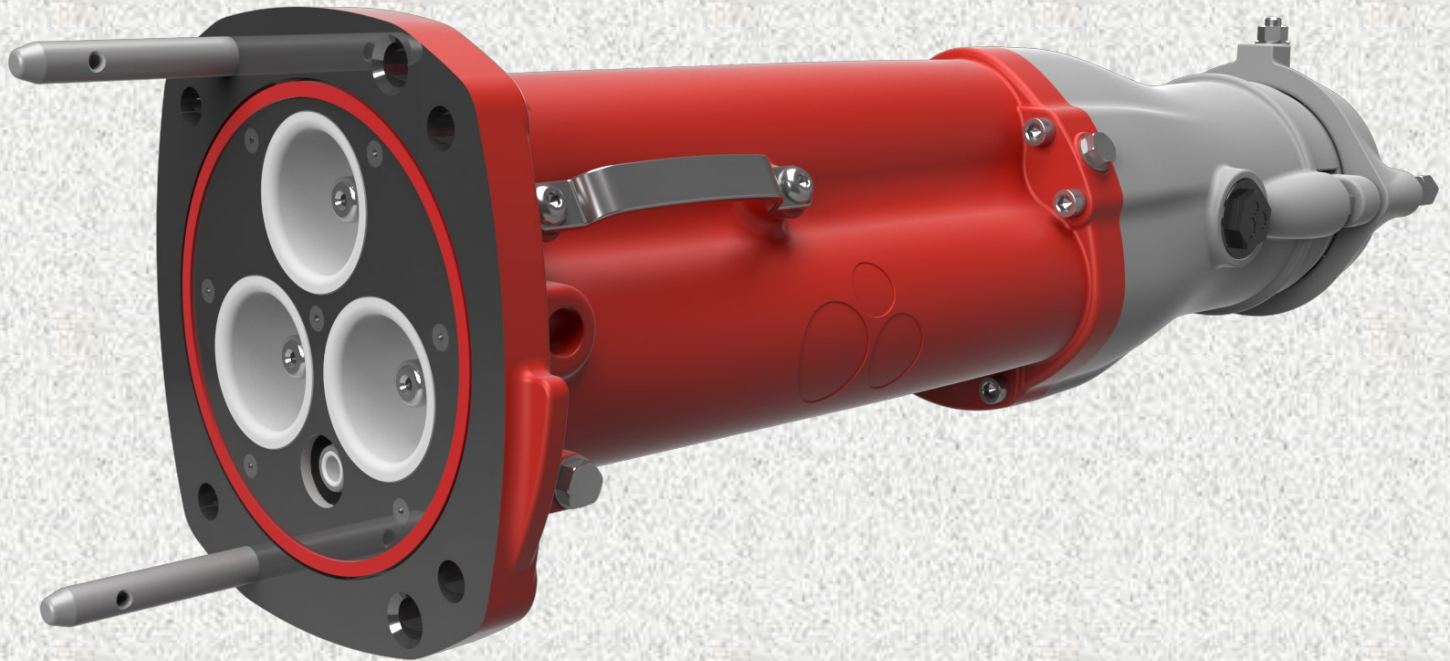




## 22kV 425 AMP KA STYLE COUPLER

224BKA — Range



*Pioneering the Difference.*

---

The AusProof high voltage coupler and adaptor system demonstrates state of the art technology with an innovative design which becomes homogeneous with the cable when terminated. The design offers a continued earth shield, segregating the three phases and maintains the same Symmetrical radial distribution of voltage stress, as in the cable design. This eliminates the risk of a phase to phase fault.

The face profile and silicon rubber connector expels all air when connected, eliminating condensation, dust and corona. The type tests performed were all based on high voltage, cable specification requirements, and the results prove; that the coupler is as good as the cable.

### **Electrical Type Test Results**

#### **22kV 425A Coupler**

##### **Through Fault Current**

20kA for 0.3 seconds  
20kA for 0.3 seconds  
20kA for 1.0 seconds  
At 10 minute intervals

##### **Impulse Voltage**

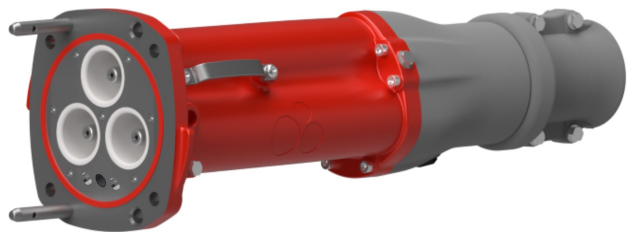
125kV - 10 POS and 10 NEG

##### **A/C High Voltage Withstand**

50kV for 1 minute

# High Voltage Cable Coupler System

## Technical Guide



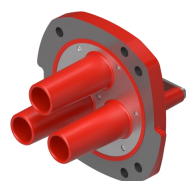
**Stock No:** (See Page 4 Breakdown)  
**Description:** KA Coupler for Trailing Cable  
**Rating:** 22kV 425A  
**Material:** Aluminium  
**LOA:** 840mm  
**Mass:** 25kg  
**Volume:** 5.5 litres



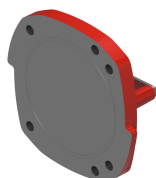
**Stock No:** (See Page 4 Breakdown)  
**Description:** KA Coupler for Armoured Cable  
**Rating:** 22kV 425A  
**Material:** Aluminium  
**LOA:** 840mm  
**Mass:** 25kg  
**Volume:** 5.5 litres



**Stock No:** (See Page 4 Breakdown)  
**Description:** KA Adaptor  
**Rating:** 22kV 425A  
**Material:** Aluminium  
**LOA:** 560mm  
**Mass:** 22kg  
**Volume:** 5.5 litres



**Stock No:** RS2671  
**Description:** Insulated End Cover  
**Rating:** 22kV  
**Mass:** 5kg  
**Material:** Aluminium



**Stock No:** RS2670  
**Description:** Cast Protection Cover  
**Rating:** 22kV  
**Mass:** 3kg  
**Material:** Aluminium



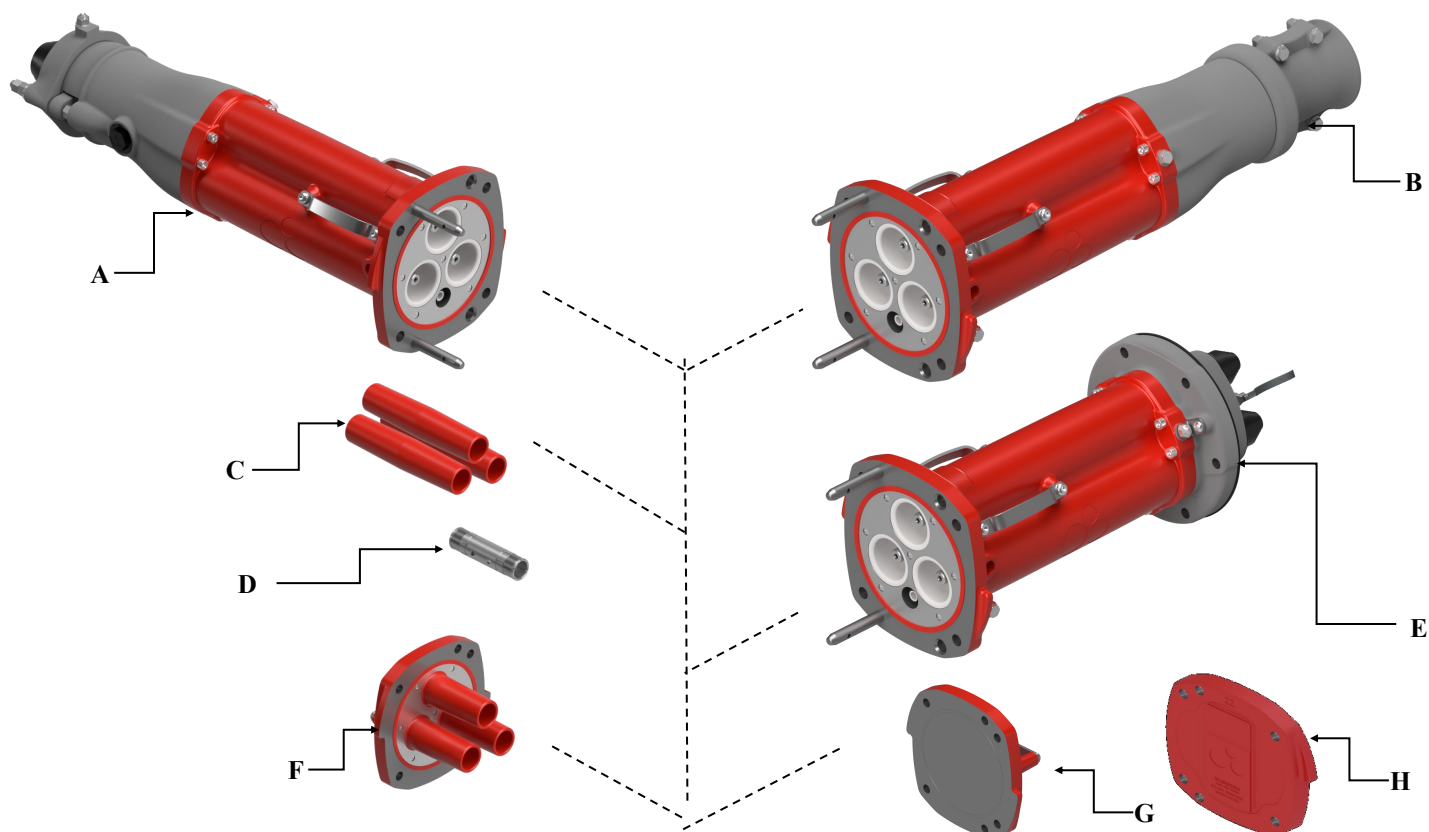
**Stock No:** RS180 (3 required per joint)  
**Description:** Phase Connectors  
**Rating:** 22kV 425A



**Stock No:** RS117  
**Description:** Earth Pilot Connector  
**Rating:** N/A

# High Voltage Cable Coupler System

Model No Selection Guide - 22kV 425A

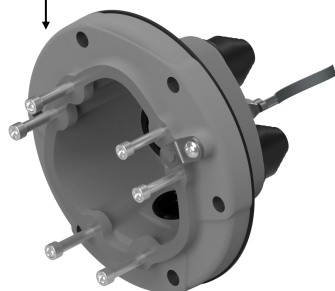


	Description	Stock No.	Page
<b>A</b>	Half Coupler - Armoured Cable	-	4
<b>B</b>	Half Coupler - Unarmoured Cable	-	4
<b>C</b>	425x425 Phase Connectors (3 per Join)	RS180	
<b>D</b>	Earth Pilot connector (1 per Join)	RS117	
<b>E</b>	KA Adaptor	-	4
<b>F</b>	Insulated End Cover	RS2671	9
<b>G</b>	Cast Protection Cover	RS2670	10
<b>H</b>	Cast Protection Cover No Handle	2851	10

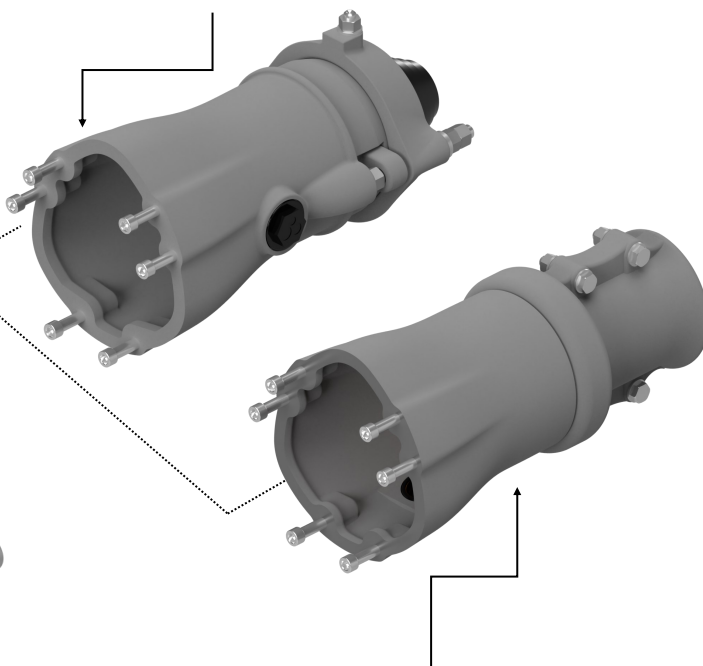
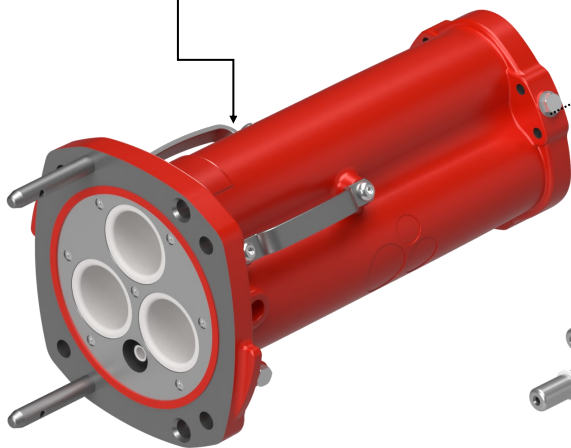
# High Voltage Cable Coupler System

Stock Selection Guide - 22kV 425A

**Gear Mount Flange**  
Stock No: RS193



**Coupler**  
Stock No: RS1364



**KAN SWA Cable Gland**

Cable OD Under Armour	Stock No	Cable OD Under Armour	Stock No
105 - 110mm	RS1343	70 - 75mm	RS1350
100 - 105mm	RS1344	65 - 70mm	RS1351
95 - 100mm	RS1345	60 - 65mm	RS1352
90 - 95mm	RS1346	55 - 60mm	RS1353
85 - 90mm	RS1347	50 - 55mm	RS1354
80 - 85mm	RS1348	45 - 50mm	RS1323
75 - 80mm	RS1349	40 - 45mm	RS1355

**Soldered Contact (Set of 3)**

Conductor	Stock No
35mm sq	RS097
50mm sq	RS098
70mm sq	RS099
95mm sq	RS100
120mm sq	RS101
150mm sq	RS102
185mm sq	RS103
240mm sq	RS104
300mm sq	RS105

**Crimpable Contact (Set of 3)**

Conductor	Stock No
35mm sq	RS397
50mm sq	RS398
70mm sq	RS399
95mm sq	RS400
120mm sq	RS401
150mm sq	RS402
185mm sq	RS403
240mm sq	RS404
300mm sq	RS405

**KA Trailing Cable Gland**

Cable OD	Stock No	Cable OD	Stock No
117mm sq	RS1867	80mm	RS1875
115mm sq	RS1868	75mm	RS1876
110mm sq	RS1869	70mm	RS1877
105mm sq	RS1870	65mm	RS1878
100mm sq	RS1871	60mm	RS1879
95mm sq	RS1872	55mm	RS1880
90mm sq	RS1873	50mm	RS1881
85mm sq	RS1874	45mm	RS1882



# High Voltage Cable Coupler System

## Body Assembly

Stock No: RS1364 — 22kV KA Body

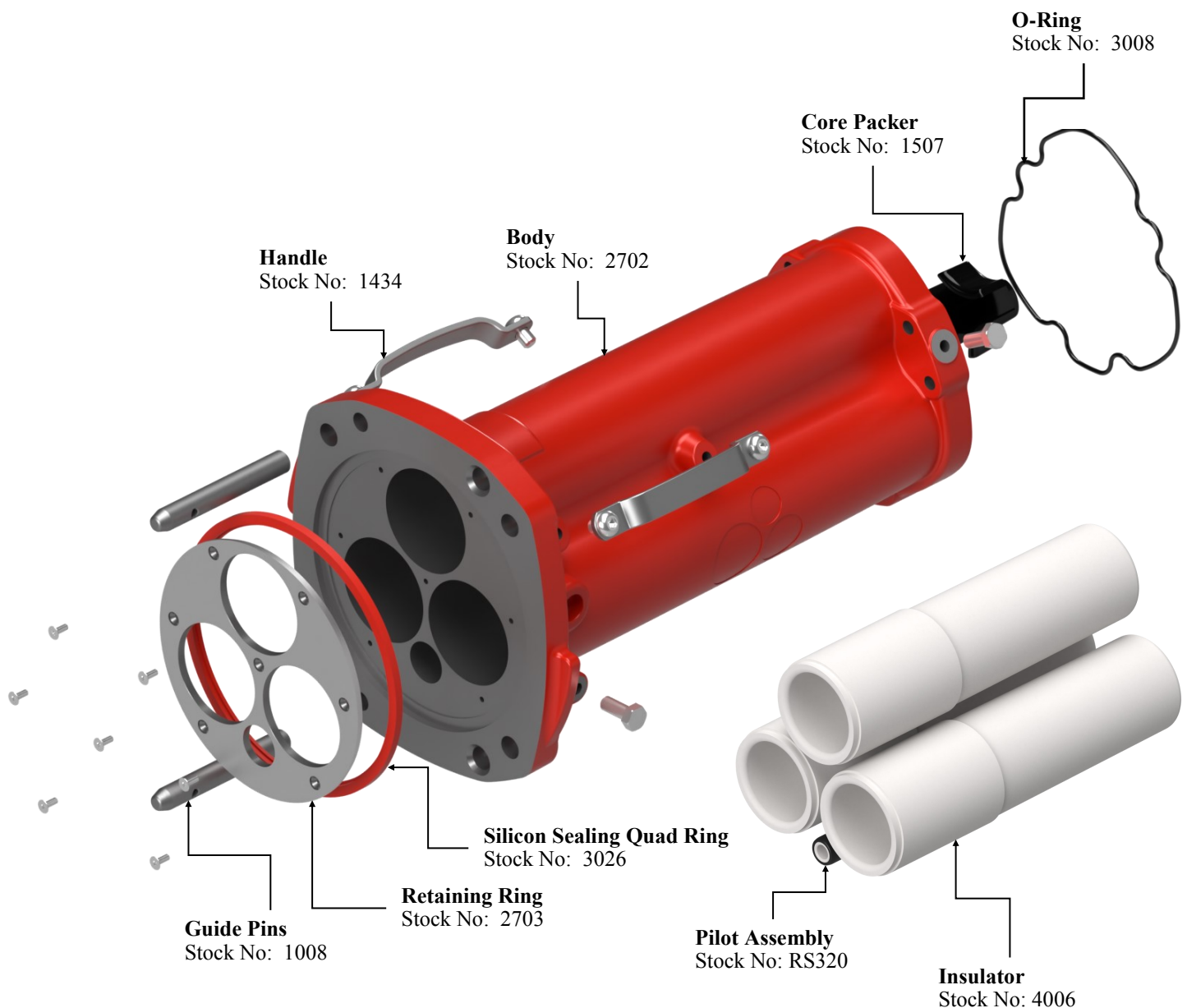
Amps: 425

Volume: 5.5 Litres

Volts: 22000

LOA: 840mm

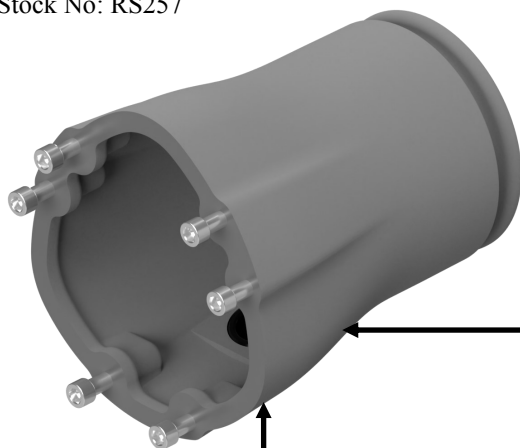
Material: Aluminium



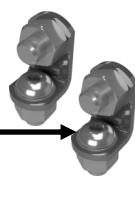
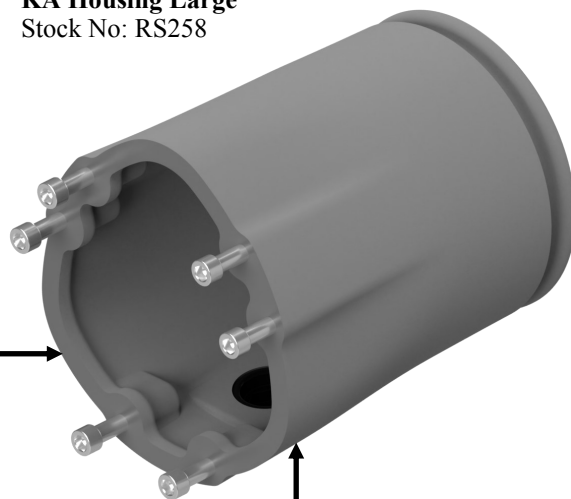
# High Voltage Cable Coupler System

## Unarmoured Gland Assembly

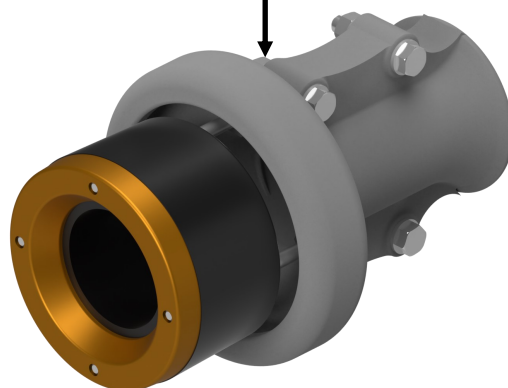
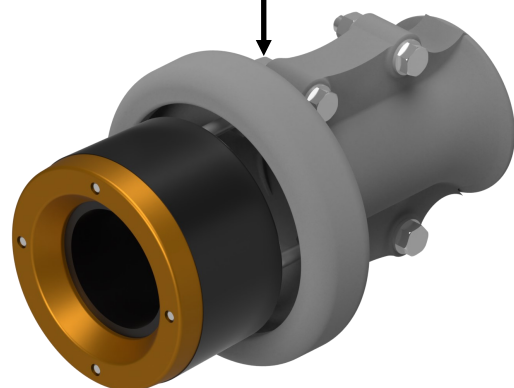
**KA Housing Small**  
Stock No: RS257



**KA Housing Large**  
Stock No: RS258



**Earth Brackets**  
Stock No: RS899

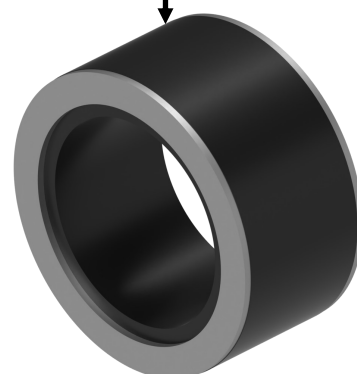
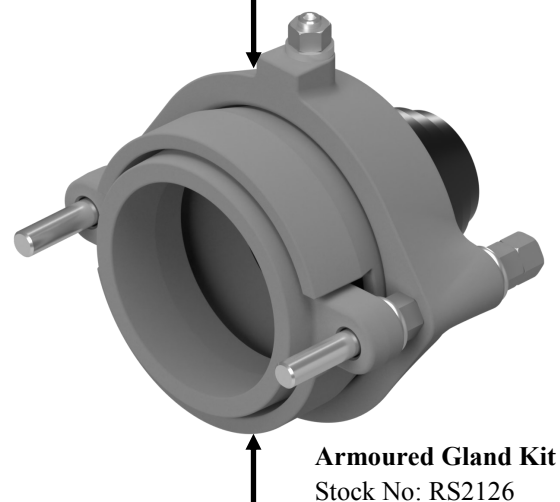
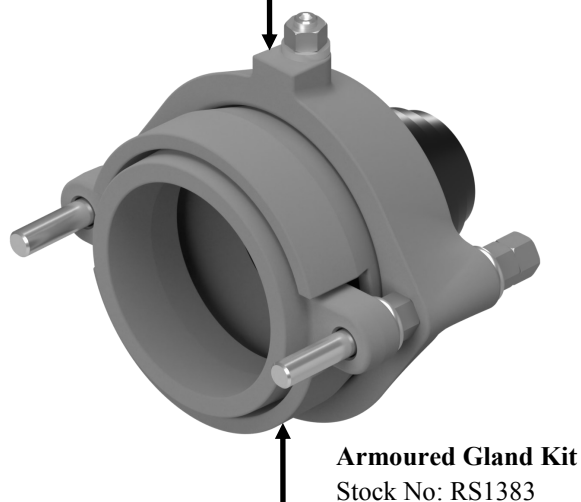
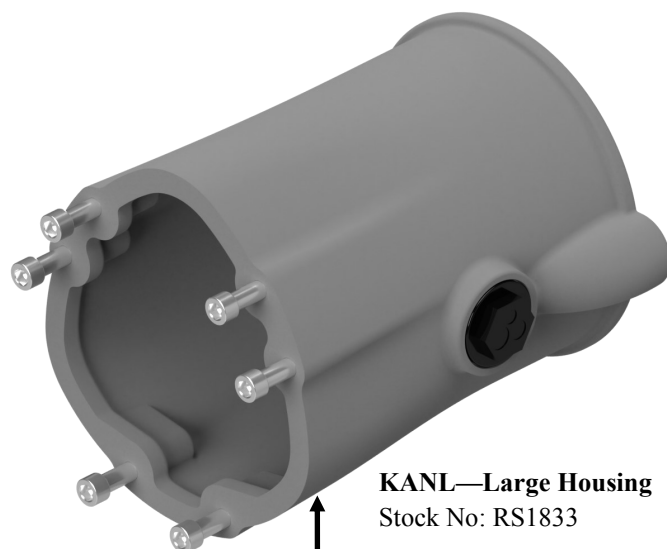
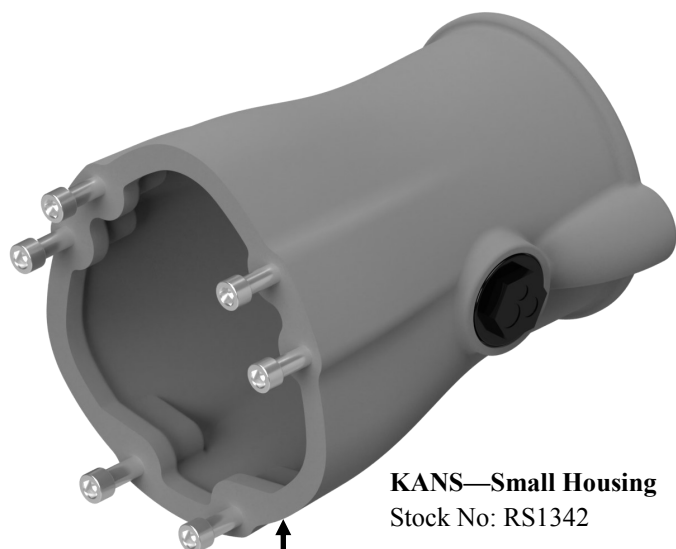


Alum Unarmoured Compression Clamp Kit	
Cable OD	Stock No
90mm	RS266
85mm	RS265
80mm	RS264
75mm	RS263
70mm	RS262
65mm	RS261
60mm	RS260
55mm	RS259
50mm	RS478
45mm	RS479

Alum Unarmoured Compression Clamp Kit	
Cable OD	Stock No
95mm	RS267
100mm	RS268
105mm	RS269
110mm	RS270
115mm	RS271
117mm	RS272
125mm	RS916

# High Voltage Cable Coupler System

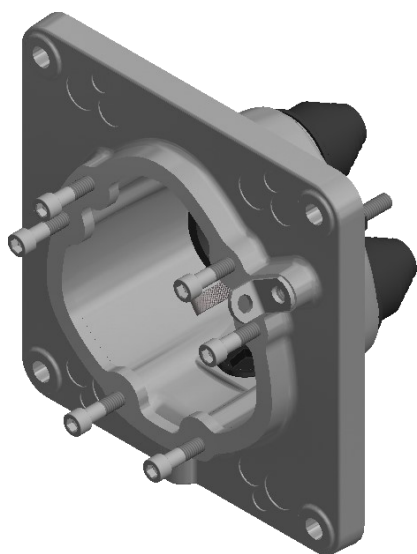
## Armoured Gland Assembly





# Panel Mount Adaptor Body Assembly

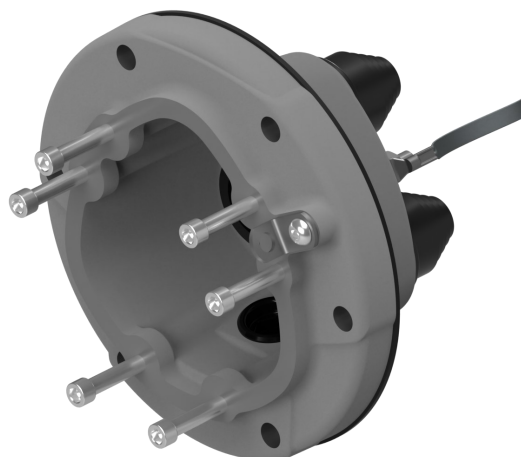
**To Fit To Existing Switch Gear Stations**



**22kV Adaptor Flange**  
(To suit old OC style mounting holes)  
Stock Number: RS2664

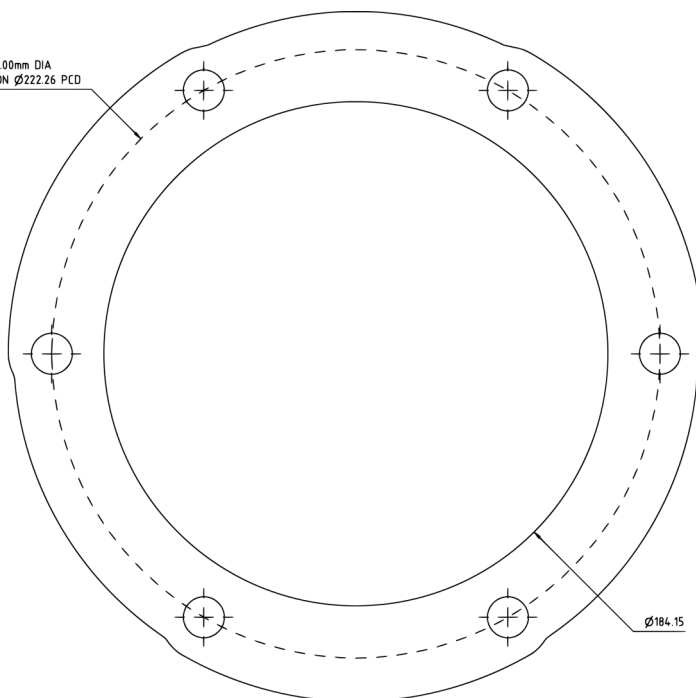
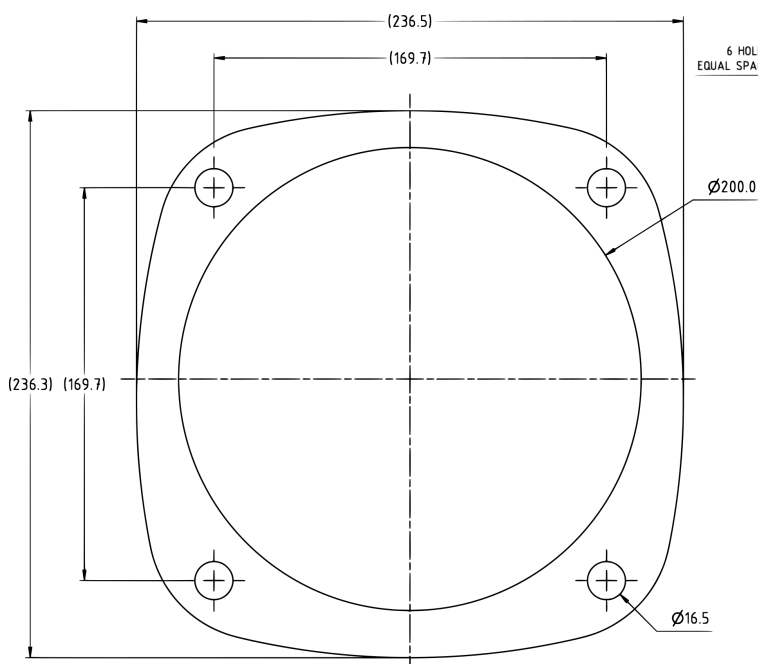
Details below:

**To Fit To New Switch Gear Stations**



**22kV Gear Mount Flange**  
Stock No: RS193

Details below:



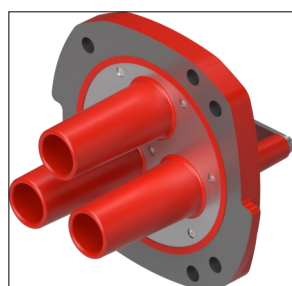
# Insulated End Cover Assembly

Accessories

Stock No: RS2671 — 22kV KA Insul. End Cover

Volts: 22000

Material: Aluminium



**End Cover**  
Part No: 2559

**End Cover Plug**  
Part No: 3064

**Sealing Ring**  
Part No: 3026

**Retaining Ring**  
Part No: 2190

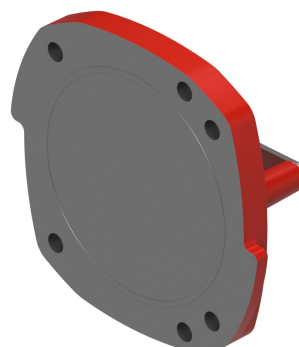
Stock No: RS2670 — 22kV KA Cast Pro Cover

Volts: 22000

Material: Aluminium

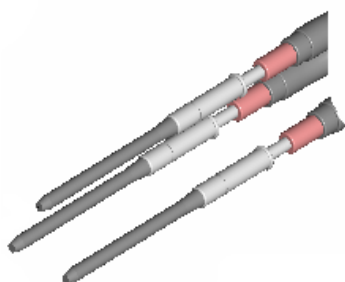


**Cast Pro Cover No Handle**  
Part No: 2851



**Cast Pro Cover**  
Part No: RS2670

### RS179



**Phase Guide Stick Set for Assembly**  
3 Included

### RS177



**Slide Hammer**

### Coupler Tool Kit (All Voltages)

Part No. RS284



I246 (Spanners) x 2

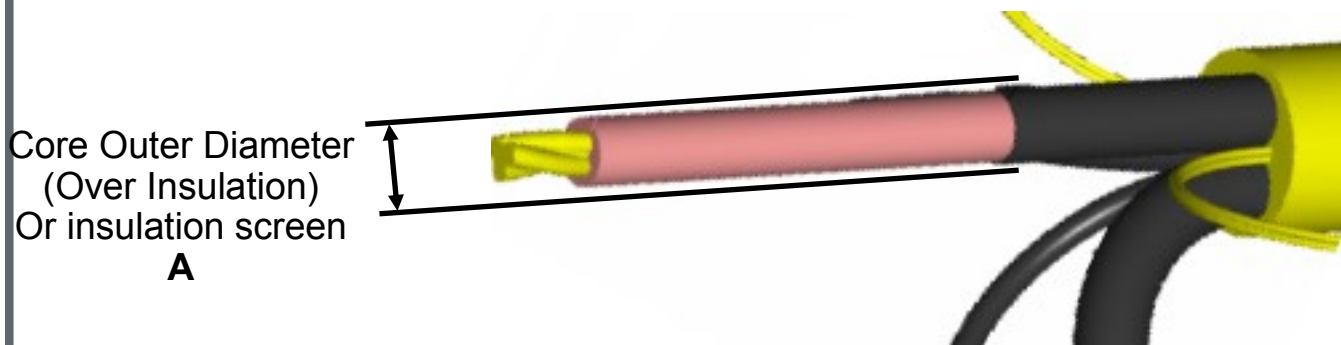
RS325 (Coupling Tool) x 1

RS177 (Slide Hammer) x 1

I278 (High Voltage Cleaning tissues x 15

I274 (Tool Box) x 1

# Termination Kits for Armoured and Unarmoured Cables



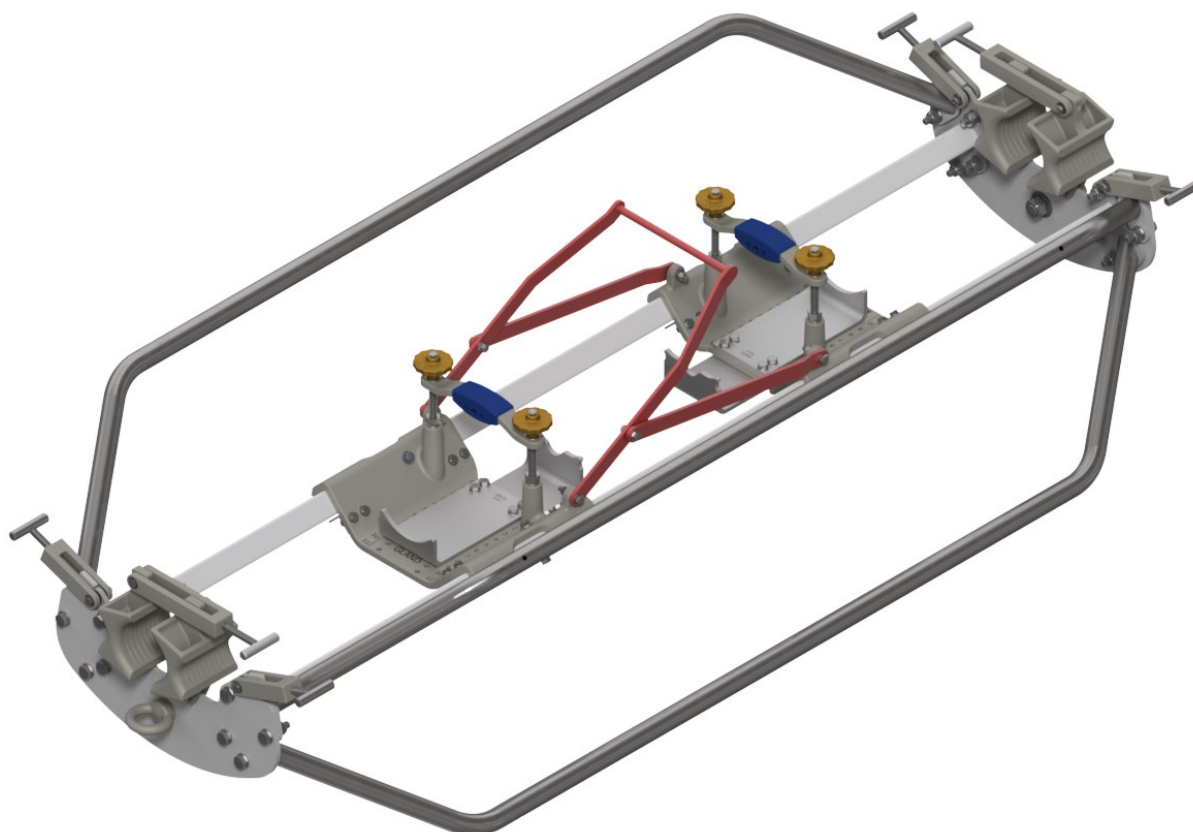
	Armoured Cables			Unarmoured Cables		
<b>A</b>	11 to 25 mm	17 to 30 mm	24 to 50 mm	11 to 25 mm	17 to 30 mm	24 to 50 mm
<b>Description:</b>	22kV Armoured Small Termination Kit	22kV Armoured Medium Termination Kit	22kV Armoured Large Termination Kit	22kV Unarmoured Small Termination Kit	22kV Unarmoured Medium Termination Kit	22kV Unarmoured Large Termination Kit
<b>Stock Num</b>	-	RS680	RS681	-	RS541	RS540

<b>Details:</b>	Compounds 53 (PN: 4135) Cold Shrink Stress Relief Tubes Cleaning Kit (RS2487) Steel zippy Ties Black Heat shrink. For outer steel amour.	Compounds 53 (PN: 4135) Cold Shrink Stress Relief Tubes Cleaning Kit (RS2487)



Refer to New CAT SKID

Download Technical Manual DIN\_838 from our website



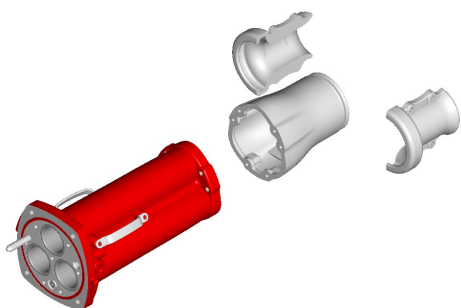


## KA 22kV 425A Unarmoured

### Termination Procedure

These instruction are intended for use by Competent Persons.

1

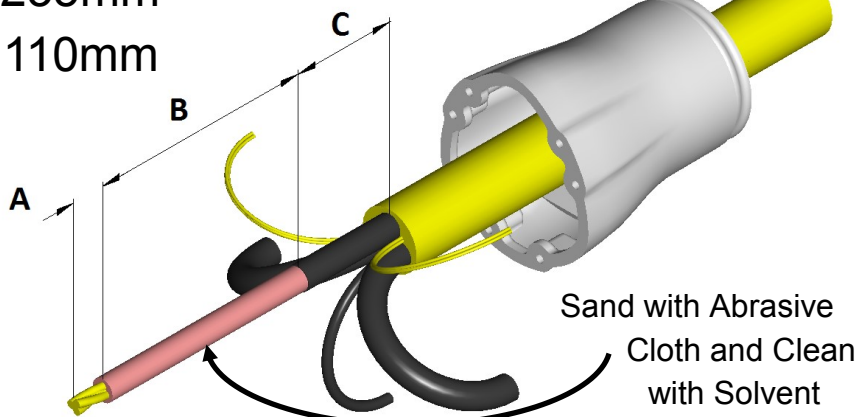


Do Not Remove Insulators from Body

A = 35mm

B = 235mm

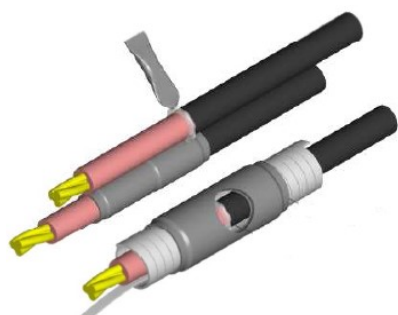
C = 110mm



2

3

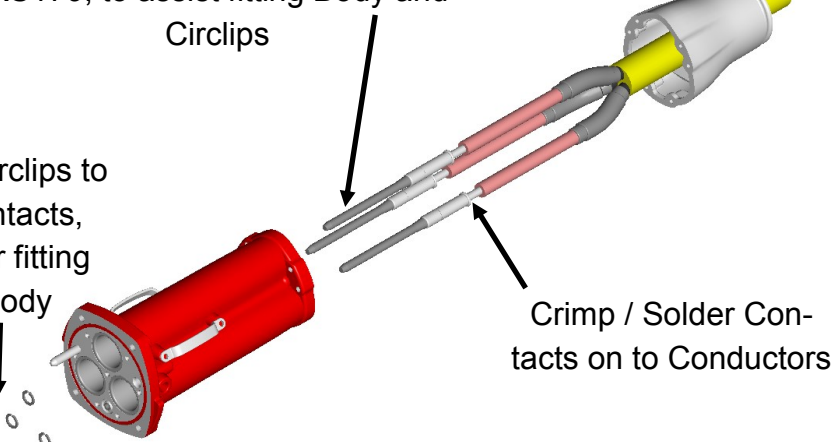
Apply grease and install Cold Shrink Stress Tubes



\* Refer to manufacturers instructions on stress relief tubes.

Use Guide Sticks Stock No: RS179, to assist fitting Body and Circlips

Fit Circlips to Contacts, after fitting Body

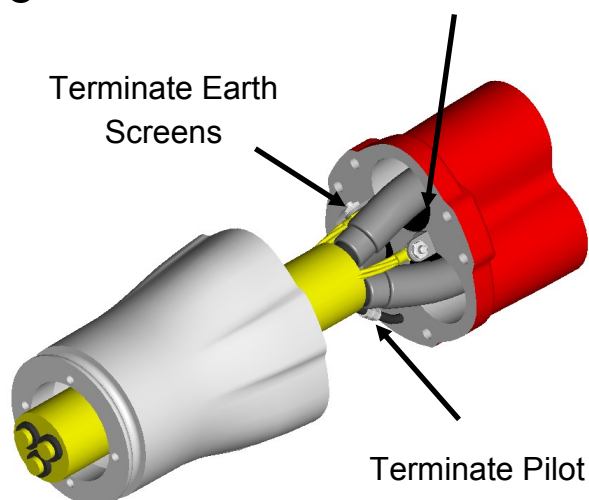


4

5

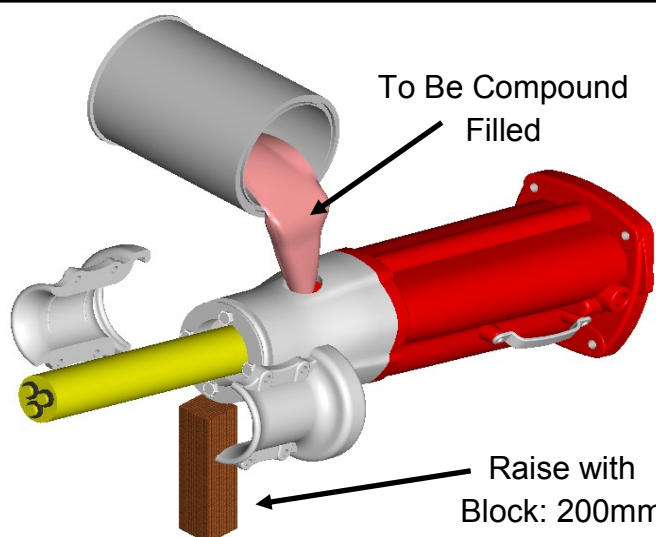
Fit Core Packer

Terminate Earth Screens



6

To Be Compound Filled

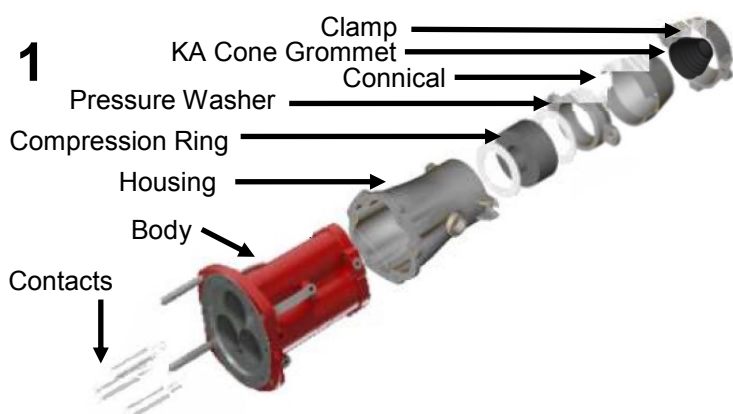


\* Refer to manufacturers instructions on compound

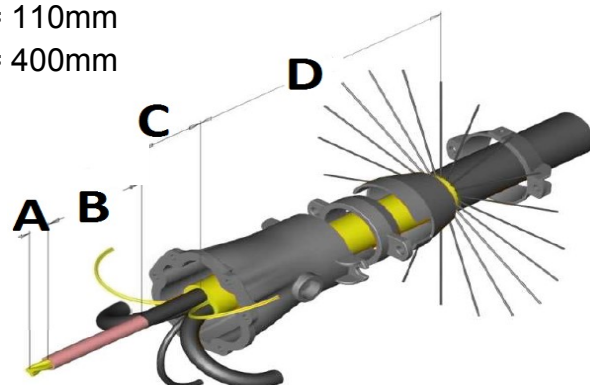
## KA 22kV 425A Armoured

### Termination Procedure

These instruction are intended for use by Competent Persons.



A = 35mm  
B = (240mm)  
C = 110mm  
D = 400mm

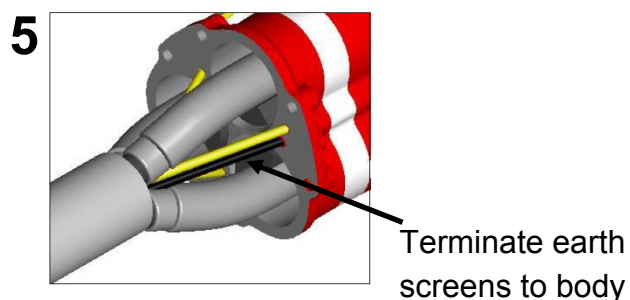
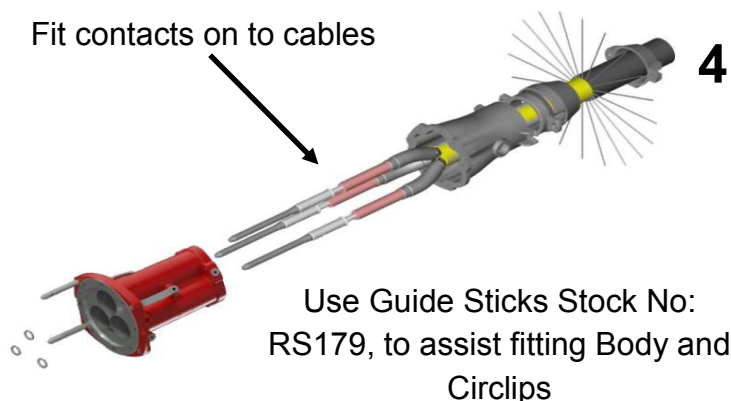


**3** Apply grease and install Cold Shrink Stress Tubes

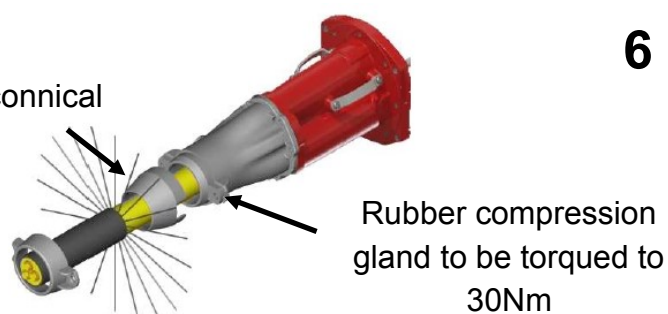
\* Refer to manufacturers instructions on stress relief tubes.



Fit contacts on to cables

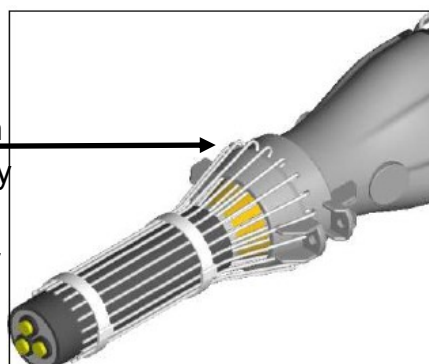


Fit connical



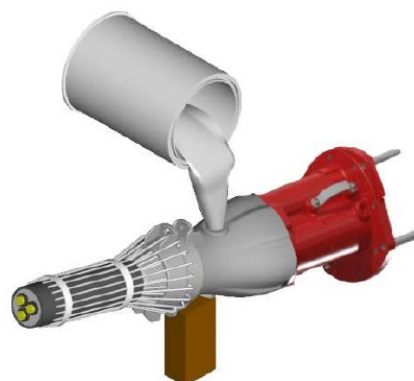
**7**

Clamp down armour, apply heat shrink over armour



**8**

Set coupler at 45° and fill with compound, then adjust angle to bleed out voids of air



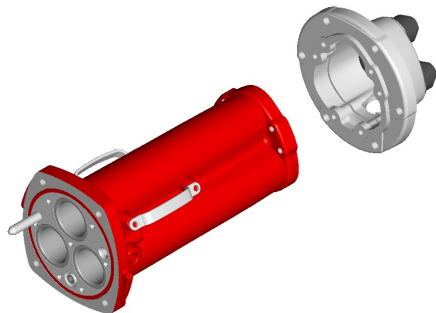
\* Refer to manufacturers instructions on compound

## KA 22kV 425A Adaptor

### Termination Procedure

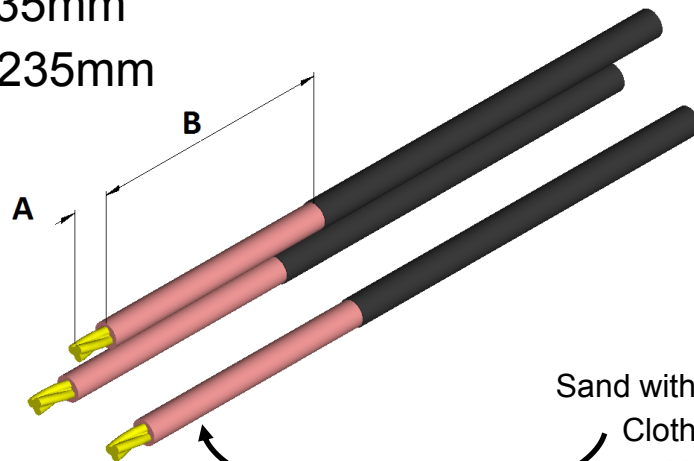
These instruction are intended for use by Competent Persons.

1



Do Not Remove Insulators from Body

A = 35mm  
B = 235mm

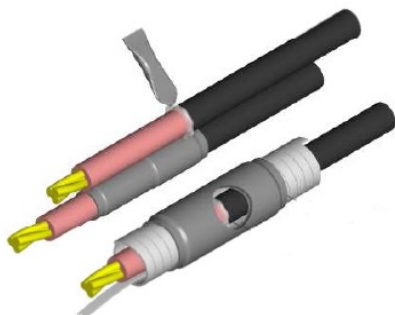


2

Sand with Abrasive Cloth and Clean with Solvent

3

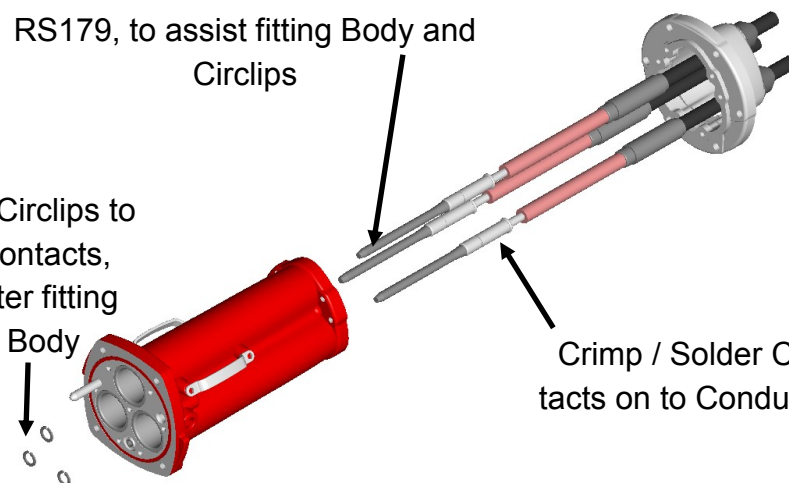
Apply grease and install Cold Shrink Stress Tubes



\* Refer to manufacturers instructions on stress relief tubes.

Use Guide Sticks Stock No: RS179, to assist fitting Body and Circlips

Fit Circlips to Contacts, after fitting Body

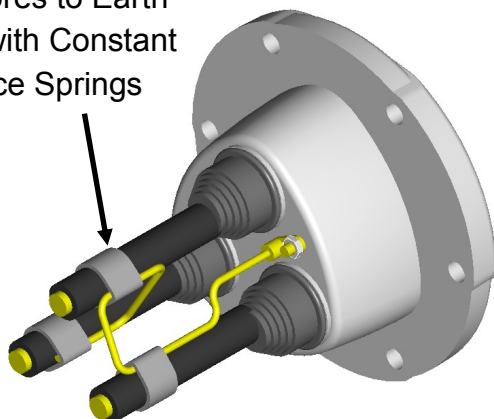


4

Crimp / Solder Contacts on to Conductors

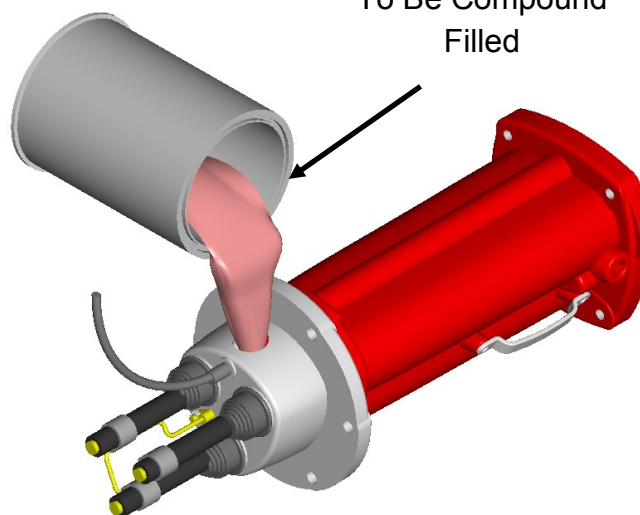
5

Terminate Semi-Con on Cores to Earth Stud with Constant Force Springs



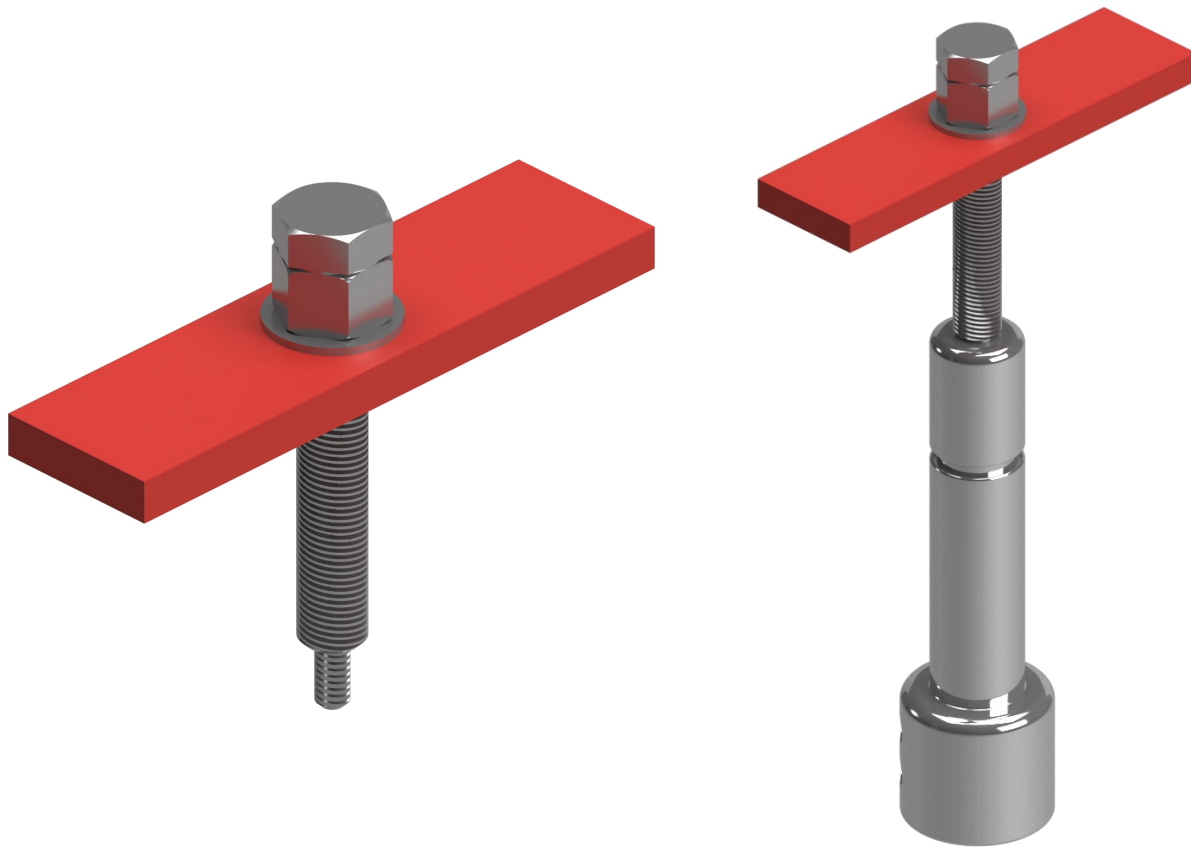
To Be Compound Filled

6



\* Refer to manufacturers instructions on compound

## Contact Pulling Tool Operation



### Observation

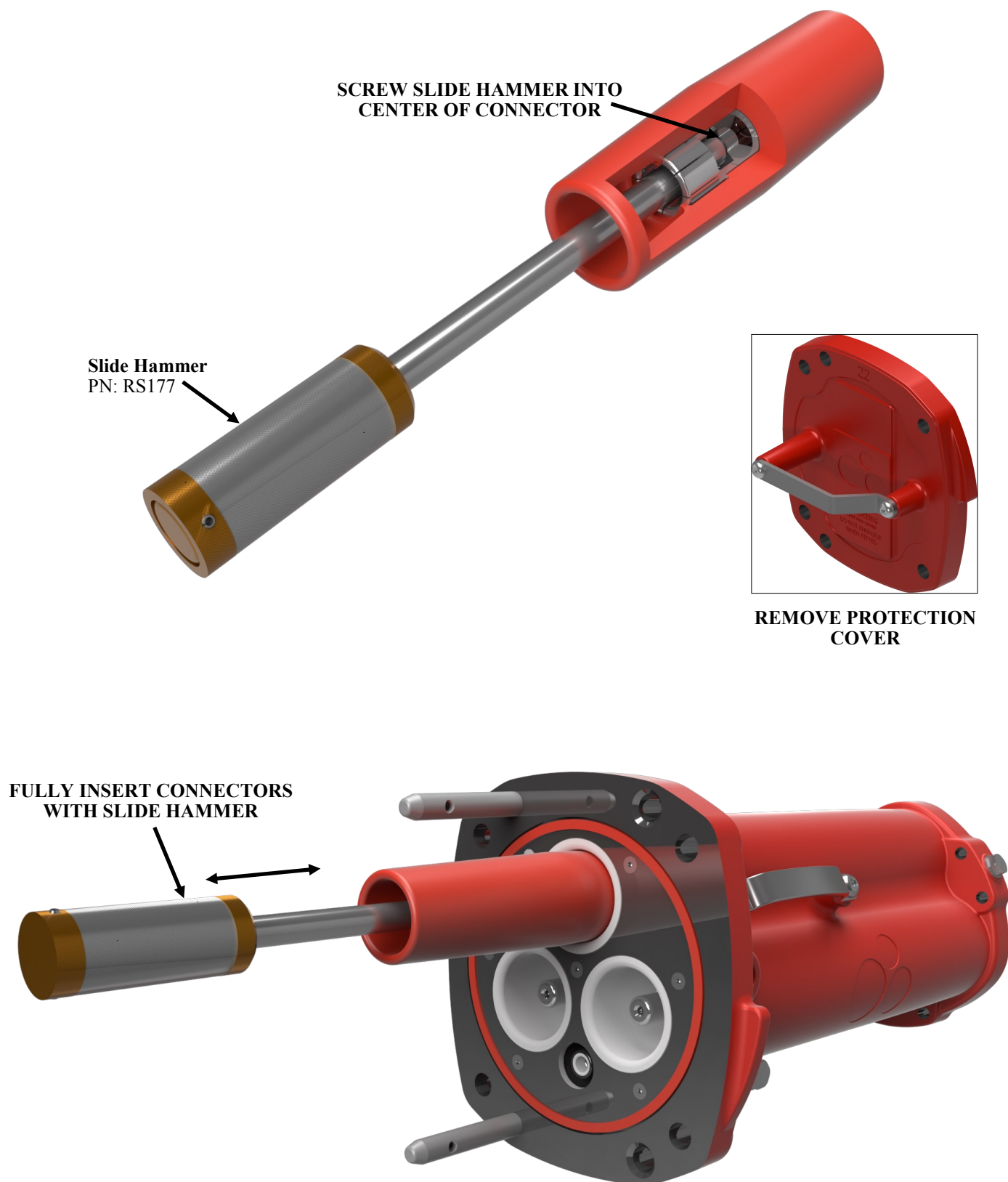
Inspect the front end of the coupler or adaptor, paying special note to the condition of the circlip on each phase. Each circlip should be sitting evenly on the contact. If more of the circlip protrudes out of one side, then the circlip needs to be replaced.

If the circlip needs to be adjusted or replaced, the following will need to be performed

- Ensure power is not connected.
- For a coupler, loosen the clamp on the gland to slightly release the grip on the cable.
- Clean out threaded hole in end of contact with air or cloth
- Place a new circlip over the end of the contact.
- Screw the bolt of the assembled pulling tool into the end of the contact
- Push the steel plate up against the face of the coupler.
- Tighten the nut and washer up to the steel plate.
- Using a spanner, tighten the nut against the steel plate to pull the contact back into place.
- Whilst in this position, replace the circlip.
- After all three contacts are satisfactory, retighten the gland.



## Inserting Connectors and Coupling Operation





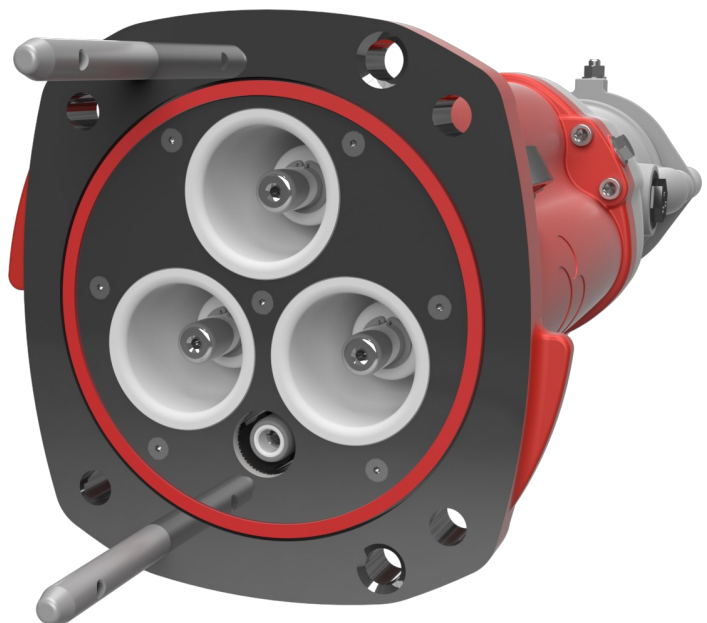
# Offsite Checks & Testing Procedures

## For 22kV Aluminium Coupler System

To compliment existing procedures and practices currently existing in cable repair workshop, the following is designed to be completed as a minimum to ensure the safe and long operation of the AusProof coupler system

### **Routine Checks and Inspection**

- When cables are not in use or stored, ensure that a cast protection end cover is fitted that provides adequate sealing against moisture.
- Ensure that witness marks are brightly painted on the sheath, located where the cable enters the gland. This needs to be routinely inspected to check if a gap appears between the end of the gland and the witness mark.
  - A gap may indicate that the cable has been under tension and that the termination in the coupler may have moved.
- Inspect the male pin in the coupler for obvious signs of damage. Also inspect the location of the nylon locking circlip to ensure that it is evenly fitted onto the contact.
  - If the circlip appears dislocated or damaged then repairs are necessary. This event indicates that the termination in the coupler has been under tension as a result of handling.
- Ensure the tension on the gland housing compression ring is maintained. This process requires that the four compression ring bolts are tensioned.
- Check silicon seals are clean and are fully intact.
- Thoroughly clean the insulators and face of the coupler with suitably approved solvent.





19



**TM\_461    Version : 11    Date: 11/02/2025**

