

Certificate of Conformity

Ex COMPONENT

Certificate No.:	ANZEx 06.4082U	Current Issue:	3	Date of Issue:	2021-08-17
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Applicant: Nautitech Mining Systems Pty Ltd
Unit 3, 9 Packard Avenue,
Castle Hill, NSW 2154,
Australia

Component: Nautitech Type Flame Trap

Type of Explosion Protection: Flameproof 'd'

Explosion Protection Marking: Ex d I

*This certificate is granted subject to the requirements as set out in
Joint Accreditation System of Australia and New Zealand Publications
ANZEx System Rules 2020 & ANZEx Certified Equipment Scheme Rules 2021*

Signed for and on behalf of issuing body

Ajay Maira
.....

Name & Position

Ajay Maira - Certification Authority

This certificate is not transferable and remains the property of the issuing body.

The status of this certificate can be confirmed through the database located at www.anzex.com.au

Certificate issued by:

Ex Testing & Certification Pty Ltd
1/30 Kennington Drive, Tomago NSW 2322 Australia

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Manufacturer : **Nautitech Mining Systems Pty Ltd**
Unit 3, 9 Packard Avenue,
Castle Hill, NSW 2154,
Australia

**Additional
Manufacturing
Location(s):** None

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:

AS 2380.1 - 1989	Electrical equipment for explosive atmospheres- Explosion-protection techniques Part 1: General requirements
AS 2380.2 - 1991	Electrical equipment for explosive atmospheres- Explosion-protection techniques Part 2: Flameproof enclosure 'd'

This Certificate does not indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

(Certificate format based on template QMA-HAE-08-721 dated 2021-05-18)

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Schedule

Component Description:

The Flame Trap(s) is of the measurable element type and consists of a mild steel (Optionally zinc plated) / stainless steel body with a bore down centre. The bore accommodates a brass bobbin assembly forming a flamepath between the two. The bobbin is held in place with two circlips which are located in grooves in the body. The body is designed to be screwed in to a threaded entry and has female threads at both ends to accommodate air lines to internal equipment.

The following thread options exist for the units:

- One way flame trap(s): M20 x 1.5.
- Three way flame trap(s): M36 x 1.5 or M40 x 1.5.

The following types exist:

Part No. PL1185 XX where XX defines the No. of entries and the connection threads (NP or BSW)

54 = M36 3WAY with 3 x 1/8" NPT (or NPS) air line connections both ends.

55 = M40 3WAY with 3 x 1/8" NPT (or NPS) air line connections both ends.

12 = M20 1 WAY with 1 x 1/8" BSPT (or BSPP) air line connection internal and 1/8" NPT or NPS external.

25 = M20 1 WAY with 1 x 1/8" NPT (or NPS) air line connection both ends.

Note: The NP or BSW threads do not form flameproof joints.

Electrical Ratings/Parameters

N/A

Schedule of Limitations:

As a component, the following limitations apply

1. That the Flame Trap must be incorporated as part of a certified flameproof enclosure with a routine overpressure test requirement not exceeding 1500kPa (1000kPa reference pressure test result)
2. The wall of the flameproof enclosure in which the Flame Trap is used, shall be at least 15mm thick with the hole fully threaded (2mm chamfer is acceptable).
3. The air line pressure connected to the unit shall not exceed 1000 kPa.

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Register of Issues and Variations

includes the current issue

Issue 0 dated 24 May 2010

Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs:	TR4489 by ITACS
QAR No. & Issuing CB:	AU/ITA/QAR08.0004/01 by ITACS
File Reference:	06.4082 of ITACS

Manufacturer's Documents/Drawings associated with this issue:

Document Number	Pages / Sheets	Document Title	Revision	Date
1116-148	1 of 1	FLAMETRAP ASSEMBLY	Q	2010-04-28
CM002056	1 of 1	3 WAY FLAMETRAP ASSEMBLY	10	2010-03-30
1185-008	1 of 1	3 WAY FLAMETRAP BODY	14	2010-03-30
1185-009	1 of 1	BOBBIN	2	2010-02-01

Issue 1 dated 14 January 2011

Variations Permitted by this Issue

The following variations / modifications are made to the equipment;

1. The snap ring / circlip groove is not optional.
2. The undercut was reduced from 3mm to 2mm to be in compliance with the additional requirements in the latest IEC / AS/NZS 60079-1 standards.
3. The amount of thread engagement is not defined on the three way plug to comply with the general flameproof installation rules for thread engagement.
4. The new three way Flame Trap plug is introduced. For the new three way Flame Trap the plug size was increased from M20 to M36 or M40 to accommodate the triplicate Flame Trap configuration.
5. Minor changes to non-flameproof critical dimensions.
6. Minor improvements on drawings.

All critical dimensions are unaffected by the change.

The flameproof plugs consist of a mild steel (Optionally zinc plated) / stainless steel body with a hexagon head for tightening.

The following thread options exist for the units:

- M20 x 1.5, M36 x 1.5 or M40 x 1.5.

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The following types exist: Part No. PL1185 XX where XX is defined as follows:

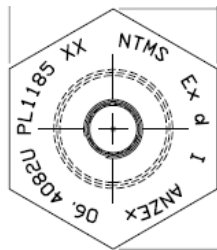
- 90 = M20 x 1.5
- 91 = M36 x 1.5
- 92 = M40 x 1.5

Marking

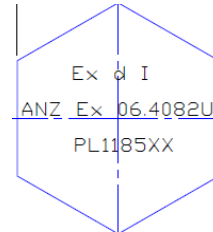
Three Way Flame Trap

The three way unit is marked on the side of the unit, around the circumference.

One way Flame Trap



Plugs



Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs:	TR 19400238.001 by ITACS
QAR No. & Issuing CB:	AU/ITA/QAR08.0004/02 by ITACS
File Reference:	ANZ Ex 06.4082 of ITACS

Manufacturer's Documents/Drawings associated with this issue:

Document Number	Pages / Sheets	Document Title	Revision	Date
1267-003	1 of 1	Flametrapp Plug	H	2010-11-09

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Issue 2 dated 06 May 2019

Variations Permitted by this Issue

1. Change to applicant and manufacturer's address details.
2. Change of ANZEx certificate to the latest format.
3. Added Pages/Sheets numbers and amended dates to the latest format for the documents listed in the Manufacturer's Document Table in Issue 0 of this certificate.

Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs:	N/A
QAR No. & Issuing CB:	AU/ITA/QAR08.0004/10 by Ex Testing and Certification
File Reference:	19028

Manufacturer's Documents/Drawings associated with this issue:

There are no drawings applicable to this issue of the certificate.

Issue 3 dated 17 August 2021

Variations Permitted by this Issue

1. The manufacturer's Quality Assessment was changed from Ex Testing and Certification to another IECEX Certification Body, Mine Safety Technology Centre. QAR reference has been changed accordingly.

Test & Assessment Reports relevant for this issue:

TR No. & Issuing CBs:	N/A
QAR No. & Issuing CB:	AU/MSC/QAR21.0001/00 by Mine Safety Technology Centre
File Reference:	21105

Manufacturer's Documents/Drawings associated with this issue:

There are no drawings applicable to this issue of the certificate.