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#### **GOVERNMENT APPROVED TEST LABORATORY**

IN TERMS OF ARP 0108: "REGULATORY REQUIREMENTS FOR EXPLOSION PROTECTED APPARATUS"

# IA CERTIFICATE

Date Issued: 26 Jan 2021

26 Jan 2024 \*Expiry date: Page 1 of 5

Issue: 0

Ex – Type Examination Certificate

Certificate Number: MS-XPL/21.0006 X

Equipment: Adaptors, Reducers, and Stopping Plugs

Type 737, 747, 757, 767, and 797 Model / Type:

**CMP Products Limited** Applicant:

> **Glasshouse Street** St Peters

**Newcastle Upon Tyne** 

**NE6 1BS** 

**United Kingdom** 

Manufacturer: **CMP Products Limited** 

Serial No: All serial numbers imported between issued- and expire date and all serial

numbers covered by a valid report or acceptable product certification mark.

Supplied by

**CMP Products Limited** 

Identified by Inspection Authority number

MS-XPL/21.0006 X

And as described in the Explolabs file number XPL/21804/21.0006 is hereby certified "Explosion Protected (Refer to clause 1, for Ex Rating)", having been examined and inspected in accordance with the relevant requirements of South African Standards.

SANS 60079-0: 2019 Ed 6

Explosive atmospheres Part 0: Equipment — General requirements IEC 60079-0: 2017 Ed 7

SANS 60079-1: 2015 Ed 5

Explosive atmospheres Part 1: Equipment protection by flameproof enclosures "d" IEC 60079-1: 2014 Ed 7

SANS 60079-7: 2019 Ed 4

Explosive atmospheres Part 7: Equipment protection by increased safety "e" IEC 60079-7: 2015 Ed 5

SANS 60079-31: 2014 Ed 2 IEC 60079-31: 2013 Ed 2

Explosive atmospheres Part 31: Equipment dust ignition protection by enclosure "t"

Risk of ignition provided:

Protection afforded	Equipment Protection Level (EPL) Group	Performance of protection	Conditions of operation	T class or Max Surface Temp (°C)
High	Mb Group I	Suitable for normal operation and severe operating conditions	Equipment de-energized when explosive atmosphere present	150°C
High	Gb Group II	Suitable for normal operation and frequently occurring disturbances or equipment where faults are normally taken into account	Equipment remains functioning in zones 1 and 2	150°C
Very high	Da Group III	Two independent means of protection or safe even when two faults occur independently of each other	Equipment remains functioning in zones 20, 21 and 22	150°C

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#### **GENERAL**

The marking of the Adaptors, Reducers, and Stopping Plugs shall include the following:

**Metallic Versions Non-metallic Versions** 

Ex db I Mb / Ex eb I Mb Ex eb IIC Gb Ex db IIC Gb / Ex eb IIC Gb Ex ta IIIC Da

Ex ta IIIC Da

(Note: Equipment marked with mining code are not available in Aluminium)

#### Types 737 and 797 Range of Adaptors and Reducers

The Type 737 Range of Adaptors and Reducers are manufactured from metallic or non-metallic material and are used to convert an existing cable entry aperture to another thread form and/or size in an enclosure. They comprise a hollow hexagonal body, partly threaded from both ends, one end having a male thread and the other a female thread. Additionally, they may be used to convert an existing cable entry aperture to a different thread form and/or size. When structured as an adaptor the female thread is larger than the male thread, a maximum of two "standard" size differences is allowed. When structured as a reducer the female thread is smaller than the male thread. The adaptors and reducers may also be fitted with an optional O-ring seal.

The Type 797 Range of Adaptors with entry thread form sizes between M16 x 1.5 and M100 x 2.0. intended for mounting to a threaded entry point on enclosures. They are metallic and are used to convert an existing cable entry aperture to the opposite male or female thread form. They comprise a hollow body partly threaded from both sides with either male threads or female threads at each end. Additionally, they may be used to convert an existing cable entry aperture to a different thread form and/or size. Thread combinations are such that a maximum of two 'standard' size differences is 🚕 maintained. The male to male threaded adaptors may also be fitted with optional O-ring seals.

Design options for the Type 737 and 797 ranges:

Typical thread forms:

Note: Table below shows one 'standard' size difference; other combinations are possible as detailed above. -

Adaptors				
Male thread form	Female thread form			
M16x1.5*	M20x1.5*			
M20x1.5	M25x1.5			
M25x1.5	M32x1.5			
M32x1.5	M40x1.5			
M40x1.5	M50x1.5			
M50x1.5	M63x1.5			
M63x1.5	M75x1.5			
M75x1.5	M90x2.0			
M90x2.0*	M100x2.0*			

Reducers				
Male thread form	Female thread form			
M20x1.5*	M16x1.5*			
M25x1.5	M20x1.5			
M32x1.5	M25x1.5			
M40x1.5	M32x1.5			
M50x1.5	M40x1.5			
M63x1.5	M50x1.5			
M75x1.5	M63x1.5			
M90x	M75x			
M100x2.0*	M90x.0*			

- i. The Type 737 is available in non-metallic and metallic sizes. Those marked with \* are for metallic sizes, only.
- ii. Intermediate sizes of threads within the range above providing the same or greater wall thickness e.g. M80.

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### Alternative nearest equivalent male thread forms:

**ET Conduit** BS 31:1940 (1979) PG DIN 40430:1971 **BSPP** BS 2779:1986 **BSPT** BS 21:1985

ISO ISO 7/1:1994 (Metallic designs only)

**NPT** ANSI/ASME B1.20.1-2013

NPT USAS B2.1-1968 (Metallic designs only)

NPSM ANSI/ASME B1.20.1-2013

**BSW** BS 84:1956 (Metallic designs only)

#### Alternative material of manufacture:

Brass BS EN 12164:2011 / BS EN 12168:2011

BS EN 573-3:2013 / BS EN 755-1-3:2008 / BS EN 1676:2010 (not Group I) Aluminium

Mild Steel BS EN 10277-2:2008 Stainless Steel BS EN 10088-3:2014

Glass reinforced flame-retardant nylon (737 range only) (Not Group I)

# Types 747, 757 and 767 Ranges of Stopping Plugs

The Type 747 Range of Stopping Plugs are manufactured from metallic or non-metallic material and comprise a cylindrical body with an external male thread along their length with the exception of a portion at one end. Each has a socket head recess to allow fitting and removal. The Stopping Plugs are available in two forms designated as either non-tamperproof or tamperproof by the manufacturer. When fitted into an enclosure, the socket head recess of the non-tamperproof version is accessible from the outside, whilst the socket head recess of the tamperproof version is only accessible from the inside.

The Type 757 Range of Stopping Plugs are manufactured from metallic or non-metallic material and comprise a cylindrical body with an external male thread along their length with the exception of a hexagonal head at one end. The body may also be fitted with an integral O-ring seal.

The Type 767 Range of Stopping Plugs are manufactured from metallic or non-metallic material and comprise a cylindrical body with an external male thread along their length with the exception of a domed head at one end. The face of the domed head contains a socket head recess to allow fitting and removal. The body may also be fitted with an integral O-ring seal.

## Design options for the Type 747,757 and 767 ranges of Stopping Plugs: Typical thread forms:

M40x1.5 M16x1.5 (metallic sizes only) M20x1.5 M25x1.5 M32x1.5 M50x1.5 M63x1.5 M100x2.0 M75x1.5 M90x2.0

# Alternative nearest equivalent male thread forms to the metric sizes listed above may be utilized from the following types:

**ET Conduit** BS 31:1940 (1979) PG DIN 40430:1971 **BSPP** BS 2779:1986 **BSPT** BS 21:1985

ISO ISO 7/1:1994 (Metallic designs only)

**NPT** ANSI/ASME B1.20.1-2013

NPT USAS B2.1-1968 (Metallic designs only)

NPSM ANSI/ASME B1.20.1-2013

**BSW** BS 84:1956 (Metallic designs only) PLOLARS PEPHOLARS PEPHOLARS PEPHOLARS PEPHOLARS PEPHOLARS PEPHOLARS PEPHOLARS

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Alternative material of manufacture:

**Brass** BS EN 12164:2011 / BS EN 12168:2011

Aluminium BS EN 573-3:2013 / BS EN 755-1-3:2008 / BS EN 1676:2010 (Not Group I)

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Mild Steel BS EN 10277-2:2008 BS EN 10088-3:2014 Stainless Steel

Glass reinforced flame-retardant nylon (737 range only) (Not Group I)

Based on the following documentation: IECEx CML 18.0177X. Issue 0.

#### **INSTALLATION INSTRUCTIONS**

It is the manufacturer's responsibility to supply installation instructions with each unit offered for sale as required by IEC/SANS 60079-0 Clause 30.

#### SPECIAL CONDITIONS FOR SAFE USE (denoted by "X" after certificate number)

The following conditions relate to safe installation and/or use of the equipment:

- i. For flameproof type "db" applications, only one adapter or reducer shall be used per cable entry.
- ii. The adaptors, reducers and stopping plugs shall be assembled in such a way that their protrusion from an associated enclosure is not increased.
- iii. The interfaces between a male thread of an adaptor/reducer and an associated enclosure, between a female thread of an adaptor/reducer and a cable entry device, and between a stopping plug and an associated enclosure cannot be defined. Therefore, it is the installer's responsibility to ensure that the appropriate ingress protection level is maintained at these interfaces.
- Non-metallic adaptors, reducers and stopping plugs shall not be used in enclosures where iν the temperature, at the point of mounting, is outside the range of -20°C to +60°C.
- ٧. The installer shall refer to the manufacturer's instructions for the action necessary regarding the electrostatic risk associated with non-metallic adaptors, reducers and stopping plugs.
- ٧i. Any cable gland used with the non-metallic adaptors and reducers shall be non-metallic.

# **SCHEDULE OF LIMITATIONS** (denoted by "U" after certificate number) None.

#### CONDITIONS OF CERTIFICATION

All production units must be covered by a QAN (Quality Assurance Notification), Product Mark Scheme or batch evaluation.

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components, the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- ii. Non-metallic and aluminium adaptors, reducers and stopping plugs shall not bear any group I marking.

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6. MARKING

iii)

iv)

The following (or similar) information have to be clearly and permanently marked on all units:

Supplier : CMP Products Limited Manufacturer : CMP Products Limited

Equipment : Adaptors, Reducers, and Stopping Plugs

Model/Type : Type 737, 747, 757, 767, and 797

Serial No. : ---

Ex Rating : Metallic Versions Non-metallic Versions

Ex db I Mb / Ex eb I Mb Ex eb IIC Gb Ex db IIC Gb / Ex eb IIC Gb Ex ta IIIC Da

Ex ta IIIC Da

IA Certificate No : MS-XPL/21.0006 X

This certification indicates compliance with R10.1 of the Mines Health and Safety Act and/or EMR 9(2) of the Occupational Health and Safety Act, provided that the apparatus is used as relevant in accordance with:

i) SANS 10086 and IEC/SANS 61241-14 requirements as applicable;

ii) Any conditions mentioned in the above report;

Any relevant requirements and codes of practice enforced in terms of the Mine Health and Safety Act or Occupational Health and Safety Act and

Any restrictions and conditions enforced by the Chief Inspector of Mines or the Principal Inspector or the Chief Inspector: Occupational Health and Safety.

v) A revision certificate replaces all previous version of the certificate.

\* - Only covers equipment Imported between the "Issued" and "Expire" dates.

If and when your QAN (Quality Assurance Notification) Certificate for your equipment manufacturer expires during the valid period of the IA Certification (issued for your equipment) and a new certificate is not submitted the existing IA Certification will then be cancelled. It is thus the client's responsibility to always submit the updated and valid QAN certificate(s) to Explolabs (Pty) Ltd

#### **Responsible Testing Officer:**

# M Lategan Testing Officer

#### **EXPLOLABS EXPLOSION PREVENTION SERVICES**

This report/certificate shall not be reproduced except in full without the written approval of the company Explolabs (Pty) Ltd shall not be liable for any losses or damages sustained on account of any failure or omission to properly perform our duties in terms of any contract undertaken by us. This disclaimer is immutable and automatically incorporated in any contract undertaken by us; notwithstanding anything to the contrary, save for the express written waiver of our managing director. By marking the equipment in accordance with the documentation/standard, the manufacturer attests on his own responsibility that the equipment has been constructed in accordance with the applicable requirements of the relevant standards and that the routine verifications and tests have been successfully completed and that the product complies with the documentation and standard(s). The contents of electronic reports/certificates cannot be guaranteed. Original certification documents will be kept on file at Explolabs (Pty) Ltd

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