1 # TYPE EXAMINATION CERTIFICATE

2 Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

3 Type Examination Certificate Number: **Sira 03ATEX9174X** Issue: **11**

4 Equipment: **VB, MR, #MS11 and H Centrifugal Fans**

5 Manufacturer: **Air Control Industries Limited**

6 Address: Weycroft Avenue, Millwey Rise Industrial Estate, Axminster EX13 5HU, UK

7 This product 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., certifies, based on voluntary assessment, 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 reports listed in item 16.2.

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

EN ISO 80079-36:2016 EN ISO 80079-37:2016 EN 14986:2024 EN IEC 60079-0:2018/A11:2024

Where additional criteria beyond those given here have been used, they are listed in 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 in item 17 of this certificate.

11 This Type Examination Certificate relates only to the technical design of the specified product in accordance with 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 this certificate.

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

VB, MR, #MS11 & H fan range

II 2 GD
Ex h IIB+H_2 T# Gb
Ex h IIIC T#°C Db

MS11 aluminium fan range

II 2G 3D
Ex h IIB+H_2 T# Gb
Ex h IIIC T#°C Dc

Ta -## °C to +### °C
The rated ambient temperature range will be applied by the Manufacturer and is dependent upon that marked on the selected motor or vibration sensor, as applicable, whichever is the most restrictive.
Process Temperature: Up to ### °C Max.
The rated process temperature will be applied by the Manufacturer as applicable.
Applicable to all above –
Lower categories/EPL can be marked depending upon specification.
The Manufacturer will apply the temperature class/maximum surface temperature based either on the rated process temperature, marked on the selected motor or vibration sensor as applicable, whichever is the higher.
The fans shall be marked with the equipment category, EPL and gas/dust subdivisions as detailed above or that marked on the selectec or vibration sensor, whichever is the most restrictive as applicable.

LNL Drying System

II 3 G
Ex h IIC T6 Gc

Signed:

Michelle Halliwell

Title: Senior Director of Operations

Date: 12 November 2025

13 # SCHEDULE

14 **Type Examination Certificate Number:** **Sire 13ATEX9174X** Issue: **11**

15 **Description:**

The VB, MR, #MS11 and H Centrifugal Fans are designed to provide air ventilation at flow rates up to 11000 m3/h. They comprise a centrifugal fan that is mounted on the shaft of a suitably certified motor and enclosed by a housing that is bolted to the motor. The centrifugal impellers are manufactured from aluminium, stainless steel or galvanised steel and are mounted on a hub that fits to the motor shaft. The fan housings are manufactured from mild steel, stainless steel or cast aluminium and may have flat air inlet plates or spun air inlet guides. There are various arrangements for both inlet and discharge guards and the provision for inlet filters which can either be supplied with the fan or selected and installed by the end user under a related specific condition of safe use. The equipment is designed to have suitable clearances between rotating and stationary parts but brass, copper or PTFE rubbing rings are included as a precaution against incendive sparking in the event of the fan striking the housing. Non-return valves can also be fitted if required; these consist of brass flapper plates that swivel in a stainless-steel housing.

The #MS11 type may have up to three centrifugal impellers; these are mounted on a shaft adaptor, and, with this option, the fan casing includes additional air guides to maximise efficiency.

The interior/exterior of the fans are up to EPL Gb/Db depending upon the specification. Types MS11 aluminium fan range are restricted to EPL Gb/Dc.

The EPL is derived from that applied to the fan itself or the supplied motor and if applicable vibration sensor, whilst the marked surface temperature or temperature classification will be based either on the specified process temperature rating, or that marked on the supplied motor and if applicable vibration sensor whichever is the higher.

An LNL drying system can also be provided with or without the centrifugal fans. The LNL drying system consists of a stainless-steel enclosure that houses ancillary drying equipment. The ancillary drying equipment, which incorporates jet plates, air knives, can dryers, cap dryers & neck dryers, emits and directs air in different ways and directions.

Variation 1 - This variation introduced the following changes:

i. It was recorded that the VB, MR and #MS11 Centrifugal fans comply with the requirements of prEN 14986:2005 and that for the assessment of the plastic air guides reference has also been made to CLC/TR 50404:2003.
ii. The use of plastic air guides was permitted as a feature of the #MS11 fan units when marked II 3 D; when the plastic air guides are fitted, fan units are also fitted with a suitable filter.
iii. The #MS11 fan units were allowed to be manufactured with up to 10 impellers.

Variation 2 - This variation introduced the following change:

i. The rubbing rings were allowed to be made from P.T.F.E. as an alternative to brass.

Variation 3 - This variation introduced the following changes:

i. The company address, formerly Silver Street, Chard, Somerset TA20 2AE, UK, was changed.
ii. The option to fit a brass heat spinner arrangement was endorsed.
iii. Following appropriate re-assessment to demonstrate compliance with the requirements of the latest standards, the documents originally listed in section 9, EN 13463-1:2001 and prEN 14986:2005, were replaced by those currently listed.

Variation 4 - This variation introduced the following change:

i. The option to fit an LNL drying system was endorsed, the marking was amended to recognise this change.

Variation 5 - This variation introduced the following change:

i. The markings, and standards list, have been amended to include the type of protection of constructional safety.

Variation 6 - This variation introduced the following changes:

i. The introduction of the H range of fans. The design of the H range fans utilises forward curved impellers as opposed to flat impellers used on the models already certified.
ii. Brass CZ121 was allowed to be used as an alternative to brass CZ108, consequently, a Condition of Manufacture is applied.
iii. The introduction fan types VBL4 and VBL5, these are a smaller version of the Type VBL6.
iv. Copper was allowed to be used as an alternative material for rubbing rings.
v. Ventilation flow rates were increased from 6000 m^3/h to 11000 m^3/h.
vi. The assessment standard EN 13463-5:2003 originally listed in Section 9 was replaced by EN 13463-5:2011.

Variation 7 - This variation introduced the following changes:

i. The inclusion of mild steel as an alternative fan case material for the VB and MR range of fans.
ii. The assessment and recognition of minor changes on the thickness of linings.
iii. The addition of the motor power ratings to the drawings with reference to the fan ranges covered under this certificate.

Variation 8 - This variation introduced the following changes:

i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, the standards previously listed in the certificate, EN 13463-1:2009, EN 13463-5:2011 and EN 14986:2007 are replaced by EN ISO 80079-36:2016, EN ISO 80079-37:2016 and EN 14986:2017 with the marking being updated and a specific condition of use being added.
ii. The MS/11/080 Fan impellor clearances were increased to ease assembly.
iii. The LNL drying system can now be installed without the fan or with the fan but remotely located. The marking was updated accordingly.
iv. The option of marking the fan as category 3 G D was permitted.
v. The description was modified to match that defined in new certification associated with these products.

Variation 9 - This variation introduced the following changes:

i. Introduction of a vibration monitoring option.
ii. Introduction of inspection hatches.
iii. Introduction of inlet plate seals.
iv. Change to liner materials and thickness.
v. Addition of heat spinner material.
vi. Addition of process temperature.
vii. Changes to marking label drawings.
viii. Addition of new model configurations.
ix. Removal of dimension table.
x. Removal of model configurations.
xi. Introduction of accessories.
xii. Controlled drawing update.

xiii. Merging of controlled drawings.
xiv. Addition of alternative fixings.
xv. Variation to impellor widths.
xvi. Update to the ignition hazard assessments, where applicable.
xvii. General updates to drawings.
xviii. Introduction of draining points.

Variation 10 - This variation introduced the following changes:

i. Recategorization of the 3MS11/168 stainless fan for use in Cat 2G/2D.
ii. Removal of specific fastener types from parts list tables.
iii. Removal of impeller clearance dimensions.
iv. Power rating of the VBL9(W) extended to 11KW.
v. Include assessment to IEC 60079-0.
vi. Update Standard from EN 14986:2017 to EN 14986:2024.

16 Drawings and documents:

16.1 Technical documents:

Refer to Certificate Annex.

16.2 Associated reports and certificate history:

Issue	Date	Report number	Comment
0	21 May 2003	R53A10033A	The release of the prime certificate.
1	07 March 2006	R51A14481A	The introduction of Variation 1.
2	27 September 2006	R51A15697A	The introduction of Variation 2.
3	06 October 2010	R22864A/00	This Issue covers the following changes: • All previously issued certification was rationalised into a single certificate, Issue 3, Issues 0 to 2 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 3.
4	02 July 2012	R26966A/00	The introduction of Variation 4.
5	06 December 2012	R29632A/00	The introduction of Variation 5.
6	14 March 2014	R30244A/00	The introduction of Variation 6.
7	26 August 2014	R70005750A	The introduction of Variation 7.
8	17 September 2018	R70162460A	This Issue covers the following changes: • Type Examination Certificate in accordance with 94/9/EC updated to EU-Type Examination Certificate in accordance with Directive 2014/34/EU. *(In accordance with Article 41 of Directive 2014/34/EU, 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 Type Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)* • The partial duplication of Variation 6 was removed; this modification is administrative and did not require any technical assessment. • The introduction of Variation 8.

Issue	Date	Report number	Comment
9	15 October 2019	0335	Transfer of certificate Sira 03ATEX9174X from Sira Certification Service to CSA Group Netherlands B.V.
10	15 November 2023	R80141791A	The introduction of Variation 9.
11	12 November 2025	R80245842A	The introduction of Variation 10.

17 **Specific conditions of use** (denoted by "X" after the certificate number)**:**

17.1 The equipment has non-conductive surfaces which are a potential electrostatic charging hazard - see the instructions for guidance.

17.2 For Category 2D (Zone 21) rated fans a vibration monitoring system is required.

When the equipment **IS fitted with a vibration sensor by the manufacturer** it must be connected to a control circuit that falls within the scope of a safety, controlling and regulating device as defined in and compliant with European Directive 2014/34/EU, and is covered by an appropriate EU Type Examination Certificate or Declaration of Conformity as appropriate. The control circuit must trip the supply to the fan motor when vibration levels according to ISO 14694:2003 are detected (see tabulated data below).

When the vibration sensor **IS NOT supplied by the manufacturer**, it must be fitted with a suitably certified vibration sensor which must be connected to a control circuit that falls within the scope of a safety, controlling and regulating device as defined in and compliant with European Directive 2014/34/EU, any vibration sensor and control circuit must be covered by an appropriate EU Type Examination Certificate or Declaration of Conformity as applicable. The control circuit must trip the supply to the fan motor when vibration levels according to ISO 14694:2003 are detected (see tabulated data below). The vibration sensor shall be located so as to detect vibration in the bearing/impeller. The mounting position and method shall not compromise any aspect of the motor or fan that contributes to compliance. If in doubt, please contact the manufacturer.

Condition	Fan-application Category (ISO 14694)	Rigidly Mounted (mm/s)	Flexibly Mounted (mm/s)
Start-up	BV-3	4.5	6.3
Alarm	BV-3	7.1	11.8
Shutdown	BV-3	9.9	12.5

17.3 Where a fan is supplied without an inlet filter and intended to be fitted with inlet ducting as part of a larger system the end user shall select and install a suitable filter to prevent the ingress of particles or objects which can cause ignition. In selecting a filter due consideration of any potential electrostatic charging cause by process flow must be taken into consideration.

18 **Essential health and safety requirements of Annex II** (EHSRs):

The relevant EHSRs that are not addressed by the standards listed in item 9 of this certificate have been identified and conformity of the product demonstrated in the reports listed in item 16.2.

19 **Remarks and additional information:**

The use of this certificate is subject to the regulations applicable to holders of CSA Group Netherlands B.V. certificates.

Compliance of the product with the applicable safety requirements of the relevant industrial standards has not been verified and is not covered by this certificate.

19.1 **Conditions of manufacture:**

19.1.1 The marked surface temperature or temperature classification will be based either on the values listed below based upon the rated process temperature, or that marked on the selected motor or vibration sensor, whichever is the higher.

Process temperature	Fan surface temp or temperature classification	
Up to 50°C	T85°C	T6
Up to 90°C	T135°C	T4
Up to 145°C	T200°C	T3

When selecting a suitably certified motor to form a motor/fan combination the manufacturer must ensure that the motor ambient temperature rating in service is not exceeded. The effect of any process temperature associated with the fan or local ambient temperature must be taken into account, any cooling effect of thermal insulation or heat spinning device may be considered as part of this evaluation. The manufacturer must ensure that any instructions for motor are supplied to the end user as part of the documentation package.

The ambient temperature range marking applied to the fans shall be based upon the stated ambient temperature rating of the installed motor or vibration sensor whichever is the most restrictive.

19.1.2 The fans shall be marked with the equipment category, EPL and gas/dust subdivisions as detailed in the certificate marking section or that marked on the selected motor or vibration sensor, whichever is the most restrictive as applicable.

19.1.3 The products covered by this certificate incorporate previously certified devices, it is the responsibility of the manufacturer to ensure that there has been no modifications or changes to the status of the certification of these devices which affects the validity of this certificate.

Item	Manufacturer	Certificate No	Key attributes
ABB Ability ™ Smart Sensor	ABB AS	IECEx PRE 19.0044X Issue 1 Presafe 19ATEX14930X Issue 0	Ex II 1 G D Ex ia IIC T4 Ga Ex ia IIIC T157°C Da T amb -40°C to +85°C

Also, the manufacturer must ensure that any instructions for the said equipment is supplied to the end user as part of the documentation package.

When installing the vibration sensor to form a motor/vibration sensor/fan combination the manufacturer must ensure that the vibration sensor ambient temperature rating of -40°C to +85°C in service is not exceeded. The effect of any process temperature associated with the fan or local ambient temperature must be taken into account, any cooling effect of thermal insulation or heat spinning device may be considered as part of this evaluation.

19.1.4 All impellors are subject to balancing to G6.3 to ISO 14694:2003 clauses 6 and 7.2. After assembly complete fans are subjected to balancing to verify a maximum seismic vibration limit for start up to clause 8.4 ISO 14694:2003.

19.1.5 As part of the manufacturing process all fan assemblies must be subjected to continuity testing to ensure that all conductive parts are electrically bonded to any protective bonding facility.

Certificate Annexe

Document History

Issue – 0

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
SK03/1242	1 of 6	4	30 Apr 03	General arrangement
SK03/1242	2 of 6	4	30 Apr 03	General arrangement – dimensions
SK03/1242	3 of 6	4	30 Apr 03	VB fan details
SK03/1242	4 of 6	4	30 Apr 03	2MS11 fan details
SK03/1242	5 of 6	4	30 Apr 03	Valve layout
SK03/1242	6 of 6	5	21 May 03	Label

Issue – 1

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
SK06/1767	1 and 2	2	30 Jan 06	Layout MS11F/080 Series

Issue – 2

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
SK03/1242	1 to 6	6	26 Sep 06	General Assembly 1MS11, VB & MR Fans

Issue – 3

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
SK03/1242	1 of 7	10	05 Oct 10	General arrangement
SK03/1242	2 of 7	10	05 Oct 10	General arrangement - dimensions
SK03/1242	3 of 7	10	05 Oct 10	VB Fan details
SK03/1242	4 of 7	10	05 Oct 10	2MS11 Fan details
SK03/1242	5 of 7	10	05 Oct 10	Valve layout
SK03/1242	6 of 7	10	05 Oct 10	Label
SK03/1242	7 of 7	10	05 Oct 10	Heat spinner arrangement

Issue – 4

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
SK12/2906	1 of 7	2	18 Jun 12	Outline ATEX Enclosure Sira
SK12/2906	2 of 7	2	18 Jun 12	Outline ATEX Dryers Sira
SK12/2906	3 of 7	2	18 Jun 12	Outline ATEX Dryers Sira
SK12/2906	4 of 7	2	18 Jun 12	Outline ATEX Dryers Sira
SK12/2906	5 of 7	2	18 Jun 12	Outline ATEX Dryers Sira
SK12/2906	6 of 7	2	18 Jun 12	Outline ATEX Dryers Sira
SK12/2906	7 of 7	3	18 Jun 12	Outline ATEX Dryers Sira (label)
SK12/2928/1	1 of 2	1	18 Jun 12	Outline LNL
SK12/2928/1	2 of 2	1	18 Jun 12	Outline LNL
SK12/2928/2	1 of 1	1	18 Jun 12	Outline Jetplates
SK12/2928/3	1 of 1	1	18 Jun 12	Outline Airknife All Type
SK12/2928/4	1 of 1	1	18 Jun 12	Outline Cap Dryer
SK12/2928/5	1 of 1	1	18 Jun 12	Neck Dryer Assembly
SK12/2928/6	1 of 1	1	18 Jun 12	Outline Can Dryers
SK12/2928/7	1 of 1	1	18 Jun 12	Outline Blower Enclosure

Drawing	Sheets	Rev.	Date (Stamp)	Title
SK12/2915	1 of 1	1	18 Jun 12	Outline ATEX Enclosure Sira

Issue – 5

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
SK03/1242	1 of 7	11	05 Dec 12	General arrangement
SK03/1242	2 of 7	11	05 Dec 12	General arrangement - dimensions
SK03/1242	3 of 7	11	05 Dec 12	VB Fan details
SK03/1242	4 of 7	11	05 Dec 12	2MS11 Fan details
SK03/1242	5 of 7	11	05 Dec 12	Valve layout
SK03/1242	6 of 7	11	05 Dec 12	Label
SK03/1242	7 of 7	11	05 Dec 12	Heat spinner arrangement

Issue – 6

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
SK03/1242	1 to 7	13	28 Feb 14	General Arrangement
SK06/1767	1 to 2	3	28 Feb 14	Layout MS11F/080 Series
SK13/3139	1 to 4	3	28 Feb 14	ATEX Certification – H Range Fan Layouts

Issue – 7

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
SK03/1242	1 to 7	15	22 Aug 14	ATEX Certification Fan Layouts

Issue – 8

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
SK03/1242	1 to 7	17	20 Mar 18	ATEX Certification Fan Layouts
SK06/1767	1 to 2	6	20 Mar 18	Layout MS11F/080 Series
SK12/2906	1 to 7	5	20 Mar 18	Outline ATEX Enclosure Sira
SK18/4584	1 of 1	1	20 Mar 18	Warning Label

Issue – 9 No drawings were introduced or revised.

Issue – 10

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
SK03/1242	1 to 12	23	08 Nov 23	EX CERTIFICATION FAN LAYOUTS
SK06/1767	1 to 3	10	08 Nov 23	EX-CERTIFICATION LAYOUT MS11 SERIES
SK12/2906	1 to 7	7	08 Nov 23	OUTLINE EX ENCLOSURE SIRA
SK12/2915	1 of 1	2	08 Nov 23	OUTLINE EX ENCLOSURE SIRA
SK12/2928/1	1 to 2	2	08 Nov 23	OUTLINE EX LNL
SK12/2928/2	1 of 1	2	08 Nov 23	OUTLINE EX JETPLATES
SK12/2928/3	1 of 1	2	08 Nov 23	OUTLINE EX AIRKNIFE ALL TYPES
SK12/2928/4	1 of 1	2	08 Nov 23	OUTLINE EX CAP DRYER
SK12/2928/5	1 of 1	2	08 Nov 23	OUTLINE EX NECK DRYER ASSEMBLY
SK12/2928/6	1 of 1	2	08 Nov 23	OUTLINE EX CAN DRYERS
SK12/2928/7	1 of 1	2	08 Nov 23	OUTLINE EX BLOWER ENCLOSURE
SK13/3139	1 to 5	8	08 Nov 23	EX CERTIFICATION - H RANGE FAN LAYOUTS
SK23-5805	1 to 3	1	08 Nov 23	EX CERTIFICATION LAYOUT MS11/168 SERIES
SK23-5816	1 to 4	1	08 Nov 23	EX CERTIFICATION FAN LAYOUTS

Issue – 11

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
SK03/1242	1 to 12	24	11 Jul 25	Ex Certification Fan Layouts
SK06/1767	1 to 3	11	11 Jul 25	Ex Certification Layout, MS11 Series
SK13/3139	1 to 5	9	11 Jul 25	EX Certification - H Range Fan Layouts
SK23/5805	1 to 3	2	11 Jul 25	Ex Certification Layout, MS11/168 Series
SK23/5816	1 to 4	2	11 Jul 25	EX Certification Fan Layouts