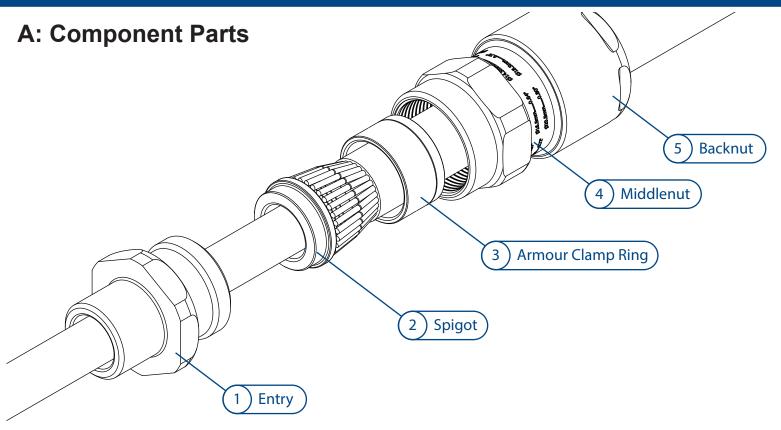
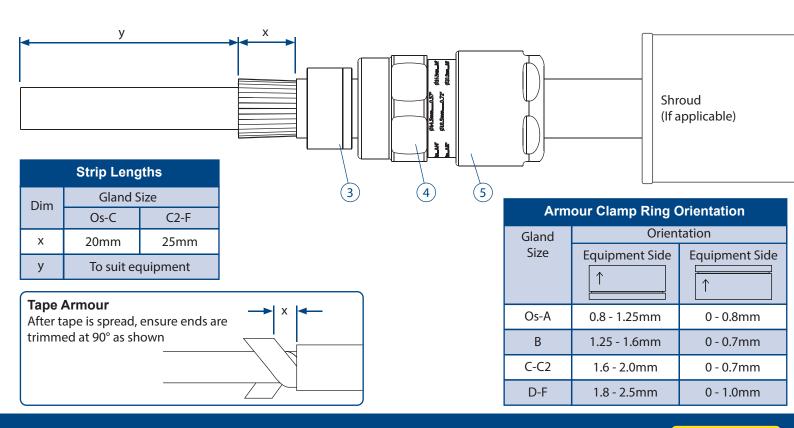
# Cable Gland Assembly Instructions





## **B: Cable Preparation**

Slide shroud (if included), backnut (5), middlenut (4) and armour clamp ring (3) onto cable. Confirm orientation of armour clamp ring is correct (see table below). Cut cable length, strip outer sheath and cut armour to lengths as shown in table below.





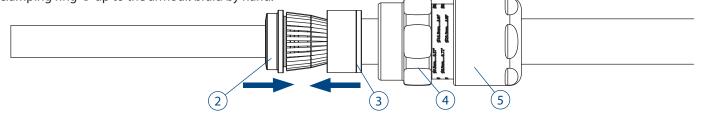
## **C: Installing Cable Gland**

#### **STEP 1: Fit Armour To Spigot**

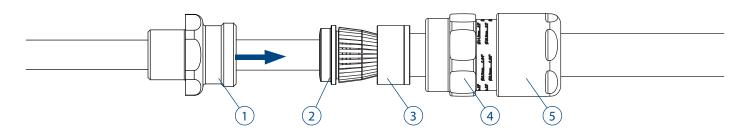
Slide spigot <sup>②</sup> over cable.

Push armour/braid up to spigot shoulder.

Slide clamping ring ③ up to the armour/braid by hand.



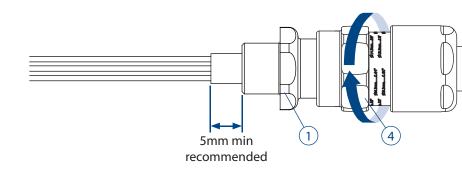
#### STEP 2: Prepare to Clamp Armour/Braid Slide Entry ① over cable.



#### STEP 3: Clamp Armour/Braid

Slide middlenut ④ 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.



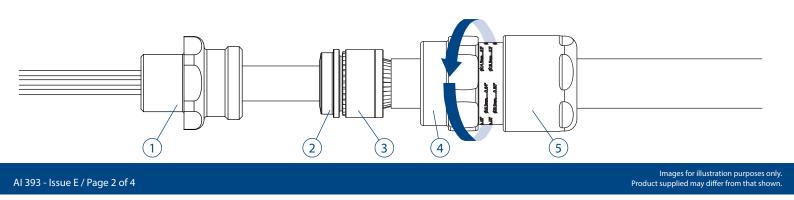
NOTE: Support the cable to prevent it twisting. To aid wiring inside the enclosure, it may be beneficial to strip the inner sheath as shown above.

#### STEP 4: Inspect Armour/Braid

|| || || ||

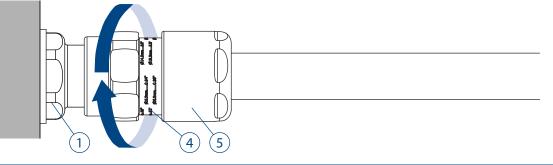
Unscrew the middlenut ④. The armour clamp ring ③ should now be locked in place. Visually inspect that the armour/braid has been successfully clamped between the spigot 2 and the armour clamp ring 3.

If clamping is not satisfactory, repeat step 3.



#### STEP 5: Reassemble

Replace entry ①.to enclosure. If required, use the appropriate IP washer. With inner seal properly seated into the entry, tighten up the middle nut by hand. Using a wrench/spanner tighten a further 1/6 turn.

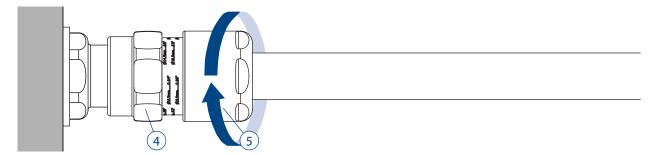


#### **STEP 6: Install Backnut**

Tighten the backnut (5) until a seal is formed around the cable.

Use a wrench/spanner to grip the middlenut ④.

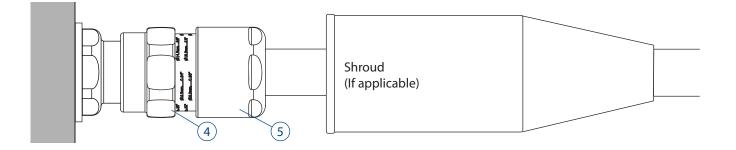
While preventing the middlenut ④ turning, use a second wrench to apply one further full turn to the backnut ⑤.



#### STEP 7: Inspect Backnut

Use the middlenut ④ guide as an indication that the backnut ⑤ 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.

<sup>55</sup> 60 65 70 75



50

80 Diameter Scale (mm)

Correct when printed A4 Booklet Style

## Technical Information 151 RAC X



TECHNICAL DATA Cable Gland Type: Equipment Type: Ingress Protection:

**Operating Temp:** 

#### ACCESSORIES

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

-60°C to +100°C

Industrial General Purpose

IP66, IP67, IP68\*, NEMA 4X

\*30m for 7 days with thread sealant

151 RAC X

Shroud:For additional corrosion protectionLocknut:To secure gland into positionSealing Washer:For additional ingress protectionEarth Tag:For external bonding pointSerrated Washer:To prevent vibration loosening locknuts

#### INSTALLATION NOTES

1. All cable glands must be installed by a suitably trained and competent individual.

2. Entry threads are in accordance with Metric BS3643 or NPT B1.20.1 3. Installer must check material compatability with enclosure and environment.

4. To maintain IP66/IP67, Hawke certified sealing washer or other approved sealing method must be used.

5. Sealing face surface must be smooth and free from damage

6. Wall thicknesses depended on thread length or retention type (locknut etc).

7. All entries must be installed perpendicular to the mounting surface. 8. When used with steel basket weave armour or braided cable, the cable must be clamped and cleated to prevent pulling on the armour or braid of the cable.

CABLE GLAND SELECTION TABLE													
	Entry Thread Size			Cabl									
Size Ref.			Inner Sheath	Outer Sheath		Steel Wire	Maximum Length	Hexagon Dimensions					
			Standard Seal			Таре							
	Metric	NPT	Max.	Min.	Max.	Orientation 1	Orientation 2	~	Across Flats	Across Corners			
Os	M20	1⁄2"	8.0	5.5	12.0	0.8/1.25	0/0.8	73.0	24.0	26.5			
0	M20	1⁄2"	11.9	9.5	16.0	0.8/1.25	0/0.8	73.0	24.0	26.5			
А	M20	1⁄2" - 3⁄4"	14.3	12.5	20.5	0.8/1.25	0/0.8	74.0	30.0	32.5			
В	M25	3⁄4" - 1"	20.2	16.9	26.0	1.25/1.6	0/0.7	82.0	36.0	39.5			
С	M32	1" - 1¼"	26.5	22.0	33.0	1.6/2.0	0/0.7	88.0	46.0	50.5			
C2	M40	11⁄4" - 11⁄2"	32.5	28.0	41.0	1.6/2.0	0/0.7	91.0	55.0	60.6			
D	M50	1½" - 2"	42.3/44.4	36.0	52.6	1.8/2.5	0/1.0	113.0	65.0	70.8			
E	M63	2" - 2½"	54.3/56.3	46.0	65.3	1.8/2.5	0/1.0	117.0	80.0	88.0			
F	M75	21⁄2" - 3"	65.3/68.2	57.0	78.0	1.8/2.5	0/1.0	115.0	95.0	104.0			

 Sizes Os and O are available with an M16 thread size. If M16 entry is used on O size cable glands the maximum cable inner sheath diameter is limited to 10.9mm.

CABLE GLAND CLASSIFICATION															
Material			Mechanical Properties			Electrical Properties				External Influences			Sealing System		
Metal	Non-Metallic	Composite	Without Cable Anchorage	With Cable Anchorage	Impact Category	Cable Retention (Armoured Cable)	Equipotential Bonding	Connection to Metallic Layers	Protective Connection to Earth	Insulation Characteristics	Ingress Protection	Temperatire Range	Resistance to Salt and Sulpher Dioxide Laden Atmospheres	Single Orifice Seal	Multi-Orifice Seal
				Туре	Category	Class			Category		IP66/ IP67	-60° to 100°			
Y	Х	Х	Х	А	8	В	Y	Y	С	Х	Y	Y	Y	Y	Х

EU Declaration of Conformity in accordance with European Directive 2014/34/EU

Standards used: EN 62444 : 2013

On behalf of the aforementioned 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.

maar

A. Tindall **Technical Manager** 

#### www.ehawke.com

UK Office Oxford Street West, Ashton-Under-Lyne, Lancashire. OL7 0NA. UK

Sales: +44 (0) 161 830 6698 West, Technical: +44 (0) 161 830 6697 '-Lyne, Fax: +44 (0) 161 830 6648 L7 0NA. UK E-mail: sales@ehawke.com MACDEM P. O. Box 16, Moscow, 119571, Russia Tel / Fax: +7 595 778 1264 Email: office@macdem.ru Hawke International is a division of Hubbell Ltd. Registered No. 669157 in England. Registered Office: Cannon Place, 78 Cannon Street, London EC4N 6AF. A member of the Hubbell Group of Companies AI 393 - Issue E / Page 4 of 4