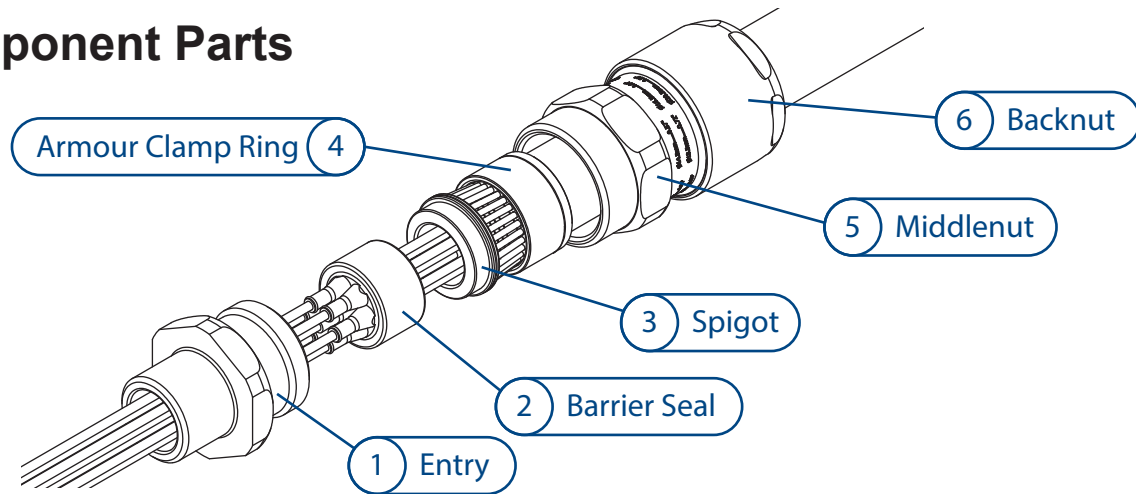
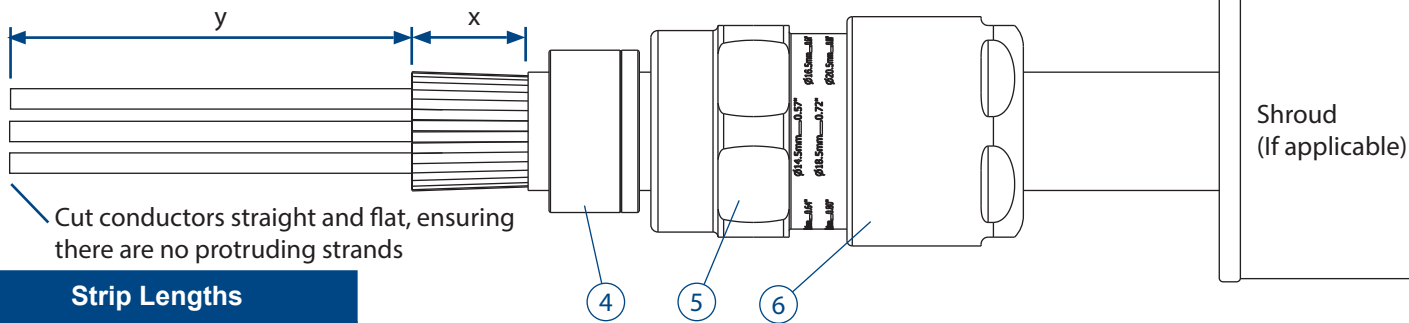


### A: Component Parts



### B: Cable Preparation

Slide shroud (if included), backnut (6), middenut (5) and armour clamp ring (4) onto cable.  
 Confirm orientation of armour clamp ring is correct (see table below).  
 Cut cable length, strip outer sheath and cut armour/braid to lengths as shown below.  
 Then expose the conductors by stripping the inner sheath as a minimum to the start of the armour/braid.  
 If drain wires or screens are to be brought through the barrier seal then refer to AI2028 for preparation instruction.



Strip Lengths		
Dim	Gland Size	
	Os-A	B-C
x	20mm	25mm
y	To suit equipment	

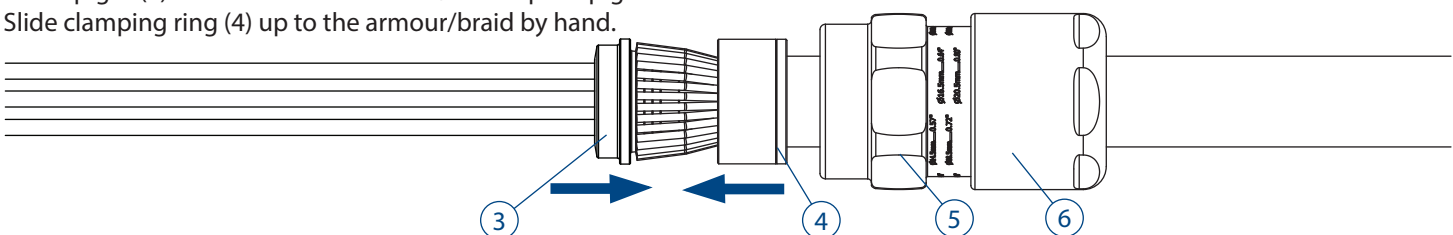
**Tape Armour**  
 After tape is spread, ensure ends are trimmed at 90° as shown

Armour Clamp Ring Orientation			
Gland Size	Ring Type	Orientation	
		Equipment Side	Equipment Side
Os-A	Standard	0.8 - 1.25	0.0-0.8
B	Standard	1.25 - 1.6	0.0-0.7
	Alternative (AR)	0.9-1.25	0.5-0.9
C	Standard	1.6 - 2.0	0.0-0.7
	Alternative (AR)	1.2-1.6	0.6-1.2

### C: Installing Cable Gland

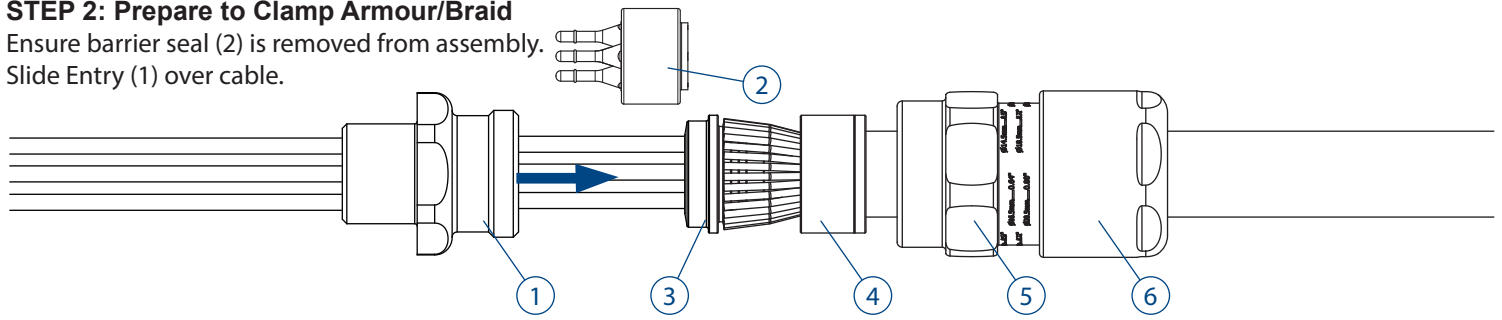
#### STEP 1: Fit Armour To Spigot

Slide spigot (3) over cable. Push armour/braid up to spigot shoulder.  
 Slide clamping ring (4) up to the armour/braid by hand.



## STEP 2: Prepare to Clamp Armour/Braid

Ensure barrier seal (2) is removed from assembly. Slide Entry (1) over cable.

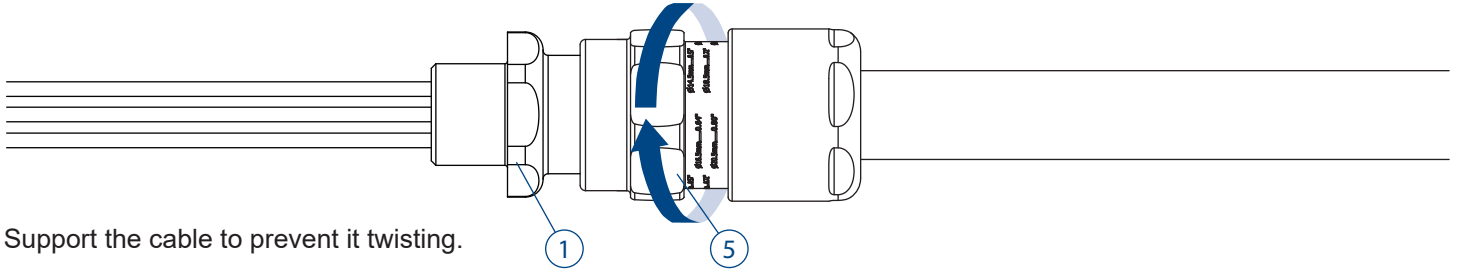


## STEP 3: Clamp Armour/Braid

Slide middle nut (5) up to entry and hand tighten.

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.



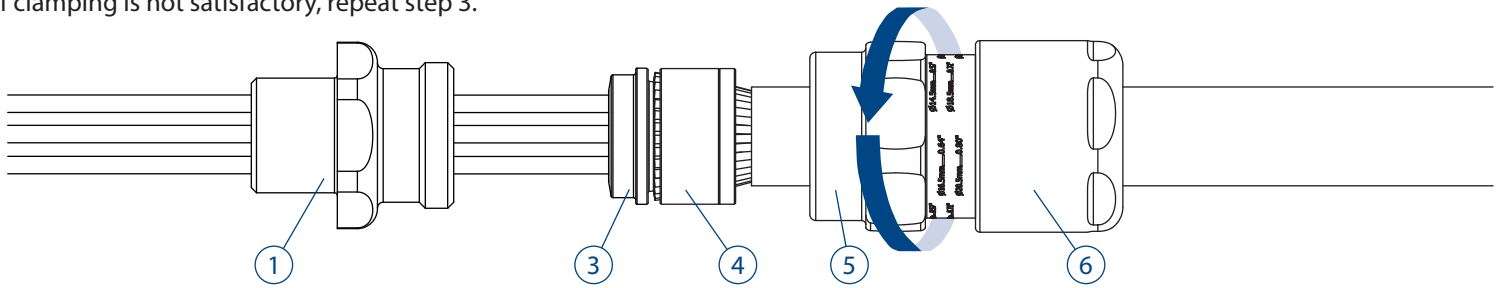
**Tip:** Support the cable to prevent it twisting.

## STEP 4: Inspect Armour/Braid

Unscrew the middle nut (5). The armour clamp ring (4) should now be locked in place.

Visually inspect that the armour/braid has been successfully clamped between the spigot (3) and the armour clamp ring (4).

If clamping is not satisfactory, repeat step 3.

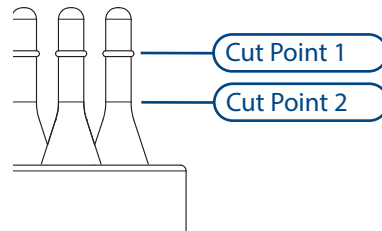


## STEP 5: Prepare Seal for Installation

For all seal positions which are to be populated with conductors, cut the diaphragms down as per the instructions below. For this, Hawke recommends the use of flush cable cutters.

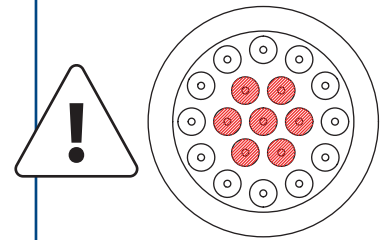
**All unused positions must be left capped.**

Cut Point Selection		
Seal Type	Over Insulation Diameter (mm)	Cut Point
Standard	$\geq 1.5 < 2.0$	1
	$\geq 2.0 \leq 4.0$	2
B-Size Alternative (S)	$\geq 4.5 \leq 5.5$	1
	$> 5.5 \leq 6.5$	2



### Critical Note

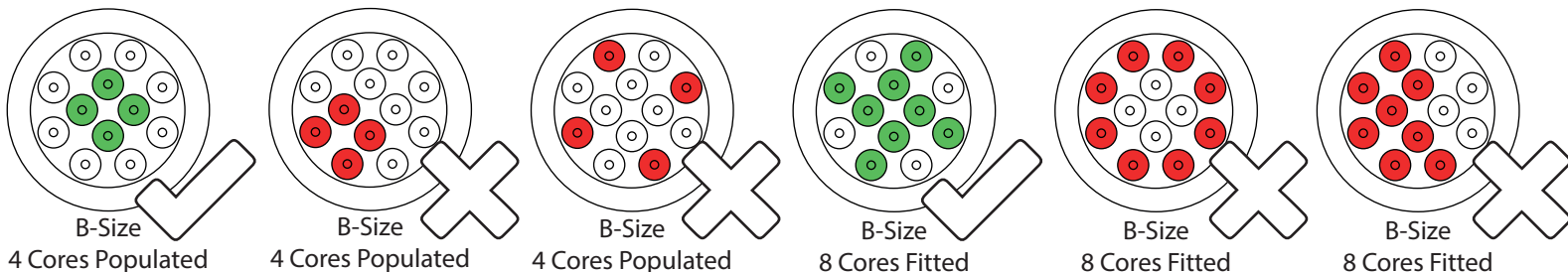
Applies to C-Size Seal Only



The 7x indicated positions above **must** be populated with conductors.

Although it does not invalidate the certification, Hawke recommends that the seals are populated from the centre positions first, and are evenly distributed as much as possible to ensure consistent compression.

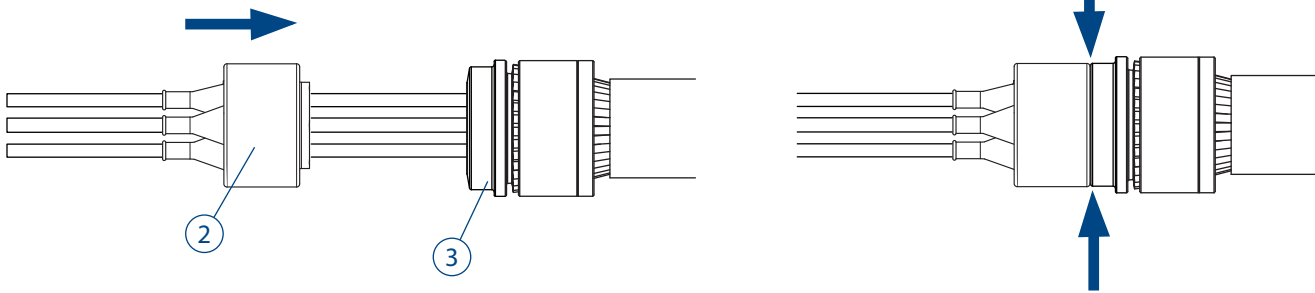
Examples of good and bad practice:



### STEP 6: Install seal onto Conductors

Feed each conductor into the correct seal diaphragm position. Ensure the diaphragm cone is in complete contact with the conductor around the full diameter. If the seal is ripped during this process, and the cone is not in complete contact with the conductor, then the seal must be replaced.

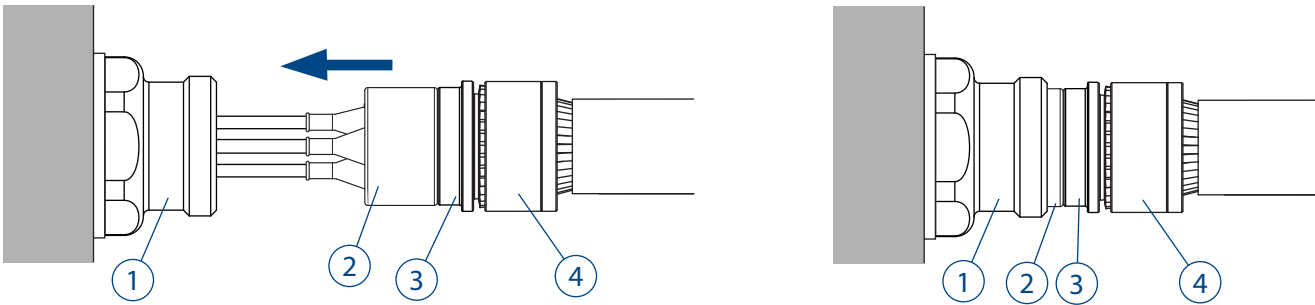
Slide the seal (2) down the conductors until it is properly seated into the spigot (3) as shown below.



### STEP 7: Install barrier seal into Entry

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

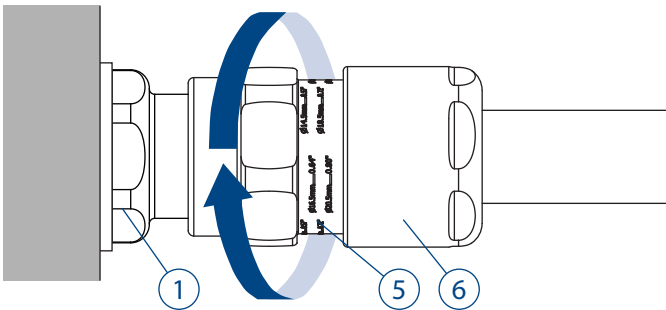
Feed the conductors through the entry (1) and seat the seal (2) into the entry (1) until it meets the base of the entry bore.



### STEP 8: Compress Barrier Seal

With the seal fully seated into the entry, tighten up the middle nut by hand until resistance is felt.

Using a wrench/spanner tighten the middle nut (5) the correct number of turns, refer to barrier seal compression table.



Barrier Seal Compression		
Gland Size	Seal Type	No. of Turns
Os - O	Standard	2
A	Standard	3
B	Standard	5
B	Alternative (S)	4
C	Standard	3

### STEP 9: Install Backnut

Tighten the backnut (6) until a seal is formed around the cable.

Use a wrench/spanner to grip the middle nut (5).

While preventing the middle nut (5) turning, use a second wrench to apply one further full turn to the backnut (6).



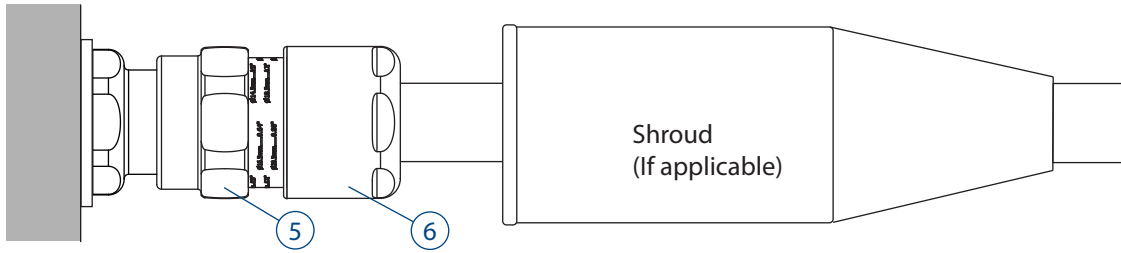
# Technical Information

## P PSG 553/RAC



### STEP 10: Inspect Backnut

Use the middlenut (5) guide as an indication that the backnut (6) is in the correct position to suit cable diameter. A diameter scale below is provided to assist this process. Slide shroud over cable gland if applicable.



### TECHNICAL DATA

**Cable Gland Type:** P PSG 553/RAC  
**Equipment Type:** Group II Barrier Cable Glands  
**Ingress Protection:** IP66, IP67, IP68\*  
 \*30m for 7 days with thread sealant to EN60529, See AI464.  
**Operating Temp:** -60°C to +100°C

### CERTIFICATION DETAILS

Ex db IIC Gb / Ex eb IIC Gb / Ex nR IIC Gc / Ex tb IIIC Db  
**ATEX:** CML19ATEX1167X UKEX: CML 21UKEX1161X  
**IECEx:** CML19.0045X IEx:14.0272X  
**EAC:** No EA3C RU C-GB.HA91.B.00264/21

### ACCESSORIES

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

**Shroud:** For additional corrosion protection  
**Locknut:** To secure gland into position  
**Sealing Washer:** For additional ingress protection  
**Earth Tag:** For external bonding point  
**Serrated Washer:** To prevent vibration loosening locknuts  
**Hawke GMC:** Gland mounted cable clamp

### INSTALLATION NOTES

- Hawke cable gland entry threads are manufactured in accordance with Metric BS3643 (Metric) or ANSI/ASME B1.20.1 (NPT).
- All cable glands must be installed by a suitably trained and competent individual.
- When specifying cable glands, the installer should check material compatibility with enclosure and environment.
- In order to maintain effective sealing of an IP washer, cable gland entries must be installed perpendicular to the enclosure sealing faces and the enclosure sealing face must be smooth and free from damage.

### SPECIAL CONDITIONS OF USE:

- When used with unarmoured or braided cables, this cable gland is only suitable for fixed installations, the cable for which must be effectively clamped to prevent pulling and twisting. Does not apply when fitted with Hawke Gland Mounted Clamp (GMC)
- When the glands are used for increased safety or dust protection the entry thread shall be suitably sealed (in accordance with IEC 60079-14) to maintain the ingress protection rating of the associated enclosure. Not applicable when Hawke IP66/67 seal is used.

### TORQUE VALUES

All torque values below were generated on metallic mandrels. For cable, it is recommended that the assembly instructions are followed.

Torque Figures N/m						
Gland Size	Os	O	A	B	B (alt)	C
Middlenut Torque	7	7	7	15	27	27
Backnut Torque	12	12	20	30	35	35

## CABLE GLAND SELECTION TABLE

Size Ref.	Entry Thread Size		Cable Acceptance Details														Compressed Length	Maximum Length	Hexagon Dimensions	
			Conductors						Steel Wire Armour/Tape/Braid				Outer Sheath Diameter							
	Standard Seal		Alternative Seal (S)				Standard Ring		Alternative Ring (AR)		Min	Max	Across Flats	Across Corners						
	Diameter (mm)	Quantity	Diameter (mm)	Quantity	Orientation 1	Orientation 2	Orientation 1	Orientation 2												
Os	M20 / M16	1/2"	1.5	4.0	1	4	-	-	-	-	0.8 - 1.25	0 - 0.8	-	-	5.5	12.0	52.0	81.0	24.0	26.5
O	M20 / M16	1/2"	1.5	4.0	1	4	-	-	-	-	0.8 - 1.25	0 - 0.8	-	-	9.5	16.0	52.0	81.0	24.0	26.5
A	M20	1/2" / 3/4"	1.5	4.0	1	7	-	-	-	-	0.8 - 1.25	0 - 0.8	-	-	12.5	20.5	53.0	83.0	30.0	32.5
B	M25	3/4" / 1"	1.5	4.0	1	12	4.5	6.5	1	5	1.25 - 1.6	0 - 0.7	0.9 - 1.25	0.5 - 0.9	16.9	26.0	59.5	95.0	36.0	39.5
C	M32	1" / 1 1/4"	1.5	4.0	7	19	-	-	-	-	1.6 - 2.0	0 - 0.7	1.2 - 1.6	0.6 - 1.2	22.0	33.0	64.0	98.0	46.0	50.5

### EU Declaration 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:** P PSG/553/RAC

**Provisions of the Directive fulfilled by the Equipment:** Group II Category 2GD Ex db eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db - 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:** CML19ATEX1167X, CML19ATEX4507X (Ex nR)

**Notified Body for production:** 0598

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

**UK-type Examination Certificate:** CML 21UKEX1161X, 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