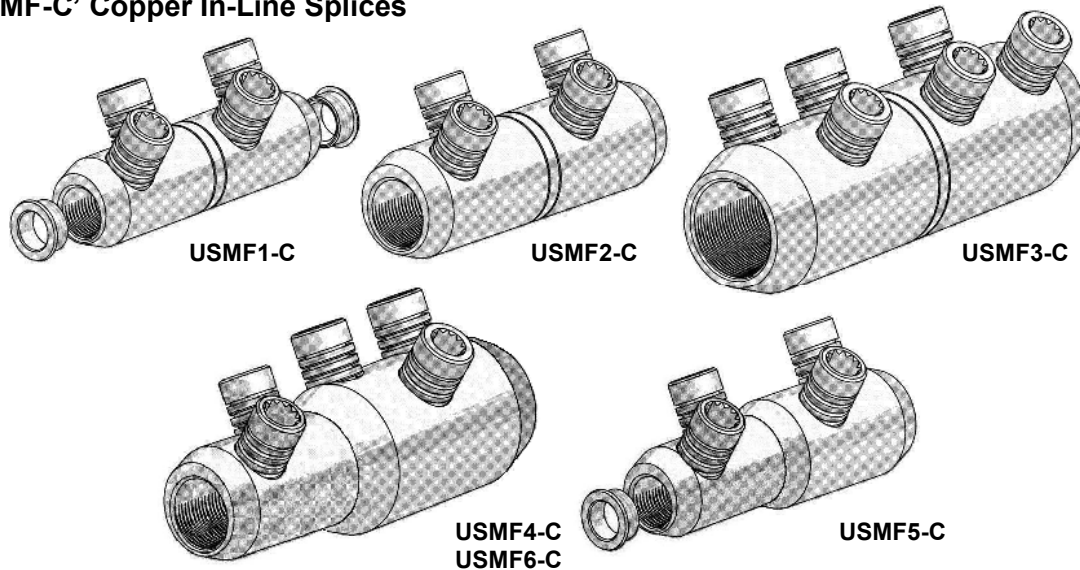


Mechanical In-Line Splice  
with Moisture/Contaminant  
Block for Medium/High  
Voltage Applications

## MECHANICAL CONNECTORS



### ‘USMF-C’ Copper In-Line Splices



#### Principle Application:

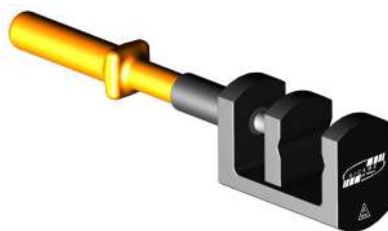
Straight jointing of circular stranded aluminium or copper conductors for all cable voltages up to and including 46KV.

#### Range:

| Connector Reference | Stranded Core Size                 |                                     |                                    |                                     |
|---------------------|------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|
|                     | Min                                | Max                                 | Min                                | Max                                 |
| USMF1-C*            | # 2<br>(34mm <sup>2</sup> )        | 250 kcmil<br>(127mm <sup>2</sup> )  | # 2<br>(34mm <sup>2</sup> )        | 250 kcmil<br>(127mm <sup>2</sup> )  |
| USMF2-C             | 2/0<br>(67mm <sup>2</sup> )        | 500 kcmil<br>(253mm <sup>2</sup> )  | 2/0<br>(67mm <sup>2</sup> )        | 500 kcmil<br>(253mm <sup>2</sup> )  |
| USMF3-C             | 500 kcmil<br>(253mm <sup>2</sup> ) | 1000 kcmil<br>(507mm <sup>2</sup> ) | 500 kcmil<br>(253mm <sup>2</sup> ) | 1000 kcmil<br>(507mm <sup>2</sup> ) |
| USMF4-C             | 1/0<br>(53mm <sup>2</sup> )        | 500 kcmil<br>(253mm <sup>2</sup> )  | 500 kcmil<br>(253mm <sup>2</sup> ) | 1000 kcmil<br>(507mm <sup>2</sup> ) |
| USMF5-C*            | # 2<br>(34mm <sup>2</sup> )        | 250 kcmil<br>(127mm <sup>2</sup> )  | 4/0<br>(107mm <sup>2</sup> )       | 500 kcmil<br>(253mm <sup>2</sup> )  |
| USMF6-C             | 4/0<br>(107mm <sup>2</sup> )       | 350 kcmil<br>(177mm <sup>2</sup> )  | 350 kcmil<br>(177mm <sup>2</sup> ) | 750 kcmil<br>(380mm <sup>2</sup> )  |

The ‘USMF’ range of mechanical connectors incorporate an integral moisture/contaminant block and utilise the patented universal range taking shear bolts.  
(USA Patent No’s 6209424 & 6321624)

The appropriate tooling is to be used at all times, typical examples shown below.



‘JTS/22 BR’ Holding Tool



‘JTS/9’ 1/2” sq Driver



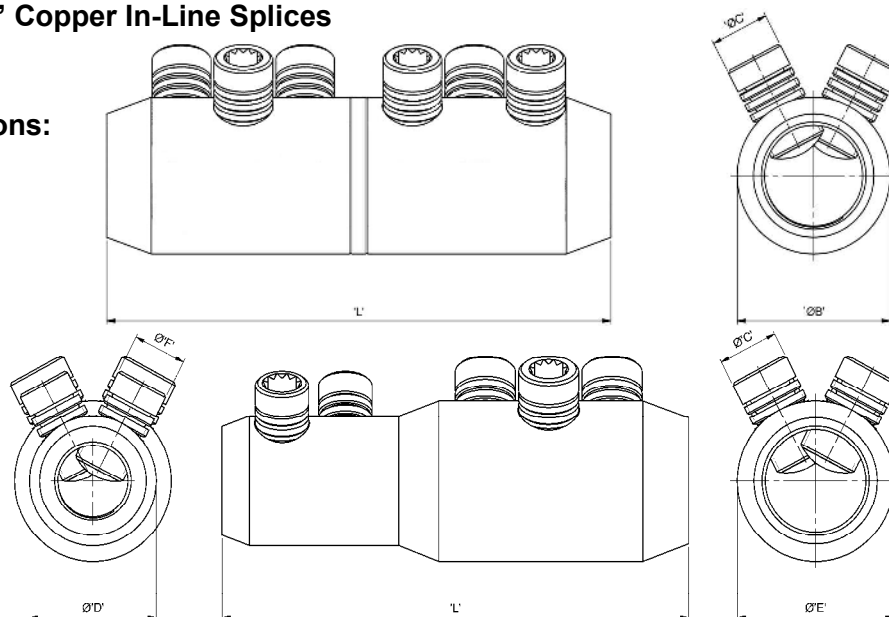
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Mechanical In-Line Splice  
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**‘USMF-C’ Copper In-Line Splices**

**Physical  
Dimensions:**



| Connector Reference | Dimensions         |                 |      |                 |                   |      |
|---------------------|--------------------|-----------------|------|-----------------|-------------------|------|
|                     | 'L'                | 'ØB'            | 'ØC' | 'ØD'            | 'ØE'              | 'ØF' |
| USMF1-C*            | 3.98"<br>(101mm)   | 1.10"<br>(28mm) | M16  | N/A             | N/A               | N/A  |
| USMF2-C             | 4.37"<br>(111mm)   | 1.34"<br>(34mm) | M16  | N/A             | N/A               | N/A  |
| USMF3-C             | 6.10"<br>(155mm)   | 1.85"<br>(47mm) | M18  | N/A             | N/A               | N/A  |
| USMF4-C             | 5.51"<br>(140mm)   | N/A             | M18  | 1.50"<br>(38mm) | 1.85"<br>(47mm)   | M16  |
| USMF5-C*            | 4.33"<br>(110mm)   | N/A             | M16  | 1.14"<br>(29mm) | 1.34"<br>(34mm)   | N/A  |
| USMF6-C             | 5.33"<br>(135.5mm) | N/A             | M18  | 1.25"<br>(32mm) | 1.47"<br>(37.5mm) | M16  |

**Material:** Copper (Electro-Tinned)

**Test Specification:** ANSI C119.4 Class 2 Partial Tension

**Test Report No:** TBA

**Fitting instructions:**

1. Strip insulation from each core equal to the depth of the bore.
2. Wire brush the exposed conductor cores and wipe clean (optional).
3. Align and position the conductor cores in each of the bores ensuring that the core is fully inserted to the centre wall.
4. Fit the universal shear screws within the connector and torque tighten one turn at a time, using the correct tool, until the bolts have sheared.

**\*IMPORTANT:** When using the USMF1-C and USMF5-C the centralising ring must be used on cable sizes #2 to 2/0 AWG, inclusive.



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