



BW

CAPTIVE CONE GLAND®

for Steel Wire Armoured and Aluminium Armoured Cable

Features and Benefits

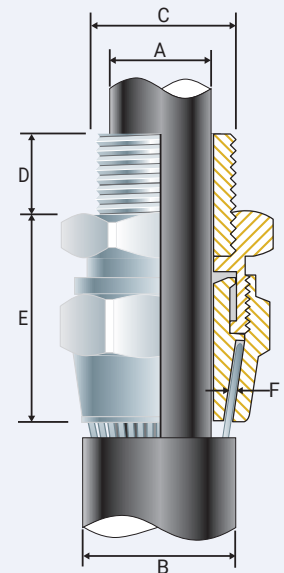
- For indoor use.
- Two-part handling, no loose parts.
- Freely rotating captive cone, providing an armour clamp and earth bond without twisting the armouring.
- Precision manufactured from high-quality brass (nickel plated) available in aluminium on request.
- Complete with heavy duty locknut.

Technical Data

Type:	BW	
Gland Material:	Brass (Nickel Plated) BS 2874, EN 12164 or Aluminium ASTM B221	
Cable Type:	Steel Wire Armour / Aluminium Armour Wire	
Armour Clamping:	Rotating Captive Cone	
Optional Accessories:	Adaptor, Reducer, Earth Tag, Locknut, Serrated Washer and Shroud	

Standards and Certifications

Mechanical Properties:	Impact Category 8 Anchorage Type D	
Electrical Properties:	Category A (no earth tag) Category B (with earth tag)	
Continuous Operating Temp:	-65°C to +120°C	
Conformance:	Standard:	Certificate:
Design Standards	BS 6121:Part 1 IEC/BS EN 62444 SANS 62444 SANS 1213	CML 14CA364 CML 14CA364 MASC 11-303 MASC 18-2047, SANS 2109/4596
Ingress Protection	IP2X (without a shroud)	
EMC Compatible:	EN 55011:2009 + A1:2010, EN 55022:2010	SGS EMC197708/1
London Underground Approval	BS EN 62444	LU 3043



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Installation Standards

- AS/NZS 3000
- BS 6121-5
- BS 7671
- BS 7430
- IEC 60364-5-54
- SANS 0142

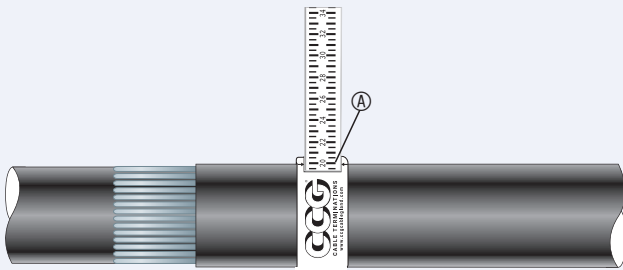
Product Code	Gland Size Reference	Metric Entry Thread		NPT Entry Thread		Cable Detail			Maximum Length 'E'	Armour Dia		Hexagonal Detail		Installation Torque Value Nm
		'C'	Min 'D'	'C'	Min 'D'	Max 'A'	Min 'B'	Max 'B'		Min 'F'	Max 'F'	Max 'Flats'	Max 'Crns'	
0503-0	0-20s	M20x1.5	10	1/2 3/4	15	12.0	11.5	16.0	23.0	0.90	1.25	▲ 22	◆ 25	35.0
050301	1-20	M20x1.5	10	1/2 3/4	15	15.0	14.5	20.5	26.0	0.90	1.25	▲ 25/27	◆ 28/30	35.0
050302	2-25	M25x1.5	10	3/4 1	15/19	20.0	20.5	26.5	29.0	1.25	1.60	▲ 35	◆ 39	50.0
050303	3-32	M32x1.5	10	1 1/4	19	26.5	26.5	33.5	32.0	1.60	2.00	▲ 42	◆ 47	70.0
050304	4-40	M40x1.5	15	1 1/4 1 1/2	19/21	34.0	33.0	42.5	36.0	1.60	2.00	▲ 52	◆ 59	90.0
050305	5-50	M50x1.5	15	1 1/2 2	21	44.5	42.5	52.5	45.0	2.00	2.50	▲ 65	◆ 73	100.0
050306	6-63	M63x1.5	15	2 2/2	21/30	56.5	52.5	65.5	50.0	2.00	2.50	▲ 80	◆ 90	120.0
050307	7-75	M75x1.5	15	2 2/3 3	30/32	67.5	65.5	78.0	60.0	2.50	3.15	▲ 96	◆ 108	120.0
050308	8-80	M80x2.0	20	3	32	74.0	78.0	82.0	65.0	2.50	3.15	▲ 96	◆ 108	120.0
050309	9-90	M90x2.0	20	3 3/2	32/33	81.5	82.0	91.0	69.0	3.00	3.50	▲ 111	◆ 125	120.0
050310	10-100	M100x2.0	20	3 1/2 4	33/34	91.0	90.0	100.0	88.0	3.00	3.50	+	-	120.0
050311	11-110	M110x2.0	20	4	34	98.0	100.0	114.0	88.0	3.00	4.00	+	-	120.0
050312	12-120	M120x2.0	20	-	-	103.0	103.0	118.0	100.0	3.00	4.00	+	-	120.0
050313	13-130	M130x2.0	20	-	-	115.0	113.0	124.0	100.0	3.00	4.00	+	-	120.0

All dimensions are in mm.

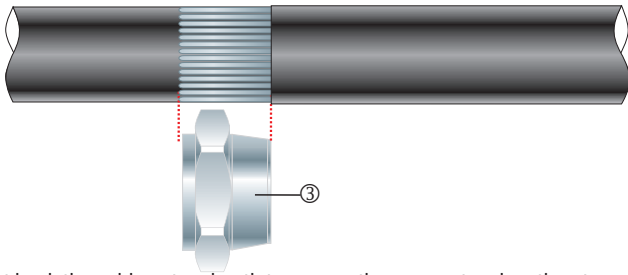
▲ For use with a CCG Hex Spanner. ◆ For use with a CCG C Spanner.

◆ When manufactured in Aluminium, Hex will be 27 Across Flats and 30 Across Corners.

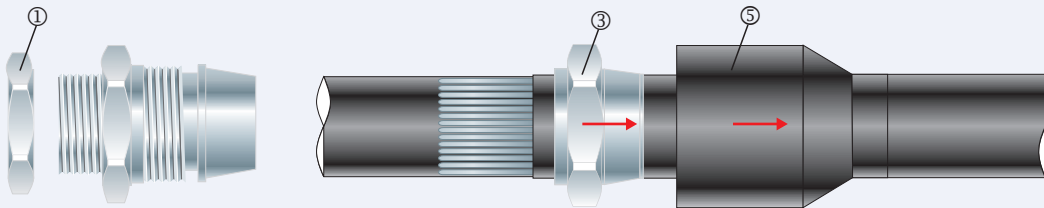
BW CAPTIVE CONE GLAND®



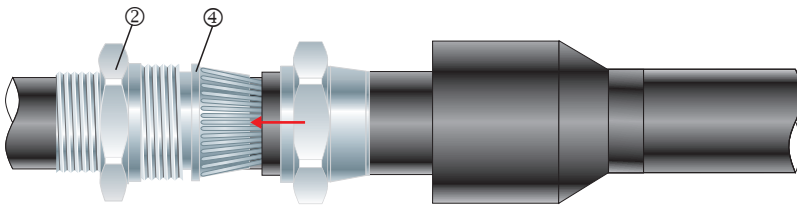
1. For accurate sizing, use a CCG Dimension Tape (A) on the inner and outer cable sheath.



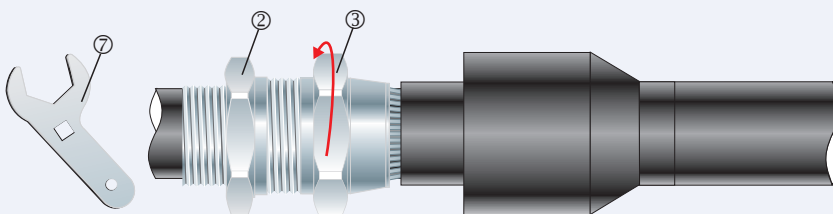
2. Cut back the cable outer sheath to expose the armour to a length not more than the outer (3).



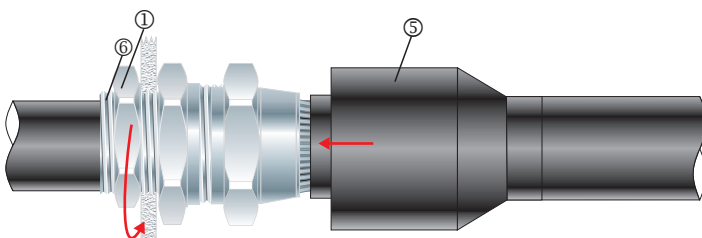
3. Remove the locknut (1). Slide the shroud (5) and the outer (3) over the cable.



4. Pass the cable end through the inner (2) and splay the armour wires over the cone (4).



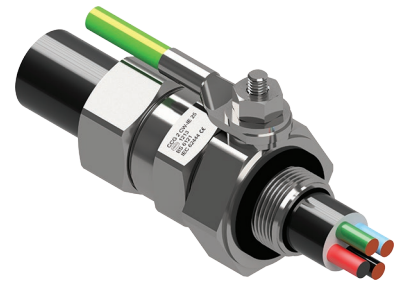
5. Tighten the outer (3) onto the inner (2) to the installation torque using a CCG Spanner (7).



6. Insert the gland bush (6) into the cable entry of the apparatus and tighten the locknut (1). Slide the shroud (5) over the gland.

CW INTEGRAL EARTH CAPTIVE COMPONENT GLAND®

for SWA and Aluminium Armoured Cable



Features and Benefits

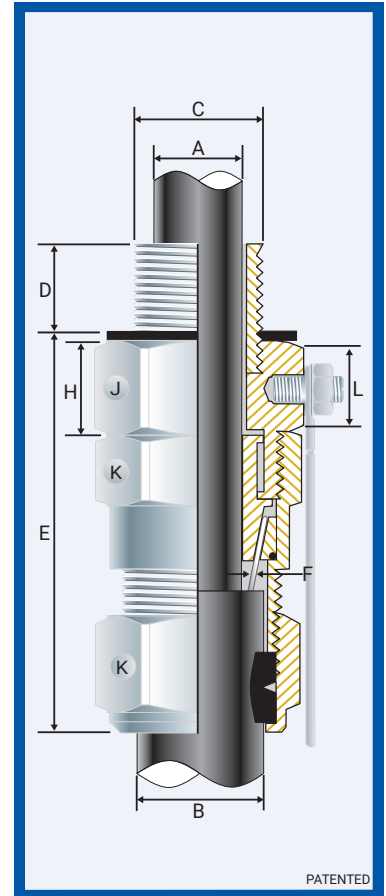
- For indoor and outdoor use.
- Includes an integral earth connection for HV system circuits where high earth fault currents may be experienced.
- Two-piece handling, no loose parts.
- Freely rotating captive cone and inspectible cone ring, providing an armour clamp and earth bond without twisting the armouring.
- Patented disconnect armoured clamp system for ease of inspection
- Provides a seal on the outer sheath of the cable sealing to IP65/66.
- Precision manufactured from high-quality brass (nickel plated) available in aluminium or stainless steel 316/316L on request.
- Complete with thread sealing gasket, earthing stud, bolt and heavy duty locknut.

Technical Data

Type:	CW IE (Integral Earth)
Gland Material:	Brass (Nickel Plated), BS 2874, EN 12164, Aluminium ASTM B221, Stainless Steel 316/316L
Seal Material:	Thermoset Elastomer or Silicone on request
Cable Type:	Steel Wire Armour and Aluminium Armour Wire
Armour Clamping:	Rotating Captive Cone and Inspectible Cone Ring
Sealing Area:	Outer Sheath
Optional Accessories:	Adaptor, Reducer, Locknut, Serrated Washer and Shroud

Standards and Certifications

Mechanical Properties:	Impact Category 8 Anchorage Type D	
Electrical Properties:	Category C	
Current Rating:	BS 6121:Part 5, IEC 62444 Size 20s to 40 26kA one second Size 50s and above 43kA one second	
Continuous Operating Temp:	-65°C to +120°C	
Conformance:	Standard: Certificate:	
Design Standards	BS 6121:Part 1 IEC/BS EN 62444 SANS 62444 SANS 1213	CML 14CA364 CML 14CA364 MASC 11-303 MASC 18-2047, SANS 2109/4596 MASC 11-263
IP66 - Parallel	IEC 60529	
IP65 - Tapered	IEC 60529	
Marine ABS	IEC 60529, IEC 62444	ABS 20-SG1952694-PDA
DNV-GL	IEC 60529, BS 6121, IEC 62444	DNV-GL TAE000000Z
EMC Compatible	EN 55011:2009 + A1:2010, EN 55022:2010	SGS EMC197708/1
London Underground Approval	BS EN 62444	LU 3043



Installation Standards

- AS/NZS 3000
- BS 6771
- IEC 60364-5-54
- BS 6121-5
- BS 7430
- SANS 0142

Product Code	Gland Size Ref	Metric Entry Thread		NPT Entry Thread		Cable Detail			Max Length 'E'	Armour Dia		Hexagonal Detail				Earth Bolt 'L'	Install. Torque Nm	
		'C'	Min 'D'	'C'	Min 'D'	Max 'A'	Min 'B'	Max 'B'		Min 'F'	Max 'F'	Flats 'J'	Crns 'J'	Flats 'K'	Crns 'K'			Thick 'H'
051100*	00-20ss	M20x1.5	15	1/2/3/4	15	8.5	8.0	13.5	60.0	0.9	0.9	24.0	27.0	24.0	27.0	15.0	M6/M8	35.0
05110*	0-20s	M20x1.5	15	1/2/3/4	15	12.0	11.5	16.0	60.0	0.9	1.3	24.0	27.0	24.0	27.0	15.0	M6/M8	35.0
051101	1-20	M20x1.5	15	1/2/3/4	15	15.0	14.5	20.5	63.0	0.9	1.3	27.0	30.0	27.0	30.0	15.0	M6/M8	35.0
051122	2s-25s	M25x1.5	15	3/4/1	15/19	17.5	16.0	24.5	70.0	1.3	1.6	42.0	47.0	35.0	39.0	15.0	M8/M10	50.0
051102	2-25	M25x1.5	15	3/4/1	15/19	20.0	20.5	26.5	70.0	1.3	1.6	42.0	47.0	35.0	39.0	15.0	M8/M10	50.0
051133	3s-32s	M32x1.5	15	1/1/1/4	19	22.0	23.0	30.5	76.0	1.6	2.0	50.0	56.0	42.0	47.0	20.0	M12	70.0
051103	3-32	M32x1.5	15	1/1/1/4	19	26.5	26.5	33.5	76.0	1.6	2.0	50.0	56.0	42.0	47.0	20.0	M12	70.0
051144	4s-40s	M40x1.5	15	1/1/1/2	19/21	31.5	30.0	39.5	93.0	1.6	2.0	52.0	59.0	52.0	59.0	20.0	M12	90.0
051104	4-40	M40x1.5	15	1/1/1/2	19/21	34.0	33.0	42.5	93.0	1.6	2.0	52.0	59.0	52.0	59.0	20.0	M12	90.0
051155	5s-50s	M50x1.5	15	1/2/2	21	38.0	34.0	47.5	102.0	2.0	2.5	65.0	73.0	65.0	73.0	22.0	M12	100.0
051105	5-50	M50x1.5	15	1/2/2	21	44.5	42.5	52.5	102.0	2.0	2.5	65.0	73.0	65.0	73.0	22.0	M12	100.0
051166	6s-63s	M63x1.5	15	2/2/1/2	21/30	50.0	45.5	60.5	130.0	2.0	2.5	80.0	90.0	86.0	97.0	25.0	M12	120.0
051106	6-63	M63x1.5	15	2/2/1/2	21/30	56.5	52.5	65.5	130.0	2.0	2.5	80.0	90.0	86.0	97.0	25.0	M12	120.0
051177	7s-75s	M75x1.5	15	2/2/3	30/32	62.0	57.0	72.5	138.0	2.5	3.2	111.0	125.0	96.0	108.0	25.0	M12	120.0
051107	7-75	M75x1.5	15	2/2/3	30/32	67.5	65.5	78.0	138.0	2.5	3.2	111.0	125.0	96.0	108.0	25.0	M12	120.0
051108	8-80	M80x2.0	20	3	32	69.0	65.0	77.5	195.0	2.5	3.2	111.0	125.0	96.0	108.0	25.0	M12	120.0
051199	9s-90s	M90x2.0	20	3/3/1/2	32/33	75.0	73.0	86.5	204.0	3.0	3.5	111.0	125.0	111.0	125.0	40.0	M12	120.0
051109	9-90	M90x2.0	20	3/3/1/2	32/33	81.5	82.0	91.0	204.0	3.0	3.5	111.0	125.0	111.0	125.0	40.0	M12	120.0
051110	10-100	M100x2.0	20	3/2/4	33/34	91.0	90.0	100.0	209.0	3.0	3.5	125.0	141.0	125.0	141.0	40.0	M12	120.0
051111	11-110	M110x2.0	20	4	34	98.0	100.0	114.0	209.0	3.0	3.5	135.0	152.0	135.0	152.0	40.0	M12	120.0

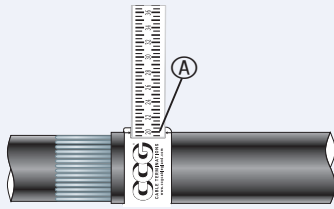
All dimensions except NPT are in mm. * Customers to specify M6 or M8.

• When manufactured in Aluminium, Hex will be 27 Across Flats and 30 Across Corners.

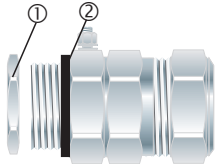
CCGG reserves the right to make alterations to the technical data, dimensions, designs and products available without notice. The illustrations cannot be considered binding. Please contact CCGG for assistance.

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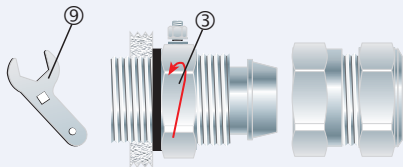
CW INTEGRAL EARTH GLAND



1. For accurate sizing, use a CCG Dimension Tape [Ⓐ] on the inner and outer cable sheath.

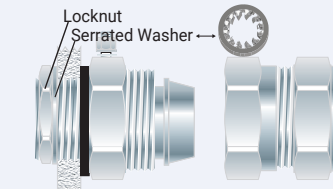


2. Remove the locknut ^①. To maintain IP66 ensure the gasket ^② is in place.

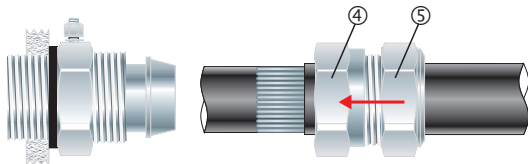


3. Screw the inner ^③ into the apparatus. Tighten the inner ^③ to installation torque using a CCG Spanner ^⑨.

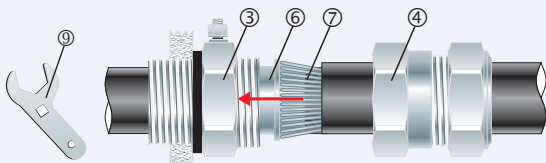
Alternative installation through an unthreaded entry.



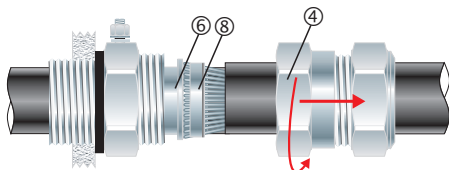
If the apparatus is untapped use a locknut.



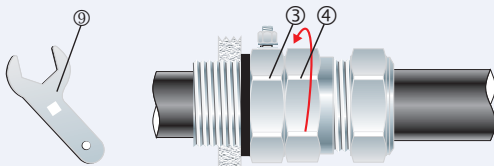
4. Cut back the cable outer sheath and pass the outer nut ^⑤ and the body ^④ over the cable.



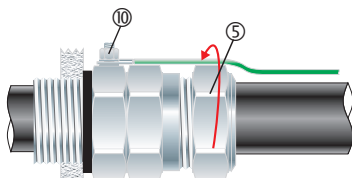
5. Pass the cable end through the inner ^③. Splay the armour wires ^⑦ over the cone ^⑥. Tighten the body ^④ onto the inner ^③ until hand tight, then tighten with a CCG Spanner ^⑦ with $\frac{3}{4}$ turn to lock the armour between the cone ^⑥ and the cone ring ^⑧.



6. Unscrew the body ^④. Check that the armour has locked between the cone ^⑥ and cone ring ^⑧ (O-Ring on the cone ring ^⑧ is sacrificial).



7. Tighten the body ^④ onto the inner ^③ to installation torque using a CCG Spanner ^⑨.



8. Tighten the outer nut ^⑤ to produce a moisture proof seal by turning until the seal makes contact with the outer sheath of cable and then make one full turn. Connect earth wire / lug to earth stud ^⑩.

CW

CAPTIVE COMPONENT GLAND®

for SWA and Aluminium Armoured Cable



Features and Benefits

- For indoor and outdoor use.
- Two piece handling, no loose parts.
- Freely rotating captive cone and inspectible cone ring, providing an inspectible armour clamp and earth bond without twisting the armouring.
- Patented disconnect armoured clamp system for ease of inspection.
- Provides a seal on the outer sheath of the cable sealing to IP65/66.
- Precision manufactured from high-quality brass (nickel plated) available in aluminium or stainless steel 316/316L on request.
- Complete with thread sealing gasket and heavy duty locknut.

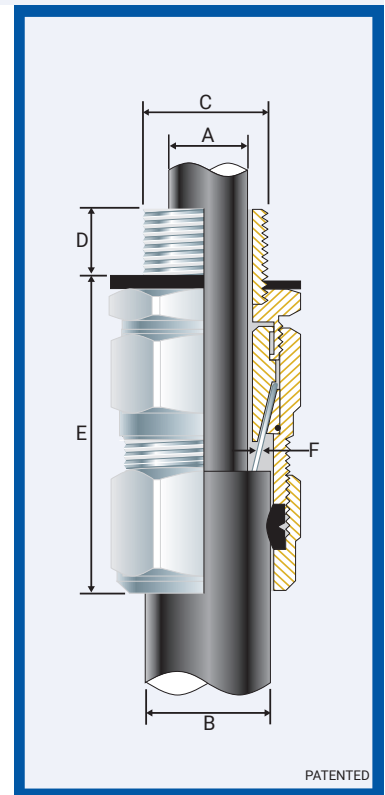


Technical Data

Type:	CW
Gland Material:	Brass (Nickel Plated) BS 2874, EN 12164, Aluminium ASTM B221, Stainless Steel 316/316L
Seal Material:	Thermoset Elastomer or Silicon on request
Cable Type:	Steel Wire Armour and Aluminium Armour Wire
Armour Clamping:	Rotating Captive Cone and Inspectible Cone Ring
Sealing Area:	Outer Sheath
Optional Accessories:	Adaptor, Reducer, Earth Tag, Locknut, Serrated Washer and Shroud

Standards and Certifications

Mechanical Properties:	Impact Category 8, Anchorage Type D	
Electrical Properties:	Category A (no earth tag) Category B (with earth tag)	
Continuous Operating Temp:	-65°C to +120°C	
Conformance:	Standard:	Certificate:
Design Standards	BS 6121:Part 1	CML 14CA364
	IEC/BS EN 62444	CML 14CA364
	SANS 62444	MASC 11-303
	SANS 1213	MASC 18-2047, SANS 2109/4596
IP66 - Parallel	IEC 60529	MASC 11-263
IP65 - Tapered	IEC 60529	
Marine ABS	IEC 60529, IEC 62444	ABS 20-SG1952694-PDA
	DNV-GL	IEC 60529, BS 6121, IEC 62444
EMC Compatible	EN 55011:2009 + A1:2010,	SGS EMC197708/1
	EN 55022:2010	
London Underground Approval	BS EN 62444	LU 3043



PATENTED



Installation Standards

- AS/NZS 3000
- BS 7671
- IEC 60364-5-54
- BS 6121-5
- BS 7430
- SANS 0142

Product Code	Gland Size Reference	Metric Entry Thread		NPT Entry Thread		Cable Detail			Max Length 'E'	Armour Dia		Hexagonal Detail		Install Torque Value Nm
		'C'	Min 'D'	'C'	Min 'D'	Max 'A'	Min 'B'	Max 'B'		Min 'F'	Max 'F'	Max 'Flats'	Max 'Crns'	
051200-16	◆* 00-16ss	M16x1.5	10	-	-	8.5	8.0	13.5	41.0	0.90	0.90	◆ 24.0	◆ 27.0	35.0
051200	◆* 00-20ss	M20x1.5	10	1/2/3/4	15	8.5	8.0	13.5	41.0	0.90	0.90	◆ 24.0	◆ 27.0	35.0
0512-0	◆* 0-20s	M20x1.5	10	1/2/3/4	15	12.0	11.5	16.0	43.0	0.90	1.25	◆ 24.0	◆ 27.0	35.0
051201	* 1-20	M20x1.5	10	1/2/3/4	15	15.0	14.5	20.5	47.0	0.90	1.25	▲ 27.0	▲ 30.0	35.0
051222	* 2s-25s	M25x1.5	10	3/4/1	15/19	17.5	16.0	24.5	56.0	1.25	1.60	▲ 35.0	▲ 39.0	50.0
051202	* 2-25	M25x1.5	10	3/4/1	15/19	20.0	20.5	26.5	56.0	1.25	1.60	▲ 35.0	▲ 39.0	50.0
051233	* 3s-32s	M32x1.5	10	1/1 1/4	19	22.0	23.0	30.5	57.0	1.60	2.00	▲ 42.0	▲ 47.0	70.0
051203	* 3-32	M32x1.5	10	1/1 1/4	19	26.5	26.5	33.5	57.0	1.60	2.00	▲ 42.0	▲ 47.0	70.0
051244	4s-40s	M40x1.5	15	1 1/4/1 1/2	19/21	31.5	30.0	39.5	68.0	1.60	2.00	▲ 52.0	▲ 59.0	90.0
051204	4-40	M40x1.5	15	1 1/4/1 1/2	19/21	34.0	33.0	42.5	68.0	1.60	2.00	▲ 52.0	▲ 59.0	90.0
051255	5s-50s	M50x1.5	15	1 1/2/2	21	38.0	34.0	47.5	72.0	2.00	2.50	▲ 65.0	▲ 73.0	100.0
051205	5-50	M50x1.5	15	1 1/2/2	21	38.0/44.5	42.5	52.5	72.0	2.00	2.50	▲ 65.0	▲ 73.0	100.0
051266	6s-63s	M63x1.5	15	2/2 1/2	21/30	50.0	45.5	60.5	89.0	2.00	2.50	▲ 80.0	▲ 90.0	120.0
051206	6-63	M63x1.5	15	2/2 1/2	21/30	50.0/56.5	52.5	65.5	89.0	2.00	2.50	▲ 80.0	▲ 90.0	120.0
051277	7s-75s	M75x1.5	15	2 1/2/3	30/ 32	62.0	57.0	72.5	97.0	2.50	3.15	▲ 96.0	▲ 108.0	120.0
051207	7-75	M75x1.5	15	2 1/2/3	30/32	62.0/67.5	65.5	78.0	97.0	2.50	3.15	▲ 96.0	▲ 108.0	120.0
051288	8s-80s	M80x2.0	20	3	32	69.0	65.0	77.5	98.0	2.50	3.15	▲ 96.0	▲ 108.0	120.0
051208	8-80	M80x2.0	20	3	32	74.0	78.0	82.0	98.0	2.50	3.15	▲ 96.0	▲ 108.0	120.0
051299	9s-90s	M90x2.0	20	3/3 1/2	32/33	75.0	73.0	86.5	123.0	3.00	3.50	▲ 96.0	▲ 108.0	120.0
051209	9-90	M90x2.0	20	3/3 1/2	32/33	75.0/81.5	82.0	91.0	123.0	3.00	3.50	▲ -	-	120.0
051210	10-100	M100x2.0	20	3 1/2/4	33/34	91.0	90.0	100.0	124.0	3.00	3.50	▲ -	-	120.0
051211	11-110	M110x2.0	20	4	34	98.0	100.0	114.0	134.0	3.00	4.00	▲ -	-	120.0
051212	12-120	M120x2.0	20	-	-	103.0	103.0	118.0	136.0	3.00	4.00	▲ -	-	120.0
051213	13-130	M130x2.0	20	-	-	115.0	113.0	124.0	140.0	3.00	4.00	▲ -	-	120.0

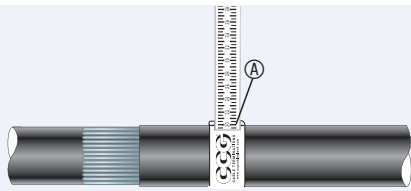
All dimensions except NPT are in mm. * Supplied with fixed cone and bush.

* For use with CCG Handi Fit Boxes. ▲ For use with CCG Hex Spanner. ◆ For use with CCG C-Spanner.

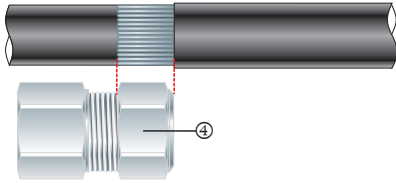
◆ When manufactured in Aluminium, Hex will be 27 Across Flats and 30 Across Corners.

CCG reserves the right to make alterations to the technical data, dimensions, designs and products available without notice. The illustrations cannot be considered binding. Please contact CCG for assistance.

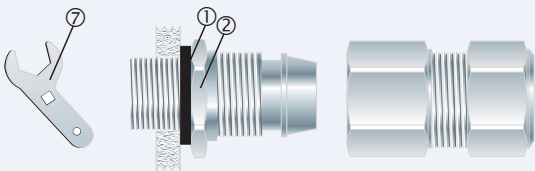
CW CAPTIVE COMPONENT GLAND®



1. For accurate sizing, use a CCG Dimension Tape **(A)** on the inner and outer cable sheath.

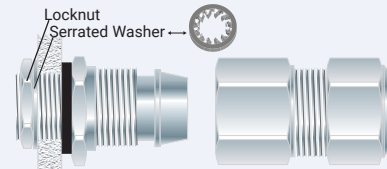


2. Cut back the cable outer sheath to expose the armour to a length not more than the outer nut **(4)**.

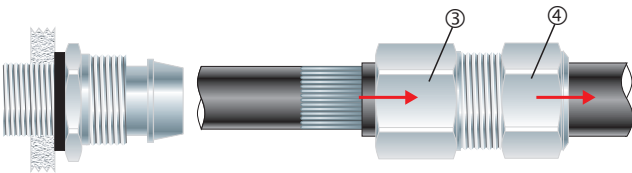


3. To maintain IP66 ensure the gasket **(1)** is in place. Screw the inner **(2)** into the apparatus. Tighten the inner **(2)** to the installation torque using a CCG Spanner **(7)**.

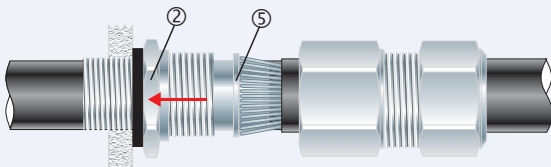
Alternative installation through an unthreaded entry.



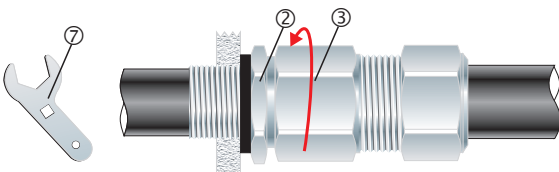
If the apparatus is untapped use a locknut.



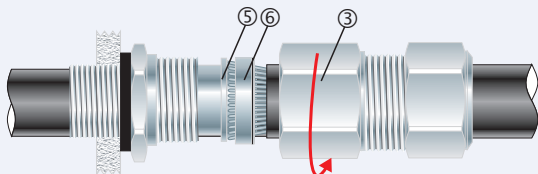
4. Pass the outer nut **(4)** and body **(3)** over the cable.



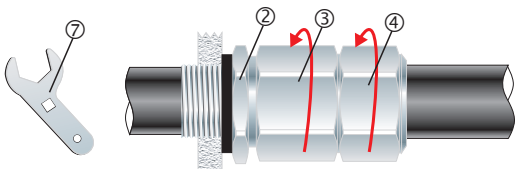
5. Pass cable end through the inner **(2)** and splay the armour wires over the cone **(5)**.



6. Tighten the body **(3)** onto the inner **(2)** until hand tight, then tighten with a CCG Spanner **(7)** with $\frac{3}{4}$ turn to lock the armour between the cone **(5)** and the cone ring **(6)**.



7. Unscrew the body **(3)**. Check that the armour has locked between the cone **(5)** and the cone ring **(6)**. (O-Ring on the cone ring **(6)** is sacrificial).



8. Screw the body **(3)** onto the inner **(2)** and tighten the body **(3)** to the installation torque using a CCG Spanner **(7)**. Tighten the outer nut **(4)** to produce a moisture proof seal by turning until the seal makes contact with the outer sheath of cable and then turn one full turn.



E1W

CAPTIVE COMPONENT GLAND®

for SWA and Aluminium Armoured Cable

Features and Benefits

- For indoor and outdoor use.
- Two-piece handling, no loose parts.
- Freely rotating captive cone and inspectible cone ring, providing an armour clamp and earth bond without twisting the armour wire.
- Patented disconnect system for armour clamp inspection. Factory fitted captive elastomeric inner seal for Built-in Safety™. Seals on both the inner and outer sheath of the cable to IP65/66/68.
- Precision manufactured from high-quality brass (nickel plated) available in aluminium or stainless steel 316/316L on request.
- Complete with thread sealing gasket and with a heavy-duty locknut.

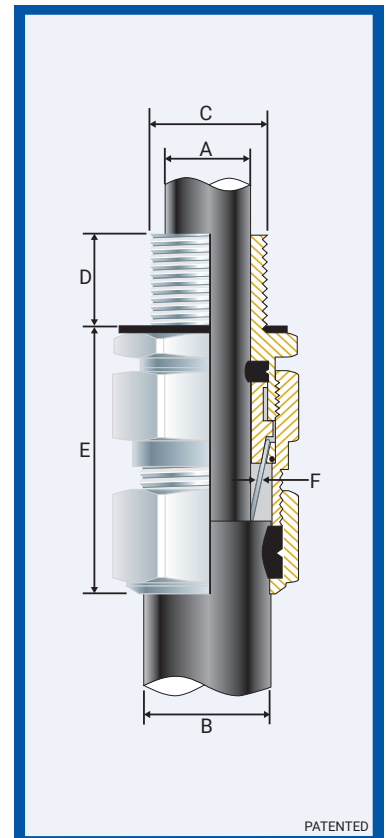


Technical Data

Type:	E1W
Gland Material:	Brass (Nickel Plated), BS 2874, EN 12164, Aluminium ASTM BS221, Stainless Steel 316/316L
Seal Material:	Thermoset Elastomer or Silicone on request
Cable Type:	Steel Wire Armour and Aluminium Armour Wire
Armour Clamping:	Rotating Captive Cone and Inspectible Cone Ring
Sealing Area:	Inner Sheath and Outer Sheath
Optional Accessories:	Adaptor, Reducer, Earth Tag, Locknut, Serrated Washer and Shroud

Standards and Certifications

Mechanical Properties:	Impact Category 8 Anchorage Type D	
Electrical Properties:	Category A (no earth tag) Category B (with earth tag)	
Continuous Operating Temp:	-65°C to +120°C	
Conformance:	Standard:	Certification:
Design Standards	BS 6121:Part 1 EN 50262 IEC/BS EN 62444 SANS 62444 SANS 1213	CML 14CA364 CML 14CA364 CML 14CA364 MASC 11-303 MASC 18-2047, SANS 2109/4596 CML 15Y728, MASC 11-263
IP66/68 100m - Parallel	IEC 60529	
IP65 - Tapered	IEC 60529	
Marine ABS	IEC 60529, IEC 62444	ABS 20-SG1952694-PDA
DNV-GL	IEC 60529, BS 6121, IEC 62444	DNV-GL TAE000000Z
EMC Compatible	EN 55011:2009 + A1:2010, EN 55022:2010	SGS EMC197708/1
London Underground Approval	BS EN 62444	LU 3043



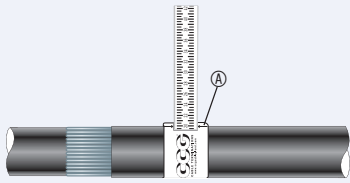
Installation Standards

- AS/NZS 3000
- BS 6121-5
- BS 7671
- BS 7430
- IEC 60364-5-54
- SANS 0142

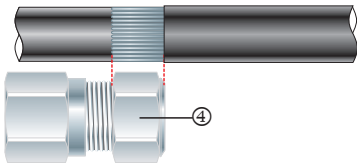
Product Code	Gland Size Reference	Metric Entry Thread		NPT Entry Thread		Cable Detail				Max Length 'E'	Armour Dia		Hexagonal Detail		Install Torque Value Nm
		'C'	Min 'D'	'C'	Min 'D'	Min 'A'	Max 'A'	Min 'B'	Max 'B'		Min 'F'	Max 'F'	Max 'Flats'	Max 'Crns'	
051800-16*	00-16ss	M16x1.5	10	-	-	3.0	8.5	8.0	13.5	52.0	0.90	0.90	♦ 24.0	♦ 27.0	35.0
051800*	00-20ss	M20x1.5	10	½	15	3.0	8.5	8.0	13.5	52.0	0.90	0.90	♦ 24.0	♦ 27.0	35.0
0518-0*	0-20s	M20x1.5	10	½	15	7.0	12.0	11.5	16.0	52.0	0.90	1.25	♦ 24.0	♦ 27.0	35.0
051801	1-20	M20x1.5	10	½/¾	15	11.5	15.0	14.5	20.5	56.0	0.90	1.25	27.0	30.0	35.0
051822	2s-25s	M25x1.5	10	¾/1	15/19	11.0	17.5	16.0	24.5	65.0	1.25	1.60	35.0	39.0	50.0
051802	2-25	M25x1.5	10	¾/1	15/19	14.0	20.0	20.5	26.5	65.0	1.25	1.60	35.0	39.0	50.0
051833	3s-32s	M32x1.5	10	1/1¼	19	15.0	22.0	23.0	30.5	65.0	1.60	2.00	42.0	47.0	70.0
051803	3-32	M32x1.5	10	1/1¼	19	19.0	26.5	26.5	33.5	65.0	1.60	2.00	42.0	47.0	70.0
051844	4s-40s	M40x1.5	15	1¼/1½	19/21	22.0	31.5	30.0	39.5	80.0	1.60	2.00	52.0	59.0	90.0
051804	4-40	M40x1.5	15	1¼/1½	19/21	26.0	34.0	33.0	42.5	80.0	1.60	2.00	52.0	59.0	90.0
051855	5s-50s	M50x1.5	15	1½/2	21	29.0	38.0	34.0	47.5	95.0	2.00	2.50	65.0	73.0	100.0
051805	5-50	M50x1.5	15	1½/2	21	34.0	44.5	42.5	52.5	95.0	2.00	2.50	65.0	73.0	100.0
051866	6s-63s	M63x1.5	15	2/2½	30	38.0	50.0	45.5	60.5	116.0	2.00	2.50	80.0	90.0	120.0
051806	6-63	M63x1.5	15	2/2½	30	44.0	56.5	52.5	65.5	116.0	2.00	2.50	80.0	90.0	120.0
051877	7s-75s	M75x1.5	15	2½/3	32	50.0	62.0	57.0	72.5	127.0	2.50	3.15	96.0	108.0	120.0
051807	7-75	M75x1.5	15	2½/3	32	56.0	67.5	65.5	78.0	127.0	2.50	3.15	96.0	108.0	120.0
051808	8-80	M80x2.0	20	3	32	68.0	74.0	78.0	82.0	120.0	2.50	3.15	96.0	108.0	120.0
051899	9s-90s	M90x2.0	20	3/3½	32/33	66.0	75.0	73.0	86.5	142.0	3.00	3.50	111.0	125.0	120.0
051809	9-90	M90x2.0	20	3/3½	32/33	74.0	81.5	82.0	91.0	142.0	3.00	3.50	111.0	125.0	120.0
051810	10-100	M100x2.0	20	3½/4	33/34	81.0	91.0	90.0	100.0	142.0	3.00	3.50	125.0	141.0	120.0
051811	11-110	M110x2.0	20	4	34	86.0	98.0	100.0	114.0	142.0	3.00	4.00	135.0	152.0	120.0
051812	12-120	M120x2.0	20	-	-	96.0	103.0	103.0	118.0	142.0	3.00	4.00	140.0	158.0	120.0
051813	13-130	M130x2.0	20	-	-	100.0	115.0	113.0	124.0	165.0	3.00	4.00	146.0	164.0	120.0

All dimensions except NPT are in mm.
 * When manufactured in Aluminium, Hex will be 27 Across Flats and 30 Across Corners.

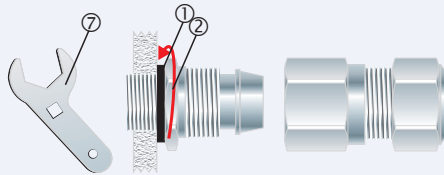
E1W CAPTIVE COMPONENT GLAND®



1. For accurate sizing, use a CCG Dimension Tape (A) on the inner and outer cable sheath.

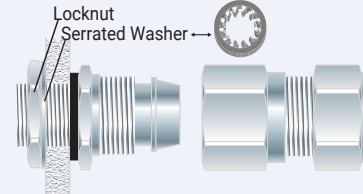


2. Cut back the cable outer sheath to expose the armour to a length not more than the outer nut (4).

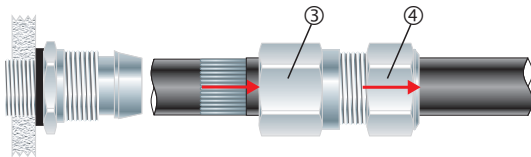


3. To maintain IP66/68 ensure the gasket (1) is in place. Screw the inner (2) into the apparatus. Tighten the inner (2), to installation torque using a CCG Spanner (7).

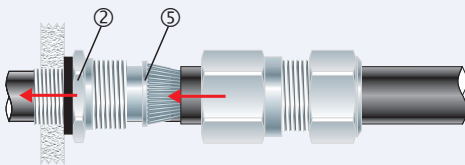
Alternative installation through an unthreaded entry.



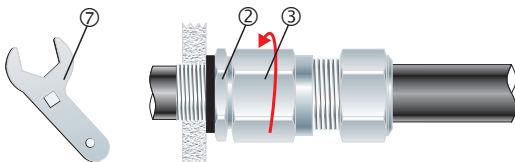
If the apparatus is untapped use a locknut.



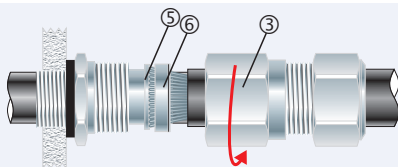
4. Pass the the outer nut (4) and the body (3) over the cable.



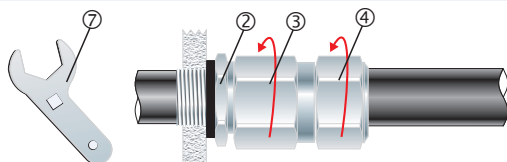
5. Pass cable end through the inner (2) and splay the armour wires over the cone (5).



6. Tighten the body (3) onto the inner (2) until hand tight, then tighten with a CCG Spanner (7) with $\frac{3}{4}$ turn to lock the armour between the cone (5) and the cone ring (6).



7. Unscrew the body (3). Check that the armour has locked between the cone (5) and the cone ring (6). (O-Ring on the cone ring (6) is sacrificial)



8. Tighten the body (3) onto the inner (2) to the installation torque using a CCG Spanner (7). Tighten the outer nut (4) to produce a moisture proof seal by turning until the seal makes contact with the outer sheath of cable and then turn one full turn.

D1W

CAPTIVE COMPONENT GLAND®

for SWA and Aluminium Armoured Cable



Features and Benefits

- For indoor and outdoor use when fitted with a shroud.
- Two piece handling, no loose parts.
- Freely rotating captive cone and inspectible cone ring, providing an armour clamp and earth bond without twisting the armour wire.
- Factory fitted captive elastomeric inner seal for ingress protection IP66/68.
- Seals on the inner sheath of the cable.
- Precision manufactured from high-quality brass (nickel plated) available in aluminium on request.
- Complete with thread sealing gasket and heavy duty locknut.

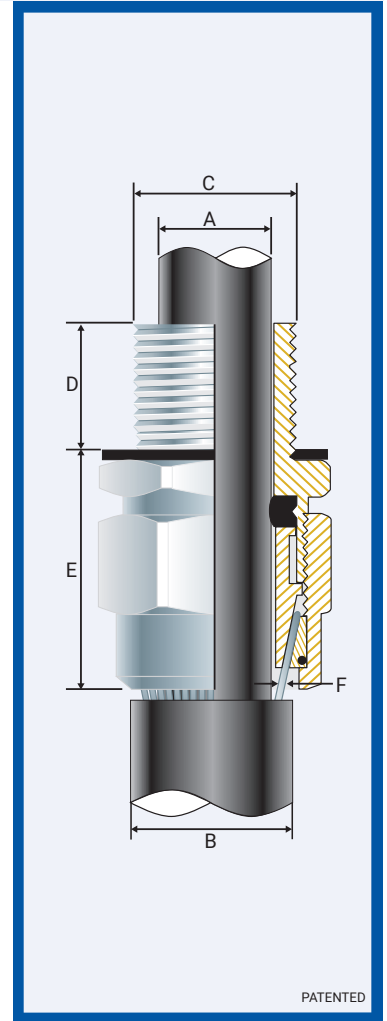


Technical Data

Type:	D1W
Gland Material:	Brass (Nickel Plated) BS 2874, EN 12164, Aluminium ASTM B221
Seal Material:	Thermoset Elastomer or Silicone on request
Cable Type:	Steel Wire Armour and Aluminium Armour Wire
Armour Clamping:	Rotating Captive Cone and Inspectible Cone Ring
Sealing Area:	Inner Sheath
Optional Accessories	Adaptor, Reducer, Earth Tag, Locknut, Serrated Washer and Shroud

Standards and Certifications

Mechanical Properties:	Impact Category 8 Anchorage Type D	
Electrical Properties:	Category A (no earth tag) Category B (with earth tag)	
Continuous Operating Temp:	-65°C to +120°C	
Conformance:	Standard: Certification:	
Design Standards	BS 6121:Part 1 EN 50262 IEC/BS EN 62444 SANS 62444 SANS 1213	CML 14CA364 CML 14CA364 CML 14CA364 MASC 11-303 MASC 18-2047, SANS 2109/4596 MASC 11-263
IP66/68 - Parallel	IEC 60529	MASC 11-263
EMC Compatible	EN 55011:2009 + A1:2010, EN 55022:2010	SGS EMC197708/1
London Underground Approval	BS EN 62444	LU 3043



PATENTED



Installation Standards

- AS/NZS 3000
- BS 6121-5
- BS 7671
- BS 7430
- IEC 60364-5-54
- SANS 0142

Product Code	Gland Size Reference	Metric Entry Thread		NPT Entry Thread		Cable Detail			Max Length 'E'	Armour Dia		Hexagonal Detail		Install Torque Value Nm
		'C'	Min 'D'	'C'	Min 'D'	Min 'A'	Max 'A'	Max 'B'		Min 'F'	Max 'F'	Max 'Flats'	Max 'Crns'	
052000-16	00-16ss	M16x1.5	10	-	-	3.0	8.5	13.5	32.0	0.90	0.90	▲▲ 24.0	◆ 27.0	35.0
052000	00-20ss	M20x1.5	10	½	15	3.0	8.5	13.5	32.0	0.90	0.90	▲▲ 24.0	◆ 27.0	35.0
0520-0	0-20s	M20x1.5	10	½	15	8.0	12.0	16.0	32.0	0.90	1.25	▲▲ 24.0	◆ 27.0	35.0
052001	1-20	M20x1.5	10	½/¾	15	11.5	15.0	20.5	32.0	0.90	1.25	▲ 27.0	◆ 30.0	35.0
052002	2-25	M25x1.5	10	¾/1	15/19	15.0	20.0	26.5	35.0	1.25	1.60	▲ 35.0	◆ 39.0	50.0
052003	3-32	M32x1.5	10	1 1/4	19	20.0	26.5	33.5	35.0	1.60	2.00	▲ 42.0	◆ 47.0	70.0
052004	4-40	M40x1.5	15	1 ¼/1 ½	19/21	26.0	34.0	42.5	50.0	1.60	2.00	▲ 52.0	◆ 59.0	90.0
052005	5-50	M50x1.5	15	1 ½/2	21	34.0	44.5	52.5	53.0	2.00	2.50	▲ 65.0	◆ 73.0	100.0
052006	6-63	M63x1.5	15	2/2 ½	30	44.0	56.5	65.5	70.0	2.00	2.50	▲ 80.0	◆ 90.0	120.0
052007	7-75	M75x1.5	15	2 ½/3	32	56.0	67.5	78.0	78.0	2.50	3.15	▲ 96.0	◆ 108.0	120.0
052008	8-80	M80x2.0	20	3	32	68.0	74.0	82.0	78.0	2.50	3.15	▲ 96.0	◆ 108.0	120.0
052009	9-90	M90x2.0	20	3 ½/3	32/33	74.0	81.5	91.0	83.0	3.00	3.50	▲ 111.0	◆ 125.0	120.0
052010	10-100	M100x2.0	20	3 ¾/4	33/34	81.0	90.0	100.0	88.0	3.00	3.50	-	-	120.0
052011	11-110	M110x2.0	20	4	34	86.0	98.0	114.0	92.0	3.00	4.00	-	-	120.0
052012	12-120	M120x2.0	20	-	-	95.0	103.0	118.0	96.0	3.00	4.00	-	-	120.0
052013	13-130	M130x2.0	20	-	-	100.0	115.0	124.0	100.0	3.00	4.00	-	-	120.0

All dimensions are in mm.

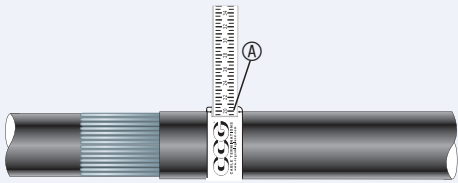
▲ For use with CCG Hex-Spanner.

◆ When manufactured in Aluminium, Hex will be 27 Across Flats and 30 Across Corners.

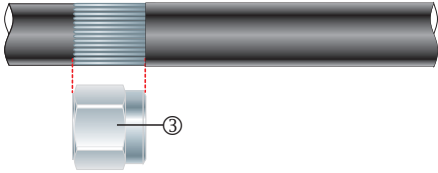
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D1W-IN200820

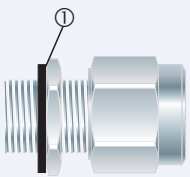
D1W CAPTIVE COMPONENT GLAND®



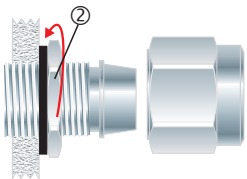
1. For accurate sizing, use a CCG Dimension Tape (A) on the inner and outer cable sheath.



2. Cut back the cable outer sheath to expose the armour to a length not more than the outer (3).

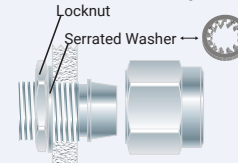


3. To maintain IP66/68 ensure the gasket (1) is in place.

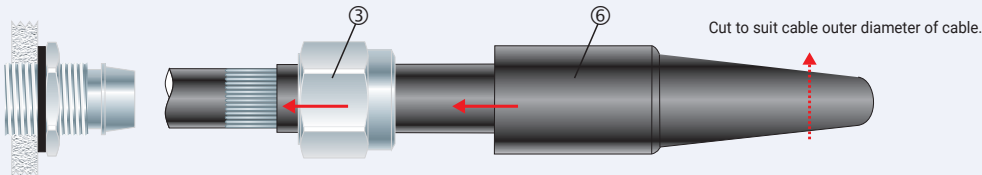


4. Screw the gland unit into the apparatus. Tighten the inner (2). If apparatus is untapped use a locknut.

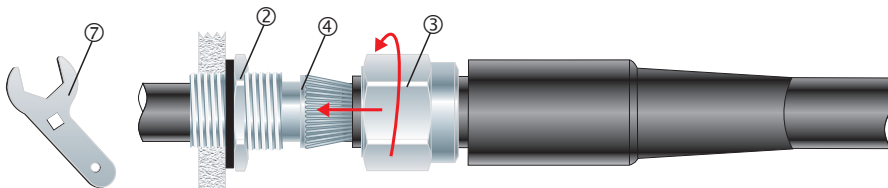
Alternative installation through an unthreaded entry.



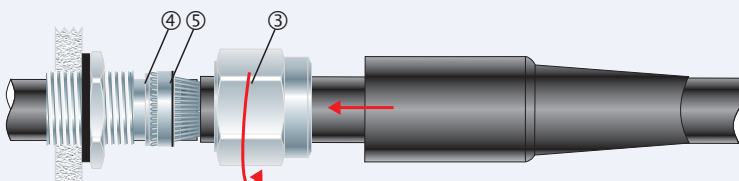
If the apparatus is untapped use a locknut.



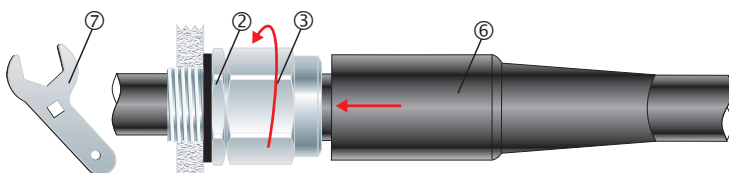
5. Cut the shroud to suit cable outer diameter of cable. Pass the cable end through the shroud (6) and the outer (3).



6. Pass the cable end through the inner (2). Splay armour wires over the cone (4). Tighten the outer (3) onto the inner (2) until hand tight, then tighten with a CCG Spanner (7) with $\frac{3}{4}$ turn to lock the armour between the cone (4) and the cone ring (5).



7. Unscrew the outer (3). Check that the armour has locked between the cone ring (5) and the cone (4). (O-Ring on the cone ring (5) is sacrificial).



8. Tighten the outer (3) onto the inner (2) to installation torque using a CCG Spanner (7). Slide the shroud (6) over the gland.

VARITEx™

Ex eb IIC, Ex tb IIIC

COMPRESSION GLAND for Copper Tape Cable used for VSD



Features and Benefits

- For indoors, outdoors, Group II, III, Zone 1, 2, 21 and 22 hazardous areas.
- Two piece handling, no loose parts.
- Independent tightening of coil induces an inspectable positive contact on copper tape.
- Factory fitted captive elastomeric seal for Built-in Safety™.
- Seals on the outer sheath of the cable to IP66/68.
- Precision manufactured from high-quality brass (Marine Grade Electroless Nickel Plated™) available in stainless steel 316/316L on request.
- Complete with a thread sealing gasket and heavy duty locknut.

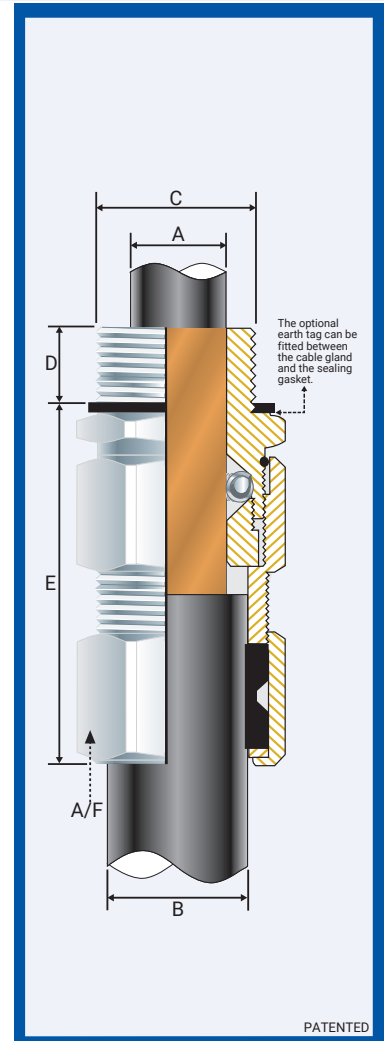


Technical Data

Type:	VARITEx™ (VRTX)
Gland Material:	Brass (Marine Grade Electroless Nickel Plated™), Stainless Steel 316/316L
Seal Material:	Standard Thermoset Elastomer or Extreme Temperature Seals
Seal Gasket Material:	HDPE, Nylon 66 or PTFE
Cable Type:	Copper Tape VSD (Variable Speed Drive)
Sealing Area:	Compression Seal on the Outer Sheath
Optional Accessories:	Adaptor, Reducer, Earth Tag, Locknut, Serrated Washer and Shroud
Note:	The installer should ensure that the materials are suitable for the installation environment.

Standards and Certifications

Equipment Protection Levels:	IECEX: Ex e IIC Gb, Ex tb IIIC Db ATEX: Ⓜ II 2GD, Ex eb IIC Gb, Ex tb IIIC Db TR CU: 1Ex e IIC Gb X / Ex tb IIIC Db X
Continuous Operating Temp:	Standard Seals: -60°C to +95°C/100°C (HDPE/Nylon Sealing Gasket) Extreme Temp. Seals: -60°C to +160°C (PTFE Sealing Gasket)
Conformance:	Standard: IEC/BS EN 62444 Certificate: CML 14CA364
IEC/BS EN	IEC 60079 Parts 0, 1, 7, 15, 31 EN 60079 Parts 0, 1, 7, 31 IEC Ex CML 18.0018X CML 16ATEX1001X
ATEX	ABNT NBR IEC 60079 Parts 0, 1, 7, 15, 31 TÜV 15.0483X
INMETRO (Brazil)	ГОСТ Р МЭК 60079-0, 7, 15, 31 TC RU C-ZA.ME92.B.00690
TR CU (Russia)	SANS 60079 Parts 0, 1, 7, 15, 31 MASC MS/13-028X
SANS	IEC 60529
IP66/67/68 - Parallel	ASTM B117-11, BS EN ISO 3231 EXOVA N968667
Corrosion Protection	EN 55011:2009 + A1:2010, EN 55022:2010 SGS EMC197708/1
EMC Compatible	



Conditions for Safe Use - X

- The cable glands shall only be used where the temperature, at the point of entry, is between -60°C and +95°C (standard seal & HDPE sealing gasket), +100°C (standard seal and Nylon sealing gasket) or +160°C (extreme temp. seal & PTFE sealing gasket) depending on seal and gasket used.
- The cable glands may only be used on fixed installations where the cable is clamped or stress applied to the cable in the gland is prevented.

Product Code	Cable Conductor Size	Gland Size Reference	Metric Entry Thread		Cable Detail				Maximum Length 'E'	Hexagonal Detail		Installation Torque Value Nm
			'C'	Min 'D'	Inner Over Tape		Outer			Max 'Flats'	Max 'Crns'	
					Min 'A'	Max 'A'	Min 'B'	Max 'B'				
0531-0S	2.5	0-20s	M20x1.5	15	9.6	11.5	13.0	20.0	61.0	30.0	34.0	23.1
0531-0	4.0	0-20	M20x1.5	15	10.8	12.5	13.0	20.0	61.0	30.0	34.0	23.1
053101	6.0	1-20	M20x1.5	15	12.2	14.0	13.0	20.0	61.0	30.0	34.0	23.1
053122	10.0	2s-25s	M25x1.5	15	13.8	16.0	18.0	26.0	64.0	38.0	43.0	33.0
053102	16.0	2-25	M25x1.5	15	16.0	20.0	18.0	26.0	65.0	38.0	43.0	33.0
053133	25.0	3s-32s	M32x1.5	15	20.0	23.0	23.0	28.0	68.0	45.0	51.0	46.2
053103	35.0	3-32	M32x1.5	15	22.0	23.5	23.0	28.0	68.0	45.0	51.0	46.2
053144	50.0	4s-40s	M40x1.5	17	23.5	28.0	28.0	39.5	75.0	55.0	62.0	57.2
053104	70.0	4-40	M40x1.5	17	28.0	32.0	28.0	39.5	74.0	55.0	62.0	57.2
053155	95.0	5s-50s	M50x1.5	17	32.0	36.0	35.2	42.0	81.0	65.0	73.0	62.7
053105	120.0	5-50	M50x1.5	17	35.5	39.0	40.0	46.0	85.0	65.0	73.0	62.7
053166	150.0	6s-63s	M63x1.5	17	39.0	45.0	45.5	54.0	85.0	80.0	90.0	72.6
053106	185.0	6-63	M63x1.5	17	44.0	49.5	45.5	54.0	85.0	80.0	90.0	72.6
053106L	240.0	6L-63L	M63x1.5	17	49.0	54.0	54.6	62.0	83.0	80.0	90.0	72.6
053107	300.0	7-75	M75x1.5	17	54.0	59.0	59.0	72.1	93.0	96.0	108.0	72.0
053108	300.0	8-80	M80x2	17	59.0	64.0	65.0	77.5	93.0	96.0	108.0	72.0

All dimensions are in mm. Intermediate thread sizes are available on request.

CCGG reserves the right to make alterations to the technical data, dimensions, designs and products available without notice. The illustrations cannot be considered binding. Please contact CCGG for assistance.

VRTX-EMC140920E

VARITEx™ COMPRESSION GLAND Ex eb IIC, Ex tb IIIC

ENCLOSURES AND EQUIPMENT TO WHICH CABLE GLANDS ARE FITTED:-

- Must be made from materials which are compatible with the cable gland materials.
- Have a sealing area around the cable gland entry point with a surface roughness <math>< Ra 6.3 \mu m</math>.
- Have entries that are perpendicular to the enclosure face in the area where the cable gland will seal to within 2.5°.
- Are sealed using the supplied sealing gasket (parallel threads) or by fully tightening into a threaded entry (tapered threads). Note that for tapered threads the IP rating can be improved to IP68 with the use of a suitable thread sealant.

MUST HAVE THREADED ENTRIES

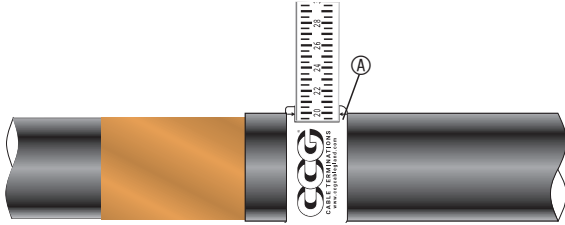
- The same thread size as the cable gland. (Thread adapters should be used to correct

any mismatch).

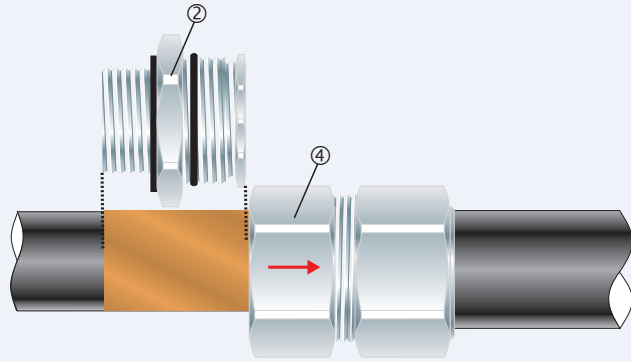
- With a thread tolerance of metric class '6H' or equivalent.
- Where the thread length is a minimum of 10mm for Ex d applications or 3mm for all other applications

OR CLEARANCE HOLES (not Ex d)

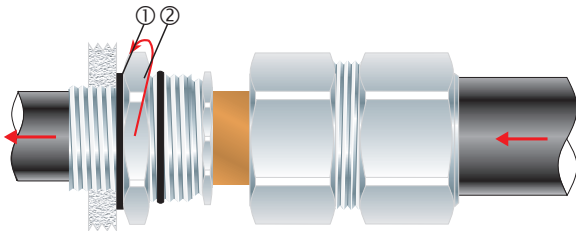
- Where the hole size is the thread nominal size with a tolerance of +0.1 to +0.7mm. (e.g. the clearance hole for an M20 thread will have a diameter between 20.1mm and 20.7mm).
- Through material that is between 1mm and 12mm thick. (Thicker materials can be accommodated using glands with extended entry threads.)



1. For accurate sizing, use a CCG Dimension Tape ① on the inner and outer cable sheath.

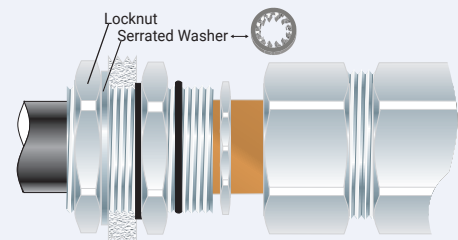


2. Screw the body ④ off and pass the cable end through the body ④. Cut the PVC sheath exposing the copper tape to the length of the inner ②.

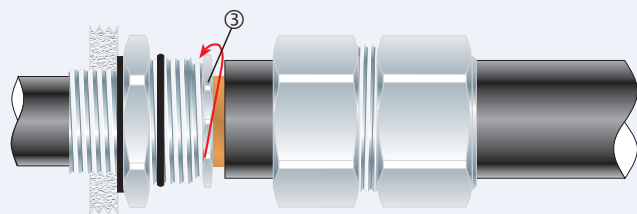


3. To maintain IP66/68 ensure gasket ① is in place. Screw the inner ② into the apparatus. Pass the cable through the inner ②.

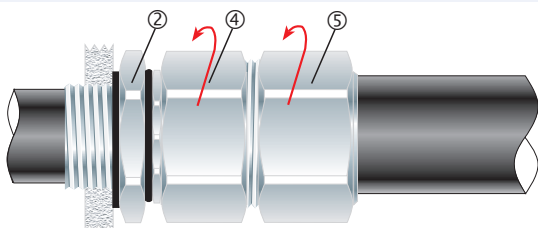
Alternative installation through an unthreaded entry.



If the apparatus is unthreaded use a locknut.



4. Tighten the compression nut ③ until the coil is in contact with the tape, then turn a half turn.



5. Tighten the body ④ onto the inner ②. Tighten the outer nut ⑤ to produce a moisture proof seal by turning till the seal makes contact with the outer sheath of the cable and then make one full turn.

CW INSULATED CAPTIVE COMPONENT GLAND®

for SWA and Aluminium Armoured Cable



Features and Benefits

- For indoor and outdoor use.
- Gland is insulated from equipment to prevent system circulating currents.
- Freely rotating captive cone and inspectible cone ring, providing an armour clamp and earth bond without twisting the armouring.
- Patented disconnect armoured clamp system for ease of inspection.
- Provides a seal on the outer sheath of the cable sealing to IP65/66.
- Precision manufactured from high-quality brass (nickel plated) available in aluminium or stainless steel 316/316L on request.
- Complete with heavy-duty (nickel plated) locknut.

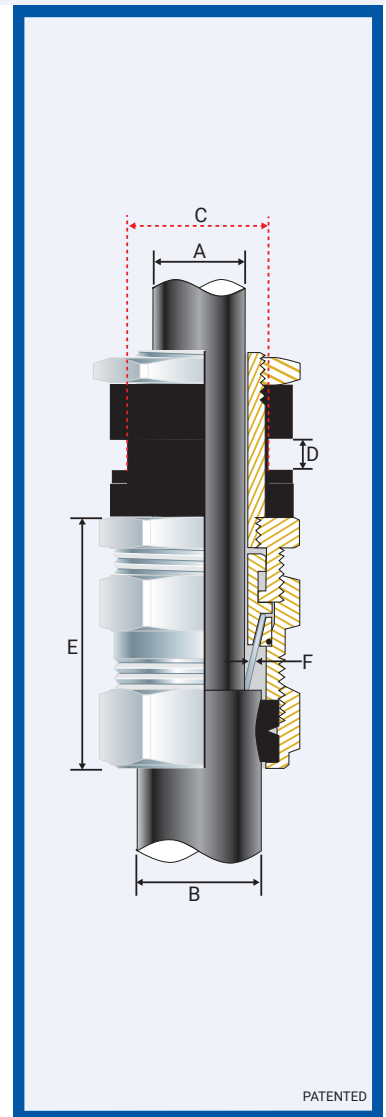


Technical Data

Type:	CW Insulated
Gland Material:	Brass (Nickel Plated) BS 2874, EN 12164, Aluminium ASTM B221, Stainless Steel 316/316L
Seal Material:	Thermoset Elastomer
Cable Type:	Steel Wire Armour, Aluminium Armour Wire
Armour Clamping:	Rotating Captive Cone and Inspectible Cone Ring
Sealing Area:	Outer Sheath
Optional Accessories:	Adaptor, Reducer, Earth Tag, Serrated Washer and Shroud

Standards and Certifications

Mechanical Properties:	Impact Category 8 Anchorage Type D	
Electrical Properties:	Category B	
Continuous Operating Temp:	-65°C to +120°C	
Conformance:	Standard:	Certificate:
Design Standards	BS 6121:Part 1	CML 14CA364
	IEC/BS EN 62444	CML 14CA364
	SANS 62444	MASC 11-303
	SANS 1213	MASC 18-2047, SANS 2109/4596
IP66 - Parallel	IEC 60529	MASC 11-263
Marine ABS	IEC 62444	ABS 20-SG1952694-PDA
	DNV-GL	IEC 60529, BS 6121, IEC 62444
EMC Compatible	EN 55011:2009 + A1:2010,	SGS EMC197708/1
	EN 55022:2010	
London Underground Approval	BS EN 62444	LU 3044



Installation Standards

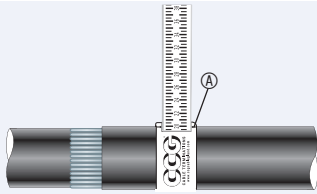
- AS/NZS 3000
- BS 6121-5
- BS 7671
- BS 7430
- IEC 60364-5-54
- SANS 0142

Product Code	Gland Size Reference	Metric Entry Thread		Cable Detail			Max Length 'E'	Armour Dia		Hexagonal Detail		Install. Torque Value Nm
		'C'	Max 'D'	Max 'A'	Min 'B'	Max 'B'		Min 'F'	Max 'F'	Max 'Flats'	Max 'Crns'	
0532-0	0-20s	20	10	12.0	11.5	16.0	61.0	0.90	1.25	24.0	27.0	35.0
053201	1-20	20	10	13.5	14.5	21.0	67.0	0.90	1.25	27.0	30.0	35.0
053202	2-25	25	10	17.5	20.5	27.0	80.0	1.25	1.60	35.0	39.0	50.0
053203	3-32	32	10	24.0	26.5	33.5	80.0	1.60	2.00	42.0	47.0	70.0
053204	4-40	40	10	34.0	33.0	43.0	85.0	1.60	2.00	52.0	59.0	90.0
053205	5-50	50	10	42.5	40.5	52.5	106.0	2.00	2.50	65.0	73.0	100.0
053206	6-63	63	10	55.5	52.5	65.5	129.0	2.00	2.50	80.0	90.0	120.0
053207	7-75	75	10	68.0	65.5	78.0	149.0	2.50	3.15	96.0	108.0	120.0
053208	8-80	80	10	72.5	78.0	82.0	149.0	2.50	3.15	96.0	108.0	120.0
053209	9-90	90	10	81.5	82.0	91.0	157.0	3.00	3.50	96.0	108.0	120.0
053210	10-100	100	10	91.5	90.0	101.0	165.0	3.00	3.50	125.0	141.0	120.0
053211	11-110	110	10	98.0	100.0	114.0	165.0	3.00	4.00	135.0	152.0	120.0

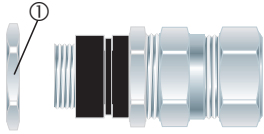
All dimensions are in mm.

♦ When manufactured in Aluminium, Hex will be 27 Across Flats and 30 Across Corners.

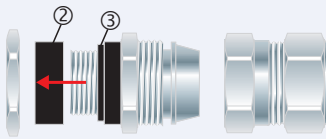
CW INSULATED CAPTIVE COMPONENT GLAND®



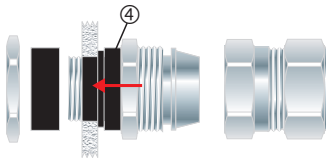
1. For accurate sizing, use a CCG Dimension Tape ④ on the inner and outer cable sheath.



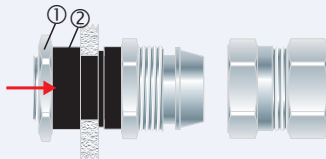
2. Remove the locknut ①.



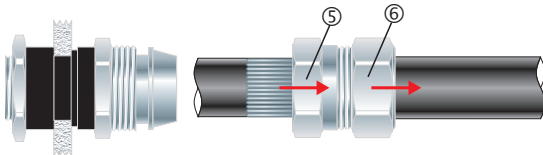
3. Remove female insulator ring ②. To maintain IP66 rating ensure the gasket ③ is in place.



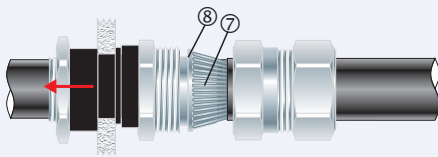
4. Insert the male insulator entry ④ into the cable entry of the apparatus.



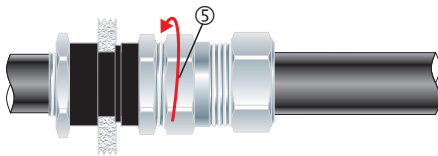
5. Screw the female insulator ring ② back against the apparatus (maximum of 10mm thickness). Screw the locknut ① back against the female insulator ring ②.



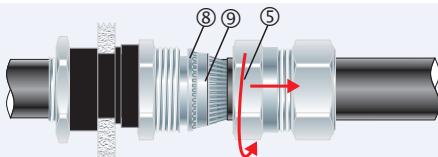
6. Pass the outer nut ⑥ and the body ⑤ over the cable and strip the cable outer sheath.



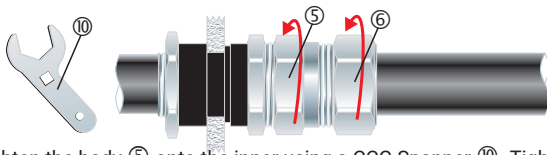
7. Pass cable end through the inner and splay the armour wires ⑦ over the cone ⑧.



8. Tighten the body ⑤ onto the inner to lock the armour between the cone ⑧ and cone ring ⑨.



9. Unscrew the body ⑤. Check that the armour has locked between the cone ⑧ and cone ring ⑨. (O-Ring on the cone ring ⑨ is sacrificial).



10. Tighten the body ⑤ onto the inner using a CCG Spanner ⑩. Tighten the outer nut ⑥ onto the body ⑤ to produce a moisture-proof seal by turning until seal makes contact with the outer sheath of the cable and then turn one full turn.