11kV 800AMP Flameproof Removable Flange Coupler

Ex118BSSRF- Range
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**

*11kV 800A 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**
- 95kV 10 pos and 10 neg
- 110kV 10 pos and 10 neg

**A/C High Voltage Withstand**
- 24kV for 1 minute
- 50kV for 1 minute
- 35kV for 6 hours

**Partial Discharge**
- Prior to 6 hours
- High voltage withstand 10pC
- After 6 hours
- High voltage withstand 0.6pC
**Description:** Half Coupler for Armoured Cable  
**Rating:** 11kV 800A  
**Material:** High Tensile Brass  
**Mass:** 30kg  
**Material:** Stainless Steel 304  
**Mass:** 30kg  
**LOA:** 580mm  
**Volume:** 3.5L

**Description:** Half Coupler for Unarmoured Cable  
**Rating:** 11kV 800A  
**Material:** High Tensile Brass  
**Mass:** 30.5kg  
**Material:** Stainless Steel 304  
**Mass:** 30.5kg  
**LOA:** 580mm  
**Volume:** 3.5L

**Description:** Adaptor  
**Rating:** 11kV 800A  
**Material:** High Tensile Brass  
**Mass:** 30kg  
**Material:** Stainless Steel 304  
**Mass:** 30kg  
**LOA:** 265mm  
**Volume:** 3L

**Stock No:** RS1001  
**Description:** Insulated End Cover  
**Rating:** 11kV  
**Material:** High Tensile Brass  
**Mass:** 7.5kg  
**Material:** Stainless Steel 304  
**Mass:** 7.5kg

---

**NOTE ID:** EX118B  
**EX118BSS**  
**EX118BSSRF**  
Replaceable Flange
### Description

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Stock No.</th>
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<tbody>
<tr>
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<td>Half Coupler For Armoured Cable</td>
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<tr>
<td>B</td>
<td>For Unarmoured Cable</td>
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<td>C</td>
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<td>D</td>
<td>Insulated End Cover</td>
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<td>E</td>
<td>Pilot Connector (1 required per join)</td>
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<td>800/800 Amp Phase Connectors (3 required per join)</td>
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<td>J</td>
<td>Pilot Transition Connector (1 required per join)</td>
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</table>
Use this table to determine the correct gland size using the cable conductor core size

<table>
<thead>
<tr>
<th>6.35/11kV XLPE mm^2</th>
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<th>12.7/22kV XLPE MM62 mm</th>
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<th>AusProof Part PILC GLAND</th>
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Ex118BSSRF Coupler System
Stock Selection Guide

Ex118BSS Gland Assembly
PILC SWA Cable

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<thead>
<tr>
<th>Cable OD Under Armour</th>
<th>Stock No</th>
<th>Cable OD Under Armour</th>
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<td>58mm-63mm</td>
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PILC Gland Assembly includes earth stud, earth strap and constant force spring.

Adaptor Flange Stock No. RS944SS

Stainless Steel Body
Std Stock No. : RS940SSRF
C/w Pilot Stock No. : RS941SSRF

Stainless Steel Body with Indicators
Std Stock No. : RS942SSRF
C/w Pilot Stock No. : RS943SSRF

Ex118BSS Gland Assembly
XLPE SWA Cable

<table>
<thead>
<tr>
<th>Cable OD Under Armour</th>
<th>Stock No</th>
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XLPE Gland Assembly includes earth studs only.

(11kV Contacts - Set of 3)

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<td>300mm sq</td>
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Ex118BSS Unarmoured Cable Gland Assembly

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<td>90mm-95mm</td>
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<td>95mm-100mm</td>
<td>RS1119SS</td>
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<td>100mm-105mm</td>
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<tr>
<td>105mm-110mm</td>
<td>RS1121SS</td>
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</table>

Unarmoured Gland Assembly includes earth studs only.
Technical Data

**Stainless Steel Stock No:** RS940SSRF – Body

**Stainless Steel Stock No:** RS941SSRF – Body with Pilot.

**Stainless Steel Stock No:** RS942SSRF – Body with Indicators.

**Stainless Steel Stock No:** RS943SSRF – Body with Indicators and Pilot.

**Material:** Stainless Steel 304

**Amps:** 800

**Volts:** 11000

---

**Insulator (3 required)**
Stock No: 4007

**Live Line Insulator (3 required)**
Stock No: 4042

**Replaceable Flange**
Stock No: 2473

**Stainless Steel Body**
Stock No: 2495 (Pilot and L/L)

**Handle - Blank**
Stock No: 1434

**Retaining Ring**
Stock No: 2474 (Pilot)

**Sealing Ring**
Stock No: 3165

**O-Ring**
Stock No: 3124

**Guide Pin**
Stock No: 1008

**Pilot Assembly**
Stock No: RS557

**Bung For Stainless Steel**
Stock No: 1515

**Insulator (3 required)**
Stock No: 4007

**Live Line Insulator (3 required)**
Stock No: 4042

**Retaining Ring**
Stock No: 2474 (Pilot)

**Sealing Ring**
Stock No: 3165

**O-Ring**
Stock No: 3124

**Guide Pin**
Stock No: 1008

**Pilot Assembly**
Stock No: RS557

**Bung For Stainless Steel**
Stock No: 1515

**Insulator (3 required)**
Stock No: 4007

**Live Line Insulator (3 required)**
Stock No: 4042

**Retaining Ring**
Stock No: 2474 (Pilot)

**Sealing Ring**
Stock No: 3165

**O-Ring**
Stock No: 3124

**Guide Pin**
Stock No: 1008

**Pilot Assembly**
Stock No: RS557

**Bung For Stainless Steel**
Stock No: 1515

**Insulator (3 required)**
Stock No: 4007

**Live Line Insulator (3 required)**
Stock No: 4042

**Retaining Ring**
Stock No: 2474 (Pilot)

**Sealing Ring**
Stock No: 3165

**O-Ring**
Stock No: 3124

**Guide Pin**
Stock No: 1008

**Pilot Assembly**
Stock No: RS557

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Stock No: 1515

**Insulator (3 required)**
Stock No: 4007

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Stock No: 4042

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Stock No: 3124

**Guide Pin**
Stock No: 1008

**Pilot Assembly**
Stock No: RS557

**Bung For Stainless Steel**
Stock No: 1515

**Insulator (3 required)**
Stock No: 4007

**Live Line Insulator (3 required)**
Stock No: 4042

**Retaining Ring**
Stock No: 2474 (Pilot)

**Sealing Ring**
Stock No: 3165

**O-Ring**
Stock No: 3124

**Guide Pin**
Stock No: 1008

**Pilot Assembly**
Stock No: RS557

**Bung For Stainless Steel**
Stock No: 1515

**Insulator (3 required)**
Stock No: 4007

**Live Line Insulator (3 required)**
Stock No: 4042

**Retaining Ring**
Stock No: 2474 (Pilot)

**Sealing Ring**
Stock No: 3165

**O-Ring**
Stock No: 3124

**Guide Pin**
Stock No: 1008

**Pilot Assembly**
Stock No: RS557

**Bung For Stainless Steel**
Stock No: 1515

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TM_506 Version 2 23/10/2018
**Ex118BSSRF Coupler**

**Armoured Gland Assembly**

**Armoured Housing**
Stock No: RS972SS

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**PILC Compression Clamp Kit includes:**
- 3 x Earth Studs
  PN: RS1143
- 1 x Flexible Earth PN: 1212
- 1 x Constant Force Spring
  PN: 1014

---

**Armoured Compression Clamp Kit**

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<tr>
<th>Stock No For PILC</th>
<th>Cable OD Range Under Armour</th>
<th>Stock No For XLPE</th>
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<td>RS1123</td>
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**XLPE Compression Clamp Kits includes:**
- 3 x Earth Studs
  PN: RS1143
Unarmoured Housing
Stock No: RS973SS

Unarmoured Compression Clamp Kit

<table>
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<td>RS1125SS</td>
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<td>105mm-110mm</td>
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</table>

Each Compression Clamp Kit includes:
3 x Earth Studs - PN: RS1143
**Ex118BSSRF Adaptor Flange**

**Technical Data**

**Stainless Steel Stock No: RS944SS - 11kV Adaptor Flange**

**Material:** Stainless Steel 304  
**Volts:** 11000  
**Amps:** 800

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**Stainless Steel Flange**  
Stock No: 2480

**Grommet**  
Stock No: 3003

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**Adaptor Flange Assembly includes:**

1 x Earth Bracket  
PN: 1423

1 x Flexible Earth  
PN: 1212

3 x Constant Force Spring  
PN: 1014
Technical Data

**Stainless Steel Stock No:** RS1001SS – Insulated End Cover

**Material:** Stainless Steel 304

**Volts:** 11000

**Amps:** 800
Termination Procedure for Paper Lead Cable

1. Remove Outer Sheath
2. Prepare Paper Cores to Cable Shop Procedures
3. Fit Contacts onto Cable
4. Screw Nylon Guide sticks onto contactys and feed through insulators in bod
   Fit contacts on contacts
5. Rubber Compression Gland to be torqued to 30 Nm
6. Clamp down armour, apply heat shrink over armour
   Fit conical
7. Terminate lead to earth stud with constant force spring 10mm from end. Tape spring with scotch 23
   Set coupler at 45° and fill with compound, then adjust angle to bleed out voids of air.

These instructions are intended for use by Competent Persons.
These instructions are intended for use by Competent Persons.
These instructions are intended for use by Competent Persons.
Termination Procedure for Adaptor

1. Prepare Cores to Cable Shop Procedures

2. Using Single Core Cables with Semi Conductive Sheath

3. Apply 3M Grease

4. Screw Nylon Guide sticks onto contacts and feed through insulators in body

5. Terminate Semi-con on cores to earth stud with constant force springs

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

These instructions are intended for use by Competent Persons.
These instructions are intended for use by Competent Persons.

**FIG 1**

- SEMI-CON
- Outer Sheath
- Primary Insulation
- Copper Core
- Earths and Pilot

**Ausproof Termination Kits**
- RS323
- RS406

**FIG 2**

- Repair end of Semi-Con With 13 Tape if Required
- Lightly Sand with Abrasive Cloth to remove any remaining Semi-conductive material.

*Note: Direction of sanding must be around insulation.*

- Clean with Solvent
- 3M Kit CC-2

*Note: Wipe from copper core toward semi-con only*

**FIG 3**

- Apply 3M Grease
- Locate QT5671 or QT5672 Stress Tubes as shown.
- Shrink tube by slowly pulling lead.
Inserting Connectors and Coupling Operation

SCREW SLIDE HAMMER INTO CENTER OF CONNECTOR

FULLY INSERT CONNECTORS WITH SLIDE HAMMER

Using High Voltage Cleaning Tissue – Clean silicon of any grime.

FIT RACKING TOOL TO CLOSE OR OPEN COUPLERS

TO ASSIST WITH OPENING COUPLERS POSITION SPANNERS AS SHOWN

ALIGN AND CLOSE BY HAND. BOLT TOGETHER
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 an end cover or insulated end cover is fitted that provides adequate sealing against moisture.

- The coupler should never be used as a towing or anchor point.

- Ensure that the connector pins have firm contact pressure or grip on the male pin in the coupler. If grip / pressure is loose then new connectors are required.

- Before bolting couplers together or before fitting an end cover, ensure that the face sealing ring is located correctly in the groove.

- On each occasion before 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. This event indicates that the termination in the coupler has been under tension possibly as a result of handling.

- To ensure the coupler is still fit for purpose, inspections should be performed. As a minimum a ‘gap test’ should be performed on the faces of two couplers that have been bolted together.

- A maximum of 0.5mm is permissible.