



# INSTALLATION INSTRUCTIONS FOR CMP INDUSTRIAL CABLE GLAND TYPE "E"

FOR TERMINATION OF CABLES WITH WIRE BRAID, TAPE ARMOUR (STA/DSTA), STRIP ARMOUR & SINGLE WIRE ARMOUR (SWA) (WITH LEAD INNER SHEATH ON "E2" VARIANT) INTENDED FOR INDUSTRIAL / GENERAL PURPOSE USE

## CABLE GLAND TYPES E1W, E2W, E1X, E2X, E1U & E2U



- E1W -** SWA AWA
- E2W -** SWA AWA for lead sheathed cable
- E1X -** Braid, Tape, etc Armour for lead sheathed cable
- E2X -** Braid, Tape, etc Armour for lead sheathed cable
- E1U -** Universal Gland for all Armour Types
- E2U -** Universal Gland for all Armour Types with lead sheathed cable



### TECHNICAL DATA

CABLE GLAND TYPE : E\*\* Family of Glands  
 INGRESS PROTECTION : IP66, (IP67, IP68 available upon request)  
 PROCESS CONTROL SYSTEM : BS EN ISO 9001

### INSTALLATION INSTRUCTIONS

Installation should only be performed by a competent person using the correct tools. Read all instructions before beginning installation.

### ACCESSORIES

The following accessories are available from CMP Products, as optional extras, to assist with fixing, sealing and earthing :-  
 Locknut, Earth Tag, Serrated Washer, Entry Thread (I.P) Sealing Washer, Shroud

Number of turns to tighten	Outer Seal Tightening Guide													
	GLAND SIZE													
	20S16	20S	20	25S	25	32	40	50S	50	63S	63	75S	75	
	CABLE DIAMETER													
0.5	13.2	15.9	20.9	22.0	26.2	33.9								
1	12.5	15.3	20.0	21.2	25.4	32.9	40.4	46.7	52.8	59.2	65.9	72.1	78.5	
1.5	11.9	14.7	19.0	20.4	24.6	31.9	39.0	45.4	51.4	57.7	64.6	70.6	77.2	
2	11.2	14.2	18.1	19.6	23.8	30.8	37.6	44.1	50.0	56.2	63.4	69.2	75.9	
2.5	10.5	13.6	17.2	18.8	23.0	29.8	36.2	42.9	48.7	54.7	62.1	67.7	74.6	
3	9.8	13.0	16.2	18.0	22.2	28.8	34.8	41.6	47.3	53.2	60.9	66.3	73.3	
3.5	9.2	12.4	15.3	17.2	21.4	27.8	33.5	40.3	45.9	51.6	59.6	64.8	71.9	
4	8.5	11.8	14.4	16.4	20.6	26.8	32.1	39.0	44.5	50.1	58.4	63.4	70.6	
4.5	7.8	11.2	13.4	15.6	19.8	25.7	30.7	37.8	43.2	48.6	57.1	61.9	69.3	
5	7.1	10.7	12.5	14.8	19.0	24.7	29.3	36.5	41.8	47.1	55.9	60.5	68.0	
5.5	6.5	10.1	12.0	14.0	18.2	23.7	27.9	35.2	40.4	45.6	54.6	59.0	66.7	
6	5.8	9.5												

Cable Gland Size	Available Entry Threads (Alternate Metric Thread Lengths Available)				Cable Bedding Diameter		Overall Cable Diameter		Armour Range		Across Flats	Across Corners	Protusion Length	Combined Ordering Reference (*Brass Metric)			Shroud	Cable Gland Weight (Kgs)	
	Standard		Option		Min	Max	Min	Max	Min	Max	Max	Max		Size	Type	Ordering Suffix			
	Metric	Thread Length (Metric)	NPT	Thread Length (NPT)	NPT														
20S16	M20	10.0	1/2"	19.9	3/4"	3.1	8.6	6.1	13.1	0.8	1.25	24.0	26.4	72.5	20S16	E1W	1RA	PVC04	0.163
20S	M20	10.0	1/2"	19.9	3/4"	6.1	11.6	9.5	15.9	0.8	1.25	24.0	26.4	70.0	20S	E1W	1RA	PVC04	0.150
20	M20	10.0	1/2"	19.9	3/4"	6.5	13.9	12.5	20.9	0.8	1.25	30.5	33.6	73.0	20	E1W	1RA	PVC06	0.210
25S	M25	10.0	3/4"	20.2	1"	11.1	19.9	14.0	22.0	1.25	1.6	37.5	41.3	89.0	25S	E1W	1RA	PVC09	0.330
25	M25	10.0	3/4"	20.2	1"	11.1	19.9	18.2	26.2	1.25	1.6	37.5	41.3	89.0	25	E1W	1RA	PVC09	0.330
32	M32	10.0	1"	25.0	1 1/4"	17.0	26.2	23.7	33.9	1.6	2.0	46.0	50.6	86.0	32	E1W	1RA	PVC11	0.430
40	M40	15.0	1 1/4"	25.6	1 1/2"	22.0	32.1	27.9	40.4	1.6	2.0	55.0	60.5	90.0	40	E1W	1RA	PVC15	0.620
50S	M50	15.0	1 1/2"	26.1	2"	29.5	38.1	35.2	46.7	2.0	2.5	60.0	66.0	91.0	50S	E1W	1RA	PVC18	0.750
50	M50	15.0	2"	26.9	2 1/2"	35.6	44.0	40.4	53.0	2.0	2.5	70.1	77.1	95.0	50	E1W	1RA	PVC21	0.950
63S	M63	15.0	2"	26.9	2 1/2"	40.1	49.9	45.6	59.4	2.0	2.5	75.0	82.5	102.0	63S	E1W	1RA	PVC23	1.340
63	M63	15.0	2 1/2"	39.9	3"	47.2	55.9	54.6	65.8	2.0	2.5	80.0	88.0	104.0	63	E1W	1RA	PVC25	1.340
75S	M75	15.0	2 1/2"	39.9	3"	52.8	61.9	59.0	72.0	2.0	2.5	90.0	99.0	115.0	75S	E1W	1RA	PVC28	2.110
75	M75	15.0	3"	41.5	3 1/2"	59.1	67.9	66.7	78.4	2.5	3.0	100.0	110.0	117.0	75	E1W	1RA	PVC30	2.420
90	M90	24.0	3 1/2"	42.8	4"	66.6	78.6	76.2	90.3	3.15	4.0	114.3	125.4	147.0	90	E1W	1RA	PVC32	4.210
100	M100	24.0	4"	44.0	5"	76.0	90.9	86.1	101.4	3.15	4.0	123.0	135.3	140.0	100	E1W	1RA	LSF33	4.450
115	M115	24.0	4"	44.0	5"	86.0	97.9	101.5	110.2	3.15	4.0	133.4	146.7	162.0	115	E1W	1RA	LSF34	6.190
130	M130	24.0	5"	46.8	6"	97.0	114.9	110.2	123.2	3.15	4.0	152.4	167.6	174.0	130	E1W	1RA	LSF35	8.340

\*Note : For material options please add the following suffix to change the Ordering Reference : Brass (no suffix required), Nickel Plated Brass "S", Copper Free Aluminium "1"  
 For NPT options please add the following digits to the material suffix, 1/2" = 31, 3/4" = 32, 1" = 33, 1 1/4" = 34, 1 1/2" = 35, 2" = 36, 2 1/2" = 37, 3" = 38, 3 1/2" = 39, 4" = 310 (Brass requires prefix "0")  
 Examples: 32E1W1RA534 = Nickel Plated Brass 1-1/4" NPT, 50SE1W1RA035 = Brass 1-1/2" NPT, 20E1W1RA5 = Nickel Plated Brass M20  
 Dimensions are displayed in millimetres unless otherwise stated

\*Stepped cone is for single wire armour and grooved cone is for all other armours

Order codes shown are for E1U glands - For e.g. E1X glands substitute E1U for E1X - e.g. 20E1X1RA

\* Please note that the overall maximum cable bedding diameter for "E2" variants should be reduced by 1mm to allow for the inner lead sheath



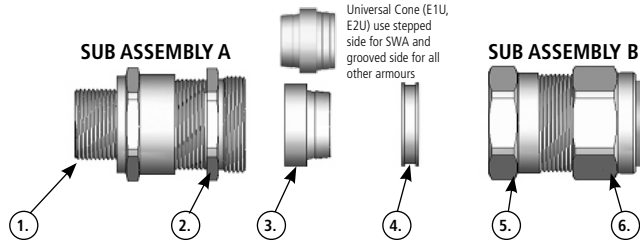
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# INSTALLATION INSTRUCTIONS FOR CMP CABLE GLAND TYPES "E"

**CABLE GLAND COMPONENTS - It is not necessary to dismantled the cable gland any further than illustrated below**

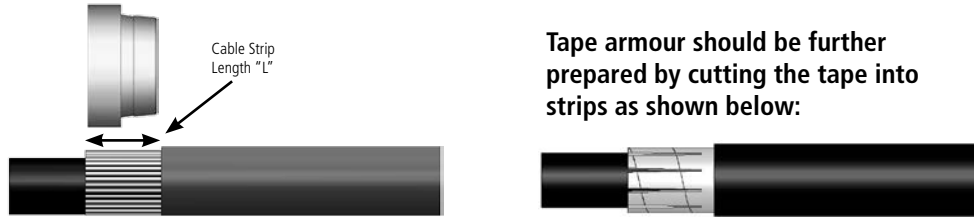
1. Entry Component
2. Main Item
3. Detachable Armour Cone
4. AnyWay Clamping Way
5. Body
6. Outer Seal Nut



**PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE BEGINNING THE INSTALLATION**

1. If required fit shroud over the cable outer sheath;

Prepare the cable by stripping back the cable outer sheath and armour to suit the equipment geometry. Expose the armour by stripping back the outer sheath further using the table below as a guide. If applicable remove any tapes or wrappings to expose cable inner sheath.



**Tape armour should be further prepared by cutting the tape into strips as shown below:**

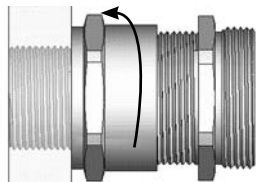
CABLE GLAND SIZE	20S/16, 20S, 20	25S, 25, 32, 40	50S, 50, 63S, 63	75S, 75, 90, 100, 115, 130
CABLE STRIP LENGTH "L"	12mm	15mm	18mm	20mm

2. Separate the gland into two sub-assemblies "A & B". Ensuring that the Outer Seal Nut (6) is relaxed, pass sub-assembly "B" over the cable outer sheath and armour followed by the "AnyWay" clamping ring (4).

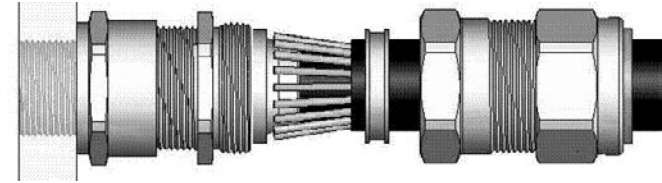


Note: On maximum size cables the clamping ring may only pass over the armour.

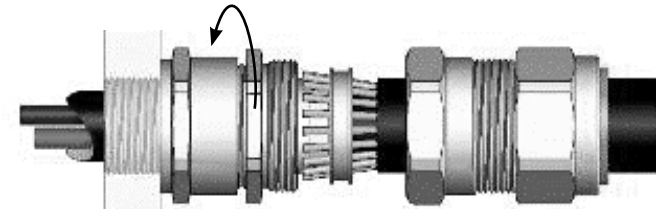
3. Ensure that the inner seal is relaxed by slackening the Main Item (2). Secure sub-assembly "A" into the equipment either by screwing the Entry Item (1) into a threaded hole or by securing it in a clearance hole using a locknut as applicable.



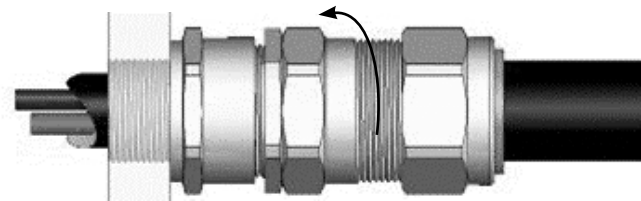
4. Locate the Armour Cone (3) into its recess in the Main Item (2). (N.B. For E1U and E2U variants, make sure the correct side of the cone is outermost - grooved for braid/tape armour and stepped for SWA). Pass the cable through sub-assembly "A" until the armour engaged with the cone. Spread the armour evenly around the cone.



5. While continuing to push the cable forward to maintain contact between the armour and the cone, tighten the Main Item (2) until the inner seal makes contact with the cable inner sheath (heavier resistance is felt at this point). Tighten a further full turn. NOTE: The earthing device on E2\* type glands will automatically engage the lead sheath.



6. Hold the Main Item (2) with a spanner and tighten sub-assembly "B" onto sub-assembly "A" using a spanner until all available threads are used.



7. Only using finger pressure, tighten the outer seal nut assembly (6) until light resistance to tightening is met.

Then either use the outer seal tightening guide tape or table on the rear of the page to determine how much further to tighten the seal using a spanner (using the outer seal tightening guide is recommended).

Wrap the outer seal tightening guide tape around the cable to show the amount of spanner turns needed (as shown here). Make sure the correct side of the outer seal tightening guide tape is used depending on the cable gland size.

