
Newark Notts, NG24 3BU, UK **28823 Coslada Spain**
Vereda de los Zapateros, C.P. 28223 **Avenida de Madrid 67, C.P. 28500**
Pozuelo de Alarcon, Madrid Spain **Arganda del Rey, Madrid Spain**

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

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN ISO 80079-36:2016 EN ISO 80079-37:2016

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 1G / 2G
Ex h IIC T1 to T6 Ga / Ex h IIC T1 to T6 Gb or Tamb = -80°C to +55°C



II 1G / 2D
Ex h IIC T1 to T6 Ga / Ex h IIIC T°C Db or Tamb = -80°C to +55°C



II 1G / 3G
Ex h IIC T1 to T6 Ga / Ex h IIC T1 to T6 Gc or Tamb = -80°C to +55°C



II 1G / 3D
Ex h IIC T1 to T6 Ga / Ex h IIIC T°C Dc Tamb = -80°C to +55°C

Project Number 80076228

Signed: J A May

Title: Director of Operations

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CSA Group Netherlands B.V.
Utrechtseweg 310,
6812 AR, Arnhem,
The Netherlands



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13 DESCRIPTION OF EQUIPMENT

The CPXV, CSP, ECPJ, JCP and WUJ Series Sump Pumps are flange mounted pumps that are designed to be fitted to a vessel or tank. The drive motor is located externally to the tank, the flange is fitted to the tank wall and a column, comprising shaft, bearings and support tube, connects the motor to the impeller in the pump unit.

The drive motor and external parts are Category 2 or 3 equipment as appropriate, suitably certified or provided with declarations of conformity against Directive 2014/34/EU. The pump unit is located beneath the surface of the liquid in the tank and therefore is not subject to the requirements of Directive 2014/34/EU. The column, shaft seals and bearings are located in the ullage space inside the tank and are Category 1 equipment

The bearings and seals are manufactured from polymer or other materials having a low coefficient of friction. In addition to pumping liquid from the tank, the impeller also forces a small amount of the liquid through small bore pipes to lubricate the bearings.

The shaft is sealed into the flange by a liquid flushed seal, a liquid flushed cartridge seal or a dry running seal.




To prevent debris from blocking the lubrication system a filter unit is fitted to the pump unit.

Variation 1 - This variation introduced the following changes:

- i. The addition of a new pump design, designation WUJ, this pump has:
 - A multi-stage thrust bearing assembly
 - A backstop transmission device that ensures shaft rotation in one direction only
 - Thrust bearing cooling fan assembly.
 - Different specific speed hydraulic assemblies
- ii. The modification of nameplate drawing J218/397, these changes are administrative and do not affect the aspects of the product that are relevant to explosion safety.
- iii. The equipment description to be changed to 'CPXV, CSP, ECPJ, JCP and WUJ Series Sump Pumps'.
- iv. The introduction of an alternative manufacturing site, Flowserve (Austria) GmbH, Industriestraße B6, 2345 Brunn am Gebirge, Austria.

Variation 2 - This variation introduced the following changes:

- i. The Applicant's name and address was changed from Flowserve Pump Division, Newark NG24 3EN, UK to Flowserve Pumps GB Limited, Hawton Lane, Balderton, Newark, Notts NG24 3BU, UK.
- ii. The marking was modified to re-introduce information that is relevant to its use in explosive dusts, in addition, the Categories have been amended to more clearly describe the actual application of the product, a history of the marking is listed below:

Original	Previous	Latest
 II 1/2 G D c IIC T4 II 1/3 G D c IIC T4 Ta -40°C to +40°C	 II 1/2 G c IIC T1 to T6 II 1/3 G c IIC T1 to T6 Tamb -80°C to +55°C	 II 1 G/2 G D c IIC T1 to T6 II 1 G/3 G D c IIC T1 to T6 Tamb -80°C to +55°C



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Variation 3 - This variation introduced the following changes:

- i. The fluid flushed single cartridge seal has been removed and "Stuffing box" was replaced by "Seal chamber".
- ii. The cyclone separator was replaced by a filtration device.
- iii. Additional strainer/filter details were provided.
- iv. Following appropriate re-assessment to demonstrate compliance with the requirements of the latest standards, EN 13463-1:2001 and EN 13463-5:2003 were replaced by EN 13463-1:2009 and EN 13463-5:2011.
- v. The equipment was assessed against the requirements of EN 13463-6:2005 for protection by control of ignition, this has introduced requirements for safety monitoring devices and necessitates the application of special conditions for safe use, consequently, an 'X' suffix was added to the certificate number. The markings were also updated to incorporate type of protection 'b'.
- vi. The products covered by this certificate were reviewed and, as defined by the manufacturer, the following list details the specific pumps that are now approved:

Model	Description
CPXV	Sump pump with line shaft bearings
CPXRV	Recessed impeller with back vanes
CPXVC	Cantilever sump pump standard or recessed impeller
Mark 3 Hydraulics Sump Pumps	CPXV, CPXVC or ESP3 Pumps
ECPJ	Impeller with front wear ring and back vanes
ECPJ-F	Recessed impeller
ECPJ-O	Semi-open impeller with back vanes
ECPJ-R	Impeller with front and back wear ring
ECPJ-R-H	Impeller with front and back wear ring and heated jacket
JCP	Impeller with front wear ring and back vanes, cantilever version
JCP-F	Recessed impeller, cantilever version
JCP-O	Semi-open impeller with back vanes, cantilever version
WUJ	Vertical multistage pump
WUJ-M	Medium head hydraulic
WUJ-L	Low head hydraulic
WUJ-R	Radial hydraulic
WUJ-H	High head hydraulic

Variation 4 - This variation introduced the following change:

- i. The recognition of the following additional manufacturing locations:

Flowserve SIHI (Spain) S.L.
Vereda de los Zapateros, E-28223
Pozuelo de Alarcon, Madrid
Spain

Flowserve SIHI (Spain) S.L.
Avenida de Madrid 67, E-28500
Arganda del Rey, Madrid
Spain



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Variation 5 - This variation introduced the following change:

- i. One of the certificate holders name and address has changed:

Flowserve (Austria) GmbH
Industriestraße B6
2345 Brunn am Gebirge
Austria

Flowserve Spain SLU
Av. Fuentemar 26-28
28823 Coslada
Spain

Variation 6 - This variation introduced the following change:

- i. After appropriate appraisal, EN13463-1:2009, EN 13463-5:2011 and EN 13463-6:2005 are replaced by EN ISO 80079-36:2016 and EN ISO 80079-37:2016, the marking was amended accordingly.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	15 August 2003	R53A10272A	The release of the prime certificate.
1	15 October 2004	V51V12271A	The re-issue of the prime certificate to permit: i The Sump Pumps to operate in an ambient temperature range of $-80\text{ }^{\circ}\text{C}$ to $+55\text{ }^{\circ}\text{C}$ and to modify the marking accordingly. ii The Sump Pumps to be marked with temperature classifications of T1 to T6. iii The inclusion of additional sizes to the CPXV and CPXRV sump pump range. iv The addition of Mark 3 and CSPRV sump pumps to the hydraulic series for cantilever and non-cantilever arrangements. v The standard number to be changed from prEN 13463-5:2003 to EN 13463-5:2003. vi The removal of the dust marking.
2	26 February 2008	R52A17677A	This Issue covers the following changes: <ul style="list-style-type: none">All previously issued certification was rationalised into a single certificate, Issue 2, Issues 0 and 1 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format. The introduction of Variation 1.
3	04 September 2009	R51A20884A	The introduction of Variation 2.
4	28 May 2013	R26485A/00	The introduction of Variation 3.



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Issue	Date	Report number	Comment
5	02 May 2017	R70080594A	This Issue covers the following changes: <ul style="list-style-type: none">• EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. <i>(In accordance with Article 41 of Directive 2014/34/EU, EC Type-Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)</i>• The introduction of Variation 4.
6	29 October 2019	0937	Transfer of certificate Sira 03ATEX9302X from Sira Certification Service to CSA Group Netherlands B.V.
7	01 November 2019	R80008615A	The introduction of Variation 5.
8	29 July 2021	R80076228A	The introduction of Variation 6.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

15.1 The user shall comply with the following restrictions when the pumps are fitted with safety monitoring devices, as identified by the application of type of protection 'b':

- i. The end user shall ensure that the equipment is fitted with temperature and flow monitoring devices where applicable, as defined by the manufacturer.
- ii. The temperature sensors shall be connected into the system such that in the event that the critical temperature is detected, the equipment is immediately disconnected and is required to be manually reset in order to restart the equipment.
- iii. Flow sensors shall be connected into the system such that detection of any drop in flow will render the equipment stopped via the control panel control circuit.
- iv. To ensure that the pump is adequately flooded with liquid, the end user shall ensure that the sump is fitted with liquid level monitoring to shut down the pump and avoid starting if the liquid level is below the minimum, as defined by the manufacturer.
- v. In cases where it is unsafe for the pump system to have uncontrolled shut down, the end user shall ensure that a manual control measure, as a result of a warning alarm, is applied. The facility to operate a warning alarm is provided by the manufacturer.
- vi. The Safety Operating Devices shall be functionally checked prior to use and then periodically according to the manufacturers' instructions.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF MANUFACTURE

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

Certificate Annexe



Certificate Number: Sira 03ATEX9302X

Equipment: Sump Pumps

Applicant: Flowserve Pumps GB Limited
Flowserve SIHI (Spain) S.L.

Flowserve (Austria) GmbH
Flowserve SIHI (Spain) S.L.

Issue 0

Drawing No.	Sheet	Rev.	Date	Description
B736/392	1 and 2	-	04 Jun 03	CPXV and ECPJ Sump Pumps
J218/397	1 of 1	-	08 Aug 03	Nameplates for ATEX Cat 1 Equipment

Issue 1

Drawing No	Sheet	Rev.	Date	Description
B736/392	1 and 2	B	13 Oct 04	CPXV and ECPJ Sump Pumps
J218/397	1 of 1	B	14 Sep 04	Nameplate

Issue 2

Drawing No.	Sheet	Rev.	Date (Sira stamp)	Description
B736/392	1 to 4	C	25 Feb 08	Flowserve Sump Pump Details For ATEX Category 1 Compliance
J218/397	1 of 1	C	25 Feb 08	Nameplate for ATEX Category 1 Equipment

Issue 3

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
J218/397	1 of 1	D	01 Sep 09	Nameplate for ATEX Category 1 Equipment

Issue 4

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
B736/392	1 to 4	D	08 Apr 13	Flowserve Sump Pump Details For ATEX Category 1 Compliance
J218/397	1 of 1	E	08 Apr 13	Nameplate For ATEX Category 1 Equipment

Issues 5, 6 and 7 No new drawings were introduced.

Issue 8.

Drawing	Sheets	Rev.	Date (Stamp)	Title
J218/397	1 of 1	G	15 Jul 21	NAME PLATE FOR ATEX CATEGORY 1 EQUIPMENT
B736/392	1 of 4	E	15 Jul 21	Flowserve Sump Pump Details For Category 1 Compliance
B736/392	2 of 4	E	15 Jul 21	Flowserve Sump Pump Details For Category 1 Compliance
B736/392	3 of 4	E	15 Jul 21	Flowserve Sump Pump Details For Category 1 Compliance
B736/392	4 of 4	E	15 Jul 21	Flowserve Sump Pump Details For Category 1 Compliance

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