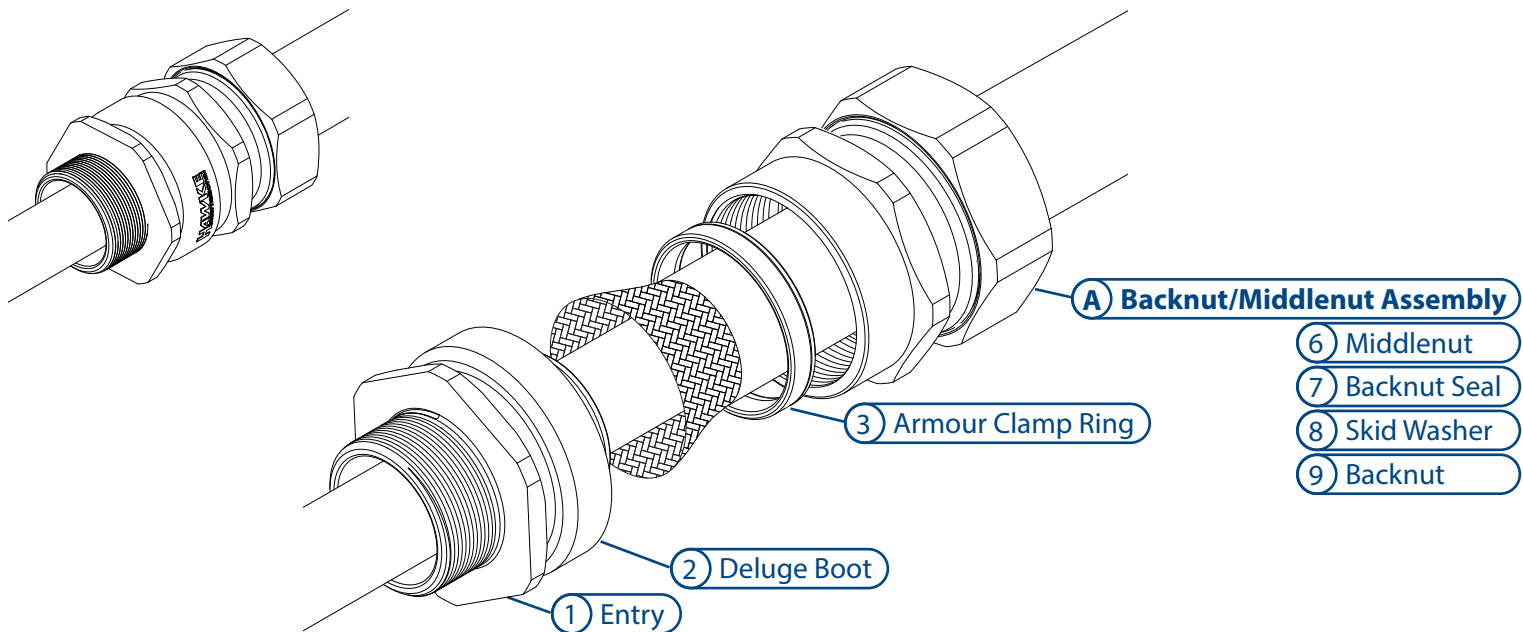


## A: Component Parts



### TECHNICAL DATA

<b>Cable Gland Type:</b>	Apex CXe
<b>Equipment Type:</b>	Group II Compression Cable Gland
<b>Ingress Protection:</b>	IP66, IP67
<b>Operating Temp:</b>	-60°C to +130°C

### CERTIFICATION DETAILS

Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da	
ATEX: CML23ATEX1002X	CML19ATEX4507X (Ex nR)
UKEX: CML23UKEX1004X	CML21UKEX4133X (Ex nR)
IECEX: IECEX CML23.0001X	IECEX CML21.0012X (Ex nR)

### INSTALLATION NOTES

- All cable glands must be installed by a suitably trained and competent individual.
- Cable gland entry threads are machined in accordance with BS 3643 6g (Metric) or ANSI/ASME B1.20.1 (NPT).
- The enclosure material shall be compatible with the cable gland. The material used shall not introduce environmental factors that affect the type of protection applied.
- To maintain IP ratings, Hawke recommends the use of a Hawke IP washer or other approved sealing method.
- To ensure effective sealing of an IP washer, enclosure sealing face surface finish shall be smooth and free from damage. The entry hole should be drilled perpendicular to the sealing face.
- When using enclosures with plain through holes, Hawke recommends nominal +0.3mm of diametric clearance over the major diameter of the thread. For example, to accommodate an M20 entry, drill 20.3 diameter.
- Enclosure wall thickness is dependent on gland entry thread length, style of enclosure entry hole (threaded or plain), protection concept of the installation and the required use of accessories. The installer should be aware of and specify for these requirements, for example Exe requires a minimum IP rating of IP54 in line with 60079-14.
- External earth tags are recommended to be fitted adjacent to the flange of the cable gland entry, so they remain in direct contact with the cable gland. Any sealing washer should be placed between tag and enclosure. For more information on placement of accessories, visit [www.hubbell.com/hawke](http://www.hubbell.com/hawke).

### ACCESSORIES

Hawke offer the following accessories to enable correct sealing and ground of cable gland.

<b>Shroud:</b>	For additional corrosion protection
<b>Locknut:</b>	To secure gland into position
<b>Sealing Washer:</b>	For additional ingress protection
<b>Earth Tag:</b>	For external bonding point
<b>Serrated Washer:</b>	To prevent vibration loosening locknuts

### SPECIFIC CONDITIONS OF USE

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

- When the glands are used for increased safety, dust protection and/or restricted breathing, the entry thread shall be suitably sealed (in accordance with EN / IEC 60079-14) to maintain the ingress protection rating of the associated enclosure. Not applicable when Hawke IP 66/67 sealing washer is used.
- The glands have a service temperature of -60°C to +130°C.
- 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 (does not apply when fitted with rear clamping device or Hawke Gland Mounted Clamp (GMC)).

### TORQUE VALUES

The torque values below are a general recommendation and may vary dependent on cable type. For best results, tighten in line with the number of turns described in the instruction STEP 5 & 6.

Gland Size	Torque Figures Nm							
	Os	O	A	B	C	C2	D	E
Middlenut Torque	5-10	5-10	8-15	10-20	15-25	25-40	25-40	40-45
Backnut Torque	8-12	8-12	8-12	8-12	15-20	25-30	30-35	40-45

### EU Declaration of Conformity and UK Attestation of Conformity in accordance with European Directive 2014/34/EU and UK statutory Instrument 2016/1107

**Manufacturer:** Hawke International, Oxford Street West, Ashton-under-Lyne, OL7 0NA, United Kingdom

**Equipment:** APEX CXe Cable Gland

**Provisions of the Directive fulfilled by the Equipment:** Group II Category 2G Ex eb IIC Gb, 3G Ex nR IIC Gc, 1D Ex ta IIIC Da – IP66/67

**Harmonized Standards used:** EN 60079-0:2018, EN60079-1:2014, EN60079-7:2015+A1:2018, EN60079-15:2019, EN60079-31:2014

**Notified Body for EU-Type Examination:** CML B.V. 2776 Amsterdam, NLD

**EU-type Examination Certificate:** CML23ATEX1002X, CML19ATEX4507X (Ex nR)

**Notified Body for production:** 0598



**Approved Body for UK-Type Examination:** CML B.V. 2503 Chester, UK

**UK-type Examination Certificate:** CML23UKEX1004X, CML21UKEX4133X (Ex nR)

**Approved Body for production:** 1180

On behalf of the above named company, I declare that on the date the equipment, accompanied by this declaration, is placed on the market the equipment conforms with all technical and regulatory requirements of the above listed directives.

  
Andrew Reid  
Technical Manager

Cable Gland Selection Table										
Size Ref.	Entry Thread Size		Cable Acceptance Details					Approx Max. Installed Length	Hexagon Dimensions	
			Max. Inner Sheath	Outer Sheath		Armour				
	Clamp Ring									
	Metric	NPT		Min.	Max.	Equipment Side	Equipment Side			
										
O	M16/M20	½"	12	7.2	16.0	0 - 0.8		52.5	24.0	26.5
A	M20	½" - ¾"	14.3	12.5	21.7	0 - 0.8		55	30.0	32.5
B	M25	¾" - 1"	20.2	18.0	27.0	0 - 0.7	0.5 - 1.0	60.5	36.0	39.5
C	M32	1" - 1¼"	26.5	24.5	33.0	0 - 0.7	0.5 - 1.25	63.5	46.0	50.5
C2	M40	1¼" - 1½"	32.5	31.0	41.5	0 - 0.7	0.5 - 1.25	69.5	55.0	60.6
D	M50	1½" - 2"	44.5	36.0	51.7	0 - 0.7	0.5 - 1.6	88.0	65.0	70.8
E	M63	2" - 2½"	56.3	53.0	64.5	0 - 0.7	0.5 - 1.6	86.0	80.0	88.0
F	M75	2½" - 3"	68.3	64.0	77.5	0 - 0.7	0.5 - 1.6	87.5	95.0	104.0
All dimensions in millimetres (except NPT where dimensions are in inches) Os - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread										

B: Cable Preparation

Separate factory assembled cable gland into Entry (1) and Backnut/Middlenut Assembly (A) while setting the Armour Clamp Ring (3) to the side.

Optionally, install the Entry (1) into enclosure using the appropriate IP sealing method as defined by the application.

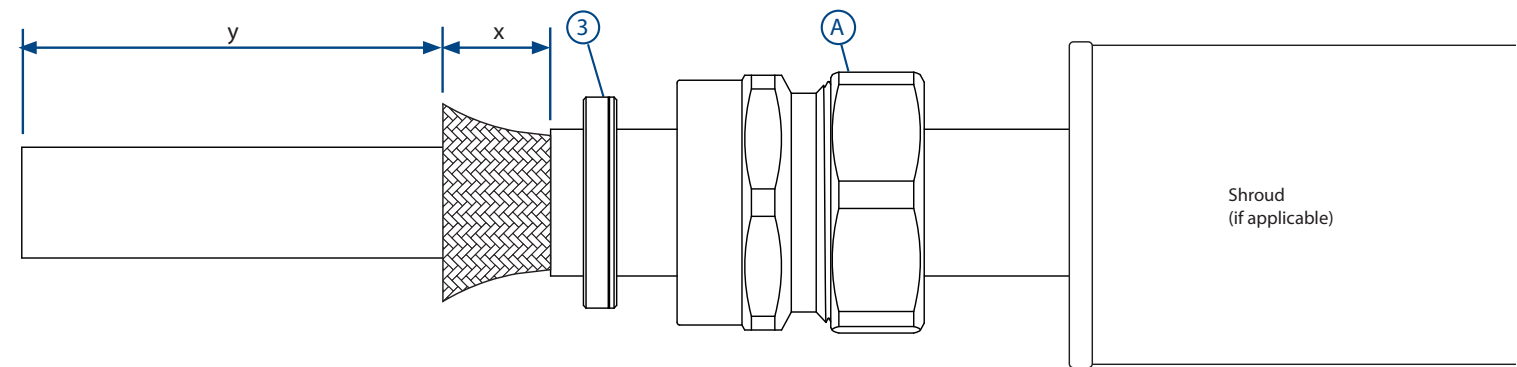
Slide shroud (if included), Backnut/Middlenut Assembly (A) onto the cable.

Cut cable to desired length and strip outer sheath.

Measure the braid/armour diameter/thickness, select orientation of Clamp Ring (3) and install on the Cable. Then cut braid to lengths as shown.

\*If cable has an inner tape; strip that back to the same length as the braid.

\*\*If the braids overlap each other; select correct orientation based on 2x measured diameter.



**Tape Armour**  
After tape is spread, ensure ends are trimmed at 90° as shown

Select correct Clamping Ring based on tape thickness.

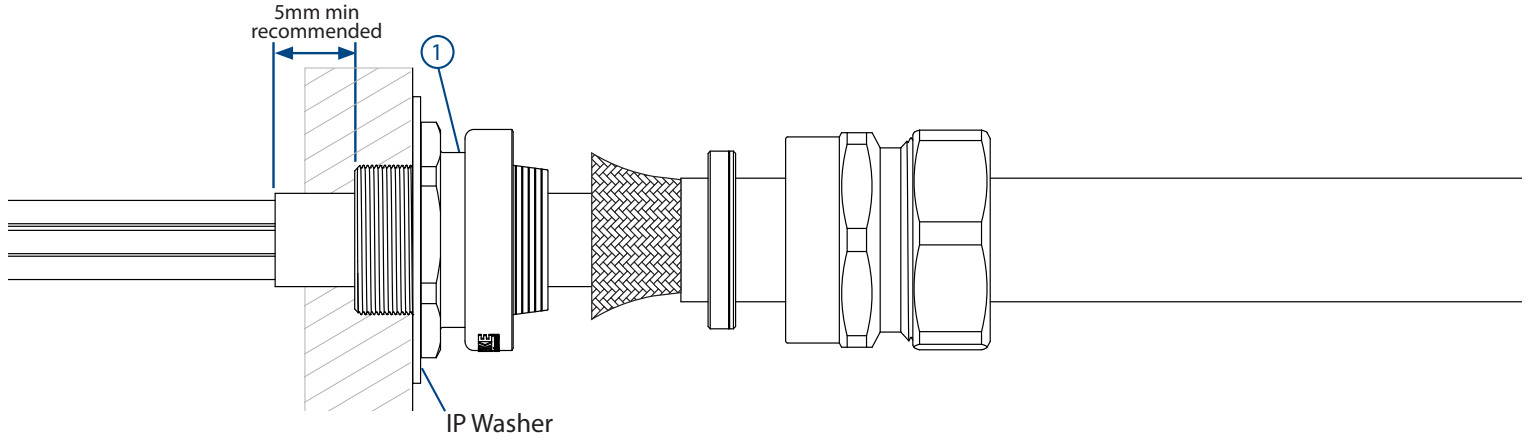
Strip Length		
Dim	Gland Size	
	Os-C	C2-F
x	20mm	25mm
y	To suit equipment	



## C: Installing Cable Gland

### Step 1 : Install Entry to Equipment

Fit Entry (1) to enclosure. If required, use the appropriate IP washer.

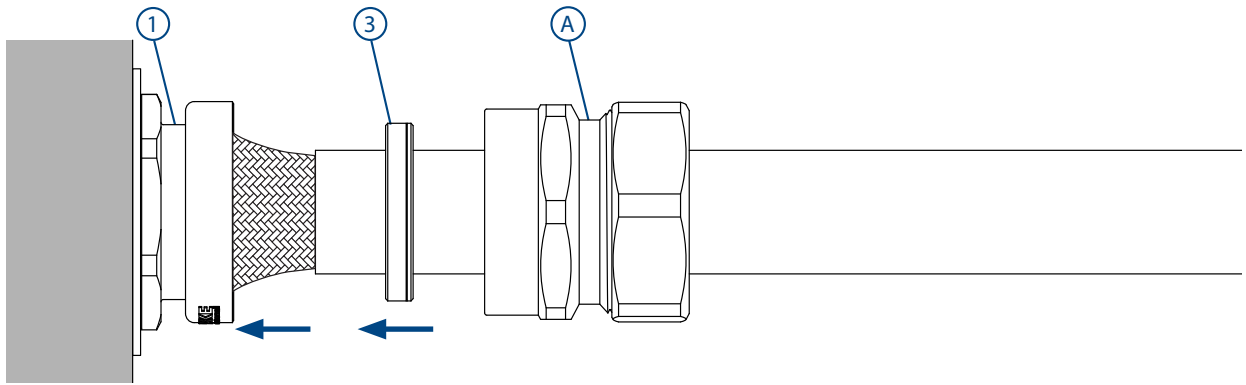


To aid wiring inside the enclosure, it may be necessary to strip the inner sheath prior to bringing the cable through the gland.

### Step 2 : Fit Braid to Entry

Push braid up to Entry (1) shoulder.

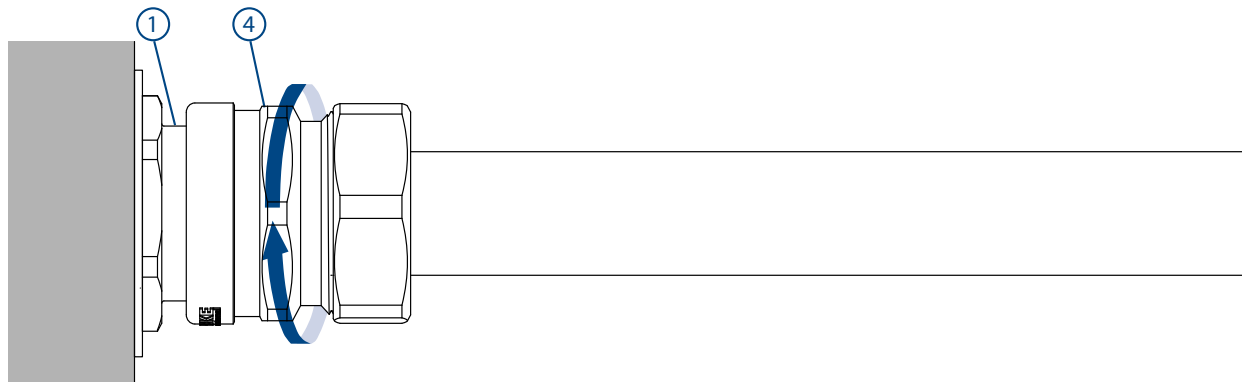
Slide Armour Clamp Ring (3) up to the braid by hand.



### Step 3 : Clamp Armour

Slide Middenut (4) up to Entry (1) and hand tighten.

Support the cable to prevent it twisting. If not already screwed into equipment, grip the Entry (1) with a spanner/wrench. Use a second spanner/wrench to tighten half to three quarters of a turn.

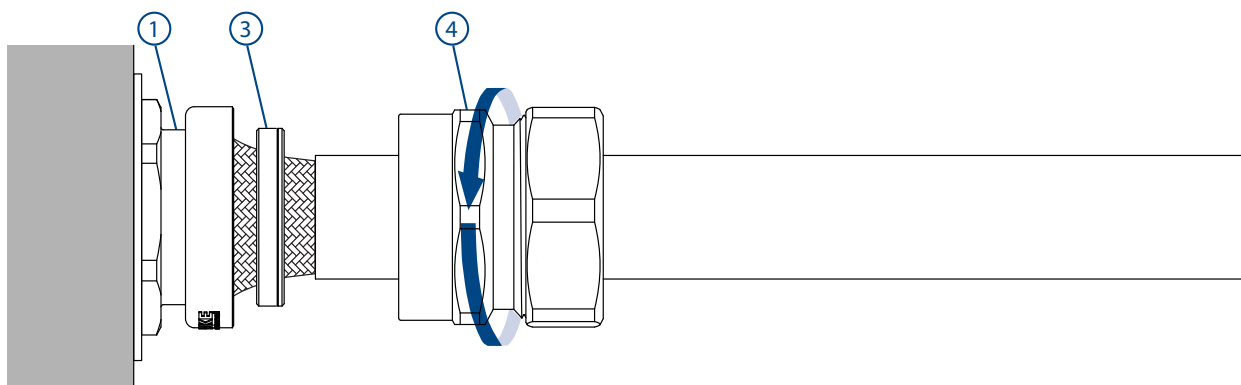


#### Step 4 : Inspect Braid

Unscrew the Middlednut (4). The Armour Clamp Ring (3) should now be locked in place.

Visually inspect that the braid has been successfully clamped between the Entry (1) and the Armour Clamp Ring (3).

If clamping is not satisfactory, repeat Step 3, with an additional 1/4 turn and repeat the inspection.

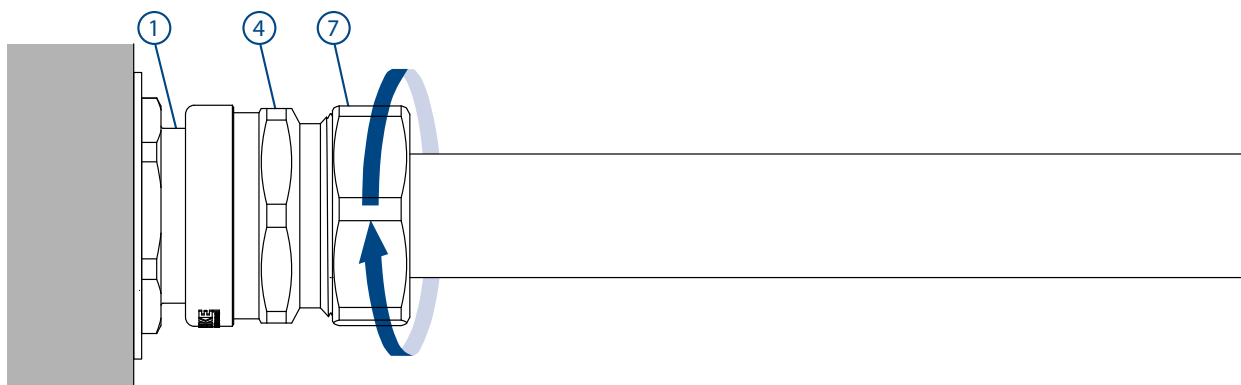


#### Step 5 : Install Backnut

Tighten the Backnut (7) until a seal is formed around the cable.

Use a spanner/wrench to grip the Middlednut (4).

While preventing the Middlednut (4) turning, use a second spanner/wrench to apply one further full turn to the Backnut (7).



#### Step 6 : Completion

Installation now complete.

Fit Shroud if Applicable.

