



1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 07ATEX1286** Issue: **4**

4 Equipment: **Compressor Assembly**

5 Applicant: **Stolway Pty Ltd**

6 Address: Warehouse 2
91-95 Montague St
Wollongong
NSW 2500
Australia

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 60079-0:2012+A11

EN 60079-1:2014

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 2 G
Ex db IIC T4...T3 Gb
Ta = -20°C to +60°C

Project Number 80021400

Signed: J A May

Title: Director of Operations

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



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

**Sira 07ATEX1286
Issue 4**

13 DESCRIPTION OF EQUIPMENT

The Compressor Assembly is designed for use as a terminal box and is welded to a refrigeration compressor housing at the point of exit of the sealed terminals associated with the compressor motor.

The apparatus comprises a cast iron base containing two M20/M25 cable entries; this base is welded to a mild steel adapter or extension sleeve for attachment to the compressor housing. The size of the adapter varies according to the two sizes of terminal arrangement. An aluminium screw cover with o-ring gasket provides access to the terminals. External connections are made via suitably certified and dimensioned cable entry devices.

Variation 1 - This variation introduced the following change:

- i. The temperature classification was changed from T3 to T4.

Variation 2 - This variation introduced the following changes:

- i. A change of the applicant's name from Stolway Holdings Pty Ltd to Stolway Pty Ltd. was recognised.
- ii. The Gas Group marking was changed from IIB+H2 to IIC.
- iii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2006 and EN 60079-1:2007 were replaced by EN 60079-0:2012+A11 and EN 60079-1:2014, the markings in section 12 were updated accordingly and the Condition of Manufacture was amended to recognise the new standard.

Variation 3 - This variation introduced the following change:

- i. The Applicant's and Certificate holders address was changed from 9 Charcoal Close Unanderra 2526 Australia to Warehouse 2 91-95 Montague St Wollongong NSW 2500 Australia.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	14 December 2007	R51L17296A	The release of the prime certificate.
1	31 July 2008	R51L18704A	The introduction of Variation 1.
2	06 June 2017	R70122471A	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. (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.) • The introduction of Variation 2.
3	31 October 2019	0899	Transfer of certificate Sira 07ATEX1286 from Sira Certification Service to CSA Group Netherlands B.V.

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



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

Sira 07ATEX1286
Issue 4

Issue	Date	Report number	Comment
4	27 April 2020	R80021400A	The introduction of Variation 3.

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

None

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.

Certificate Annexe



Certificate Number: Sira 07ATEX1286
Equipment: Compressor Assembly
Applicant: Stolway Pty Ltd

Issue 0

Drawing No.	Sheets	Rev.	Date	Description
60104-1000	1 of 1	1	27 Nov 07	Compressor assembly
60104-1001	1 of 1	1	27 Nov 07	Compressor assembly
60104-5700	1 of 1	2	30 Nov 07	Name plates

Issue 1

Drawing No.	Sheet	Rev.	Date	Description
60104-5700	1 of 1	4	25 Jul 08	Compressor assembly marking details
60104-1000	1 of 1	2	07 Aug 08	General Arrangement – Compressor Assembly
60104-1001	1 of 1	2	07 Aug 08	General Arrangement – Compressor Assembly

Issue 2

Drawing	Sheets	Rev.	Date(Sira stamp)	Title
60104-1000	1 of 1	3	25 May 17	General Arrangement – Compressor Assembly
60104-1001	1 of 1	3	25 May 17	General Arrangement – Compressor Assembly
60104-5700	1 of 1	5	25 May 17	Marking Label

Issue 3. No new drawings were introduced

Issue 4

Drawing	Sheets	Rev.	Date(Sira stamp)	Title
60104-5700	1 of 1	6	20 Apr 20	General Arrangement – Compressor Assembly Marking Details

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Utrechtseweg 310,
6812 AR, Arnhem,
Netherlands



1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 07ATEX1286** Issue: **3**

4 Equipment: **Compressor Assembly**

5 Applicant: **Stolway Pty Ltd**

6 Address: 9 Charcoal Close
PO Box 1197
Unanderra
NSW 2526
Australia

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.

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12 The marking of the equipment shall include the following:

 II 2 G
Ex db IIC T4...T3 Gb
Ta = -20°C to +60°C

Project Number 0899

Signed: 

Title: Director of Operations

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



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

Sira 07ATEX1286

Issue 3

13 DESCRIPTION OF EQUIPMENT

The Compressor Assembly is designed for use as a terminal box and is welded to a refrigeration compressor housing at the point of exit of the sealed terminals associated with the compressor motor.

The apparatus comprises a cast iron base containing two M20/M25 cable entries; this base is welded to a mild steel adapter or extension sleeve for attachment to the compressor housing. The size of the adapter varies according to the two sizes of terminal arrangement. An aluminium screw cover with o-ring gasket provides access to the terminals. External connections are made via suitably certified and dimensioned cable entry devices.

Variation 1 - This variation introduced the following change:

- i. The temperature classification was changed from T3 to T4.

Variation 2 - This variation introduced the following changes:

- i. A change of the applicant's name from Stolway Holdings Pty Ltd to Stolway Pty Ltd. was recognised.
- ii. The Gas Group marking was changed from IIB+H2 to IIC.
- iii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2006 and EN 60079-1:2007 were replaced by EN 60079-0:2012+A11 and EN 60079-1:2014, the markings in section 12 were updated accordingly and the Condition of Manufacture was amended to recognise the new standard.

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14.2 Associated Sira Reports and Certificate History

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1	31 July 2008	R51L18704A	The introduction of Variation 1.
2	06 June 2017	R70122471A	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 2.



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

Sira 07ATEX1286
Issue 3

3	31st October 2019	0899	<ul style="list-style-type: none">Transfer of certificate Sira 07ATEX1286 from Sira Certification Service to CSA Group Netherlands B.V..
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15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)

None

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.

Certificate Annexe



Certificate Number: Sira 07ATEX1286
Equipment: Compressor Assembly
Applicant: Stolway Pty Ltd

Issue 0

Drawing No.	Sheets	Rev.	Date	Description
60104-1000	1 of 1	1	27 Nov 07	Compressor assembly
60104-1001	1 of 1	1	27 Nov 07	Compressor assembly
60104-5700	1 of 1	2	30 Nov 07	Name plates

Issue 1

Drawing No.	Sheet	Rev.	Date	Description
60104-5700	1 of 1	4	25 Jul 08	Compressor assembly marking details
60104-1000	1 of 1	2	07 Aug 08	General Arrangement – Compressor Assembly
60104-1001	1 of 1	2	07 Aug 08	General Arrangement – Compressor Assembly

Issue 2

Drawing	Sheets	Rev.	Date(Sira stamp)	Title
60104-1000	1 of 1	3	25 May 17	General Arrangement – Compressor Assembly
60104-1001	1 of 1	3	25 May 17	General Arrangement – Compressor Assembly
60104-5700	1 of 1	5	25 May 17	Marking Label

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Utrechtseweg 310,
6812 AR, Arnhem,
Netherlands



1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 07ATEX1286** Issue: **2**

4 Equipment: **Compressor Assembly**

5 Applicant: **Stolway Pty Ltd**

6 Address: 9 Charcoal Close
PO Box 1197
Unanderra
NSW 2526
Australia

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

8 Sira Certification Service, notified body number 0518 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 60079-0:2012+A11 EN 60079-1:2014

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

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 2 G
Ex db IIC T4...T3 Gb
Ta = -20°C to +60°C

Project Number 70122471


N Jones
Certification Manager

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SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

**Sira 07ATEX1286
Issue 2**

13 DESCRIPTION OF EQUIPMENT

The Compressor Assembly is designed for use as a terminal box and is welded to a refrigeration compressor housing at the point of exit of the sealed terminals associated with the compressor motor.

The apparatus comprises a cast iron base containing two M20/M25 cable entries; this base is welded to a mild steel adapter or extension sleeve for attachment to the compressor housing. The size of the adapter varies according to the two sizes of terminal arrangement. An aluminium screw cover with o-ring gasket provides access to the terminals. External connections are made via suitably certified and dimensioned cable entry devices.

Variation 1 - This variation introduced the following change:

- i. The temperature classification was changed from T3 to T4.

Variation 2 - This variation introduced the following changes:

- i. A change of the applicant's name from Stolway Holdings Pty Ltd to Stolway Pty Ltd. was recognised.
- ii. The Gas Group marking was changed from IIB+H2 to IIC.
- iii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2006 and EN 60079-1:2007 were replaced by EN 60079-0:2012+A11 and EN 60079-1:2014, the markings in section 12 were updated accordingly and the Condition of Manufacture was amended to recognise the new standard.

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14.1 Drawings

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14.2 Associated Sira Reports and Certificate History

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2	06 June 2017	R70122471A	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 2.

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

None

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Sira Certification Service

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Hawarden, CH5 3US, United Kingdom

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 Web: www.csagroupuk.org



SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

Sira 07ATEX1286
Issue 2

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 Sira 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.
- 17.3 Each enclosure shall be subjected to a routine overpressure test of 12.54 bar for at least 10 s as required by clause 16.1 of EN 60079-1. There shall be no permanent deformation or damage to the enclosure.
- 17.4 To validate the interface between the enclosure and the compressor housing, each enclosure shall be subjected to a routine overpressure test, 1.5 times the maximum compressor pressure for at least 10 s, applied from the compressor side of the interface. There shall be no permanent deformation or damage to the enclosure.

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Certificate Annexe

Certificate Number: Sira 07ATEX1286
Equipment: Compressor Assembly
Applicant: Stolway Pty Ltd



Issue 0

Drawing No.	Sheets	Rev.	Date	Description
60104-1000	1 of 1	1	27 Nov 07	Compressor assembly
60104-1001	1 of 1	1	27 Nov 07	Compressor assembly
60104-5700	1 of 1	2	30 Nov 07	Name plates

Issue 1

Drawing No.	Sheet	Rev.	Date	Description
60104-5700	1 of 1	4	25 Jul 08	Compressor assembly marking details
60104-1000	1 of 1	2	07 Aug 08	General Arrangement – Compressor Assembly
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Issue 2

Drawing	Sheets	Rev.	Date(Sira stamp)	Title
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60104-1001	1 of 1	3	25 May 17	General Arrangement – Compressor Assembly
60104-5700	1 of 1	5	25 May 17	Marking Label

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1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 07ATEX1286** Issue: **1**

4 Equipment: **Compressor Assembly**

5 Applicant: **Stolway Holdings Pty Ltd.
Refrigeration Engineering Pty Ltd.
RE Environmental**

6 Address: 9 Charcoal Close
PO Box 1197
Unanderra
NSW 2526
Australia

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

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, 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 60079-0:2006

EN 60079-1:2007

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC 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 2 G
Ex d IIB + H₂ T4 (T_a = -20°C to +60°C)

Project Number 51L18704
C. Index 04


C Ellaby
Certification Officer

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

**Sira 07ATEX1286
Issue 1**

13 DESCRIPTION OF EQUIPMENT

The Compressor Assembly is designed for use as a terminal box and is welded to a refrigeration compressor housing at the point of exit of the sealed terminals associated with the compressor motor.

The apparatus comprises a cast iron base containing two M20/M25 cable entries; this base is welded to a mild steel adapter or extension sleeve for attachment to the compressor housing. The size of the adapter varies according to the two sizes of terminal arrangement. An aluminium screw cover with o-ring gasket provides access to the terminals. External connections are made via suitably certified and dimensioned cable entry devices.

Variation 1 - This variation introduced the following changes:

- i. The temperature classification was changed from T3 to T4.

14 DESCRIPTIVE DOCUMENTS

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Issue	Date	Report No.	Comment
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1	31 July 2008	R51L18704A	The introduction of Variation 1.

15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

None

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 CERTIFICATION

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.
- 17.3 Each enclosure shall be subjected to a routine overpressure test of 10 bar for at least 10 s as required by clause 16.1 of EN 60079-1. There shall be no permanent deformation or damage to the enclosure.
- 17.4 To validate the interface between the enclosure and the compressor housing, each enclosure shall be subjected to a routine overpressure test, 1.5 times the maximum compressor pressure for at least 10 s, applied from the compressor side of the interface. There shall be no permanent deformation or damage to the enclosure.

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Certificate Annexe

Certificate Number: Sira 07ATEX1286
Equipment: Compressor Assembly
Applicant: Stolway Holdings Pty Ltd



Issue 0

Drawing No.	Sheets	Rev.	Date	Description
60104-1000	1 of 1	1	27 Nov 07	Compressor assembly
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Issue 1

Drawing No.	Sheet	Rev.	Date	Description
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Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England

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Fax: +44 (0) 1244 681330
Email: info@siracertification.com
Web: www.siracertification.com



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 07ATEX1286** Issue: **0**

4 Equipment: **Compressor Assembly**

5 Applicant: **Stolway Holdings Pty Ltd Refrigeration RE Environmental
Engineering Pty Ltd**

6 Address: 9 Charcoal Close,
PO Box 1197,
Unanderra,
NSW.
2526,
Australia

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

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, 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.

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11 This EC 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 2 G
Ex d IIB + H₂ T3 (T_a = -20°C to +60°C)

D R Stubbings BA MIET
Certification Manager

Project Number 51L17296
C. Index 04

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Sira Certification Service
Rake Lane, Eccleston, Chester, CH4 9JN, England

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Fax: +44 (0) 1244 681330
Email: info@siracertification.com
Web: www.siracertification.com



SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 07ATEX1286
Issue 0

13 DESCRIPTION OF EQUIPMENT

The Compressor Assembly is designed for use as a terminal box and is welded to a refrigeration compressor housing at the point of exit of the sealed terminals associated with the compressor motor.

The apparatus comprises a cast iron base containing two M20/M25 cable entries; this base is welded to a mild steel adapter or extension sleeve for attachment to the compressor housing. The size of the adapter varies according to the two sizes of terminal arrangement. An aluminium screw cover with o-ring gasket provides access to the terminals. External connections are made via suitably certified and dimensioned cable entry devices.

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14.1 Drawings

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17 CONDITIONS OF CERTIFICATION

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Certificate Annexe

Certificate Number: Sira 07ATEX1286
Equipment: Compressor Assembly
Applicant: Stolway Holdings Pty Ltd



Issue 0

Drawing no:	Sheets	Rev.	Date	Description
60104-1000	1 of 1	1	27 Nov 07	Compressor assembly
60104-1001	1 of 1	1	27 Nov 07	Compressor assembly
60104-5700	1 of 1	2	30 Nov 07	Name plates

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Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England

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Fax: +44 (0) 1244 681330
Email: info@siracertification.com
Web: www.siracertification.com



Ex d Compressor Assembly:
Instructions for Safe Installation Use and
Maintenance

60104-CIO-001-R01

Date of Issue: 20th April 2020

Exd Compressor Assembly: Instructions for Safe Installation Use and Maintenance

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Exd Compressor Assembly: Instructions for Safe Installation Use and Maintenance

1. INTRODUCTION

These safety instructions refer to the installation, operation and maintenance of Zone 1 explosion proof hermetic compressors.

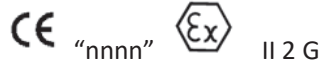
The compressors are certified to IEC Ex and ATEX schemes and carry the following markings:

Manufacturer: Stolway Pty Limited

Year: 2017 onwards

Certificate Numbers: IECEx SIR 07.0095 and Sira 07ATEX1286

Marking: Ex db IIC T4...T3 Gb
(Ta = -20°C to +60°C)
IP66



Warning: "WARNING – DO NOT OPEN WHEN AN EXPLOSIVE
GAS ATMOSPHERE MAY BE PRESENT"

Note: "nnnn" refers to notified body providing quality.

IMPORTANT NOTE TO CUSTOMERS:

THESE INSTRUCTIONS MUST BE ISSUED OR DISTRIBUTED TO EACH INSTALLER OR END USER OF EACH Exd COMPRESSOR ASSEMBLY

2. INSTALLATION

Compressors are typically pre-installed by Stolway Pty Limited as part of the original equipment manufacture. In event of a compressor replacement however, these installation procedures must be followed.

If the original compressor has failed in service and it is suspected that the refrigerant and/or oil has become contaminated or degraded, it is recommended in order to protect the replacement compressor that a suction line burn-out filter/drier is installed before the replacement compressor is put into service. Follow the procedure outlined in Section 7 before continuing with these instructions.

For T4 applications there is an over-temperature fail-safe thermostat fitted into the refrigeration pipework immediately after the discharge port of the compressor, which is the hottest part of the system. The thermostat is pre-set to 125°C and the power to the compressor will be shut off should this temperature be reached.

Check that the site power supply is suitable to the rated voltage of the compressor as stated on the compressor label.

A power supply cable of suitable material selection, mechanical protection and sizing, complete with the appropriate Exd cable glanding must be used. The termination and protection of this cable must be installed as per the appropriate national or international hazardous area standards for the area classification into which it is being installed.

Apart from standard electrician & refrigeration mechanic toolkits including a square socket ratchet spanner & refrigerant pressure gauges, no other special tools are required for installing the compressor.

WARNING

THE ELECTRICAL INSTALLATION OF THE EQUIPMENT AND ANY FAULT FINDING MUST BE PERFORMED BY COMPETENT PERSONNEL FAMILIAR WITH INSTALLATION AND THE TECHNIQUES ASSOCIATED WITH EXPLOSION PROTECTED EQUIPMENT.

ISOLATE POWER PRIOR TO OPENING THE EXD JUNCTION BOX ON THE COMPRESSOR.

Unscrew the threaded cast aluminium cover on the electrical junction box in order to gain access to terminate the power & earth cables (see *Earthing Connection* and *Power and Earth Cable Installation* below).

Inspect the 3mm diameter Nitrile rubber O-ring on the screwed cap for any damage such as cuts or tears and replace if necessary.

Inspect the female and male threads (flamepath) on the Exd junction box and cover, for dirt, dust and any damage. Remove any dirt or dust with a soft cloth if required.

If damage to the threaded Flamepath is found, contact the manufacturer for further information. Do not put the compressor back into service until advice has been obtained from the manufacturer.

After connecting the power & earth cables, re-assemble the screwed cover to the junction box, ensuring that the O-ring is captive within the casting body & the cover is screwed fully closed until it seats against the junction box casting. Ensure silicon grease is applied to cover threads to lubricate and seal 'O' Ring and threads of cover. The silicon grease shall comply with MIL-S-8660 rev B or later.

Tighten fully by hand, then using a torque wrench or screw driver apply a further torque to the two lugs on the cover of approximately 25Nm.

Earthing Connection

Ensure the earth cable which was connected to the original compressor is reconnected to the earth stud inside the Exd junction box and tested for continuity to confirm a good earth connection has been achieved.

Power and Earth Cable Installation

The power and earth connection should comply typically to IEC/EN 60079-0, IEC/EN 60079-1 and IEC/EN 60079-14.

3. PUTTING INTO SERVICE

TO BE CARRIED OUT ONLY BY COMPETENT REFRIGERATION MECHANICS

All valves on the refrigeration circuit **MUST** be fully opened **PRIOR** to start up.

TO OPEN VALVES:

- 3.1 Remove spindle cap nut ensuring sealing washer in cap is secured.
- 3.2 Open valve by turning spindle with square socket ratchet spanner in anti-clockwise direction facing spindle (cap) end.
- 3.3 Spindle must be turned until valve seats against internal back seat. ie Valve spindle will stop firmly.
- 3.4 Ensure spindle gland nut is not loose by slight tightening clockwise.
- 3.5 Replace valve cap and sealing washer.

IT IS CRITICAL FOR SCROLL COMPRESSORS TO ENSURE THAT THE ROTATIONAL DIRECTION IS CORRECT. THE FOLLOWING STEPS MUST BE FOLLOWED:

- 3.6 Prior to start up, attach a set of pressure gauges to the suction & discharge schrader valves at the compressor.
- 3.7 Test run the compressor for a short period (no longer than 5 seconds) to check the compressor rotational direction.
- 3.8 Correct rotational direction will result in a rise in discharge pressure and fall in suction pressure.
- 3.9 If the compressor is rotating in the wrong direction, immediately shut down, isolate power and reverse the phase wiring terminations following the same procedure as per Section 2 above.
- 3.10 Run the system, adding refrigerant as required to achieve the correct charge (refer to Stolway manual for type & quantity).

4. FAULT FINDING

The refrigeration system will typically have high and low pressure switches monitoring the refrigerant pressure, to protect the compressor from failure due to high or low pressure conditions outside of operating specifications. In the event of compressor trips, a fault elsewhere in the refrigeration system may be the cause (eg blocked filters, refrigerant leak etc).

Some hermetic compressor motors also have thermistors fitted to provide over-temperature protection. To establish if the compressor is operational, measure the running current and compare with the manufacturer's original factory test report or the compressor data plate. Also measure the phase-to-earth resistance and check for an open circuit or short circuit.

<p>WARNING DO APPLY HIGH VOLTAGE TO THERMISTORS OR THERMISTOR CIRCUITS.</p>

5. MAINTENANCE

The welded assembly of the Exd junction box to the compressor requires no maintenance.

No attempt should be made to repair a leak or damage to the welded areas at the Exd junction box or where the junction box is joined to the compressor shell. Contact the manufacturer for further information.

6. SERVICE AND SPARE PARTS

Please contact Stolway for any service or spare parts requirements. Contact details are as follows:

Stolway Pty Limited
Warehouse 2
91-95 Montague St
Wollongong
NSW 2500
Australia
Telephone: +61 (0)2 4262 3000
Facsimile: +61 (0)2 4262 3001
E-mail: spares@stolway.com.au
Internet: www.stolway.com.au

7. REFRIGERANT CIRCUIT DECONTAMINATION

WARNINGS:

1. PRIOR TO AND DURING THE EXECUTION OF THIS WORK IT WILL BE NECESSARY TO FOLLOW SITE PROCEDURES TO ENSURE IT IS SAFE TO CARRY OUT HOT WORK AND THAT THERE IS NOT AN EXPLOSIVE GAS VAPOUR PRESENT.
2. CONTAMINATED OIL FROM BURNOUTS IS HIGHLY ACIDIC AND WILL BURN EXPOSED SKIN ON CONTACT – SUITABLE GLOVES MUST BE WORN.

Parts required:

Suction line burn-out drier
Liquid line drier
Silver solder
Refrigerant (Refer to Stolway manual for type & quantity)
Vacuum pump oil
Nitrogen gas

Tools required:

Refrigeration gauges & manifold
Oxy-acetylene brazing equipment
Weigh scales for charge measurement
Hand tools
Thermometers
Vapour recovery unit
Reclaim cylinder for contaminated refrigerant
Vacuum pump

Procedure

Reclaim

1. Attach gauges to the suction and discharge schrader valves – connect to vapour recovery unit.
2. Energise liquid line solenoid to open valve (if there is one in the system).
3. Start recovery unit & reclaim refrigerant from the system to the contaminated refrigerant cylinder. Use scales to measure the amount recovered.

Install

4. Take a small oil sample from the new compressor and keep in an airtight bottle. This will be used for later comparison.
5. Electrician to disconnect the compressor motor cables at the terminals inside the Ex housing and remove the cable glands, following the instructions in Section 2.
6. Replace the liquid line drier.
7. Install the suction line burn-out drier in the suction line at a suitable place just before the compressor.
8. Disconnect compressor suction and discharge rotalock valves. Remove compressor mounting bolts.
9. Replace the compressor. Re-install mounting bolts and connect suction and discharge rotalock valves.
10. Electrician to reconnect the cables to the compressor, following the instructions in Section 2.

Recharge

11. Charge empty system with nitrogen through the gauge manifold to 2000kPa.
12. Use soapy water leak test all joints on the refrigeration system and ensure system holds pressure.
13. Vent nitrogen in system to atmosphere and connect to vacuum pump.
14. Evacuate system to 1500 microns and break with nitrogen. Repeat process.
15. Evacuate system to 500 microns.
16. Charge with correct type & quantity of refrigerant. Use scales to measure the charge.
17. If fitted, de-energise liquid line solenoid so the valve will operate as normal (open on system start-up).
18. Follow the instructions in Section 3.

Removing Contaminants

19. Observe sight glass for discolouration of the refrigerant.
20. Allow unit to run for 4 hours and monitor unit operation and colour of the refrigerant.
21. Monitor pressure drop or temperature drop across filter driers for any indication of partially blocked filter restricting refrigerant flow.
22. It may be required to replace filter driers to fully clean the system.
23. After 48 hours, if the sight glass appears clear take an oil sample and compare it to the original sample taken. If the oil is still discoloured or has an acrid smell (indicating acidity) then change the liquid line and burn-out filters with new and continue to operate for another 48 hours.
24. When the oil samples are in a similar condition, the cleaning process is considered complete. NOTE: If available, it may be beneficial to test the oil sample with an acid test kit.
25. After cleaning is complete and the unit observed in stable operation for 2 weeks, replace the liquid line drier and replace the suction line burn-out drier with a permanent suction line filter.

EU Declaration of Conformity

Product: Compressor Assembly
Year: 2017 onwards
Manufacturer: Stolway Pty Limited
Address: 9 Charcoal Close
Unanderra NSW 2527
Australia

This declaration is issued under the sole responsibility of the manufacturer.

The object of the declaration described above is in conformity with the ATEX Directive 2014/34/EU.

Conformity is shown by compliance with the applicable requirements of the following documents:



EN 60079-0:2012+A11 *Electrical apparatus for explosive atmospheres - Part 0: General requirements*

EN 60079-1:2014 *Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"*

EU Type-Examination Certificate: Sira 07ATEX1286X

Notified Body: Sira Certification Service, notified body number 0518

Marking: Ex db IIC T4...T3 Gb
(Ta = -20°C to +60°C)
IP66

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Signed For and On Behalf Of: Stolway Pty Limited

Place of Issue: Australia

Date of Issue: 8th June 2017

Name: Aidan Donaghy

Position: General Manager

Signature:

