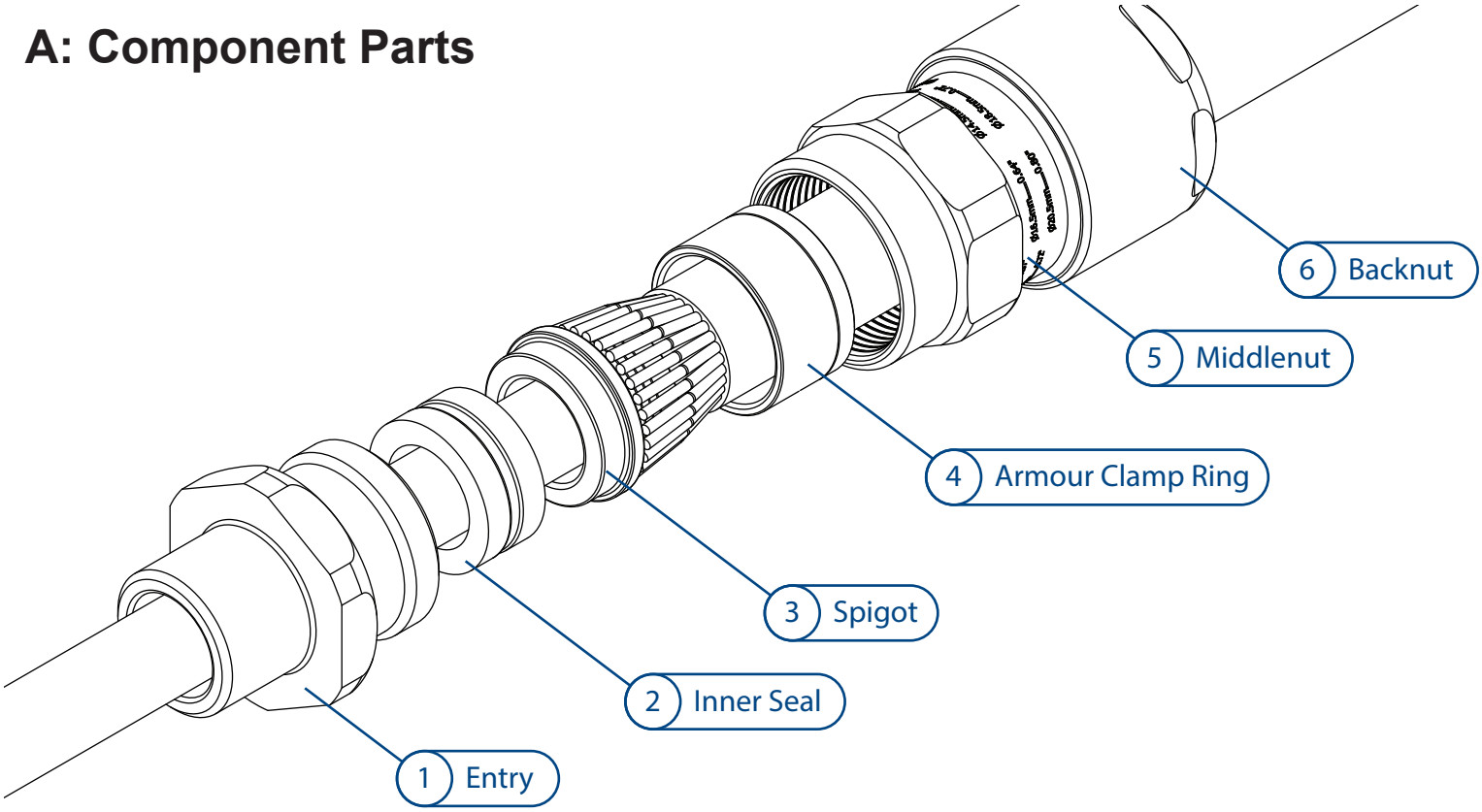
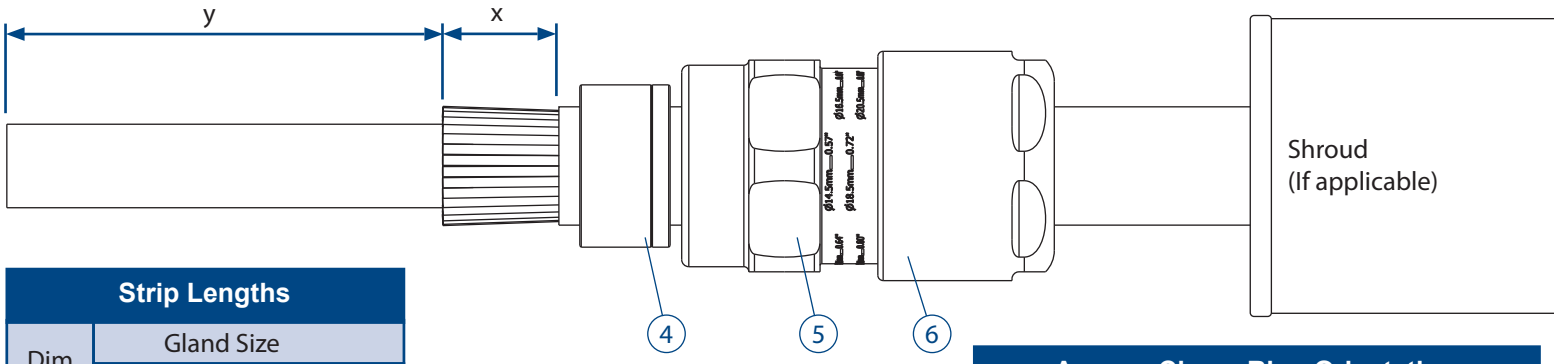
Cable Gland Assembly Instructions
153/X

A: Component Parts



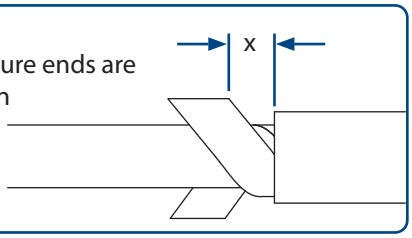
B: Cable Preparation

Slide shroud (if included), backnut ⑥, middlenut 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 to lengths as shown in table below.



Strip Lengths		
Dim	Gland Size	
	Os-C	C2-F
x	0.787″	0.984″
y	To suit equipment	

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

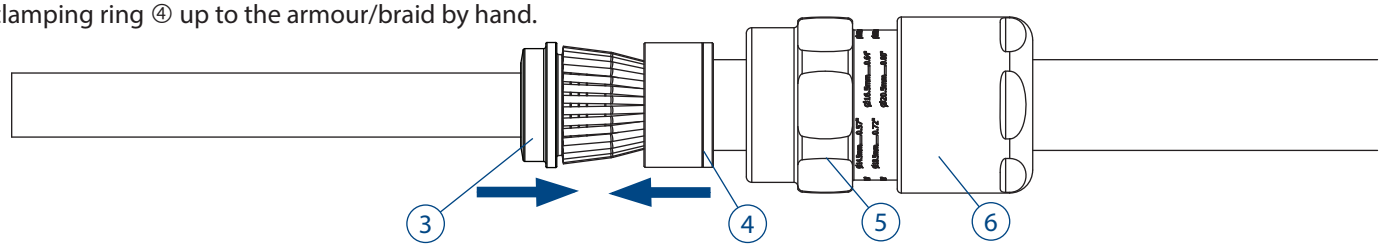


Armour Clamp Ring Orientation		
Gland Size	Orientation	
	Equipment Side ↑	Equipment Side ↑
Os-A	0.0315″ - 0.0492″	0 - 0.0315″
B	0.0492″ - 0.063″	0 - 0.0276″
C-C2	0.063″ - 0.0787″	0 - 0.0276″
D-F	0.0709″ - 0.0984″	0 - 0.0394″

C: Installing Cable Gland

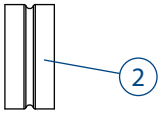
STEP 1: Fit Armour To Spigot

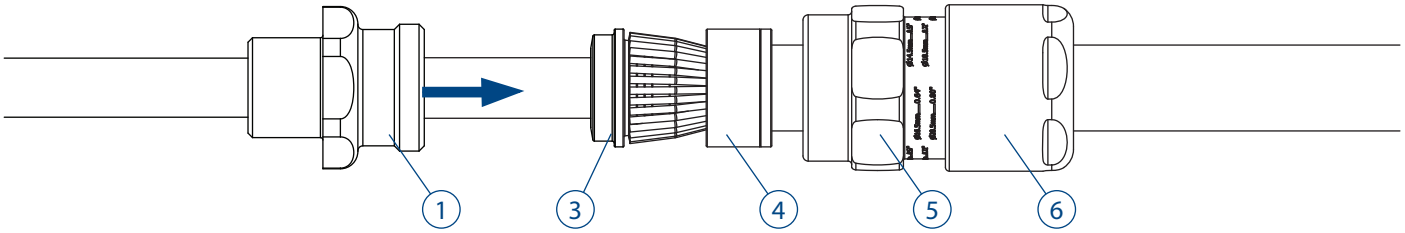
Slide spigot ③ over cable.
Push armour/braid up to spigot shoulder.
Slide clamping ring ④ up to the armour/braid by hand.



STEP 2: Prepare to Clamp Armour/Braid

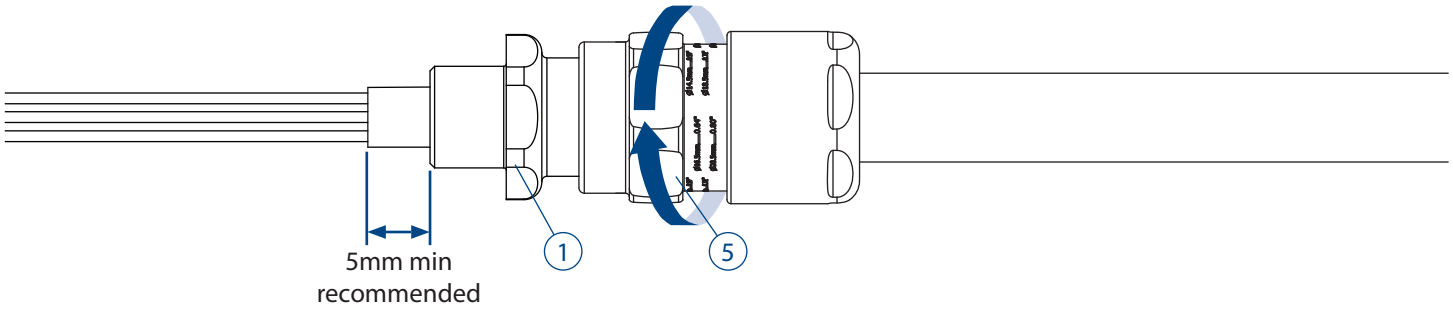
Ensure inner seal ② is removed from assembly.
Slide Entry ① over cable.





STEP 3: Clamp Armour/Braid

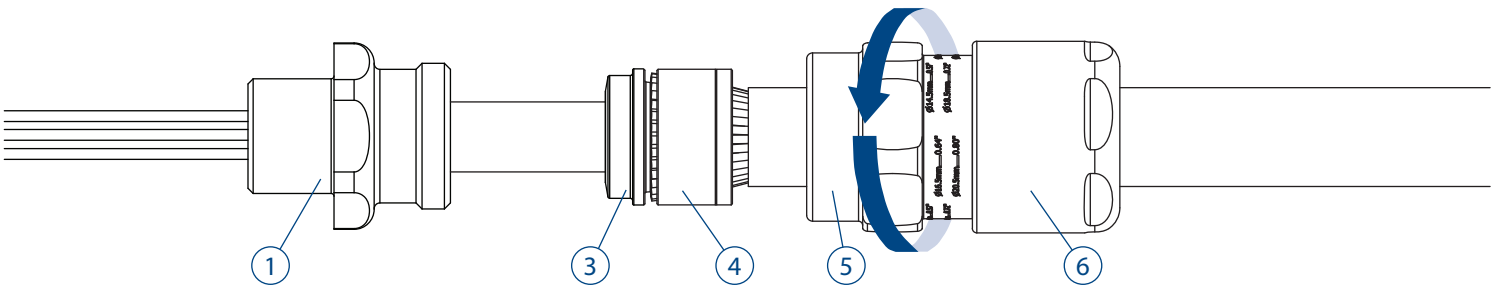
Slide middlenut ⑤ up to entry and hand tighten.
If not already screwed into equipment, grip the entry ① with a spanner/wrench.
Use a second spanner/wrench to tighten half to three quarters of a turn.



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.

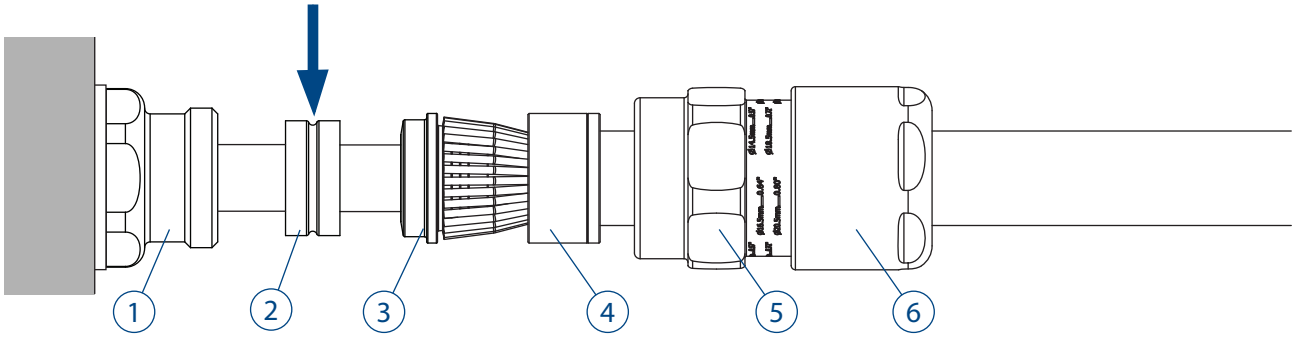
STEP 4: Inspect Armour/Braid

Unscrew the middlenut 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.



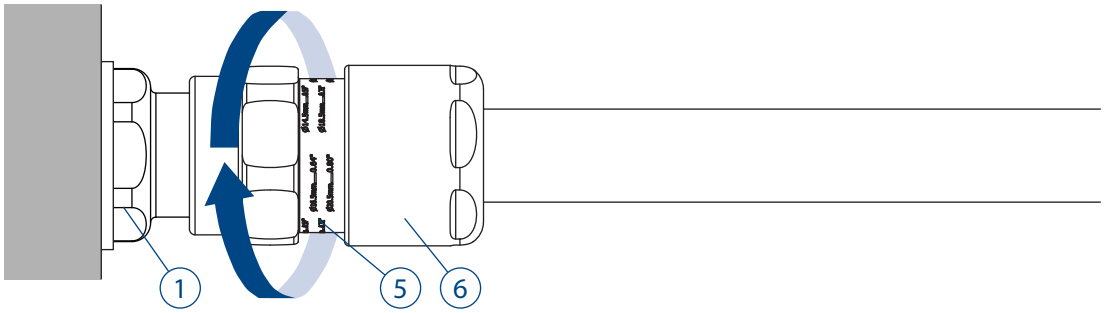
STEP 5: Install inner seal

Remove entry ① and refit inner seal ②. Replace entry ①.to enclosure. If required, use the appropriate IP washer.



STEP 6: Compress Inner Seal

With inner seal properly seated into the entry, tighten up the middle nut by hand.
Using a wrench/spanner tighten a further 1 -2 turns until fully tight.

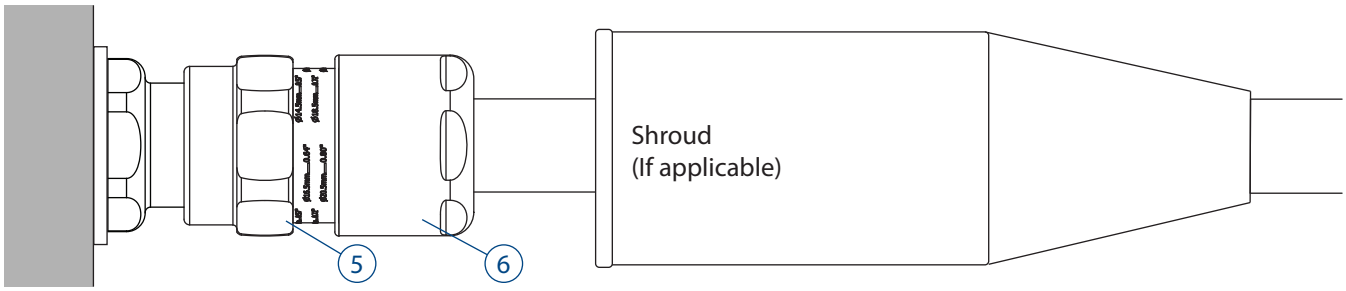


STEP 7: Install Backnut

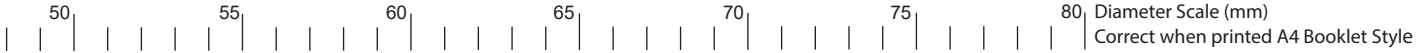
Tighten the backnut ⑥ until a seal is formed around the cable.
Use a wrench/spanner to grip the middlenut ⑤.
While preventing the middlenut ⑤ turning, use a second wrench to apply one further full turn to the backnut ⑥.

STEP 8: 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.



Images for illustration purposes only.
Product supplied may differ from that shown.



TECHNICAL DATA

Cable Gland Type: 153/X
Equipment Type: American Series Glands
Ingress Protection: IP66, IP67, IP68*, NEMA 4X
*30m for 7 days with thread sealant
Operating Temp: -50°C to +80°C

CERTIFICATION DETAILS

UL: Listing No. E218332
Wet Locations

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.

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

SCHEDULE OF LIMITATIONS

1. The cable glands when used with braided cable types are only suitable for use with fixed apparatus, the cable for which musyt be effectively clamped and cleated elsewhere.
2. A grounding/earth tag has been provided for use as a grounding point when the cable gland is used with plastic enclosures. This must be fitted to the wall of the enclosure using the threads of the gland and the locknut supplied.
3. Grounding must be carried out in accordance with National Electrical Code Article 250 and 505.25. A correctly sized grounding conductor must be connected from the tag to the nearest internal connection point of the grounding circuit.

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)									
	Metric	NPT	Min.	Max.	Min.	Max.	Min.	Max.	Orientation 1	Orientation 2			Across Flats	Across Corners
Os	M20•	½"	0.13″	0.31″	---	---	0.22″	0.47″	0.0315″ - 0.0492″	0-0.0315″	2.05″	3.19″	0.94″	1.04″
O	M20•	½"	0.26″	0.47″	---	---	0.37″	0.63″	0.0315″ - 0.0492″	0-0.0315″	2.05″	3.19″	0.94″	1.04″
A	M20	½" - ¾"	0.39″	0.56″	0.35″	0.53″	0.49″	0.81″	0.0315″ - 0.0492″	0-0.0315″	2.09″	3.27″	1.18″	1.28″
B	M25	¾" - 1"	0.51″	0.80″	0.37″	0.61″	0.67″	1.02″	0.0492″ - 0.063″	0-0.0276″	2.34″	3.74″	1.42″	1.56″
C	M32	1" - 1¼"	0.77″	1.04″	0.61″	0.83″	0.87″	1.30″	0.063″ - 0.0787″	0-0.0276″	2.52″	3.86″	1.81″	1.99″
C2	M40	1¼" - 1½"	0.98″	1.28″	0.87″	1.10″	1.10″	1.61″	0.063″ - 0.0787″	0-0.0276″	2.69″	4.13″	2.17″	2.39″
D	M50	1½" - 2"	1.24″	1.75″	1.08″	1.37″	1.42″	2.07″	0.0709″ - 0.0984″	0-0.0394″	3.11″	5.24″	2.56″	2.79″
E	M63	2" - 2½"	1.67″	2.22″	1.54″	1.83″	1.81″	2.57″	0.0709″ - 0.0984″	0-0.0394″	3.09″	4.96″	3.15″	3.46″
F	M75	2½" - 3"	2.15″	2.69″	1.95″	2.30″	2.24″	3.07″	0.0709″ - 0.0984″	0-0.0394″	3.30″	5.28″	3.74″	4.09″

•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.

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