www.cmp-products.com



CMP | IEC INTERNATIONAL CABLE GLANDS & ACCESSORIES







GLOBAL

CMP PRODUCTS

WHAT WE PROMISE FOR YOUR BUSINESS

CMP PRODUCTS IS A MARKET LEADING SPECIALIST DESIGNER AND MANUFACTURER, OF CABLE GLANDS, CABLE CLEATS AND ACCESSORIES.

Established as part of British Engines group in 1957, we have ensured that our customers remain at the heart of everything that we do, wherever they are around the world.

We believe in setting standards for quality and service, and leading the way in product innovation, whilst maintaining integrity, safety and reliability. This means that whether our products are used for onshore or offshore oil and gas installations, in power generation, transportation infrastructure, or for surface or underground mining applications, they always protect the safety of your people and your infrastructure.

By remaining focused on this commitment to our customers, our business has grown to become a world leader in our market, continuing to provide assurance of the highest standards of quality and service.

INNOVATION IN PRODUCTS & SOLUTIONS

Evolving technical standards and stringent certification processes have helped to drive innovation at CMP. As a market leader in cable gland and cable cleat technology, we are constantly investing in advanced manufacturing techniques, dedicated IT systems and effective training for our employees and customers.

The solutions chosen by our customers are often rigorously tested to perform above and beyond the normal standards, since they are used in progressively demanding applications and environments.

PEOPLE & NETWORKS

CMP's structure allows us the flexibility to meet these continuously evolving needs, and we nurture this culture further by recruiting specialist, highly talented people in all areas of our business.

We have also formed excellent relationships with the people and organisations that do business with us, developing alliances with distributors and end-users internationally. This network is key to our strategy for bringing products to a worldwide market, via a strategic global distribution network reflective of our business.

CUSTOMER CARE

Putting the customer at the centre of what we do and ensuring a positive experience for everyone we work with is a vital part of our vision.

AN INTRODUCTION TO CABLE GLANDS

CABLE GLANDS ARE MECHANICAL CABLE ENTRY DEVICES, WHICH CAN BE CONSTRUCTED FROM METALLIC OR NON-METALLIC MATERIALS OR A COMBINATION OF BOTH.

They are used throughout all industries in conjunction with cable and wiring used in electrical, instrumentation, control and automation systems.

Cable glands may be used on all types of electrical power, control, instrumentation, data and telecommunications cables and are used as sealing/terminating devices to ensure that the characteristics of the enclosure which the cable enters can be safely maintained. The main functions of the cable gland, depending on type, are listed briefly as follows:

- Provide environmental protection by sealing on the outer cable sheath, excluding dust and moisture from the electrical or instrument enclosure.
- In the case of armoured cables facilitate ground continuity, when the cable gland has a metallic construction. In this case cable glands may be tested to ensure that they can withstand a minimum short circuit fault current, corresponding to that of the cable armour or peak fault of the electrical system.
- Provide a holding force on the cable to ensure adequate levels of cable pull-out resistance, and prevent lateral and axial loads being applied to the internal cable conductor terminations.
- Provide additional sealing on the part of the cable entering the enclosure, when a high degree of ingress protection is required.
- Provide additional environmental sealing at the cable entry point, maintaining the ingress protection rating of the enclosure and cable gland combination, with the selection of applicable accessories dedicated to performing this function.
- Constructed from corrosion-resistant materials determined by selection to a technical standard, or by corrosion resistance tests.

When used in explosive atmospheres it is crucial that cable glands are selected correctly according to the specified installation code or standard requirements, taking into account any certification limitations or conditions of use. Cable glands must be approved for the type of cable selected and maintain the level of protection of the equipment to which they are attached.

SECURING CABLES WORLDWIDE



WHY CHOOSE **CMP PRODUCTS?**

QUALITY ASSURANCE & RELIABILITY

CMP PRODUCTS HAS AN INTERNATIONAL **REPUTATION FOR QUALITY AND** RELIABILITY AND IS HIGHLY REGARDED AS THE LEADING SPECIALIST IN THE DESIGN AND MANUFACTURE OF CABLE GLANDS AND ACCESSORIES FOR INDUSTRIAL AND EXPLOSIVE ATMOSPHERES, OFTEN **REFERRED TO AS HARSH & HAZARDOUS** LOCATIONS.

This position as market leader is maintained by listening to our customers and understanding their needs, to ensure that our solutions are practical to install and fully compliant with the latest industry standards and specifications.

In recognition of the need to demonstrate and maintain standards, CMP Products has attained approval as a 'quality assured' company, covering the design and manufacture of cable glands, cable cleats and associated accessories. Our Integrated Management System is certified to ISO 9001:2015 (Quality), ISO 14001:2015 (Environment) and ISO 45001:2018 (Health and Safety). Our third party periodic audit and ongoing approval is performed by Bureau Veritas.





RESEARCH & DEVELOPMENT

Research and development (R&D) is fundamental to the successful advances made with our product innovations and is a major contributor to helping customers achieve reciprocal success, whilst setting CMP apart from the rest in several locations around the world.

can be thoroughly tested in our on-site certified laboratory and then third party certified if required.

COMPLIANCE WITH CURRENT STANDARDS

CMP Products leads the way in the application of technical standards and with a dedicated certification team we design, manufacture and supply products that are compliant

TECHNICAL SUPPORT & TRAINING

With several offices spread across six continents including to satisfy the worldwide demand for comprehensive training in the installation of our products.

Attendees at all CMP training courses will receive a certificate of attendance following successful completion. We also and practical demonstrations at customers' premises or on-

GLOBAL CERTIFICATION CMP Products remains in constant touch with the development of national and international technical standards, and consequently is able to offer product solutions that are certified for multiple applications around the world. This entails a number of single off-the-shelf product solutions marked with Global Certification as standard.

HELD INCLUDE cCSAus, CSA, UL, cULus ATEX, UKEX, IECEx, INMETRO, KCS, CCC, CIDET, CCOE / PESO, RETIE, SANS AND EAC SUPPORTED BY A RANGE OF MARINE APPROVALS.





CMP PRODUCT MARKING

The below shows an example of the product marking for a standard Triton CDS (T3CDS) NPT Nickel Plated Brass cable gland. This marking is permanently marked on the body of the gland (see page 5), identifying the properties and certification

detail.

The first page shows the first two lines of the product certification according to IEC, the second page shows the product certification according to NEC and CEC.

20T3CDS1RA532:

- LINE 1 CMP-UK 20 T3CDS 3/4" NPT IECEX CML 18.0183X CML 18ATEX1326X 🚯 I M2 🚯 II 2G 3G 1D
- LINE 2 Ex db I Mb/Ex eb I Mb/Ex db IIC Gb/Ex eb IIC Gb/Ex nR IIC Gc/Ex ta IIIC Da
- LINE 3 CSA 02.1310517X @ CL I DIV 2 ABCD, Ex d IIC . CL II DIV 2 EFG, CL III, A/Ex e II, A/Ex nR II
- LINE 4 🕲 🛲 CL I Zn 1 AEx e II TYPE 4X OIL RES II -60° +130°C (€2776 IP66/67/68

LINE 1 - IECEX & ATEX



LINE 2 - IECEX & ATEX







LINE 3 - cCSAus



LINE 4 - UL



CMP PRODUCTS CABLE GLANDS - THE KEY FEATURES

TYPICAL CMP DOUBLE SEAL CABLE GLAND



1

UNIQUE INDEPENDENT INNER SEALING

The possibility of cable damage caused by inadvertent overtightening is eliminated through CMP's unique inner sealing principle. Unlike traditional compression seals that have no means of direct control on their application, the CMP inner sealing technique is achieved using a displacement seal that is independently controlled by the user during installation. This differs from other cable gland types because the activation of the inner sealing ring is separated from the armour clamping components.

The Compensating Displacement Seal System (1) has helped CMP to take its original displacement sealing ring concept to another level. The unique Compensator has allowed the Cable Gland components to be fully tightened metal-to-metal and relieve the potential excess forces that could be transferred to the cable bedding, eliminating cable damage.

2/3.

SECURE ARMOUR TERMINATION

CMP Products' armour clamping method involves a unique termination solution that ensures a permanent crimping of the cable armour, creating a low impedance connection that does not self-loosen. The patented AnyWay[™] clamping ring aids an easy 'Right First Time' installation. Secure armour clamping like this also contributes to enhanced levels of EMC performance and creates reliable earth continuity.



4

OUTER SEAL

The unique CMP Products Outer Seal Tightening Guide (OSTG) and Load Retention Sealing Ring (LRS) ensure an IP/NEMA rated seal is formed against the cable to the correct degree. This is also applicable to our sealing rings on unarmoured cable glands.

5.

PROVEN INTERNALLY ENCLOSED DELUGE SEAL

CMP Products integrated o-ring deluge seal (tested to DTS 01:91) prevents corrosion of the cable armour by ensuring that moisture cannot track around the cable gland threads and into the armour termination body. As an internally enclosed deluge seal the o-ring is protected from mechanical damage and harmful UV rays.

TRITON CDS (T3CDS)

SIMPLE, SEQUENTIAL, RIGHT FIRST TIME INSTALLATION

TRITON CD

S

CMP Triton CDS (T3CDS) Globally Certified Flameproof (Type 'd'), Increased Safety (Type 'e'), Restricted Breathing (Type 'nR') and Combustible Dust (Type 'ta') cable gland for use in Zone 1, Zone 2, Zone 21 and Zone 22 Explosive Atmospheres.

The unique Compensating Displacement Seal (CDS) system is compatible with all types of cable. At the critical cable sealing point the CDS system protects the cable inner sheath from any excess force, which is transferred to, and absorbed by, the internal compensator incorporated in the CDS system.

This allows the cable gland to be tightened metal-to-metal every time regardless of cable diameter.

- For use with all types of armoured cable.
- Available in nickel plated brass, brass, stainless steel and aluminium.
- Provides a flameproof seal on the cable inner bedding.
- Environmental seal on cable outer sheath to IP68.
- Superior EMC performance.
- Provides mechanical cable retention to IEC 60079-0, BS 6121 and IEC 62444 and electrical continuity via armour wire termination.
- Reversible armour cone and AnyWay™ universal clamping ring arrangement allows the cable to be easily disconnected from the equipment.
- Deluge protected as standard.
- Operating temperature -60°C to +130°C
- Fully sequential, three step make off procedure.
- Quick and easy assembly process, with face-to-face installation.
- 'Right First Time' installation helps to reduce down time during plant construction whilst instilling peace of mind in the user.
- Uniform hexagonal profile.
- Available with different entry thread lengths to suit various applications.



AVAILABLE OPTIONS		
T3CDSPB	LEAD SHEATHED	
T3CDSW	SWA /AWA SPECIFIC	
T3CDSX	BRAID SPECIFIC	
TEIFU	COMPACT STAINLESS STEEL	





Additional approvals held



When a larger diameter cable is installed the inner compensator operates to a greater extent.



When a smaller diameter cable is installed the inner compensator operates to a lesser extent.



E SERIES

DOUBLE SEAL FOR ARMOURED CABLES

CMP E Series Globally Certified Flameproof (Type 'd'), Increased Safety (Type 'e'), Restricted Breathing (Type 'nR') and Combustible Dust (Type 'ta') cable gland for use in Zone 1, Zone 2, Zone 21 and Zone 22 Explosive Atmospheres.

- For use with all types of armoured cable.
- Available in nickel plated brass, brass and aluminium.
- Provides a Flameproof seal on the cable inner bedding
- Environmental seal on the cable outer sheath to IP68 (IP66 as standard IP67, IP68 on request).
- Superior EMC performance.
- Provides mechanical cable retention to IEC 60079-0, BS 6121 and IEC 62444 and electrical continuity via armour wire termination.
- Armour cone and AnyWay universal clamping ring arrangement allows the cable to be easily disconnected from the equipment.
- E2** for lead sheathed cable.
- Available with different entry thread lengths to suit various applications.





Additional approvals held



IP67, IP68 and Deluge Protection available upon request.

AVAILABLE OPTIONS		
E1FU / E2FU	UNIVERSAL FOR ALL ARMOUR TYPES	
E1FX / E2FX	BRAID SPECIFIC	
E1FW / E2FW	SWA / AWA SPECIFIC	
E***/M	MINING GROUP I	
E***D	DELUGE PROTECTED	

A2F

SINGLE SEAL FOR UNARMOURED & BRAIDED CABLES

CMP A2F Globally Certified Flameproof (Type 'd'), Increased Safety (Type 'e'), Restricted Breathing (Type 'nR') and Combustible Dust (Type 'ta') cable gland for use in Zone 1, Zone 2, Zone 21 and Zone 22 Explosive Atmospheres.

- For use with all types of unarmoured & braided cable.
- Available in nickel plated brass, brass, stainless steel and aluminium.
- Provides a flameproof and environmental seal on the cable outer sheath to IP68.
- Provides excellent cable retention to IEC 60079-0, BS 6121 and IEC 62444.
- Operating temperature -60°C to +130°C (standard), -60°C to +180°C (ThermEx option) .
- Available with different entry thread lengths to suit various applications.







Additional approvals held

IP66 IP67 IP68 +130°C PELUGE -60°C Ex db Ex eb Ex nR Ex ta

AVAILABLE OPTIONS		
A2E	Ex e ONLY	
A2FHT	HIGH TEMPERATURE	
A2F/M	MINING GROUP I	
A2FHC	INTEGRAL HOSE CONNECTION	



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				-		

cables should not be underestimated.

of cable cores.

potential failure of the seal.

The effective sealing of instrument and electrical

Traditional barrier type cable glands employing a clay based sealing compound, have been used in the industry for many

years to provide effective explosion protection. However,

a certain degree of risk is associated with this traditional

installation process and this risk increases with the number

Multi-core cables require the highest degree of competence

RapidEx is a liquid pour, fast curing, liquid resin barrier seal

and a long installation time to ensure a void-free, safe

installation. Not to recognise this will lead to rework, or

that installs in seconds and cures in minutes. Its unique

formula begins with a low viscosity liquid that flows into

APPLY MIX



the cable interstices completely surrounding the cable conductors, and in the process displacing the air from the cable gland's sealing chamber to ensure a high quality seal.

- The viscosity increases and completely cures in less than 40 minutes (at 20°C).
- Reduces risk.
- Delivers unprecedented reliability.
- Minimises installation time.
- Clean and easy to use.
- Thermal endurance / age tested to IEC 60079-0.
- Pressure tested to IEC 60079-1.

RapidEx is certified for use in Explosive Atmospheres with global certification including approval under IEC as well as other installation codes.

FOR THE PERFECT SEAL CHOOSE RAPID

PX REX SERIES

RAPIDEX BARRIER CABLE GLANDS

CMP Type PX REX Globally Certified Flameproof (Type 'd'), Increased Safety (Type 'e'), Restricted Breathing (Type 'nR') and Combustible Dust (Type 'ta') cable gland for use in Zone 1, Zone 2, Zone 21 and Zone 22 Explosive Atmospheres, with all types of armoured or unarmoured cable providing a RapidEx barrier seal around the cable conductors.

- For use with all types of cable.
- Available in nickel plated brass, brass, stainless steel and aluminium
- Provides a flameproof RapidEx seal around individual conductors.
- Prevents gas migration through cable layers and interstices
- Environmental seal on the cable outer sheath to IP68.
- Provides mechanical cable retention to IEC 60079-0, BS 6121 and IEC 62444.
- Operating temperature -60°C to +85°C.
- Available with different entry thread lengths to suit various applications.







; IP66	IP67		
DELUGE PROTECTED	+85℃ ↑ -60℃	XXXX EMC	
Ex db	Ex eb	Ex nR	Ex 1

Additional approvals held

AVAILABLE OPTIONS		
PX2KREX	UNIVERSAL FOR ALL ARMOUR TYPES	
PX2KWREX	SWA /AWA SPECIFIC	
PX2KXREX	BRAID SPECIFIC	
PXSS2KREX	UNARMOURED	
PXRCREX	CONDUIT CONNECTION	
PX2KREX/M	MINING GROUP I	
PXSS2KHCREX	INTEGRAL HOSE CONNECTION	

PATENT GRANTED: ES 2287986, NO 2287986, TR 2287986, AU 2010284848, AU 2014274614, GB 2485114, SG 178839, US 8872027, US 9484133, US 9774178, US 10193321, US 10348078, MY 153846

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RAPIDEX SERIES



SS2K

DOUBLE SEAL FOR UNARMOURED & BRAIDED CABLES

CMP SS2K Globally Certified Flameproof (Type 'd'), Increased Safety (Type 'e'), Restricted Breathing (Type 'nR') and Combustible Dust (Type 'ta') cable gland for use in Zone 1, Zone 2, Zone 21 and Zone 22 Explosive Atmospheres.

- For use with all types of unarmoured and braided cable.
- Available in nickel plated brass, brass, stainless steel and aluminium.
- Provides a Flameproof seal on the cable bedding and environmental seal on the cable outer sheath to IP68, or double seal on the cable outer sheath.
- Provides superior cable retention to IEC 60079-0, BS 6121 and IEC 62444.
- Operating temperature -60°C to +130°C.
- Available with different entry thread lengths to suit various applications.







Additional approvals held

AVAILABLE OPTIONS		
SS2KPB	LEAD SHEATHED	
SS2KTA	TAPE ARMOUR	

C SERIES

SINGLE SEAL Ex e FOR ARMOURED CABLES

The CMP CWe, CXe and C2K Globally Certified Increased Safety (Type 'e') and Combustible Dust (Type 'ta') cable gland for use in Explosive Atmospheres.

- For use with all types of armoured cable (CWe for SWA cable, CXe for braid and C2K for all other armour types)
- Available in nickel plated brass, brass, and aluminium.
- Environmental seal on the cable outer sheath to IP68 (IP66 as standard IP67, IP68 on request).
- Superior EMC performance.
- Provides mechanical cable retention and electrical continuity via armour wire termination to IEC 60079-0, BS 6121 and IEC 62444.
- Operating temperature -60°C to +130°C.
- Available with different entry thread lengths to suit various applications.



C2K Shown



IP66

Ex eb



Additional approvals held

IP67 and IP68 available upon request

AVAILABLE OPTIONS	
С2К	UNIVERSAL, RUGGED DESIGN FOR ALL Armour types with deluge protection

SS2K/C SERIES

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A2FRC/A2FFC/A2F-FF

CABLE GLANDS & ACCESSORIES

A2FRC / A2FFC

FOR USE WITH UNARMOURED & BRAIDED CABLES WITH CONDUIT CONNECTION

CMP Type A2FFC / A2FRC Globally Certified Flameproof (Type 'd'), Increased Safety (Type 'e'), Restricted Breathing (Type 'nR') and Combustible Dust (Type 'ta') cable gland for use in Zone 1, Zone 2, Zone 21 and Zone 22 Explosive Atmospheres, with unarmoured cable housed in metallic conduit systems.

- For use with all types of unarmoured and braided cable housed in conduit.
- Available in nickel plated brass, brass, stainless steel and aluminium.
- A2FFC for flexible conduit, A2FRC for rigid conduits or flexible conduits with corresponding fitting.
- Provides a flameproof and environmental seal on the cable outer sheath to IP66.
- Provides excellent conduit retention.
- Operating temperature -60°C to +130°C.
- Available with different entry thread lengths to suit various applications.





(€x)



Additional approvals held

A2F-FF

FOR UNARMOURED & BRAIDED FLAT FORM CABLES

CMP A2F-FF Globally Certified Flameproof (Type 'd'), Increased Safety (Type 'e'), Restricted Breathing (Type 'nR') and Combustible Dust (Type 'ta') cable gland for use in Zone 1, Zone 2, Zone 21 and Zone 22 Explosive Atmospheres.

- For use with all types of unarmoured and braided flat form cable.
- Ideal for heat trace cables.
- Available in nickel plated brass, brass, stainless steel and aluminium.
- Provides a flameproof seal and environmental seal on the cable outer sheath to IP68.
- Provides excellent cable retention.
- Operating temperature -60°C to +130°C
- Available with different entry thread lengths to suit various applications.





Additional approvals held



AVAILABLE OPTIONS		
A2-FF	INDUSTRIAL USE ONLY	
A2e-FF	Ex e	



A-100 FEED THROUGH SERIES - A2F100, A2E100 & RA2E100

100% PULL TEST COMPLIANCE NO SPECIAL CONDITIONS

Conforming to the latest national and international technical standards, the CMP A-100 series of Explosive Atmosphere cable glands has been designed, tested and certified to withstand the rigorous '100% pull test'.

Due to its unique design, the A-100 series (A2F100, A2e100, RA2e100) removes the need for a cable clamp or cleat before the point of entry where the cable gland is installed; saving time and expense, whilst delivering products that are among the safest in the world.

The displacement-type sealing rings used in the CMP A-100 series are designed for explosion protection and mechanical cable retention in compliance with IEC 60079 standards. These sealing rings exceed the requirements of Clause A3.1.1, Annex A, of IEC 60079-0:2017, which refers to the cable pull out resistance test of 'clamping non-armoured and braided cables'.

The A-100 series is intended for use with all types of unarmoured and braided cables in Zone 1, Zone 2, Zone 21 and Zone 22 Explosive Atmospheres complying to the latest IEC 60079 standards.

ADDITIONAL FEATURES

- Ingress Protection The A-100 series includes IEC 60529 specification tests IP66, IP67 and IP68.
- Deluge Protected The same products have undergone extensive deluge testing to DTS 01 : 91 which surpasses the conditions required by IEC 60529, with accelerated aging tests replicated by a thermal endurance programme applied before the deluge testing process.
- Supplied as standard with IP66, Increased Safety Ex e rated ingress disc for installation prior to the availability of cable.
- Available with different entry thread lengths to suit various applications.





A2e100 in Nickel Plated Brass with Ingress Disc



EXTREME TESTING

In order to comply with IEC 60079-0:2017 cable glands must be tested for thermal endurance and then be capable of holding a variable but substantial force which is determined by the external cable diameter.

This thermal endurance test is designed to replicate the lifespan of the cable gland and sealing ring, and is intentionally harsh on the product's material and characteristics. Through extensive research and development and due to the high grade of materials used at CMP, the A-100 series functions without fail even after thermal conditioning.

Ultimately the IEC standard requires the cable gland to hold a polished steel mandrel (in place of a cable), for a period of 6 hours, by use of the elastomeric sealing ring only, with a force in Newtons (N) applied equivalent to 20 times the cable diameter.

For a 20mm Ø cable, a 400N force is applied, which equates to 40.76kgs with a maximum slippage of 6mm allowed. This is extremely difficult to achieve for most cable glands of this type.

11.

CABLE GLANDS & ACCESSORIES



Contact CMP Products for further information should you have a need for products from the CMP A-100 series.

ELIMINATING 'SPECIAL CONDITIONS'

Where a product has not been tested to 100% load, or cannot meet the full test conditions of IEC 60079-0:2017, the standard permits a reduced load test equal to 25% of the declared values. In this case the product certification will contain a special condition, denoted by a suffix letter 'X' at the end of the certificate i.e. "Cable glands for use with unarmoured or braided cables are only suitable for fixed installations, the cable for which must be effectively clamped to prevent pulling and twisting".

When this condition exists there is a need, defined in various installation standards for explosive atmospheres, to secure the cable within a specified distance (preferably 300mm from the end of the cable gland). This is to ensure that the results of any rotational movement or twisting, and pulling forces or tension are not transferred to the cable conductors and their terminations inside the enclosure.

The CMP A-100 series eliminates the need for this additional clamping and surpasses the requirements of IEC 60079-0:2017 without any special conditions.



CMP A-100 and a standard A series cable gland during cable pull out resistance tests.



TSPe Ex e

TRUSEAL TSPE INTERNATIONALLY APPROVED, POLYMER, **Ex e, EXPLOSIVE ATMOSPHERE CABLE GLAND**

- Halogen and phosphorus-free
- Finger-locking seal provides superior cable retention and strain relief
- Approved to the latest editions of IEC/EN 60079
- Internationally marked IECEx and ATEX
- Intrinsically safe (Ex i) blue nut version available
- 3rd party certified to IEC/EN 62444
- Widest cable range take for any comparable cable gland
- Low weight with high stiffness and strength
- Anti-vibration technology prevents seal loosening in operation
- Approved entry thread sealing washer included







POLYMER EX CABLE GLAND

AVAILABLE OPTIONS

TSP

TRUSEAL TSP SINGLE SEAL, POLYMER, **INDUSTRIAL CABLE GLAND**

- Halogen and phosphorus-free
- Finger-locking seal provides superior cable retention and strain relief
- 3rd party certified to IEC/EN 62444
- Flame retardant UL94 V-0 version available
- Low weight with high stiffness and strength
- Widest cable range take for any comparable cable gland
- Available in a variety of colours (black as standard)
- Anti-vibration technology prevents loosening in operation
- Transit disc or IP68, IP69 and IP69K rated IP plug options available
- Approved entry thread sealing washer included





AVAILABLE OPTIONS		
TSP	INDUSTRIAL USE ONLY	
TSPVO	UL94 V-0 POLYMER INDUSTRIAL USE PRODUCT	



AVAILABLE OPTIONS		
TSP	INDUSTRIAL USE ONLY	
TSPVO	UL94 V-0 POLYMER INDUSTRIAL USE PRODUC	

13.

CABLE GLANDS & ACCESSORIES

CABLE GLANDS & ACCESSORIES

TSMe Ex e

TRUSEAL TSMe INTERNATIONALLY APPROVED, Ex e, METALLIC, EXPLOSIVE ATMOSPHERE CABLE GLAND

- Finger-locking seal provides superior cable retention and strain relief
- Approved to the latest editions of IEC/EN 60079
- Internationally marked IECEx and ATEX
- Suitable for intrinsically safe (Ex i) circuits
- 3rd party certified to IEC/EN 62444
- Widest cable range take on the market
- Easy to install
- Robust design, high quality materials
- O-ring interface seal included as standard
- Transit disc or IP68, IP69 and IP69K rated IP plug options available
- Product supplied in nickel-plated brass, or stainless steel on request

AVAILABLE OPTIONS		
TSMe	STANDARD EX CABLE GLAND	
TSZe	EMC EX CABLE GLAND	
TSXe	FMC FX CARLE GLAND WITH CONF AND SLEEVE	

TSM

TRUSEAL TSM SINGLE SEAL, INDUSTRIAL, METALLIC CABLE GLAND

- Finger-locking seal provides superior cable retention and strain relief
- 3rd party certified to IEC/EN 62444
- Widest cable range take on the market4
- Easy to install
- Robust design, high quality materials
- O-ring interface seal included as standard
- Transit disc or IP68, IP69 and IP69K rated IP plug options available
- Product supplied in nickel-plated brass, or stainless steel on request





CE	; IP66	IP67	 IP68	ु <i>द्र</i> ∽ 69K
b/				+105 °C
				1
				-60°C

AVAILABLE OPTIONS										
TSM	STANDARD CABLE GLAND									
TSZ	EMC CABLE GLAND									
TSX	EMC CABLE GLAND WITH CONE AND SLEEVE									



Ex Incex		, 67 IP68	_} <i>∦∕≓∕</i> 69K
L	+10 1 -60	5°C Ex eb	Ex ta





ACCESSORIES

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GLANDS

CABLE

INDUSTRIAL CABLE GLANDS



- For use with all types of unarmoured and braided cables.
- Available in nickel plated brass, brass, stainless steel and aluminium.
- Environmental seal on the cable outer sheath to IP68.
- Provides excellent mechanical cable retention to BS 6121 and IEC 62444.
- Operating temperature -60°C to +130°C or -60°C to +180°C (HT Versions).
- Available with different entry thread lengths to suit various applications.

C SERIES

- For use with all types of armoured cable (CW for SWA cable and CX for all other armour types).
- Available in nickel plated brass, brass and aluminium.
- Environmental seal on the cable outer sheath to IP68 (IP66 as standard IP67, IP68 on request).
- Superior EMC performance.
- Provides mechanical cable retention to BS 6121 and IEC 62444 and electrical continuity via armour wire termination.
- Operating temperature -60°C to +130°C.
- Available with different entry thread lengths to suit various applications.





SS2KGP

- Double seal cable gland for use with all types of unarmoured and braided cables.
- Available in nickel plated brass, brass, stainless steel and aluminium.
- Provides superior cable retention to BS 6121 and IEC 62444.
- Provides environmental seal on the cable bedding and cable outer sheath to IP68, or double seal on the cable outer sheath.
- Operating temperature -60°C to +130°C.
- Available with different entry thread lengths to suit various applications.



E SERIES

- Double seal for use with all types of armoured cable.
 (E1W for SWA cable, E1X for all other armour types, or E1U 'Universal' for all types of armour)
- Available in nickel plated brass, brass and aluminium.
- Provides environmental seal on the cable bedding and cable outer sheath to IP68 (IP66 as standard IP67, IP68 on request).
- Superior EMC performance.
- Provides mechanical cable retention to BS 6121 and IEC 62444 and electrical continuity via armour wire termination.
- Operating temperature -60°C to +130°C.
- Available with different entry thread lengths to suit various applications.



SOLO LSF

The CMP SOLO LSF cable glands and accessories meet the most stringent requirements and provide a single, simple solution for specifiers and users in meeting the Low Smoke and Fume (LSF) and halogen free requirements.

CMP SOLO LSF cable glands meet the requirements of the London Underground Limited Fire Safety Regulations and as such, they are LUL approved for use within the London Underground network.

CIEL

The Cast Integral Earth Lug (CIEL) concept is intended for external earth connections where it is essential to maintain critical earthing under high level short circuit fault conditions. It is designed to meet IEE earthing regulations and because of its unique design, is particularly suitable for medium voltage and high voltage installations where quick response electronic circuit breakers have not been installed.

CIEL options are available in various gland types including: CW-CIEL, E1W-CIEL and E2W-CIEL. Other options are available on request including versions for Explosive Atmosphere installations, such as E1FW-CIEL and E2FW-CIEL.

ZEN

The ZEN Range of Insulated cable glands enables an innovative approach for electrical cable installations. Providing a method which permits the zoning of earth connections for earthed neutral system of supply, CMP ZEN cable glands allow flexibility in the design of the earthing circuit and a means of testing earth circuits without disconnecting the cable gland.

Circulating currents can be eliminated and cable noise in instrument cables can be controlled by single point earthing. This design solution can be used with single core armoured cables (e.g. AWA), which will provide isolation of metallic cable glands from gland plates and reduce the risk of cables and cable glands over heating.









CONDUIT ACCESSORIES

ADAPTORS

The CMP range of thread conversion adaptors and reducers is designed to provide flexibility and versatility in the execution of construction works when there is a conflict between the type or size of the cable gland thread and the cable entry hole in the equipment.

These are available with male-to-female, male-to-male or female-to-female connection threads and can be supplied with thread conversion between the forward and rear threads to either an increased or reduced size or a different thread type e.g. metric to NPT, or NPT to metric.

- Industrial versions available.
- Available in nickel plated brass, brass, stainless steel, aluminium and nylon (Ex e only).
- O-ring interface seal options available for protection up to IP68
- Insulated adaptors for areas where electromagnetic 'noise' and stray circulating eddy currents particularly relevant in power plants.
- The CMP Type 787 right angled adaptor is designed to protect cables when installed in confined spaces where the cable may otherwise be subject to excessive bending stress.
- Available with different entry thread lengths to suit various applications.



737

787





Additional approvals held

AVAILABLE OPTIONS										
737	CO-AXIAL ADAPTORS & REDUCERS									
787	90° ADAPTORS									
717	INSULATED ADAPTORS									
797	MALE TO MALE / FEMALE TO FEMALE									
783	'Y' ADAPTORS									

STOPPER PLUGS

Stopper Plugs are designed to provide a permanent or temporary means of blanking unused cable entry holes in flameproof, increased safety, industrial, and many other enclosure types. These can be supplied in a variety of thread forms and sizes to suit the customers needs.

- Industrial versions available.
- Available in nickel plated brass, brass, stainless steel, aluminium and nylon (Ex e only).
- Entry thread seals available for IP66, IP67 & IP68. (Entry thread seals not suitable for 747).
- Tamper-proof versions available.
- Available with different entry thread lengths to suit various applications.





747

757

767



717





Additional approvals held

AVAILABLE OPTIONS										
747	RECESSED HEAD (IP66 ONLY)									
757	HEXAGON HEAD									
767	ROUND HEAD									
717	UNIVERSAL									

CABLE GLANDS & ACCESSORIES



CMP metallic unions are designed to allow connection of rigid and flexible conduit, or terminated cable glands, to any fixed equipment. Unions provide a running connection by means of an integral coupling arrangement that eliminates the need to rotate the conduit, cable, or equipment to achieve a correct termination.

- Entry thread seals available for ingress protection up to IP66.
- Available in nickel plated brass, brass, stainless steel and aluminium.
- Co-axial, 45° and 90° versions available.
- Ease of installation makes the process of removing the conduit or other terminated cable entry device from the equipment simple, fast & effective.
- RapidEx barrier versions available.
- Epoxy compound versions available.
- Compact design ideal for installations in confined spaces.
- Available with different entry thread lengths to suit various applications.







Additional approvals held

AVAILABLE OPTIONS									
780	CO-AXIAL UNION								
PX780REX	CO-AXIAL RAPIDEX BARRIER UNION								
784	45° UNION								
PX784REX	45° RAPIDEX BARRIER UNION								
789	90° UNION								
PX789REX	90° RAPIDEX BARRIER UNION								

BREATHER / DRAIN PLUGS

CMP 781 breather / drain plugs are designed for flameproof (Ex d) or increased safety (Ex e) apparatus that is susceptible to condensation, prone to moisture collection or ingress during normal operation. 781s are designed to act as both a drainage device, when mounted in a bottom entry of the equipment, and also to enable the inside air to breathe with the external environment under normal ambient and atmospheric conditions, whilst excluding further dust and moisture from penetrating the enclosure.

The 781E breather / drain plug is supplied complete with an integral entry thread o-ring interface seal, and a castellated locknut to facilitate drainage from inside the enclosure.

- The 781D must be installed into a threaded entry hole.
- The 781E can be installed into a through clearance hole
- Available in nickel plated brass, brass, stainless steel, aluminium and nylon (Ex e only).
- Filter prevents any dirt or other foreign bodies from entering the enclosure.
- Breathing capabilities help to combat the build-up of moisture & potential condensation in the apparatus.
 Draining features enable release of any water that
- has penetrated the apparatus whilst maintaining the applicable form of protection.





AVAILABLE OPTIONS										
781D	Ex d FLAMEPROOF									
781E	Ex e INCREASED SAFETY									

CABLE GLAND ACCESSORIES

783 Y ADAPTORS

783 Dual Entry Y Adaptor, internationally approved, explosive atmosphere or industrial conduit accessory. Available in a number of sizes, with combinations of metric and NPT thread types and sizes.

LOCKNUTS

Recommended for securing cable glands and accessories to a gland plate or into equipment. In metric and NPT thread form CMP offers brass, stainless steel and aluminium locknuts in a choice of standard duty and heavy duty options for sizes up to and including MI30.

EARTH TAGS

CMP 'slip on' earth tags, installed between the cable gland and equipment, provide an earth bond connection as specified in BS6121:Part 5:1993 and comply with category B rating specified in IEC 62444. CMP earth tags have been independently short circuit tested to verify their suitability under specified service conditions. Available in nickel plated brass, brass, aluminium and stainless steel.

SERRATED WASHERS

Available in stainless steel, these 'shake-proof' serrated washers are fitted internally within the equipment before a locknut and act as an anti-vibration device to prevent the cable gland or accessory from inadvertently loosening in service. They are very effective in maintaining security of connections in areas where vibration may be one of the external influences.

ENTRY THREAD SEALING WASHERS

To maintain the ingress protection rating between the equipment and the cable gland, it is advised to fit an entry thread sealing washer at the equipment-to-cable gland entry interface.

SPANNERS

CMP cable gland spanners are specifically designed to fit each individual product to minimise the potential for accidental injury caused by slippage, as can be the case with adjustable spanners or wrenches.

SHROUDS

CMP Products' shrouds minimise the risk of dirt or foreign substances gathering on the cable gland and the cable to cable gland interface.

GROUNDING LOCKNUTS

Grounding locknuts for use with cable glands, conduit fittings, tubing (EMT) fittings and conduit, provide a means of reliably and safely bonding the locknut (and gland) to the enclosure or equipment. Providing electrical continuity and tested to the requirements of CEC and NEC wiring codes CMP's grounding locknuts reduce the chance of equipment failure, downtime, power interruptions and eliminate potential safety issues. Versions are available with Increased Safety Ex e certification.

ARMOUR FORMING TOOLS

Enabling the armour wires to be prepared for termination in the cable gland.



















ACCESSORIES

CABLE GLANDS &

HOW TO ORDER

Please contact CMP Products for all ordering queries.

EXAMPLE ORDERING

20 - T3CDS - Nickel Plated Brass - 1/2" NPT

		20 T3CDS	5			1 RA		5				3		1		
		Size Type				Standard Suffix I.D.		Nickel Plated Br	rass		NP	「 Entry		1/2"		
													ENTRY THRE	AD SIZE**		
CABLE GLAND SIZE / TYPE		DESIGN Options (IF Applicable)	SUI	PPLY TYPE		CMP SUFFIX	MATERIAL			ENTRY THREAD Type		METRIC ⁺	NPT BSPP BSPT NPSM	IMPERIAL Electrical Thread (E.T.)	PG ⁺⁺	
e.g. 20T3CDS	D	Deluge seal	1	Cable gland	RA	Standard cable gland	0 or *	Brass	•	Metric	1A		3/8"	1/2"	7	
e.g. 40PX2K	C	Cast Integral EarthLug (CIEL)	2	Cable gland pack *	RA/M	Group I Mining certified cable gland	1	Aluminium	1	Imperial Electrical Thread (E.T.)	1	M16	1/2"	5/8"	9	
e.g. 50SCW	R	Equipment interface o-ring seal			RA/B	Brazilian certified cable gland	2	Nylon	2	PG	2	M20	3/4"	3/4"	11	
e.g. 25CXT					RU	Russian certified cable gland	3	Mild steel	3	NPT	3	M25	1"]"	13.5	
					RD	Supplied with ingress disc	4	Stainless steel	4	BSPP	4	M32	11/4"	11/4"	16	
					RE	Alternative cone for smaller diameter SWA	5	Nickel plated brass	Nickel plated brass 5 NPSM		5	M40	11/2"	11/2"	21	
					RB	Alternative cone for larger diameter SWA			6	BSPT	6	M50	2"	2"	29	
* No ouff		au ira d									7	M63	21/2"	21/2 "	36	
**Other t	ix re hrea	quirea Id sizes availab	le ur	on requ	est						8	M75	3"	3"	42	
Otherit		ia 31263 availab	ic up	Johnequ	0.50						9	M90	31/2"	31/2"	48	
											10	M100	4"	4"	-	
											11	M115	-	-	-	
											12	M130	5"	5"	-	

ARMOURED CABLE GLANDS - T3CDS SHOWN AS EXAMPLE

		AVAILABL		CABLE BEDDING		OVERALL CABLE			ARMOUR WIRE DIAMETER				ACROSS		COMBINED ORDERING REFERENCE			CARLE			
GLAND		STANDARD OPTION					DIAMETER DIA		DIAMETER		GROOVED CONE (X) STE		STEPPED CONE (W)		CORNERS	PROTRUSION LENGTH	(GLAND WEIGHT			
SILL	METRIC	THREAD LENGTH (METRIC)	NPT	THREAD LENGTH (NPT)	NPT	MIN	MAX	MIN	МАХ	MIN	MAX	MIN	MAX	MAX	MAX		SIZE	TYPE	ORDERING SUFFIX	(kg)	
20516	M20	15.0	1/2"	19.9	3/4"	3.1	8.6	6.1	13.1	0.3	1.0	0.8	1.25	24.0	26.4	78.7	205/16	T3CDS	1RA	0.18	
205	M20	15.0	1/2"	19.9	3/4"	6.1	11.6	9.5	15.9	0.3	1.0	0.8	1.25	24.0	26.4	78.7	205	T3CDS	1RA	0.20	
20	M20	15.0	1/2"	19.9	3/4"	6.5	13.9	12.5	20.9	0.4	1.0	0.8	1.25	30.5	33.6	76.2	20	T3CDS	1RA	0.28	
255	M25	15.0	3/4"	20.2	1"	11.1	19.9	14.0	22.0	0.4	1.2	1.25	1.6	37.5	41.3	88.8	255	T3CDS	1RA	0.44	
25	M25	15.0	3/4"	20.2	1"	11.1	19.9	18.2	26.2	0.4	1.2	1.25	1.6	37.5	41.3	88.7	25	T3CDS	1RA	0.44	
32	M32	15.0	1″	25.0	11/4"	17.0	26.2	23.7	33.9	0.4	1.2	1.6	2.0	46.0	50.6	90.7	32	T3CDS	1RA	0.63	
40	M40	15.0	1 1/4"	25.6	1 1/2"	22.0	32.1	27.9	40.4	0.4	1.6	1.6	2.0	55.0	60.5	93.2	40	T3CDS	1RA	0.91	
50S	M50	15.0	1 1/2"	26.1	2"	29.5	38.1	35.2	46.7	0.4	1.6	2.0	2.5	60.0	66.0	100.7	50S	T3CDS	1RA	1.12	
50	M50	15.0	2"	26.9	21/2"	35.6	44.0	40.4	53.0	0.6	1.6	2.0	2.5	70.1	77.1	105.8	50	T3CDS	1RA	1.60	
63S	M63	15.0	2"	26.9	2 1/2"	40.1	49.9	45.6	59.4	0.6	1.6	2.0	2.5	75.0	82.5	102.5	63S	T3CDS	1RA	1.73	
63	M63	15.0	2 1/2"	39.9	3"	47.2	55.9	54.6	65.8	0.6	1.6	2.0	2.5	80.0	88.0	105.4	63	T3CDS	1RA	1.78	
755	M75	15.0	2 1/2"	39.9	3"	52.8	61.9	59.0	72.0	0.6	1.6	2.0	2.5	90.0	99.0	110.6	75S	T3CDS	1RA	2.57	
75	M75	15.0	3"	41.5	3 1/2"	59.1	67.9	66.7	78.4	0.6	1.6	2.5	3.0	100.0	110.0	120.3	75	T3CDS	1RA	3.33	
90	M90	24.0	3"	42.8	4"	66.6	78.6	76.2	90.3	0.8	1.6	3.15	4.0	115.0	126.5	138.9	90	T3CDS	1RA	4.87	
100	M100	24.0	4"	44.0	5"	76.0	90.9	86.1	101.4	0.8	1.6	3.15	4.0	127.0	139.7	128.2	100	T3CDS	1RA	4.97	
115	M115	24.0	4"	44.0	5"	86.0	97.9	101.5	110.2	0.8	1.6	3.15	4.0	138.0	151.8	161.3	115	T3CDS	1RA	7.72	
130	M130	24.0	5"	46.8	6"	97.0	114.9	110.2	123.2	0.8	1.6	3.15	4.0	157.0	172.7	173.3	130	T3CDS	1RA	9.78	
*Note: For	materia NP	al options pleas T options pleas	e add the e add the	e following e following	suffix to digits to	change the mat	the orde erial suf	ering refe fix : ½" =	erence : = 31, ³/4"	Brass (n = 32, 1" =	io suffix = 33, 1 1/4	requirec ' = 34, 1	l), Nickel 1/2" = 35,	Plated B 2" = 36,	rass "5", 3 2 ½" = 37,	16 Grade Stair 3" = 38, 3 ½"	nless Stee = 39 (Bra	l "4", Co ss requir	pper Free Alu res prefix "0")	minium "1" For	
	Example	es: 32T3CDS1R/	A534 = N	Nickel Plate	d Brass 1	¹⁄₄" NPT	50ST30	CDS1RA0	035 = Br	rass 1 1/2"	NPT, 25	T3CDS1	RA432 =	Stainless	Steel 3/4"	NPT, 20T3CD	S1RA5 =	Nickel Pl	ated Brass 20	mm	
							- C - C - C - C - C - C - C - C - C - C		1.	1 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A	10 A A	1 A A A A A A A A A A A A A A A A A A A	10.0	100 A 100							

UNARMOURED CABLE GLANDS - A2F SHOWN AS EXAMPLE

		AVAILAE	BLE ENTRY THI	READS		OVERALL CABLE DIAMETER		ACROSS	ACROSS		COMBI	INED ORDERI	CADIC	
CABLE GLAND	STANDARD OPTION								LOKNEKS	PROTRUSION		(DKASS PI	GLAND	
SIZE	METRIC	THREAD LENGTH (METRIC)	NPT	THREAD LENGTH (NPT)	NPT	MIN	MAX	MAX		LENGIH	SIZE	TYPE	ORDERING SUFFIX	(kg)
16	M16	15.0	-	-	-	3.2	8.7	24.0	26.4	29.9	16	A2F	1RA	0.060
20516	M20	15.0	1/2"	19.9	3/4"	3.2	8.7	24.0	26.4	26.0	20516	A2F	1RA	0.070
205	M20	15.0	1/2"	19.9	3/4"	6.1	11.7	24.0	26.4	26.0	20S	A2F	1RA	0.060
20	M20	15.0	1/2"	19.9	3/4"	6.5	14.0	27.0	29.7	27.7	20	A2F	1RA	0.070
25	M25	15.0	3/4"	20.2	1"	11.1	20.0	36.0	39.6	35.5	25	A2F	1RA	0.130
32	M32	15.0	1"	25.0	1 1/4"	17.0	26.3	41.0	45.1	35.1	32	A2F	1RA	0.150
40	M40	15.0	1 1/4"	25.6	1 1/2"	23.5	32.2	50.0	55.0	35.1	40	A2F	1RA	0.200
505	M50	15.0	1 1/2"	26.1	2"	31.0	38.2	55.0	60.5	33.0	505	A2F	1RA	0.260
50	M50	15.0	2"	26.9	2 1/2"	35.6	44.0	60.0	66.0	37.3	50	A2F	1RA	0.270
63S	M63	15.0	2"	26.9	2 1/2"	41.5	49.9	70.5	77.6	33.5	63S	A2F	1RA	0.430
63	M63	15.0	2 1/2"	39.9	3"	47.2	55.9	75.0	82.5	36.2	63	A2F	1RA	0.400
755	M75	15.0	2 1/2"	39.9	3"	54.0	61.9	84.0	92.4	34.1	75S	A2F	1RA	0.520
75	M75	15.0	3"	41.5	3 1/2"	61.1	67.9	84.0	92.4	40.9	75	A2F	1RA	0.500
90	M90	24.0	3 1/2"	42.8	4"	66.6	79.9	108.0	118.8	60.3	90	A2F	1RA	1.600
100	M100	24.0	3 1/2"	42.8	4"	76.0	91.0	123.0	135.3	57.2	100	A2F	1RA	1.780
115	M115	24.0	4"	44.0	5"	86.0	97.9	133.4	146.7	67.3	115	A2F	1RA	2.670
130	M130	24.0	5"	46.8	-	97.0	114.9	152.4	167.6	74.7	130	A2F	1RA	3.800
*Note : For	material op	tions please add th	e following	g suffix to change	e the orderin	g reference	: Brass (no s	suffix require	d), Nickel Plat	ed Brass "5", 31	6 Grade S	tainless S	teel "4", Copper	Free Aluminium "1"

For INPT options please add the following guink to charge the ordering reference: brass (no sum required), Nickel Plated Brass 1, 3, 10 stade statilless steel 4, Copper Free Authini For NPT options please add the following digits to the matternal suffix: 'y' = 31, y'' = 32, 1'' = 34, 1y'' = 35, 2'' = 36, 2'y'' = 37, 3'' = 38, 3'y'' = 39 (Brass required) Examples : 32A2FIRA534 = Nickel Plated Brass 1'/'' NPT, 50SA2FIRA035 = Brass 1'/'' NPT, 25A2FIRA432 = Stainless Steel ³/'' NPT, 20A2FIRA5 = Nickel Plated Brass 20mm Dimensions are displayed in millimetres unless otherwise stated



TRUSEAL POWERED BY QUALITY

ABOUT CMP

SECURING CABLES WORLDWIDE



As a market-leading specialist designer and manufacturer of cable glands, cable cleats and accessories, CMP has been providing safe and innovative solutions to the global market for over 60 years; gaining us an international reputation for quality and reliability.

Our products are developed to suit a wide range of hazardous and industrial applications; including industries such as mining, oil & gas, rail, pharmaceuticals and construction. They have been designed and rigorously tested to cover a variety of international codes, standards and approvals.

Our high-quality products are reinforced with exceptional customer service and innovative solutions; we offer on-hand technical support from our experts across the globe, from 10 different offices spread across 6 continents.



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