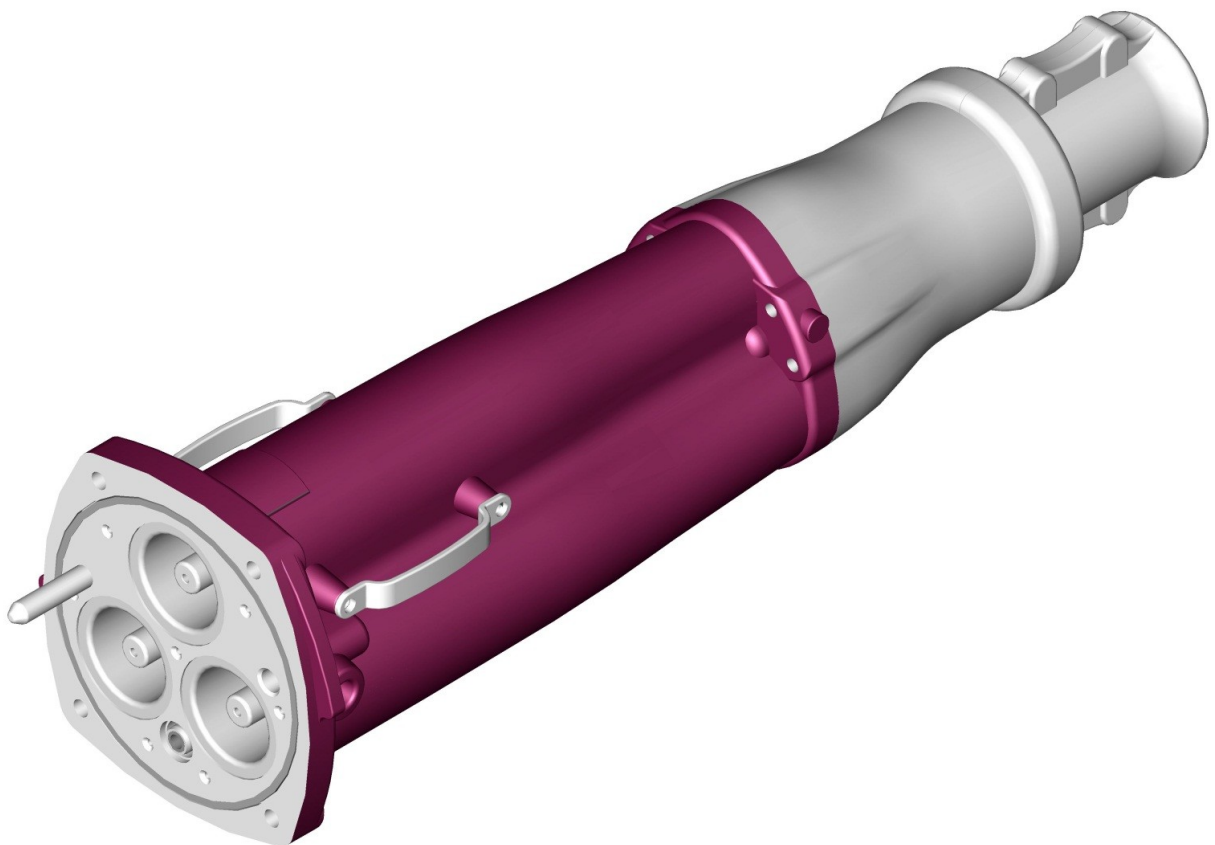




**SUPPLIERS OF
HIGH VOLTAGE BOLTED
COUPLER & ADAPTOR SYSTEMS**

**35BU Range
35kV 800A**



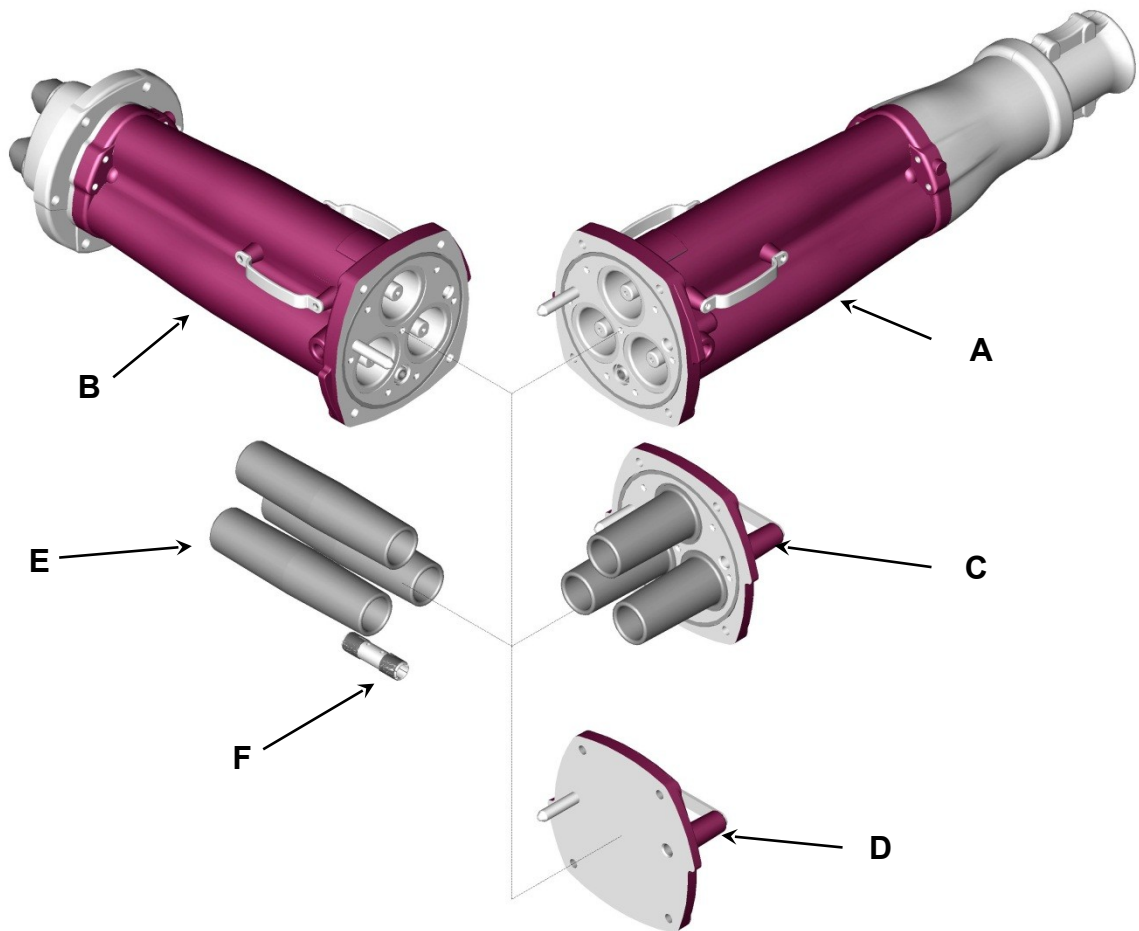


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35kV 800A Bolted System

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High Voltage Cable Coupler System Selection Guide – 35kV 800A



- A** Half Coupler – Unarmoured Cable or Armoured Cable
- B** Adaptor – Gear Mount
- C** Insulated End Cover
- D** Cast Protection Cover
- E** Phase Connectors (3 required per join)
- F** Earth Pilot Connector (1 required per join)

Technical Guide and Test Report

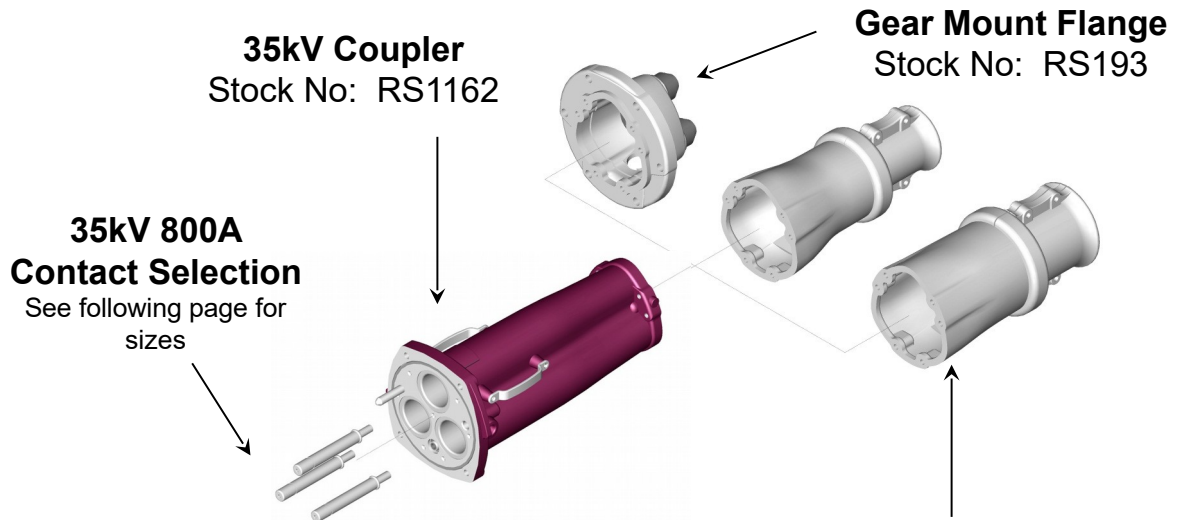
	A	B	C	D	E	E
	Half Coupler	Adaptor	Insulated End Cover	Cast Protection Cover	Phase Connector	Earth Pilot Connector
Rating	35kV 800amp	35kV 800amp	35kV 800amp	35kV 800amp	35kV 800amp	35kV 800amp
Material	Aluminium	Aluminium	Aluminium	Aluminium	Silicon & Copper	Brass
Mass	62 lb 28 kg	55 lb 25 kg	12 lb 5.5 kg	7.3 lb 3.3 kg	2.2 lb 1 kg	0.7 lb 0.3 kg
Stock No.	-	-	RS1159	RS1160	RS1161	RS117

Summary: Dielectric Test Report on Cable Coupler

SANS 14891: 2009 Clause 6.5	Voltage Withstand	Connection: Phase to Earth	Pre-Stress Voltage: 72kV	Time: 72kV	Result: Pass
SANS 1489-1: 2009 Clause 6.7	Impulse Voltage Test	Withstand 10 positive and 10 negative impulse on each phase.		Impulse Voltage: 200kV	Result: Pass
SANS 1489-1: 2009 Clause 6.8	Partial Discharge	Inception Voltage was defined as the voltage at which discharges exceeded 100pC		Summary of all three phases 18.9 pC To 21.3 pC	Result: Pass

*Full Test report can be found on our website

Body, Gland and/or Gear Mount Equipment



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

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

Soldered Contact ID Sizes



Example of Flexible Core(s)
(also known as SHD Cables)



Example of Stranded Core(s)
(also known as MP Cables)

Stock No.	Soldered (mm ID)	AWG	MCM	mm ²
RS1189	6.0	6		16
RS1190	7.0	4		25
RS1191	8.0	1 or 2		35
RS1192	9.5	1/0		50
RS1193	11.0	2/0		70
RS1194	13.5	3/0		95
RS1195	15.5	4/0	250	120
RS1196	17.0		300	150
RS1197	18.3		350	185
RS1198	21.5		400/500	240
RS1199	23.5		600	300
RS1200	25.5		750	400



Crimp Contact ID Sizes

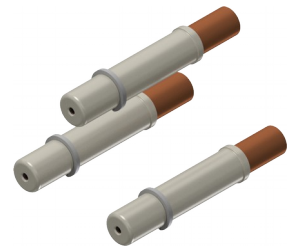


Example of Flexible Core(s)
(also known as SHD Cables)



Example of Stranded Core(s)
(also known as MP Cables)

Stock No.	Crimp (mm ID)	AWG	MCM	mm ²
RS1163	6.5	6		16
RS1164	7.3	4		25
RS1165	8.0	1 or 2		35
RS1166	9.5	1/0		50
RS1167	11.0	2/0		70
RS1168	13.5	3/0		95
RS1169	15.5	4/0	250	120
RS1170	16.7		300	150
RS1171	18.3		350	185
RS1172	21.2		400/500	240
RS1173	23.8		600	300
RS1274	25.5		750	400

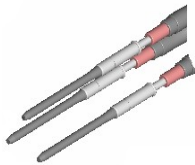


Accessories

Alignment Sticks

Stock NO: RS1217

Phase guide stick set for assembly
(3 included)



35kV Termination Kit Large

Stock NO: RS1218

Core OD 24mm- 48mm



- Compound



- 3 x Stress Relief Tubes



- Termination Cleaning Kit

35kV Termination Kit Small

Stock NO: RS1219

Core OD 16mm – 8.5mm



- Compound









- 3 x Stress Relief Tubes



- Termination Cleaning Kit

35kV Coupler Tool Kit

Stock No: RS1221

2 of		1246	Spanners
1 of		RS1923	Racking Tool
1 of		RS177	Slide Hammer
1 of		RS176	Earth Pilot Removal Tool
15 of		1278	High Voltage Cleaning Tissues
1 of		1274	Tool Box

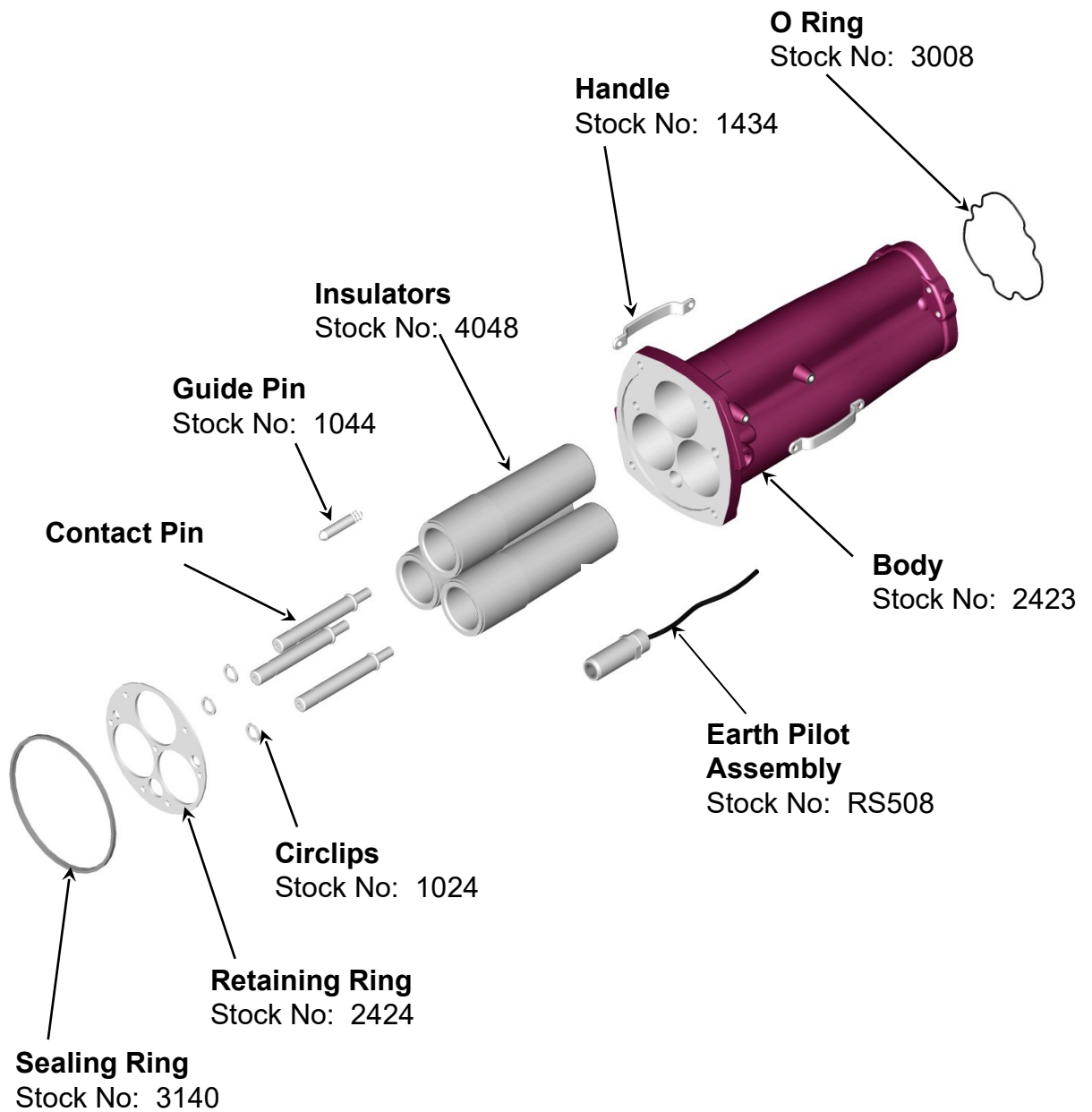
35kV Testing Connectors

Stock NO: R1223

3 of phase connectors fitted with HV leads ready for testing.



Body Assembly



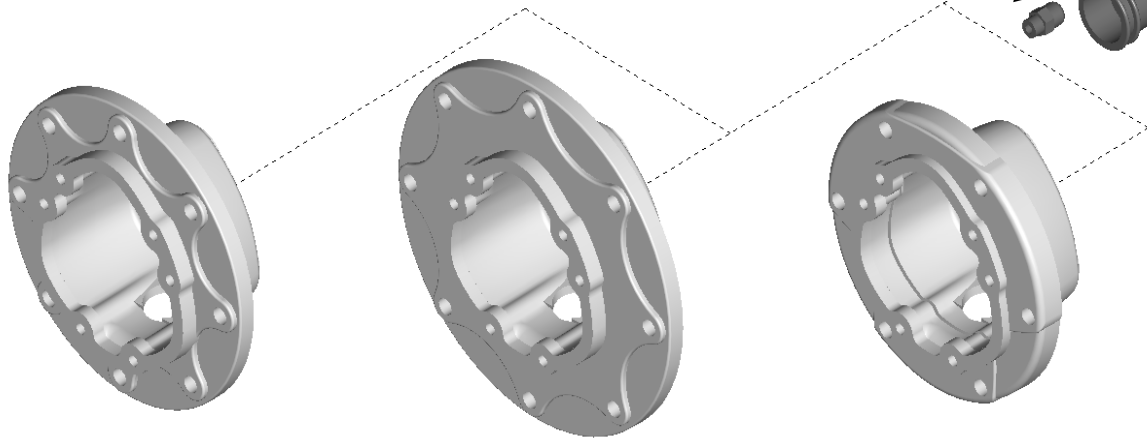
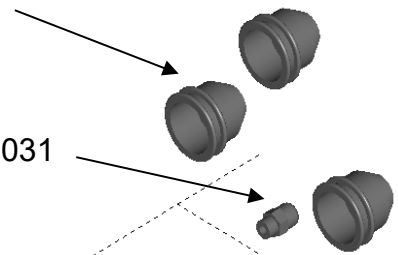
Adaptor Gear Mount Flange Assembly

Grommets

Stock No: 3003

Pilot Gland

Stock No: 1031



**Type A
Gear Mount Flange**
Stock No: 2227

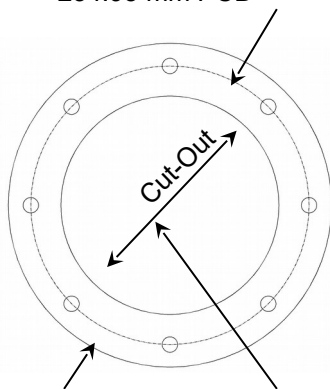
**Type B
Gear Mount Flange**
Stock No: 2228

**Type C
Gear Mount Flange**
Stock No: 2229

8 x Holes - 9 / 16" or
14.3mm Diameter
Equal Spaced on 9 1/4"
234.95 mm PCD

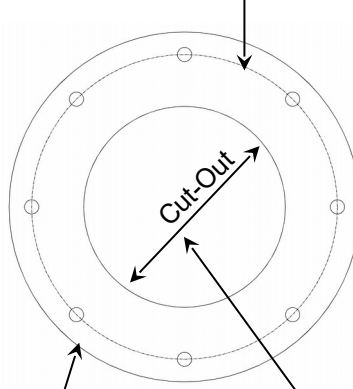
8 x Holes - 9 / 16" or
14.3 mm Diameter
Equal Spaced on 11" or
279.4 mm PCD

6 x Holes 9 / 16" or
14.3 mm Diameter
Equal Spaced on 8 3/4" or
222.25 mm PCD



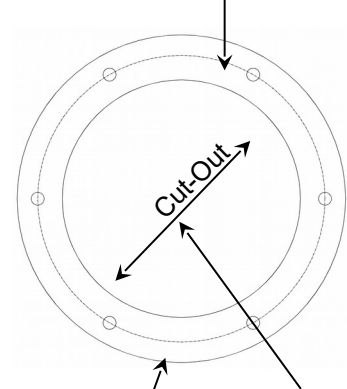
Outer Flange
10 3/4" or
273 mm
Diameter

Cut-Out
7 1/4" or
185mm
Diameter



Outer Flange
12 5/8" or
321 mm
Diameter

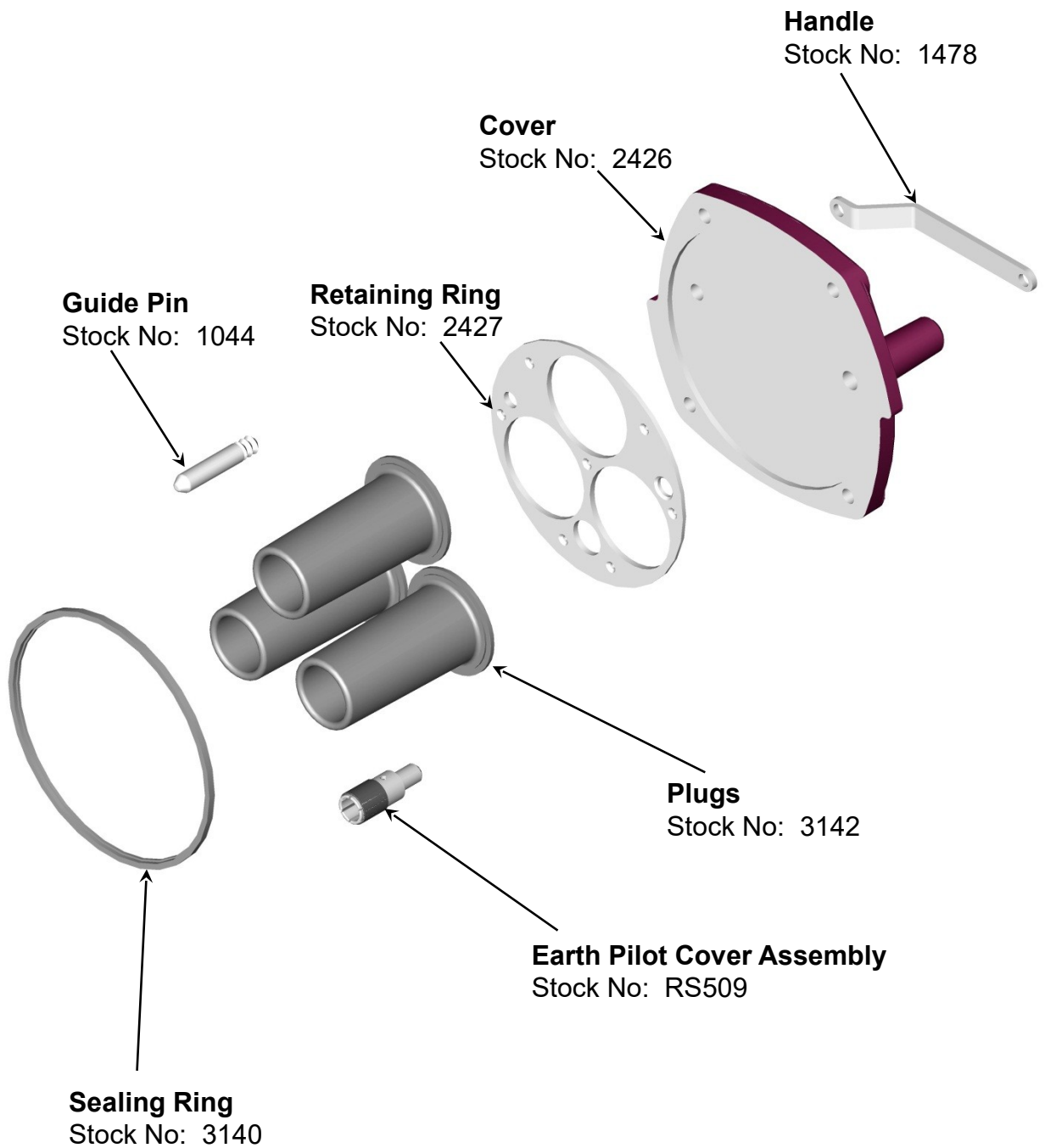
Cut-Out
7 1/4" or
185mm
Diameter



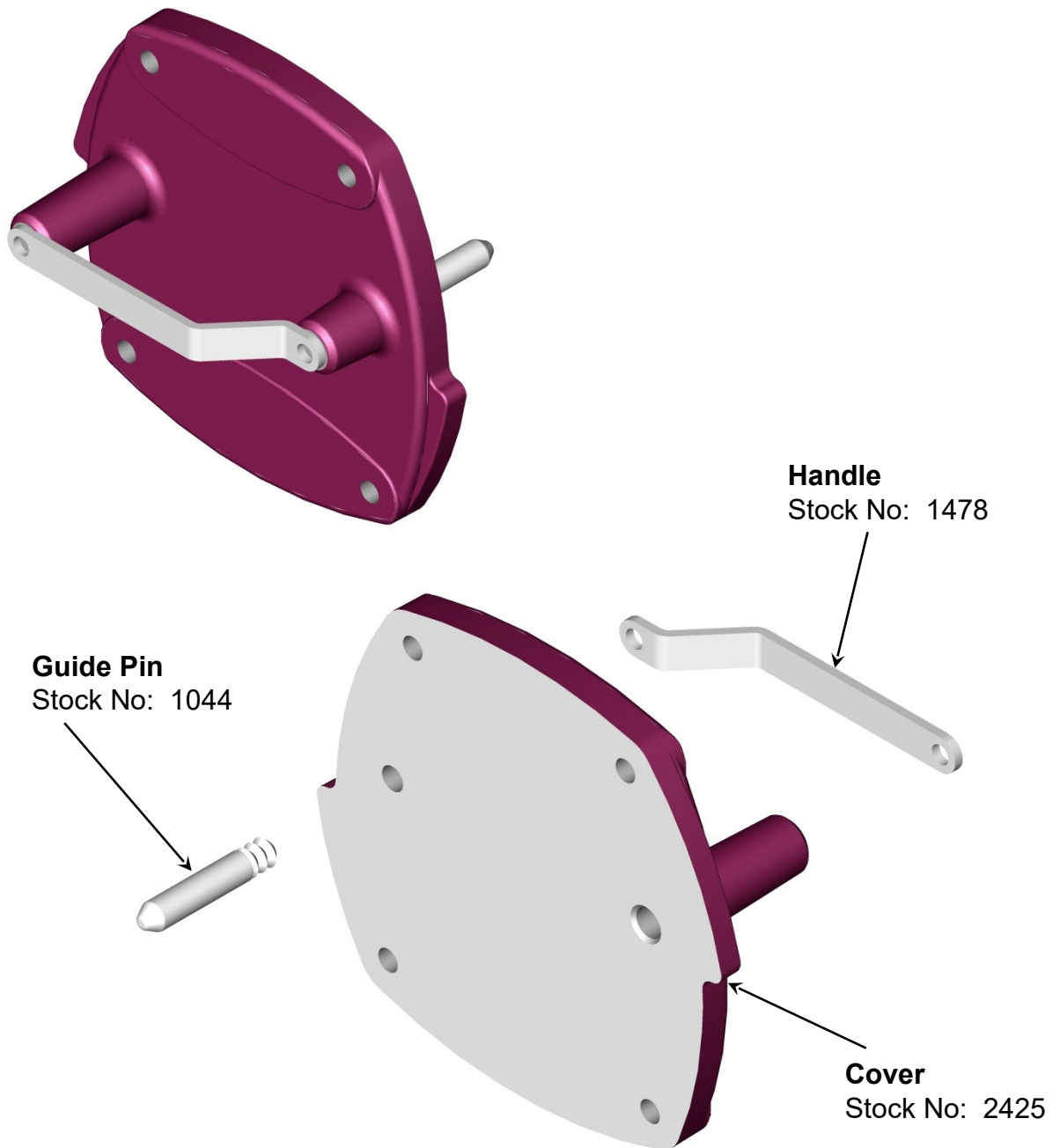
Outer Flange
10" or
254 mm
Diameter

Cut-Out
7 1/4" or
185mm
Diameter

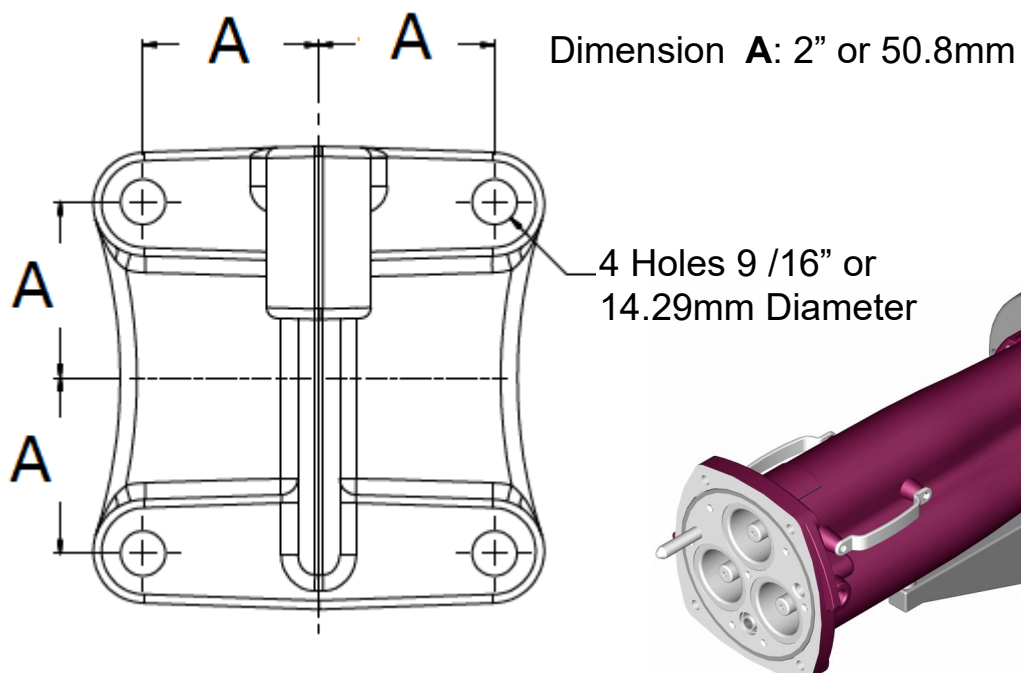
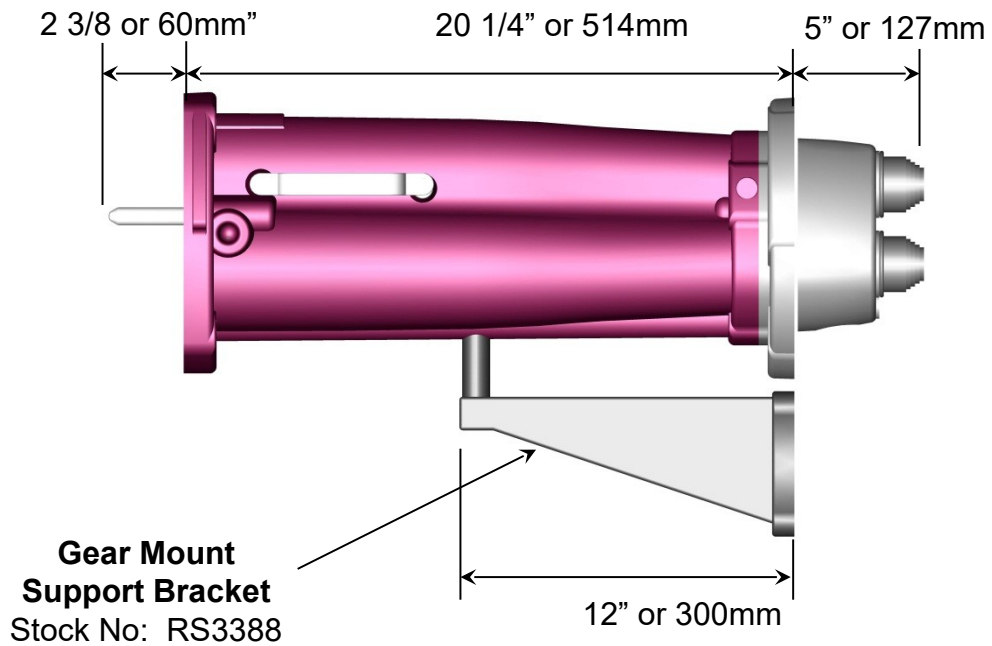
Insulated End Cover Assembly



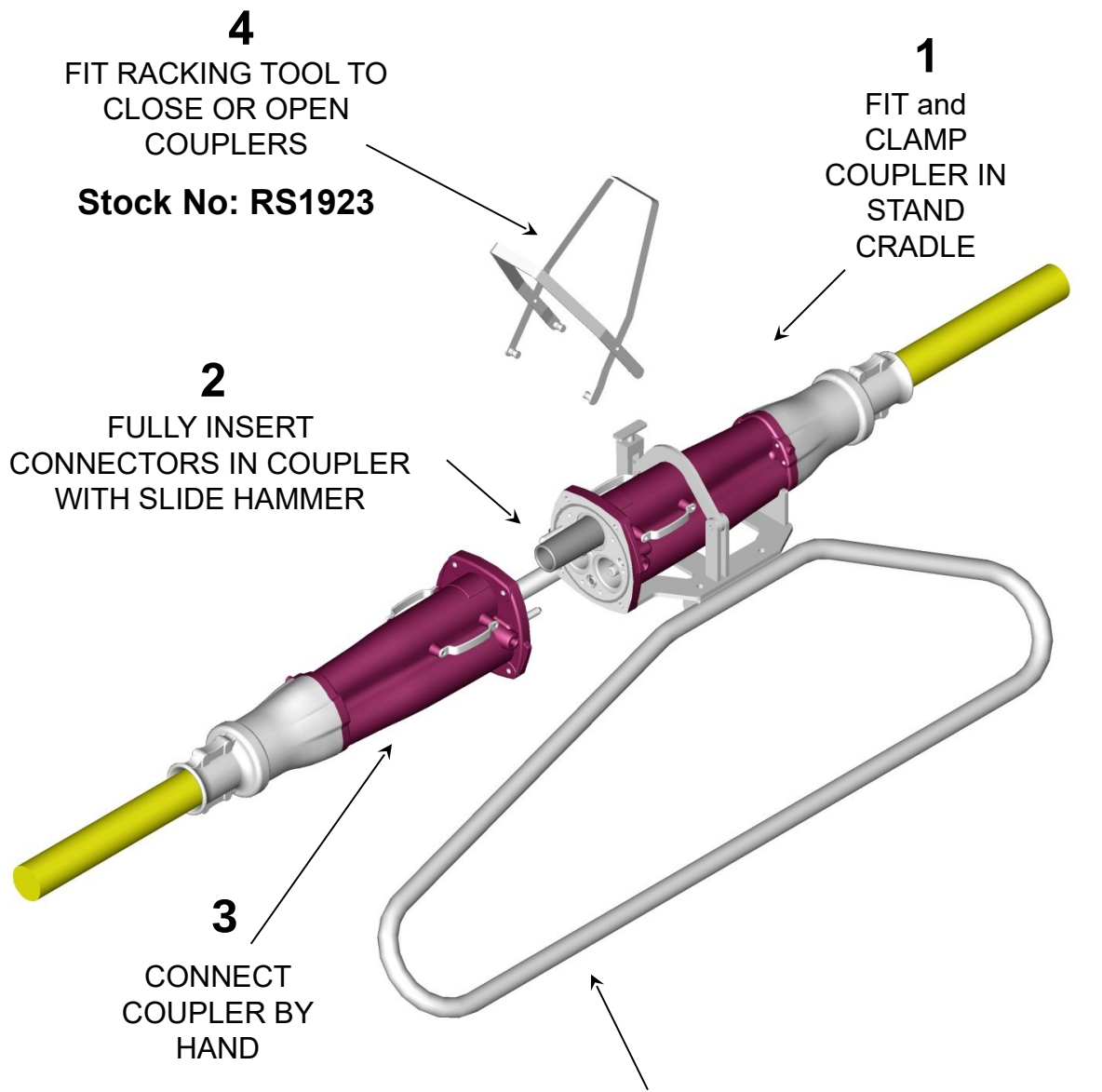
Cast Pro Cover Assembly



Support Bracket

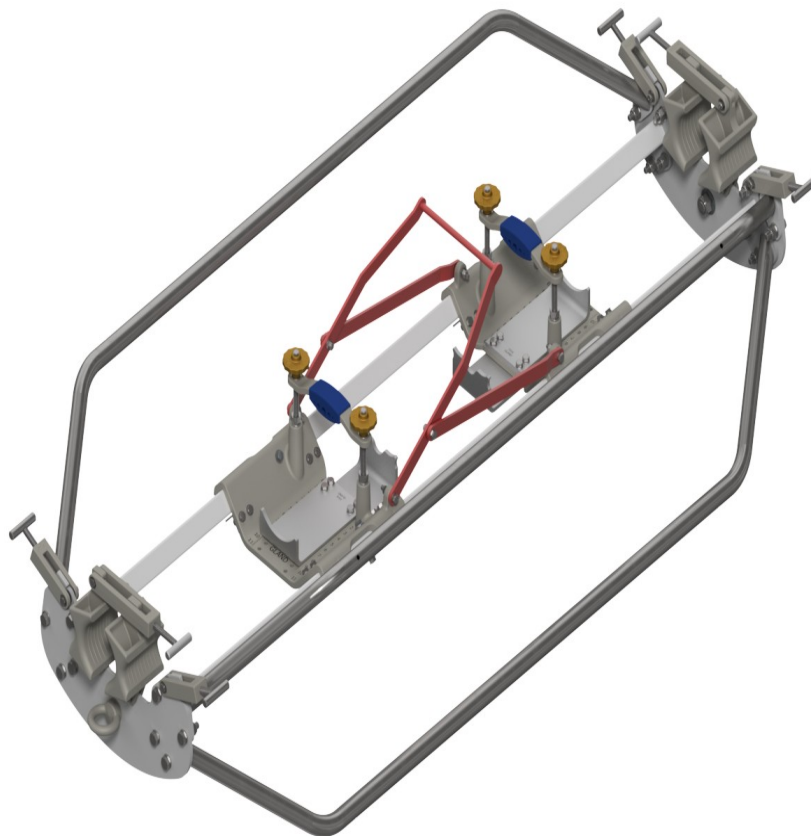


Coupler Support Stand



Stock No: RS1224
Full coupler Support Stand
Footprint: 2000mm x 100mm
Coupler Height: 390mm
Mass: 35 kg

Coupler CAT Skid



Full CAT SKID

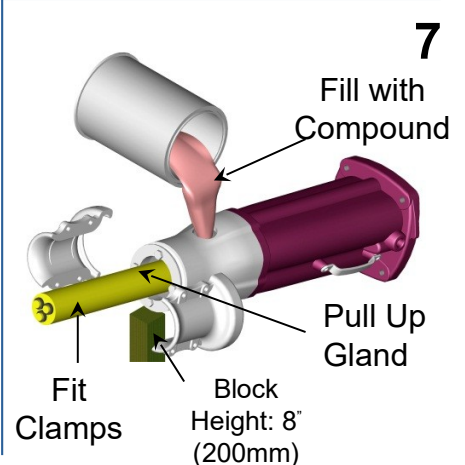
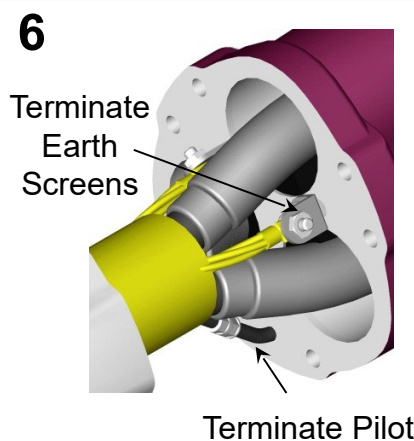
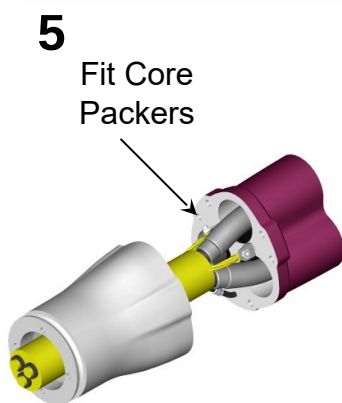
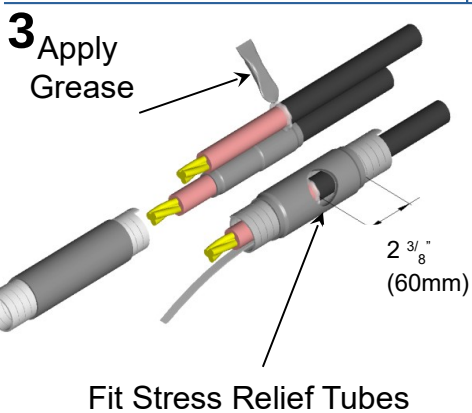
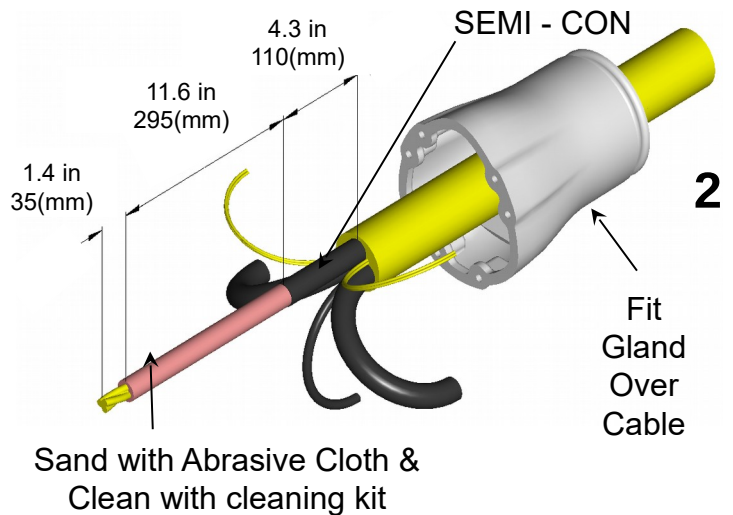
Footprint: 2475mm x 1000mm
Centre of Coupler Height: 517mm
Mass: 165kg

RS2708 - CAT Cradle Plate BA Set (35 Body – KA Small Housing)
RS2709 - CAT Cradle Plate BB Set (35 Body – KA Large Housing)
RS2710 - CAT Cradle Plate BC Set (35 Body – KANS Small Housing)
RS2711 - CAT Cradle Plate BD Set (35 Body – KANL Large Housing)

Refer to the CAT skid Tech manual for further details

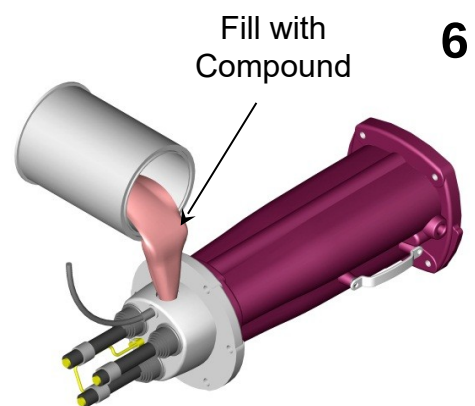
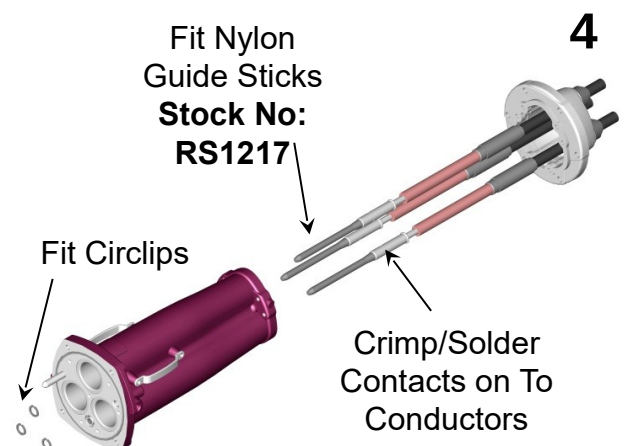
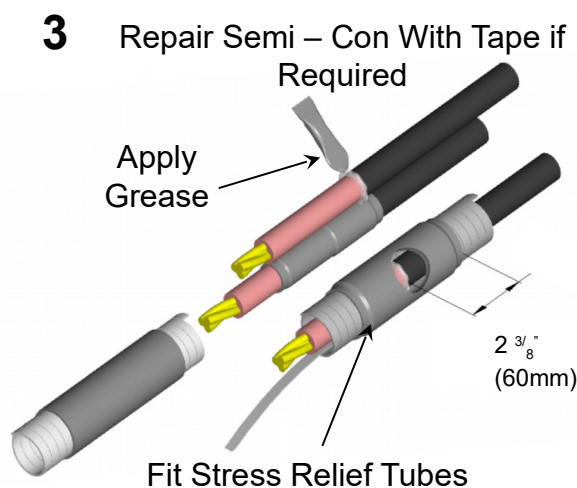
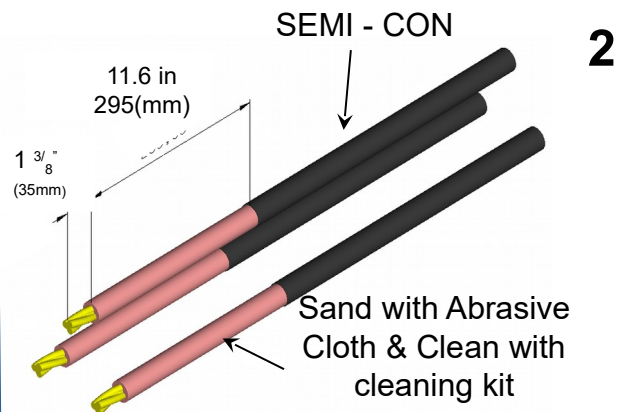
Termination on Half Coupler

1 Do Not Remove Insulators From Body



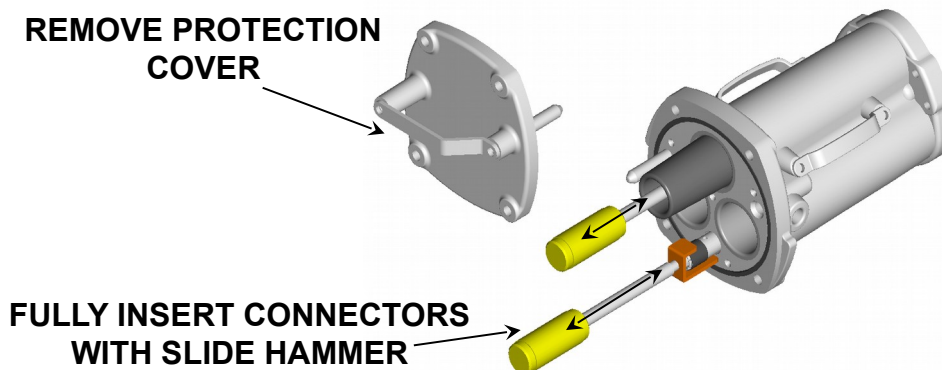
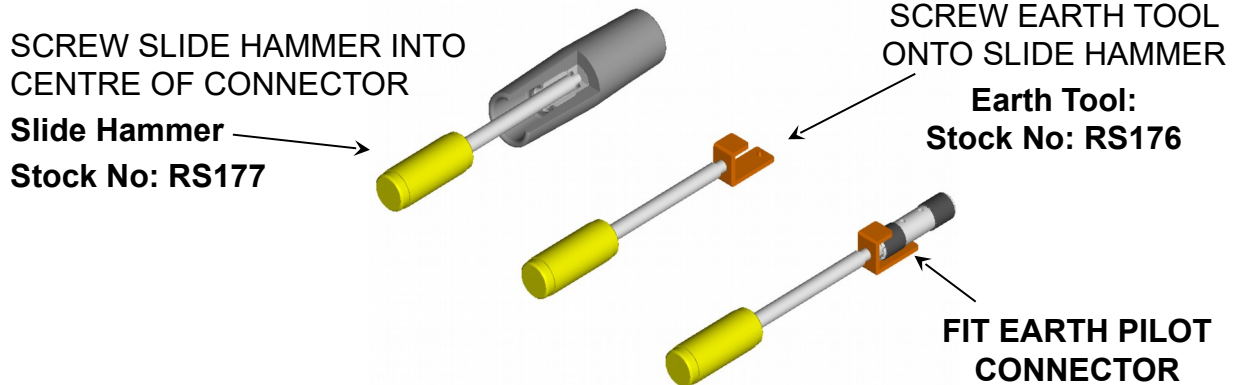
These instructions are intended for use by Competent Persons.

Termination on Adaptor

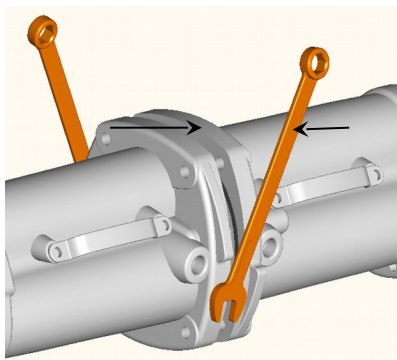


These instructions are intended for use by Competent Persons.

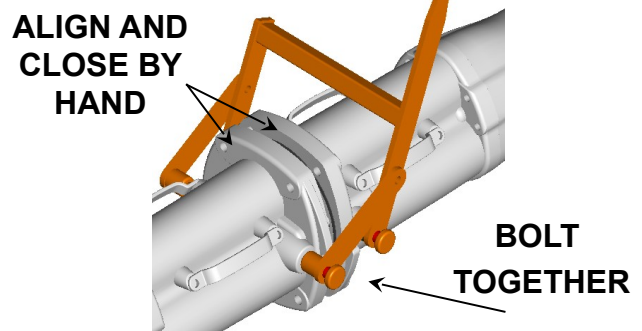
Inserting Connectors and Coupling Operations



TO ASSIST WITH OPENING COUPLERS POSITION SPANNERS AS SHOWN



FIT RACKING TOOL TO CLOSE OR OPEN COUPLERS



Coupler Tool Kit
Stock No. RS1221
 (See accessories page)



Care and Maintenance

- To ensure the safe operation of the mining couplers, personnel should be aware of minimal ongoing care and maintenance.
- When cables are not in use, ensure that a cast protection end cover is fitted that provides adequate sealing against moisture.
- When a witness mark is brightly painted on the sheath, this is 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.
- The coupler should never be used as a towing or anchor point.
- Ensure that the phase connector (double female contact) has firm contact pressure or grip on the male pin in the coupler. If grip / pressure is loose then a new phase connector is required.
- Before bolting couplers together or before fitting an end cover, ensure that the face sealing ring is clean and located correctly in the groove, the insulators are clean, and the phase connectors or insulated end cover are clean. Use only alcohol wipes / tissues to clean these products. Recommend Stock no: 1278. Do not use Methanol or Methylated Spirits.
- On each occasion when the couplers are bolted together, 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.
- On regular intervals of up to 12 months, the tension on the gland housing compression ring needs to be maintained. This process requires that the cable clamp be removed and the four compression ring bolts tensioned to a recommendation of 25 newtons.