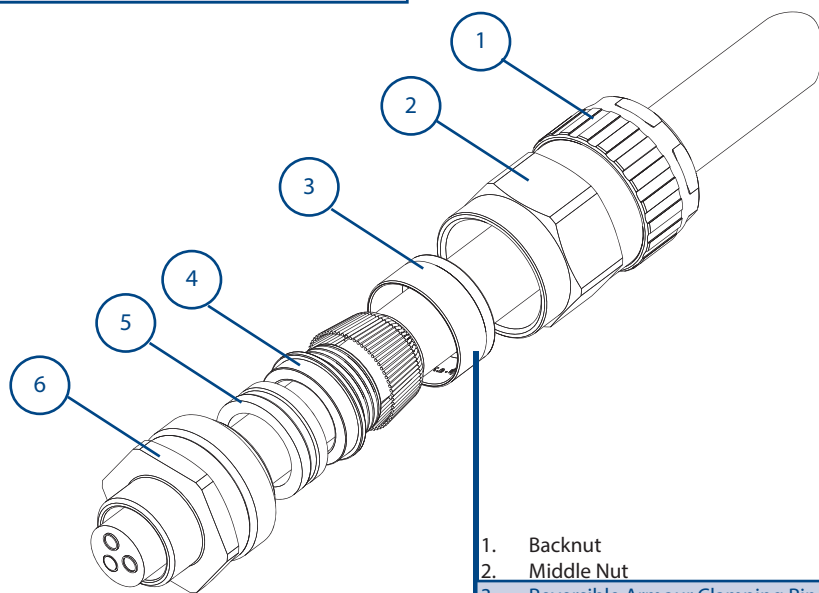


Assembly Instructions for cable gland: 153/RAC Industrial General Purpose

Operating temperature range -60°C +80°C

Certification Details

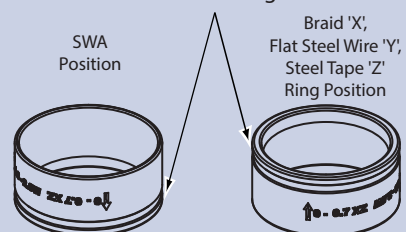
Gland Type: 153/RAC IP66 Industrial
EN 62444
Certificate of Assessment: CML 15CA932-2



1. Backnut
2. Middle Nut
3. Reversible Armour Clamping Ring (RAC)
4. Armour Spigot
5. Inner Seal
6. Entry (with captive deluge seal), if required

Reversible Armour Clamping Ring (RAC)

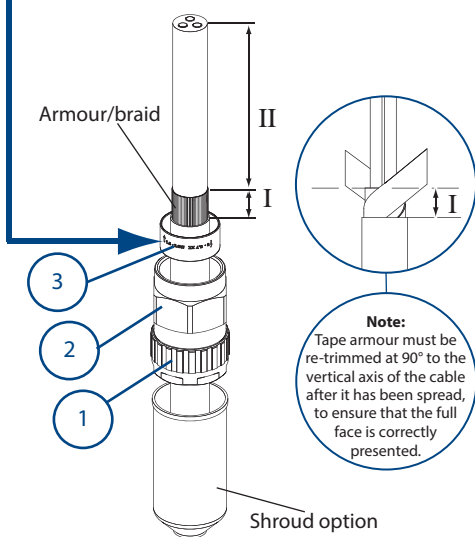
General identification ring orientation for:



IMPORTANT: The arrowhead indicating the correct armour thickness or type should point towards the equipment

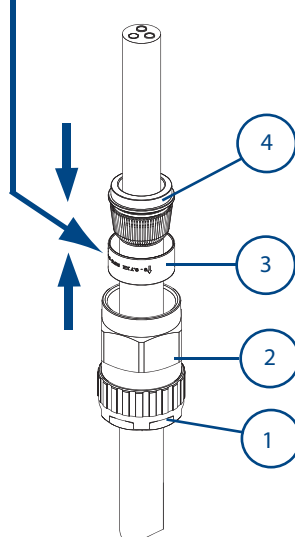
Note: Cable acceptance sizes are marked on the diaphragm seal, clamping ring and backnut.

Cable Preparation

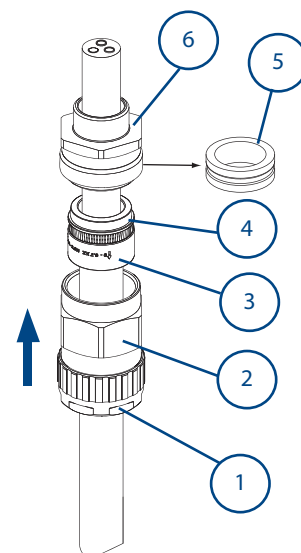


A Strip Cable to suit equipment as shown above and expose the armour/braid 'I'.
'I' = 20mm for cable gland sizes Os to C
'I' = 25mm for cable gland sizes C2 to F
'II' = to suit equipment.
If required, fit shroud.

Gland Preparation

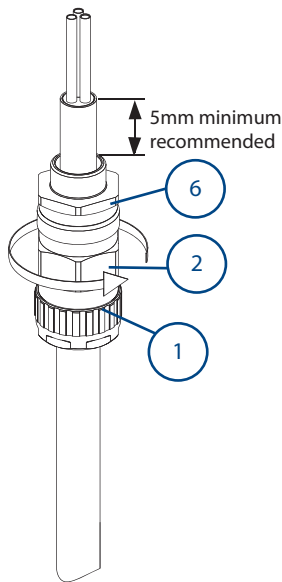


B Push the cable through the armour spigot ④. Spread armour/braid over the armour spigot ④ until the end of the armour/braid is up against the shoulder of the armour cone. Position the armour clamping ring ③.



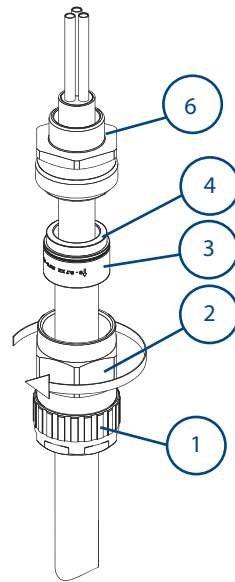
C Remove the inner seal ⑤ from the entry ⑥. Place the entry ⑥ over the armour spigot ④. Move the sub-assembly ① and ② up to meet the entry ⑥.

Note: If the equipment has a threaded entry, it may be advisable to screw the entry component into the equipment to prevent twisting of the cable after step D

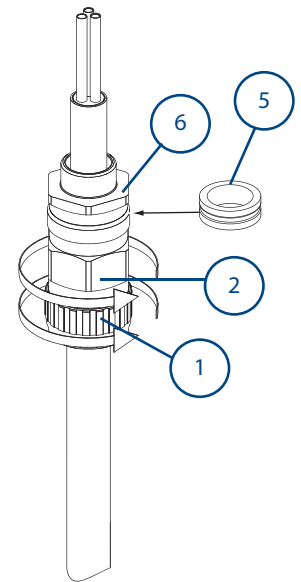


D Unless already screwed into the equipment hold the entry ⑥ in position with a spanner/wrench to prevent rotation. Hand tighten the middle nut ② to the entry ⑥ and turn a further half to one full turn with a spanner/wrench.

IMPORTANT: Support the cable to prevent it from twisting. To ease wiring inside the enclosure, it may be beneficial to strip the inner sheath of the cable as shown above.



E Unscrew the middle nut ② and visually inspect that the armour/braid has been successfully clamped between the armour spigot ④ and the armour clamping ring ③. If armour/braid not clamped, repeat assembly.



F Remove entry ⑥ and refit inner seal ⑤, replace entry ⑥ and re-assemble middle nut ② onto the entry component ⑥. Tighten up the middle nut ② by hand then using a wrench/spanner a further 1 to 2 turns until fully tight.

Note: Two full turns may not be possible on cables at the top of the cable gland acceptance range.

Tighten the backnut ① to form a seal around the cable, then tighten a further full turn using a wrench/spanner. Ensure that the middle nut ② does not rotate when tightening the backnut ①. Ensure that the deluge seal is pulled down into position, if fitted. Locate the shroud over the cable gland, if applicable.

CABLE GLAND SELECTION TABLE

Size Ref.	Entry Thread Size		Cable Acceptance Details								Compressed Length	Maximum Length	Hexagon Dimensions	
			Inner Sheath				Outer Sheath		Steel Wire Armour/Tape/Braid					
	Standard Seal		Alternative Seal (S)		Orientation 1	Orientation 2								
	Metric	NPT	Min.	Max.			Min.	Max.	Min.	Max.			Across Flats	Across Corners
Os	M20 [*]	½"	3.2	8.0	---	---	5.5	12.0	0.8/1.25	0/0.8	52.0	79	24.0	26.5
O	M20 [*]	½"	6.5	11.9	---	---	9.5	16.0	0.8/1.25	0/0.8	52.0	79	24.0	26.5
A	M20	½" - ¾"	10.0	14.3	9.0	13.4	12.5	20.5	0.8/1.25	0/0.8	53.0	79	30.0	32.5
B	M25	¾" - 1"	13.0	20.2	9.5	15.4	16.9	26.0	1.25/1.6	0/0.7	59.5	95	36.0	39.5
C	M32	1" - 1¼"	19.5	26.5	15.5	21.2	22.0	33.0	1.6/2.0	0/0.7	64.0	95	46.0	50.5
C2	M40	1¼" - 1½"	25.0	32.5	22.0	28.0	28.0	41.0	1.6/2.0	0/0.7	68.3	98	55.0	60.6
D	M50	1½" - 2"	31.5	42.3/44.4	27.5	34.8	36.0	52.6	1.8/2.5	0/1.0	79.0	126	65.0	70.8
E	M63	2" - 2½"	42.5	54.3/56.3	39.0	46.5	46.0	65.3	1.8/2.5	0/1.0	78.4	130	80.0	88.0
F	M75	2½" - 3"	54.5	65.3/68.2	49.5	58.3	57.0	78.0	1.8/2.5	0/1.0	83.7	128	95.0	104.0
G	M80	3½"	67.0	73.0	N/A	N/A	75.0	89.5	2.0/3.5	0/1.0	95.6	131	106.4	115.0
H	M90	3½"	67.0	77.6	N/A	N/A	75.0	89.5	2.0/3.5	0/1.0	95.6	131	115.0	130.0
J	M100	4"	77.0	91.6	N/A	N/A	88.0	104.5	2.5/4.0	0/1.0	95.6	141	127.0	142.0

* 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	Temperature Range	Resistance to Salt and Sulphur Dioxide Laden Atmospheres	Single Orifice Seal	Multi-Orifice Seal
Cable Gland Type					Type	Category	Class			Category		IP66	-60° to 80°			
153	Y			X	A	8	B	Y	Y	C	X	Y	Y	Y	Y	X

INSTALLATION GUIDELINES:

- This cable gland has an operating temperature range of -60°C to +80°C.
- 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 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: -

- Shroud, to offer additional corrosion protection.
- 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.

Declaration of Conformity in accordance with European Directive 2006/95/EC (until 19th April 2016) and EU Declaration of Conformity in accordance with European Directive 2014/35/EU (from 20th April 2016)
Manufacturer: Hawke International
Address: Oxford Street West, Ashton-under-Lyne, OL7 0NA, United Kingdom.

Equipment Type: 153/RAC Industrial Gland

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.

Standards used: EN 62444 : 2013



A. Tindall
Technical Manager