

*KOPEX-EX*

Launch Pack  
Group I Gland



### **Key Message**

The new Group 1 gland is an addition to the already successful HAM conduit glands. It is of a higher specification and has been designed to meet the requirements not already covered by the existing HAM gland.

The new range includes

- Group 1 Exd conduit gland
- Group 1 Exd universal gland
- Group 1 Exd conduit elbows

In this launch document you will find the following

- Features and benefits
- Comparison tables between the new and the existing range
- Examples of possible applications
- Pricing information
- Technical datasheets
- Certifications
- Instruction sheets

# KOPEX-Ex

Protection for Critical Wiring  
in Hazardous Areas

## Explosion Proof Group 1 Gland

PAT AP 0912233.4

- Patented POT design allows high temperature operation whilst maintaining its integrity
- Approved to ATEX, IECEx & CSA
- Approved for Groups I & II application
- High temperature range -60°C to +130°C
- Larger cable carrying capacity up to 50% extra than current design
- More compact design for restrictive space application
- Universal female variation allows connection to all conduit types (including rigid steel). Also compatible with 90°/45° Elbows



[www.kopex-ex.com](http://www.kopex-ex.com)

*KOPEX-EX*

# Comparison Charts

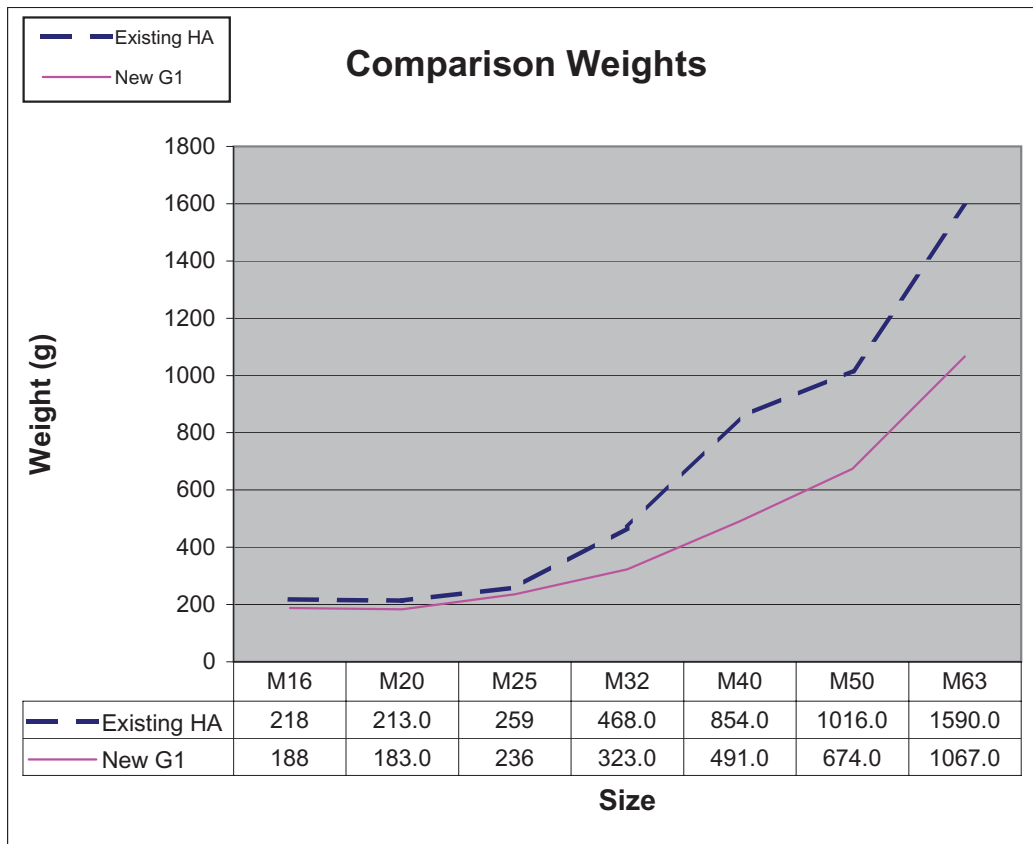
**Differences Between New Group I  
Gland and Existing HAM**

	<b>Existing</b>	<b>New G1</b>
ATEX	•	•
IECEX	•	•
Group I		•
Group II	•	•
Zone 1	•	•
Zone 2	•	•
Zone 21	•	•
Zone 22	•	•
CSA		•
Class 1 Div1		Universal
Class 1 Div2		G1 Conduit Gland
Temperature	<b>-60 to +90oc</b>	<b>-60 to +130oc</b>
Elbow		•
Universal		•

N.B Additional clarification on Class 1 Div 1 given in technical data

## Data Comparison Sheet for New G1 Gland v Existing HAM

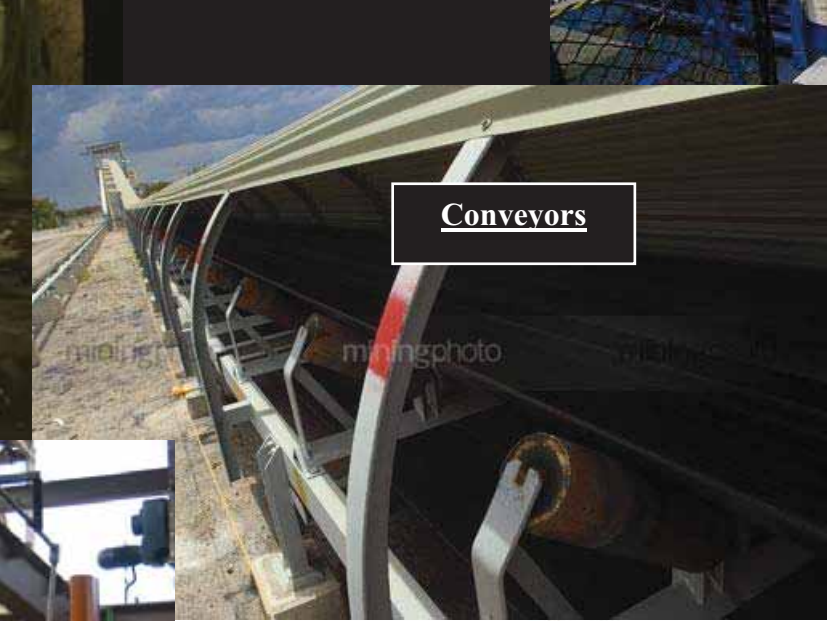
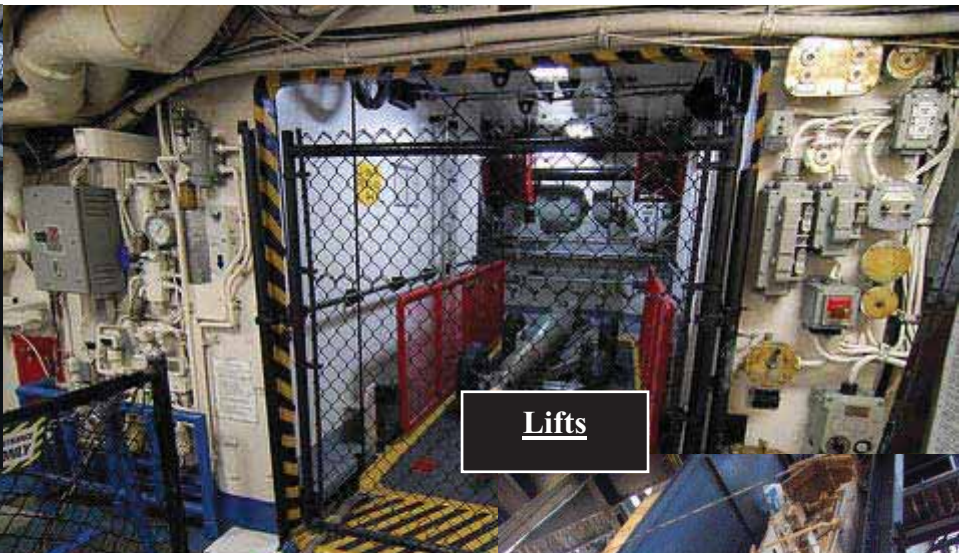
	Working Length (mm)	Amount of Cores	Increase	Diameter over cores (mm)	Increase	Weight (g)
<b>HAM0304</b>	58	6		8.9		218
<b>HAM0304G1</b>	50.0	9	50%	10.5	18.0%	188.0
<b>HAM0404</b>	58.0	10		11.0		213.0
<b>HAM0404G1</b>	50.0	15	50%	13.0	18.2%	183.0
<b>HAM0505</b>	62.0	21		16.2		259.0
<b>HAM0505G1</b>	50.0	28	33%	17.9	10.5%	236.0
<b>HAM0606</b>	67.0	42		21.9		468.0
<b>HAM0606G1</b>	50.0	50	19%	24.0	9.6%	323.0
<b>HAM0707</b>	73.0	60		26.3		854.0
<b>HAM0707G1</b>	57.0	75	25%	32.0	21.7%	491.0
<b>HAM0808</b>	84.0	80		37.1		1016.0
<b>HAM0808G1</b>	58.0	80	0%	37.5	1.1%	674.0
<b>HAM0909</b>	92.0	100		47.8		1590.0
<b>HAM0909G1</b>	70.0	100	0%	46.5	-2.7%	1067.0



*KOPEX-EX*

# Possible Applications

# Applications





# Technical Datasheets

## NEW HA GLAND AND CSA

Variations of flameproof gland

HA\*\*\*\*G1

HA\*\*\*\*U

HA\*\*\*\*G1 is an equivalent gland to the existing Hawke HA gland but with added benefits.

- It can only be used with flexible liquidtight conduits.
- Flexible liquidtight conduits **cannot** be used in Class I Div 1 installations.
- As such this gland is certified for Class 1 Div 2 installations only.

HA\*\*\*\*U universal gland has a female thread and as such can be used with any conduit.

- Thread variations are metric and NPT. As such rigid conduit can be screwed into the back of the gland.
- Rigid conduit is the **only** conduit allowed in Class 1 Div 1 installations.
- We will mark the female nut with the Class 1 Div 1 approval markings as required

All glands will be, by default marked with Class 1 Div 2.

We will only supply nuts with Class 1 Div 1 when specifically requested.



Certification Sira09ATEX1231X  
IECEX SIRA09.0103X

**WITH INCREASED CABLE CAPACITY AND  
TEMPERATURE RATING OF 130°C**

FOR USE WITH LIQUID TIGHT CONDUITS EXL AND EXS

#### STAMPING DETAIL

CMPL I M2/II 2GD Exde I Ma Exde IIC Gb Extb IIIC Db  
IP66 -60°C +130° SIRA09ATEX1231X IECEX SIRA09.0103X  
 CL1 DIV1 ABCD, CLII Div1 EFG SL  
B46 1HT 1180 (Part No.) (Size) (Date of manf)



Part Number	Male Thread	Conduit Size	Overall Length	Body Hex a/f	Nut Hex a/f	Weight (g)	Max Cable Dia
HAM*0304G1	M20	16mm	66mm	28.6mm	32.0mm	223	10.0mm
HAM*0404G1	M20	20mm	66mm	28.6mm	32.0mm	213	13.0mm
HAM*0505G1	M25	25mm	66mm	34.0mm	34.0mm	242	17.9mm
HAM*0606G1	M32	32mm	66mm	42.0mm	42.0mm	338	24.0mm
HAM*0707G1	M40	40mm	72mm	50.0mm	52.0mm	527	32.0mm
HAM*0808G1	M50	50mm	74mm	60.0mm	60.0mm	663	35.0mm
HAM*0909G1	M63	63mm	86mm	70.0mm	70.0mm	965	45.0mm
HAA*0304G1	1/2" NPT	16mm	71mm	28.6mm	32.0mm	235	10.0mm
HAA*0404G1	1/2" NPT	20mm	71mm	28.6mm	32.0mm	230	13.0mm
HAA*0505G1	3/4" NPT	25mm	71mm	34.0mm	34.0mm	260	17.9mm
HAA*0606G1	1" NPT	32mm	72mm	42.0mm	42.0mm	375	24.0mm
HAA*0707G1	1.1/4" NPT	40mm	75mm	50.0mm	52.0mm	543	32.0mm
HAA*0808G1	1.1/2" NPT	50mm	78mm	60.0mm	60.0mm	684	35.0mm
HAA*0909G1	2" NPT	63mm	90mm	70.0mm	70.0mm	972	45.0mm

Available in Brass \*=Blank; Nickel Plate \*=M; Stainless Steel \*=S

FITTING INSTRUCTIONS INCLUDED WITH PRODUCT ALSO AVAILABLE ON THE WEBSITE  
[www.kopex-ex.com](http://www.kopex-ex.com)



The Company's policy is one of continuous improvement and reserves the right to change specifications at any time without prior notice.



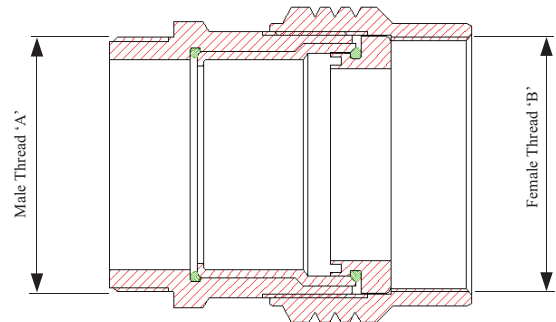
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**STAMPING DETAIL**

CMPL I M2/II 2GD Exde I Ma Exde IIC Gb Extb IIIC Db  
IP66 -60°C +130° SIRA09ATEX1231X IECEX SIRA09.0103X  
 CL1 DIV1 ABCD. CLII Div1 EFG SL  
B46 1HT 1180 (Part No.) (Size) (Date of manf)



Part Number	Male Thread 'A'	Female Thread 'B'	Overall Length	Body Hex a/f	Nut Hex a/f	Weight (g)	Max Cable Dia
HAM*0403U	M20	M16	72mm	28.6mm	32.0mm	319	10.0mm
HAM*0404U	M20	M20	72mm	28.6mm	32.0mm	279	13.0mm
HAM*0505U	M25	M25	72mm	34.0mm	34.0mm	357	17.9mm
HAM*0606U	M32	M32	72mm	42.0mm	42.0mm	481	24.0mm
HAM*0707U	M40	M40	75mm	50.0mm	52.0mm	643	32.0mm
HAM*0808U	M50	M50	79mm	60.0mm	60.0mm	929	35.0mm
HAM*0909U	M63	M63	90mm	70.0mm	70.0mm	1,466	45.0mm
HAA*0304U	1/2" NPT	M16	77mm	28.6mm	32.0mm		10.0mm
HAA*0404U	1/2" NPT	M20	77mm	28.6mm	32.0mm		13.0mm
HAA*0505U	3/4" NPT	M25	77mm	34.0mm	34.0mm		17.9mm
HAA*0606U	1" NPT	M32	77mm	42.0mm	42.0mm		24.0mm
HAA*0707U	1.1/4" NPT	M40	80mm	50.0mm	52.0mm		32.0mm
HAA*0808U	1.1/2" NPT	M50	84mm	60.0mm	60.0mm		35.0mm
HAA*0909U	2" NPT	M63	95mm	70.0mm	70.0mm		45.0mm

Available in Brass \*=Blank; Nickel Plate \*=M; Stainless Steel \*=S

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[www.kopex-ex.com](http://www.kopex-ex.com)



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90° Flameproof  
Gland

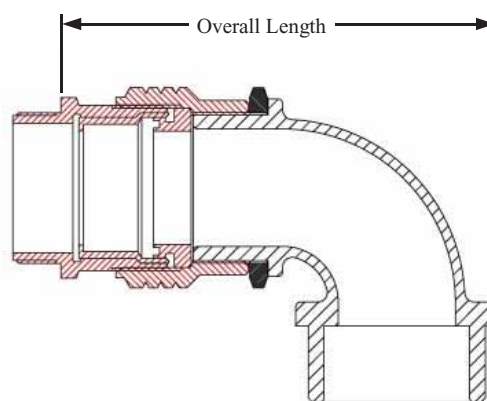


Exd I&IIC Exe I&II Extb IIIC  
CSA Class I Div 1 ABCD; Class II Div 1 EFG  
Approved for Gas and Dust

For use in Groups I, II & III  
Zones 1, 2, 21 & 22

Manufactured in Brass, Nickel Plated  
Brass and Stainless Steel 316

HAM Brass  
HAMM Nickel Plated  
HAMS Stainless Steel



**FLEXIBLE CONDUIT GLAND SELECTION TABLE**

Size Ref (conduit size)	Kopex Ref	Gland Body		90° Elbow		Male Thread Metric NPT	Max Dia. Over Cores	Max Dia. Over Single Core	Max No. Of Cores	Overall Length
		Across Flats	Across Corners	Across Flats	Conduit Size					
16 / 3/8"	HAM*0304E	28.6	31.0	32.0	16 mm	M20	10.5	10.0	9	90.0
	HAA*0304E					1/2"				
20 / 1/2"	HAM*0404E	28.6	31.0	32.0	20mm	M20	13.0	13.0	15	90.0
	HAA*0404E					1/2"				
25 / 3/4"	HAM*0505E	34.0	37.0	34.0	25mm	M25	17.9	17.9	28	104.0
	HAA*0505E			34.9 SS		3/4"				
32 / 1"	HAM*0606E	42.0	45.0	42.0	32mm	M32	24.0	20.0	50	114.0
	HAA*0606E			42.4 SS		1"				
40 / 1,1/4"	HAM*0707E	50.0	54.0	52.0	40mm	M40	32.0	32.0	75	130.0
	HAA*0707E					1,1/4"				
50 / 1,1/2"	HAM*0808E	60.0	64.0	60.0	50mm	M50	35.0	35.0	80	146.0
	HAA*0808E					1,1/2"				
63 / 2"	HAM*0909E	70.0	76.0	70.0	63mm	M63	45.0	45.0	100	169.0
	HAA*0909E			69.8 SS		2"				

**Properties**

IP Rating IP66  
 Operating Temperature -60° to +130°C  
 Approvals Carries full Sira Certification to the requirements of the Standards:  
 IEC60097-0:2007 Ed 5 IEC60079-1:2007 Ed 6 IEC60079-7:2007 Ed 4 IEC60079-31:2008 Ed 1  
 EN60079-0:2009 EN60079-1:2007 EN60079-7:2007 EN60079-31:2008  
 Certification Sira09ATEX1231X  
 IECEx SIRA09.0103X

Gland comes complete with two part epoxy putty, gloves and fitting instructions.  
 Putty can be obtained separately if required in 50g and 75g sizes. Part codes EXEP/50 & EXEP/75

MFC SEALING TECHNOLOGY CO., Ltd.  
PHYSICAL PROPERTY TEST DATA

ISSUING DATE: 09/03/17

=====

REPORT NO. : A-MFC-S7009  
 COMPOUND NO. : S7009  
 MATERIAL : SIL  
 HARDNESS : 70  
 COLOR : RED  
 SPECIFICATION : ASTM D2000 M7GE 705 A19 B37 EA14 E016 E036 F19  
 REMARK :

=====

CHARACTERISTICS	REQUIREMENTS	RESULT	DECISION
705 PHYSICAL PROPERTIES, 23°C ----- HARDNESS, ASTM D2240, TYPE A HARDNESS, ASTM D2240, TYPE M TENSILE STRENGTH, ASTM D412, MIN ULTIMATE ELONGATION, ASTM D412, MIN SPECIFIC GRAVITY, ASTM D297	70.00 +/- 5.00 70.00 +/- 5.00 5.00 MIN 150.00 MIN	72.00 PTS 74.00 MPA 7.12 MPA 263.00 % 1.30 ----	OK OK OK OK OK
A19 HEAT RESISTANCE, ASTM D573, 70H, 225°C ----- CHANGE IN HARDNESS CHANGE IN TENSILE STRENGTH CHANGE IN ULTIMATE ELONGATION	10.00 MAX -25.00 MIN -30.00 MIN	3.10 PTS 9.20 % -27.00 %	OK OK OK
B37 COMPRESSION SET, ASTM D395, 22H, M METHOD B, PLIED, 175°C ----- COMPRESSION SET	30.00 MAX	11.00 %	OK
EA14 WATER RESISTANCE, ASTM D471, 70H , 100°C ----- CHANGE IN HARDNESS CHANGE IN TENSILE STRENGTH CHANGE IN ULTIMATE ELONGATION CHANGE IN VOLUME	0.00 +/- 5.00 0.00 +/- 5.00	0.10 PTS 5.00 % -17.00 % 0.50 %	OK OK OK OK
E016 OIL RESISTANCE, ASTM D471, ASTM OI IL NO.1, 70H, 150°C ----- CHANGE IN HARDNESS CHANGE IN TENSILE STRENGTH CHANGE IN ULTIMATE ELONGATION CHANGE IN VOLUME	-5.00 +/- 5.00 -20.00 MIN -20.00 MIN 7.50 +/- 7.50	-4.30 PTS 13.00 % -11.00 % 5.40 %	OK OK OK OK
E036 OIL RESISTANCE, ASTM D471, ASTM OI IL IRM 903, 70H, 150°C ----- CHANGE IN HARDNESS CHANGE IN TENSILE STRENGTH CHANGE IN ULTIMATE ELONGATION CHANGE IN VOLUME	-40.00 MIN 60.00 MAX	-16.00 PTS -23.00 % -5.80 % 36.00 %	OK OK OK OK
F19 LOW-TEMP. RESISTANCE, ASTM D2137,			

METHOD A, 3 MIN, -60°C			
NONBRITTLE AFTER 3 MIN		PASS	OK

MFC SEALING TECHNOLOGY CO., Ltd.  
 PHYSICAL PROPERTY TEST DATA

ISSUING DATE: 09/03/17

=====  
 REPORT NO. : A-MFC-S7009  
 COMPOUND NO. : S7009  
 MATERIAL : SIL  
 HARDNESS : 70  
 COLOR : RED  
 SPECIFICATION : ASTM D2000 M7GE 705 A19 B37 EA14 E016 E036 F19  
 REMARK :

CHARACTERISTICS	REQUIREMENTS	RESULT	DECISION

Note: 1. The MFC data are obtained by testing slab/button and are for reference only.  
 2. Our compound can meet above ASTM D2000 required.

APPROVED: ALVIN CHAN

PRODUCE: Kelly

VERSION: 1.70

DATE: 09/03/16



Technical  
Datasheets  
Epoxy Putty



# EXEP Epoxy Putty

## Technical Data Sheet



### Supply

EXEP Epoxy putty is supplied in either 50g or 75 packs.  
Part codes are EXEP/50 and EXEP/75

### Description

EXEP Epoxy Putty is a high quality structural adhesive filler based on epoxide resins, and was developed as a fast curing grade. This product has a wide temperature range and has considerable advantages in respect of low temperature applications and reduced inspection.

### Appearance

The resin component is burgundy in colour and the hardener component is toffee in colour.

### Processing

Supplied as a two part system, equal parts of the resin and hardener components are mixed by kneading in the hands until an even colour is achieved. This can be best achieved by rolling and folding.

### Handling Precautions

EXEP is intended to be mixed by hand, however all putties of this type are manufactured from reactive chemicals which can cause skin irritation especially to those people with a history of chemical allergy. Whilst these products have been used safely in industry for over 25 years we would recommend the use of gloves or a barrier cream.

### Usable Life

This will depend upon the bulk mass and temperature. Approximate figures are;

10 to 50 gms wt:	20 to 30 mins @ 20 to 30 Deg.C.
50 to 500 gms wt:	15 to 20 mins @ 20 to 30 Deg.C.

### Cure

This will depend on the size of the mass. Approximate figures are;

To hard mass:	3 to 4 hours @ 20 to 30 Deg.C.
For optimum properties:	12 to 24 hours @ 20 to 30 Deg.C.



# EXEP Epoxy Putty

## Technical Data Sheet



### Mechanical Properties of Cured Mix

Tensile strength BS 2782/301A:	Min. 25 Npa
Compressive strength BS 2782/303A:	Min. 65 Npa
Hardness:	85 shore D
Specific Gravity @ 20 Deg.C.:	1.70 to 1.85

### Electrical Properties of Cured Mix

Dielectric strength:	400 V/mil
Insulation resistance:	500 V

### Resistance Properties of Cured Mix

Water absorption BS 2782/502S:	0.001%
Temperature:	-60 to 150 Deg.C.

This information is intended only for general guidance in the application of the product. It has been obtained by careful investigation and represents the present state of our knowledge and experience. Because of the wide number of possible methods of application and processing we are not able to assume responsibility in any one particular case for either the technical results or patent rights situation applicable to the country under consideration.



Safety  
Datasheets  
Epoxy Putty

# KOPEX-EX

## Putty Usage Explanation



**New HA \*\*\*\*\* G1**



**Existing HA\*\*\*\*\***

## **Important Note**

Putty for the existing HA gland cannot be used in the new G1 gland and visa versa. This is because each gland has been tested with its own specific putty, so the use of the incorrect putty will nullify the certification and could potentially cause a failure.

To avoid this problem the following safeguards have been made :

- New Gland has been designed to look different with identification grooves on the nut.
- Putty for new gland is packed in bags with the Kopex-Ex logo and comes in 2 sizes EXEP/50 (50g) and EXEP/75 (75g).
- Putty for the existing gland is Hawke branded and comes in 4 sizes EX35PUTTY, EX55PUTTY, EX90PUTTY and EX135PUTTY.



**SAFETY DATA SHEET**  
EPOXY PUTTY 2122 HARDENER

Page 1  
Issued: 30/10/07  
Revision No: 3

**1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING**

**Product name:** EPOXY PUTTY 2122 HARDENER

**Product code:** 301144

**Use of substance / preparation:** To be used in conjunction with Resin Pack

**Company name:** Cedesa Ltd  
Chater Lea Buildings  
Icknield Way  
Letchworth  
Hertfordshire  
SG6 1WT  
UK  
Tel: +44 (0) 1462 480764  
Fax: +44 (0) 1462 679324

**2. HAZARDS IDENTIFICATION**

**Main hazards:** Irritating to eyes. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of impaired fertility.  
Possible risk of harm to the unborn child.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

**Hazardous ingredients:** 2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL <5%  
EINECS: 202-013-9 CAS: 90-72-2  
[Xn] R22; [Xi] R36/38  
• 4-TERT BUTYLPHENOL 5-10%  
EINECS: 999-168-00-0 CAS: 98-54-4  
[Xn] R62; [Xn] R63; [Xi] R37/38; [Xi] R41; [N] R51/53

**4. FIRST AID MEASURES (SYMPTOMS)**

**Skin contact:** There may be irritation and redness at the site of contact.  
**Eye contact:** There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred.  
**Ingestion:** There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.  
**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.

**4. FIRST AID MEASURES (ACTION)**

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.  
**Eye contact:** Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

[cont...]

## SAFETY DATA SHEET

### EPOXY PUTTY 2122 HARDENER

**Ingestion:** Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Transfer to hospital as soon as possible.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

#### 5. FIRE-FIGHTING MEASURES

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

**Exposure hazards:** In combustion emits toxic fumes.

**Protection of fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Do not create dust.

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

#### 7. HANDLING AND STORAGE

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed.

**Suitable packaging:** Must only be kept in original packaging.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Hazardous ingredients:** 4-TERT BUTYLPHENOL  
WEL (8 hr TWA): 10 mg/m<sup>3</sup> WEL (15 min STEL): Not determined

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency.

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses with side-shields. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

**State:** Paste

**Colour:** Orange-brown

**Odour:** Ammoniacal

**Solubility in water:** Slightly soluble

**Flash point°C:** > 100

**Relative density:** 1.82 - 1.88

**VOC g/l:** < 1.0

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under normal conditions.

**Conditions to avoid:** Heat. Sources of ignition.

**Materials to avoid:** Strong oxidising agents. Epoxy resins Amines.

**Haz. decomp. products:** In combustion emits toxic fumes of carbon monoxide. In combustion emits toxic fumes of sulphur oxides.

## 11. TOXICOLOGICAL INFORMATION

**Hazardous ingredients:** 2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

ORL RAT LD50 1200 mg/kg

SKN RAT LD50 1280 mg/kg

**Chronic toxicity:** May cause sensitisation by skin contact.

**Routes of exposure:** Refer to section 4 of SDS for routes of exposure and corresponding symptoms.

## 12. ECOLOGICAL INFORMATION

**Persistence and degradability:** Not readily biodegradable.

**Bioaccumulative potential:** Bioaccumulation potential.

**Other adverse effects:** Harmful to aquatic organisms.

## 13. DISPOSAL CONSIDERATIONS

**Disposal operations:** Waste disposal number 08 04 09.

**Disposal of packaging:** Wast Code number 15 01 10

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## 14. TRANSPORT INFORMATION

ADR / RID

IMDG / IMO

IATA / ICAO

## 15. REGULATORY INFORMATION

**Hazard symbols:** Harmful.



**SAFETY DATA SHEET**  
EPOXY PUTTY 2122 HARDENER

**Risk phrases:** R36: Irritating to eyes.  
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R62: Possible risk of impaired fertility.  
R63: Possible risk of harm to the unborn child.

**Safety phrases:** S2: Keep out of the reach of children.  
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S28: After contact with skin, wash immediately with plenty of soap and water.  
S29: Do not empty into drains.  
S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.  
S46: If swallowed, seek medical advice immediately and show this container or label.

**Haz. ingredients (label):** 4-TERT BUTYLPHENOL

**Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

## 16. OTHER INFORMATION

**Risk phrases used in s.3:** R22: Harmful if swallowed.  
R36/38: Irritating to eyes and skin.  
R62: Possible risk of impaired fertility.  
R63: Possible risk of harm to the unborn child.  
R37/38: Irritating to respiratory system and skin.  
R41: Risk of serious damage to eyes.  
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.



**SAFETY DATA SHEET**  
EPOXY PUTTY 2122 RESIN

Page 1  
Issued: 03/07/07  
Revision No: 2

**1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING**

**Product name:** EPOXY PUTTY 2122 RESIN

**Product code:** 301143

**Use of substance / preparation:** To be used in conjunction with Hardener Pack

**Company name:** Cedesa Ltd  
Chater Lea Buildings  
Icknield Way  
Letchworth  
Hertfordshire  
SG6 1WT  
UK  
Tel: +44 (0) 1462 480764  
Fax: +44 (0) 1462 679324

**2. HAZARDS IDENTIFICATION**

**Main hazards:** Irritating to eyes and skin. May cause sensitisation by skin contact. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

**Hazardous ingredients:** BISPHENOL A-(EPICHLORHYDRIN) {REACTION PRODUCT} 10-30%  
EINECS: 500-033-5 CAS: 25068-38-6  
[Xi] R36/38; [Sens.] R43; [N] R51/53

- REACTION PRODUCT OF EPICHLOROHYDRIN AND BISPHENOL A  
10-30%  
CAS: 25085-99-8  
[Xi] R36/38; [Sens.] R43; [N] R51/53

**4. FIRST AID MEASURES (SYMPTOMS)**

**Skin contact:** There may be irritation and redness at the site of contact.  
**Eye contact:** There may be irritation and redness. The eyes may water profusely.  
**Ingestion:** There may be soreness and redness of the mouth and throat.  
**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**4. FIRST AID MEASURES (ACTION)**

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.  
**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

[cont...]

**SAFETY DATA SHEET**  
EPOXY PUTTY 2122 RESIN

**Ingestion:** Wash out mouth with water. Do not induce vomiting. Consult a doctor.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so.  
Consult a doctor.

**5. FIRE-FIGHTING MEASURES**

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

**Exposure hazards:** In combustion emits toxic fumes.

**Protection of fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions:** Eliminate all sources of ignition.

**Environmental precautions:** Do not discharge into drains or rivers.

**Clean-up procedures:** Transfer to a closable, labelled salvage container for disposal by an appropriate method.

**7. HANDLING AND STORAGE**

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**State:** Paste

**Colour:** Red

**Odour:** Barely perceptible odour

**Solubility in water:** Insoluble

**Flash point°C:** > 100

**Relative density:** 1.92 - 1.98

**10. STABILITY AND REACTIVITY**

**Stability:** Stable under normal conditions.

**Conditions to avoid:** Direct sunlight. Sources of ignition.

**Materials to avoid:** Strong acids. Amines. Bases. Oxidising agents.

**Haz. decomp. products:** Polymerization is a highly exothermic reaction and may generate sufficient

heat to cause thermal decomposition and/or rupture containers. In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

**11. TOXICOLOGICAL INFORMATION**

**Hazardous ingredients:** BISPHENOL A-(EPICHLORHYDRIN) {REACTION PRODUCT}

ORL MUS LD50 15600 mg/kg

ORL RAT LD50 11400 mg/kg

SKN RBT LD50 >20 ml/kg

**Chronic toxicity:** May cause sensitisation by skin contact.

**Routes of exposure:** Refer to section 4 of SDS for routes of exposure and corresponding symptoms.

**12. ECOLOGICAL INFORMATION**

**Other adverse effects:** Harmful to aquatic organisms.

**13. DISPOSAL CONSIDERATIONS**

**Disposal operations:** D10 Incineration on land.

**Waste code number:** 08 04 09

**Disposal of packaging:** Dispose of in a regulated landfill site or other method for hazardous or toxic wastes. Wast Code number 15 01 10

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**14. TRANSPORT INFORMATION****ADR / RID**

**UN no:** 3077

**ADR Class:** 9

**Packing group:** III

**Classification code:** M7

**Shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(BISPHENOL A-(EPICHLORHYDRIN) {REACTION PRODUCT};

REACTION PRODUCT OF EPICHLOROHYDRIN AND BISPHENOL A)

**Labelling:** 9

**Hazard ID no:** 90

**IMDG / IMO**

**UN no:** 3077

**Class:** 9

**Packing group:** III

**EmS:** F-A,S-F

**Marine pollutant:** .

**Labelling:** 9**IATA / ICAO****UN no:** 3077**Class:** 9**Packing group:** III**Packing instructions:** 911**Labelling:** 9**15. REGULATORY INFORMATION****Hazard symbols:** Irritant.

**Risk phrases:** R36/38: Irritating to eyes and skin.  
R43: May cause sensitisation by skin contact.  
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:** S2: Keep out of the reach of children.  
S24: Avoid contact with skin.  
S28: After contact with skin, wash immediately with plenty of soap and water.  
S37/39: Wear suitable gloves and eye / face protection.  
S29: Do not empty into drains.  
S61: Avoid release to the environment. Refer to special instructions / safety data sheets.

**Precautionary phrases:** Contains epoxy constituents. See information supplied by the manufacturer.

**Haz. ingredients (label):** BISPHENOL A-(EPICHLORHYDRIN) {REACTION PRODUCT}; REACTION PRODUCT OF EPICHLOROHYDRIN AND BISPHENOL A

**Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

**16. OTHER INFORMATION**

**Risk phrases used in s.3:** R36/38: Irritating to eyes and skin.  
R43: May cause sensitisation by skin contact.  
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be

**SAFETY DATA SHEET**  
EPOXY PUTTY 2122 RESIN

all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

*KOPEX-EX*

# Certifications



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx SIR 09.0082X issue No.:0 Certificate history: .....

Status: Draft

Date of Issue: 2009-07-08 Page 1 of 3

Applicant: **Cable Management Products Limited**  
Station Road  
Coleshill  
Birmingham  
B46 1HT  
United Kingdom

Electrical Apparatus: **EXHA\* compound conduit stopping boxes**  
*Optional accessory:*

Type of Protection: **Flameproof, Increased Safety and Dust**

Marking: **Ex d e I  
Ex d e IIC Gb  
Ex tb IIIC IP66 Db  
Ta = -60°C to +130°C**

*Approved for issue on behalf of the IECEx  
Certification Body:* D R Stubbings BA MIET

*Position:* Certification Manager

*Signature:  
(for printed version)*

*Date:* \_\_\_\_\_

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

**SIRA Certification Service**  
Rake Lane  
Eccleston  
Chester  
CH4 9JN  
United Kingdom

**sira**  
CERTIFICATION



# IECEx Certificate of Conformity

Certificate No.: IECEx SIR 09.0082X

Date of Issue: 2009-07-08

Issue No.: 0

Page 2 of 3

Manufacturer: **Cable Management Products Limited**  
Station Road  
Coleshill  
Birmingham  
B46 1HT  
**United Kingdom**

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

#### STANDARDS:

The electrical apparatus 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:

<b>IEC 60079-0 : 2007-10</b> Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
<b>IEC 60079-1 : 2007-04</b> Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-30-1 : 2007-01</b> Edition: 1	Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements
<b>IEC 60079-7 : 2006-07</b> Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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

#### TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

#### Test Report:

GB/SIR/ExTR10.0128/00

#### Quality Assessment Report:

GB/BAS/QAR06.0024/02



# IECEx Certificate of Conformity

Certificate No.: IECEx SIR 09.0082X

Date of Issue: 2009-07-08

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## Schedule

### EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

#### EXHA\* Range of Conduit Stopping boxes

The EXHA\* Range of Conduit Stopping boxes are cylindrical metallic assemblies and are intended for use with conduit. They allow the entry of the cable or conductors through conduit into flameproof enclosures without compromising the explosion protection provided by the enclosure, in accordance with relevant codes of practice.

The range comprises three arrangements:

HA\*\*\*\*G1, conduit stopping box for use with flexible, liquid tight conduit.

HA\*\*\*\*U, conduit stopping box for use with rigid metal conduit and other threaded fittings

HA\*\*\*\*E, conduit stopping box for use with rigid metal conduit and other threaded fittings with 90° fitting

For the description of parts refer to the Annexe

### CONDITIONS OF CERTIFICATION: YES as shown below:

1. The stopping box shall not be used in enclosures where the temperature, at the point of entry/mounting, is outside of the range -60°C to +130°C.
2. The interface seals comply with the requirements of the standards listed in this certificate when the cable glands are fitted to a representative enclosure having a smooth flat mounting surface. In practice the interface between the male thread of the glands and their associated enclosure cannot be defined, therefore it is the users' responsibility to ensure that the appropriate ingress protection level is maintained at these interfaces.
3. Where the stopping box without sealing ring is installed in protection by enclosure (Ex t) equipment for use in explosive dust atmospheres, it shall only be fitted into enclosures offering a minimum of 5 full threads, with a minimum tolerance of medium or fine according to ISO 965-1 and ISO 965-3 in accordance with IEC 60079-31:2008 clause 5.1.1.

**Annexe to:** IECEx SIR 09.0082X  
**Applicant:** Cable Management Products Limited  
**Apparatus:** EXHA\* compound conduit stopping boxes



### Description of parts

The HA range, when installed in accordance with the manufacturer's instructions, are capable of providing, with an enclosure on which they are fixed, an ingress protection rating of IP 66.

The range is suitable for use with conduit and to pass circular, unarmoured wires or cables. All versions of the HA range has the following common parts:

- Entry body, front end of gland with male thread for securing into an associated enclosure. The base of the front thread is fitted with a sealing washer. The front and rear have male threads.
- Silicone O-ring, which fits at the front of the ferrule to provide an ingress seal to the unthreaded flamepath between the entry body and compound pot.
- Compound pot, fits into the entry body, the compound pot body is one part of a two part chamber where a two-part epoxy putty setting compound is applied to provide an inner seal around the conductors. The external face when fitted into the entry body makes an unthreaded cylindrical flamepath.
- Silicone O-ring, which fits over the rear of the compound pot to provide an ingress seal to the unthreaded flamepath between the entry body and ferrule.

The differences between the arrangements are as shown below:

The HA\*\*\*\*G1 is fitted with the following additional parts on the rear of the assembly:

- Insert, second part of a two part compound chamber, inserted in rear of compound pot. For flexible liquid tight conduit the insert has helical form on rear for threading on to conduit
- Olive, for clamping of conduit to gland body
- Nut which compresses above parts into entry body

The HA\*\*\*\*U is fitted with the following additional parts on the rear of the assembly:

- Insert, second part of a two part compound chamber, inserted in rear of compound pot
- Nut which compresses above parts into entry body. The nut has a female thread on the front and rear, the front female thread attaches to the entry body, the rear thread is for the attachment of rigid metal conduit or other threaded fitting.

The HA\*\*\*\*E is fitted with the following additional parts on the rear of the assembly:

- Insert, second part of a two part compound chamber, inserted in rear of compound pot
- 90° Nut which compresses above parts into entry body. The nut has a female thread on the front and rear which is 90° from each other, the front female thread attaches to the entry body, the rear thread is for the attachment of rigid metal conduit or other threaded fitting.

Annexe to: IECEx SIR 09.0082X  
 Applicant: Cable Management Products Limited  
 Apparatus: EXHA\* compound conduit stopping boxes



The following table details the available thread sizes, maximum number of cores that the gland can accept and the range of acceptable cable sizes for the range.

CABLE GLAND SELECTION TABLE											
Size Ref	CMPL Ref	Entry Thread Size		Cable Acceptance Details			Max. Length			Hexagon Dimensions	
				Inner Sheath/Cores			Conduit stopping box HA****G1	Universal stopping box HA****U	90° Stopping box HA****E	Across Flats	Across Corners
		Metric	NPT	Max Over multi cores	Max Over single core	Max No. of cores					
16 / 3/8"	EXHAM*0304	M20	1/2"	10.5	10.0	9	66 mm	71 mm	90 mm	28.6 mm	31.0 mm
	EXHAA*0304										
20 / 1/2"	EXHAM*0404	M20	1/2"	13.0	13.0	15	66 mm	71 mm	90 mm	28.6 mm	31.0 mm
	EXHAA*0404										
25 / 3/4"	EXHAM*0505	M25	3/4"	17.9	17.9	28	66 mm	71 mm	104 mm	34.0 mm	37.0 mm
	EXHAA*0505										
32 / 1"	EXHAM*0606	M32	1"	24.0	24.0	50	66 mm	72 mm	114 mm	42.0 mm	45.0 mm
	EXHAA*0606										
40 / 1 1/4"	EXHAM*0707	M40	1 1/4"	32.0	32.0	75	72 mm	75 mm	130 mm	50.0 mm	54.0 mm
	EXHAA*0707										
50 / 1 1/2"	EXHAM*0808	M50	1 1/2"	35.0	35.0	80	74 mm	78 mm	146 mm	60.0 mm	64.0 mm
	EXHAA*0808										
63 / 2"	EXHAM*0909	M63	2"	45.0	45.0	100	86 mm	90 mm	169 mm	70.0 mm	76.0 mm
	EXHAA*0909										

**Alternative metallic materials of manufacture:**

Brass grades CZ121, CZ122 (lead brass), CZ112 (Naval brass), CZ114, CZ115 and CZ116 (high tensile brass) and CZ131 to BS EN 12167, BS EN 12168, BS EN 12165 and BS EN 12420

Steel Grade 220 M07

Stainless Steel grades 302S25, 302S31, 303S21, 303S31, 303S41, 303S42, 304S11, 304S15, 304S31, 316S11, 316S13, 316S16, 316S31, 316S33 to BS and EN 10083-1, BS EN 1084, BS EN 10085, BS EN 10087, BS EN 10250-4 and BS EN 10090

All metallic materials may be plated to a maximum thickness of 0.8 µm.

**Product Type Ref:**

The product type is derived from the following options:

**HA a b cc dd e**

- a** Thread Type
  - M = Metric
  - A = NPT
- b** Material of manufacture
  - B = Brass
  - S = Stainless steel
- cc** Rear thread size
  - 03 = M16 / 3/8" NPT
  - 04 = M20 / 1/2" NPT
  - 05 = M25 / 3/4" NPT
  - 06 = M32 / 1" NPT
  - 07 = M40 / 1 1/4" NPT
  - 08 = M50 / 1 1/2" NPT
  - 09 = M63 / 2" NPT

Annexe to: IECEx SIR 09.0082X  
Applicant: Cable Management Products Limited  
Apparatus: EXHA\* compound conduit stopping boxes



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<i>dd</i>	Front thread size
04	= M20 / ½" NPT
05	= M25 / ¾" NPT
06	= M32 / 1" NPT
07	= M40 / 1 ¼" NPT
08	= M50 / 1 ½" NPT
09	= M63 / 2" NPT
<i>e</i>	Rear section type
G1	= Conduit stopping box for connection to flexible liquid tight conduit
U	= Universal stopping box for connection to rigid conduit and fittings
E	= 90° Universal stopping box for connection to rigid conduit and fittings

Draft



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 09ATEX1208X** Issue: **0**

4 Equipment: **EXHA\* compound conduit stopping boxes**

5 Applicant: **Cable Management Products Limited**

6 Address: Station Road  
Coleshill  
Birmingham  
B46 1HT  
UK

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 60079-0:2009      EN 60079-1:2007      EN 60079-7:2007      IEC 60079-31:2008

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:



I M2  
Ex d e I

or



II 2GD  
Ex d e IIC Gb  
Ex tb IIIC IP66 Db  
Ta = -60°C to +130°C

Project Number 20513  
C. Index 04

D R Stubbings BA MIET  
Certification Manager

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**Sira Certification Service**

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

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## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

Sira 09ATEX1208X  
Issue 0

#### 13 DESCRIPTION OF EQUIPMENT

##### EXHA\* Range of Conduit Stopping boxes

The EXHA\* Range of Conduit Stopping boxes are cylindrical metallic assemblies and are intended for use with conduit. They allow the entry of the cable or conductors through conduit into flameproof enclosures without compromising the explosion protection provided by the enclosure, in accordance with relevant codes of practice.

The range comprises three arrangements:

- HA\*\*\*\*G1, conduit stopping box for use with flexible, liquid tight conduit
- HA\*\*\*\*U, conduit stopping box for use with rigid metal conduit and other threaded fittings
- HA\*\*\*\*E, conduit stopping box for use with rigid metal conduit and other threaded fittings with 90° fitting

##### Description of parts

The HA range, when installed in accordance with the manufacturer's instructions, are capable of providing, with an enclosure on which they are fixed, an ingress protection rating of IP 66.

The range is suitable for use with conduit and to pass circular, unarmoured wires or cables. All versions of the HA range has the following common parts:

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- Silicone O-ring, which fits at the front of the ferrule to provide an ingress seal to the unthreaded flamepath between the entry body and compound pot.
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- Silicone O-ring, which fits over the rear of the compound pot to provide an ingress seal to the unthreaded flamepath between the entry body and ferrule.

The differences between the arrangements are as shown below:

The HA\*\*\*\*G1 is fitted with the following additional parts on the rear of the assembly:

- Insert, second part of a two part compound chamber, inserted in rear of compound pot. For flexible liquid tight conduit the insert has helical form on rear for threading on to conduit
- Olive, for clamping of conduit to gland body
- Nut which compresses above parts into entry body

The HA\*\*\*\*U is fitted with the following additional parts on the rear of the assembly:

- Insert, second part of a two part compound chamber, inserted in rear of compound pot
- Nut which compresses above parts into entry body. The nut has a female thread on the front and rear, the front female thread attaches to the entry body, the rear thread is for the attachment of rigid metal conduit or other threaded fitting.



**SCHEDULE**

**EC TYPE-EXAMINATION CERTIFICATE**

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Issue 0**

The HA\*\*\*\*E is fitted with the following additional parts on the rear of the assembly:

- Insert, second part of a two part compound chamber, inserted in rear of compound pot
- 90° Nut which compresses above parts into entry body. The nut has a female thread on the front and rear which is 90° from each other, the front female thread attaches to the entry body, the rear thread is for the attachment of rigid metal conduit or other threaded fitting.

The following table details the available thread sizes, maximum number of cores that the gland can accept and the range of acceptable cable sizes for the range.

CABLE GLAND SELECTION TABLE											
Size Ref	CMPL Ref	Entry Thread Size		Cable Acceptance Details			Max. Length			Hexagon Dimensions	
		Metric	NPT	Max Over multi cores	Max Over single core	Max No. of cores	Conduit stopping box HA****G1	Universal stopping box HA****U	90° Stopping box HA****E	Across Flats	Across Corners
16 / 3/8"	EXHAM*0304	M20	½"	10.5	10.0	9	66 mm	71 mm	90 mm	28.6 mm	31.0 mm
	EXHAA*0304										
20 / ½"	EXHAM*0404	M20	½"	13.0	13.0	15	66 mm	71 mm	90 mm	28.6 mm	31.0 mm
	EXHAA*0404										
25 / ¾"	EXHAM*0505	M25	¾"	17.9	17.9	28	66 mm	71 mm	104 mm	34.0 mm	37.0 mm
	EXHAA*0505										
32 / 1"	EXHAM*0606	M32	1"	24.0	24.0	50	66 mm	72 mm	114 mm	42.0 mm	45.0 mm
	EXHAA*0606										
40 / 1 ¼"	EXHAM*0707	M40	1 ¼"	32.0	32.0	75	72 mm	75 mm	130 mm	50.0 mm	54.0 mm
	EXHAA*0707										
50 / 1 ½"	EXHAM*0808	M50	1 ½"	35.0	35.0	80	74 mm	78 mm	146 mm	60.0 mm	64.0 mm
	EXHAA*0808										
63 / 2"	EXHAM*0909	M63	2"	45.0	45.0	100	86 mm	90 mm	169 mm	70.0 mm	76.0 mm
	EXHAA*0909										

**Alternative metallic materials of manufacture:**

Brass grades CZ121, CZ122 (lead brass), CZ112 (Naval brass), CZ114, CZ115 and CZ116 (high tensile brass) and CZ131 to BS EN 12167, BS EN 12168, BS EN 12165 and BS EN 12420

Steel Grade 220 M07

Stainless Steel grades 302S25, 302S31, 303S21, 303S31, 303S41, 303S42, 304S11, 304S15, 304S31, 316S11, 316S13, 316S16, 316S31, 316S33 to BS and EN 10083-1, BS EN 1084, BS EN 10085, BS EN 10087, BS EN 10250-4 and BS EN 10090

All metallic materials may be plated to a maximum thickness of 0.8 µm.

**Product Type Ref:**

The product type is derived from the following options:

**HA a b cc dd e**

a Thread Type  
M = Metric  
A = NPT

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**Sira Certification Service**

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

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## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

Sira 09ATEX1208X  
Issue 0

- b Material of manufacture  
B = Brass  
S = Stainless steel
- cc Rear thread size  
03 = M16 / 3/8" NPT  
04 = M20 / 1/2" NPT  
05 = M25 / 3/4" NPT  
06 = M32 / 1" NPT  
07 = M40 / 1 1/4" NPT  
08 = M50 / 1 1/2" NPT  
09 = M63 / 2" NPT
- dd Front thread size  
04 = M20 / 1/2" NPT  
05 = M25 / 3/4" NPT  
06 = M32 / 1" NPT  
07 = M40 / 1 1/4" NPT  
08 = M50 / 1 1/2" NPT  
09 = M63 / 2" NPT
- e Rear section type  
G1 = Conduit stopping box for connection to flexible liquid tight conduit  
U = Universal stopping box for connection to rigid conduit and fittings  
E = 90° Universal stopping box for connection to rigid conduit and fittings

## 14 DESCRIPTIVE DOCUMENTS

### 14.1 Drawings

Refer to Certificate Annexe.

### 14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	01 June 2010	R20513A/00	The release of the prime certificate.

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## SCHEDULE

### EC TYPE-EXAMINATION CERTIFICATE

Sira 09ATEX1208X  
Issue 0

- 15 **SPECIAL CONDITIONS FOR SAFE USE** (denoted by X after the certificate number)
- 15.1 The stopping box shall not be used in enclosures where the temperature, at the point of entry/mounting, is outside of the range -60°C to +130°C.
- 15.2 The interface seals comply with the requirements of the standards listed in this certificate when the cable glands are fitted to a representative enclosure having a smooth flat mounting surface. In practice the interface between the male thread of the glands and their associated enclosure cannot be defined, therefore it is the users' responsibility to ensure that the appropriate ingress protection level is maintained at these interfaces.
- 15.3 Where the stopping box without sealing ring is installed in protection by enclosure (Ex t) equipment for use in explosive dust atmospheres, it shall only be fitted into enclosures offering a minimum of 5 full threads, with a minimum tolerance of medium or fine according to ISO 965-1 and ISO 965-3 in accordance with IEC 60079-31:2008 clause 5.1.1.
- 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.

# Certificate Annexe

Certificate Number: Sira 09ATEX1208X  
 Equipment: EXHA\* compound conduit stopping boxes  
 Applicant: Cable Management Products Limited



## Issue 0

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
7000	1 of 1	1	10 May 10	Stopping box main drawing
7001	1 of 1	2	10 May 10	EXHA03 body
7001A	1 of 1	2	10 May 10	EXHA04 body
7002	1 of 1	3	10 May 10	EXHA04 pot
7003	1 of 1	2	10 May 10	EXHA04 insert
7004	1 of 1	2	10 May 10	EXHA04 nut
7005	1 of 1	2	10 May 10	EXHA04 olive
7007	1 of 1	1	10 May 10	½" NPT body for size M16 conduit
7007A	1 of 1	1	10 May 10	½" NPT body for size M20 conduit
7008	1 of 1	1	10 May 10	EXHA03 insert
7009	1 of 1	1	10 May 10	EXHA03 nut
7010	1 of 1	1	10 May 10	EXHA03 olive
7013	1 of 1	2	10 May 10	M25 body
7014	1 of 1	2	10 May 10	¾" NPT body
7015	1 of 1	2	10 May 10	EXHA05 compound pot
7016	1 of 1	1	10 May 10	EXHA05 insert
7017	1 of 1	2	10 May 10	EXHA05 nut
7018	1 of 1	1	10 May 10	EXHA05 olive
7020	1 of 1	1	10 May 10	M32 body
7021	1 of 1	1	10 May 10	1" NPT body
7022	1 of 1	1	10 May 10	EXHA06 compound pot
7023	1 of 1	1	10 May 10	EXHA06 insert
7024	1 of 1	2	10 May 10	EXHA06 nut
7025	1 of 1	2	10 May 10	EXHA06 olive
7027	1 of 1	1	10 May 10	M40 body
7028	1 of 1	1	10 May 10	1 ¼" NPT body
7029	1 of 1	1	10 May 10	EXHA07 compound pot
7030	1 of 1	1	10 May 10	EXHA07 insert
7031	1 of 1	2	10 May 10	EXHA07 nut
7032	1 of 1	2	10 May 10	EXHA07 olive
7034	1 of 1	1	10 May 10	M50 body
7035	1 of 1	1	10 May 10	1 ½" NPT body
7036	1 of 1	2	10 May 10	EXHA08 compound pot
7037	1 of 1	1	10 May 10	EXHA08 insert
7038	1 of 1	2	10 May 10	EXHA08 nut
7039	1 of 1	2	10 May 10	EXHA08 olive
7041	1 of 1	1	10 May 10	M63 body
7042	1 of 1	1	10 May 10	2" NPT body
7043	1 of 1	2	10 May 10	EXHA09 compound pot
7044	1 of 1	1	10 May 10	EXHA09 insert
7045	1 of 1	2	10 May 10	EXHA09 nut
7046	1 of 1	1	10 May 10	EXHA09 olive
7058	1 of 1	1	10 May 10	EXHA03 nut for HA**0304U
7060	1 of 1	1	10 May 10	EXHA04 nut for HA**0404U
7061	1 of 1	1	10 May 10	EXHA05 nut for HA**0505U
7062	1 of 1	1	10 May 10	EXHA06 nut for HA**0606U

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# Certificate Annexe

Certificate Number: Sira 09ATEX1208X  
Equipment: EXHA\* compound conduit stopping boxes  
Applicant: Cable Management Products Limited



Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
7063	1 of 1	1	10 May 10	EXHA07 nut for HA**0707U
7064	1 of 1	1	10 May 10	EXHA08 nut for HA**0808U
7065	1 of 1	1	10 May 10	EXHA09 nut for HA**0909U
7072	1 of 1	1	10 May 10	EXHA04 insert for HA**0*04U
7073	1 of 1	1	10 May 10	EXHA05 insert for HA**0505U
7074	1 of 1	1	10 May 10	EXHA06 insert for HA**0606U
7075	1 of 1	1	10 May 10	EXHA07 insert for HA**0707U
7076	1 of 1	1	10 May 10	EXHA08 insert for HA**0808U
7077	1 of 1	1	10 May 10	EXHA09 insert for HA**0909U
7059	1 of 1	1	10 May 10	3/8" nut for N/A**0304U
7105	1 of 1	1	10 May 10	1/2" nut for N/A**0404U
7106	1 of 1	1	10 May 10	3/4" nut for N/A**0505U
7107	1 of 1	1	10 May 10	1" nut for N/A**0606U
7108	1 of 1	1	10 May 10	1 1/4" nut for N/A**0707U
7109	1 of 1	1	10 May 10	1 1/2" nut for N/A**0808U
7110	1 of 1	1	10 May 10	2" nut for N/A**0909U
7118	1 of 1	1	10 May 10	90° body for G1

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# Instruction Sheets

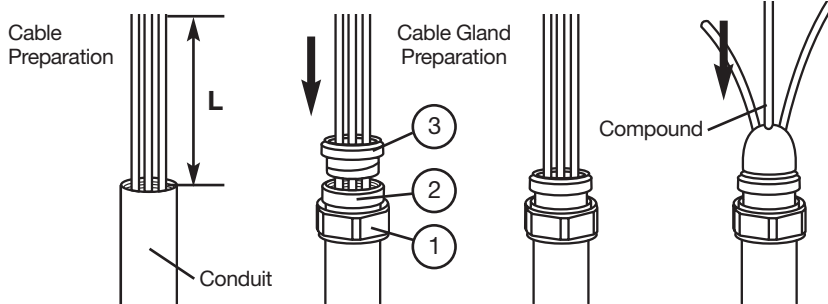
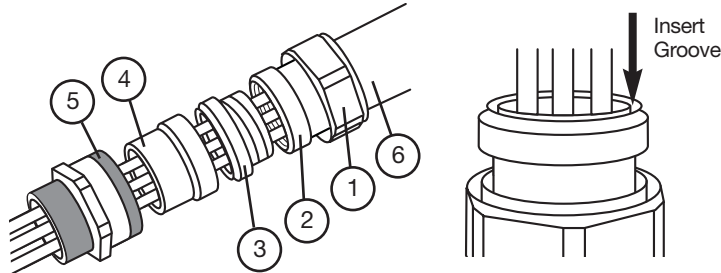
## Assembly Instructions for HA Group 1 Flameproof Gland

### Certification Details

Approved in Exd I&II C Exe I&II Extb IIIC  
 CSA Class I Div 2 ADCD;  
 Class II Div 1 EFG

Sira09ATEX1231X IECEx SIRA09.0103X  
 Operating temperature range:  
 -60°C to +130°C

1. Backnut
2. Olive
3. Insert
4. Pot
5. Body
6. Conduit



#### A. Conduit Preparation

Cut conduit square using a hacksaw with a minimum of 30 teeth per inch. Pull sufficient length 'L' of conductors to suit equipment and twist to form a helix, this gives maximum flexibility.

B. Pass nut (1) and olive (2) over the conduit and conductors. Pass insert (3)

over the conductors and screw into the conduit (6). Remove the pot (4) from the body (5), pass the body (5) over the conductors, assemble the gland and fully tighten backnut (1) onto body (5) over the conductors, assemble the gland and fully tighten backnut (1) onto body (5) until the olive (2) is locked onto the conduit (6), then remove body (5).

C. Spread the conductors out for the compound packing. Pack the compound between the conductors as shown. See Notes overleaf and Fig. 7 for compound preparation.

**IMPORTANT: ENSURE PUTTY FULLY FILLS INSERT GROOVE.**

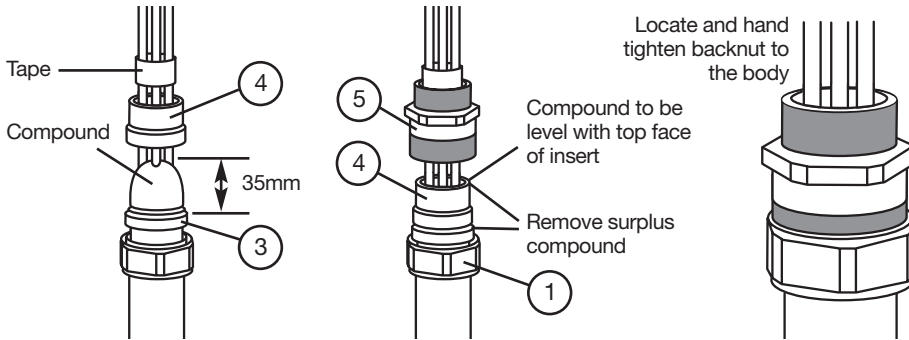


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## Assembly Instructions for HA Group 1 Flameproof Gland



**D.** With all gaps and voids filled, bring the conductors back together and pack more compound around the outside of the conductors. Tape the conductors together to prevent disturbance of the compound seal. Pass the pot (4) over the insert (3) and push until it fully locates over the insert shoulder. Push excess compound into the insert and add additional if required. Remove all

surplus compound from the top of the pot (4) and the joint face as indicated.

**NOTE: IT IS IMPORTANT THAT ALL SURPLUS COMPOUND IS REMOVED**

**E.** Pass the conductors through the body (5), which may have been previously fitted into the equipment. Ensure that compound does not cover end of pot (4)

**F.** Locate and hand tighten backnut (1) to the body.

**G.** Allow the compound to cure. (See fig. 7 for curing times).

**IMPORTANT: THE CONDUCTORS MUST NOT BE MOVED FOR A MINIMUM OF FOUR HOURS.**

### EPOXY COMPOUND PREPARATION

When handling this material, the gloves supplied must be worn. The epoxy compound is supplied in the form of a two part package. These should be mixed into the ratio of 1:1 until both colours have blended into one, without any streaks. Rolling and folding is the most satisfactory method of obtaining an even blend. Once mixed, the compound must be used within 30 minutes. After this time it will begin to stiffen. The compound should be kept at an ambient temperature of no less than 20°C prior to using. At lower temperatures it becomes difficult to mix. Should any compound come into contact with the skin it should be cleaned off with skin cleaner and not allowed to dry on the skin. Only compound for immediate terminations should be mixed.

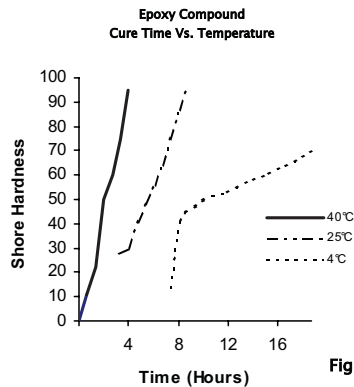


Fig. 7



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## Assembly Instructions for HA Group 1 Flameproof Gland

- The compound may be adversely affected by some solvent vapours. If such vapours are likely to be present in the vicinity of the cable gland in service, suitable precautions may be necessary.
- The compound cures at a Shore D hardness of 85, when it can be handled. When used in the HA cable gland, shown here, the compound when fully cured is suitable for use at a temperature range of -60°C to +130°C.

FLEXIBLE CONDUIT GLAND SELECTION TABLE										
Size Ref (conduit size)	Kopex Ref	Gland Body		Gland Nut		Metric / NPT	Max Dia. Over Cores	Max Dia. Over Single Core	Max No. Of Cores	Overall Length
		Across Flats	Across Corners	Across Flats	Across Corners					
16 / 3/8"	HAM*0304G1	28.6	31.0	32.0	34.0	M20	10.5	10.0	9	50.0
	HAA*0304G1					1/2"				
20 / 1/2"	HAM*0404G1	28.6	31.0	32.0	34.0	M20	13.0	13.0	15	50.0
	HAA*0404G1					1/2"				
25 / 3/4"	HAM*0505G1	34.0	37.0	34.0	37.0	M25	17.9	17.9	28	50.0
	HAA*0505G1			34.9 SS		3/4"				
32 / 1"	HAM*0606G1	42.0	45.0	42.0	45.0	M32	24.0	24.0	50	50.0
	HAA*0606G1			42.4 SS		1"				
40 / 1,1/4"	HAM*0707G1	50.0	54.0	52.0	57.0	M40	32.0	32.0	75	56.0
	HAA*0707G1					1,1/4"				
50 / 1,1/2"	HAM*0808G1	60.0	64.0	60.0	64.0	M50	35.0	35.0	80	58.0
	HAA*0808G1					1,1/2"				
63 / 2"	HAM*0909G1	70.0	76.0	70.0	76.0	M63	45.0	45.0	100	70.0
	HAA*0909G1			69.8 SS		2"				

### SPECIAL CONDITIONS FOR USE:

1. The Cable Gland has an operating temperature of -60°C to +130°C
2. A seal must be formed between the equipment and the cable gland to maintain the appropriate degree of protection against ingress of dust, solid objects and water.

### ACCESSORIES:

Before carrying out the cable gland assembly or stripping of the cable gland assembly, consideration should be given to any cable gland accessories that may be required, such as:-

- Locknut, to secure cable glands into position.
- Sealing washer, to offer additional ingress protection of the enclosure at the cable gland entry.
- Earthtag, to provide an external armour / braid bonding point.
- Serrated washer, to dampen any vibrations that may loosen the locknut or cable gland assembly.



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