

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

## MECHANICAL CONNECTORS

### 'USMF' Aluminium In-Line Splices



**USMF1**  
**USMF1/1** (*without rings*)

**USMF2**

**USMF3**  
**USMF7**  
**USMF8**

#### 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*	# 2 (34mm <sup>2</sup> )	250 kcmil (127mm <sup>2</sup> )	# 2 (34mm <sup>2</sup> )	250 kcmil (127mm <sup>2</sup> )
USMF1/1				
USMF2	2/0 (67mm <sup>2</sup> )	500 kcmil (253mm <sup>2</sup> )	2/0 (67mm <sup>2</sup> )	500 kcmil (253mm <sup>2</sup> )
USMF3	500 kcmil (253mm <sup>2</sup> )	1000 kcmil (507mm <sup>2</sup> )	500 kcmil (253mm <sup>2</sup> )	1000 kcmil (507mm <sup>2</sup> )
USMF7	350 kcmil (177mm <sup>2</sup> )	750 kcmil (380mm <sup>2</sup> )	350 kcmil (177mm <sup>2</sup> )	750 kcmil (380mm <sup>2</sup> )
USMF8	800 kcmil (400mm <sup>2</sup> )	1250 kcmil (630mm <sup>2</sup> )	800 kcmil (400mm <sup>2</sup> )	1250 kcmil (630mm <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 socket is to be used at all times, typical examples shown below.



'JTS/9' 1/2 "sq Driver

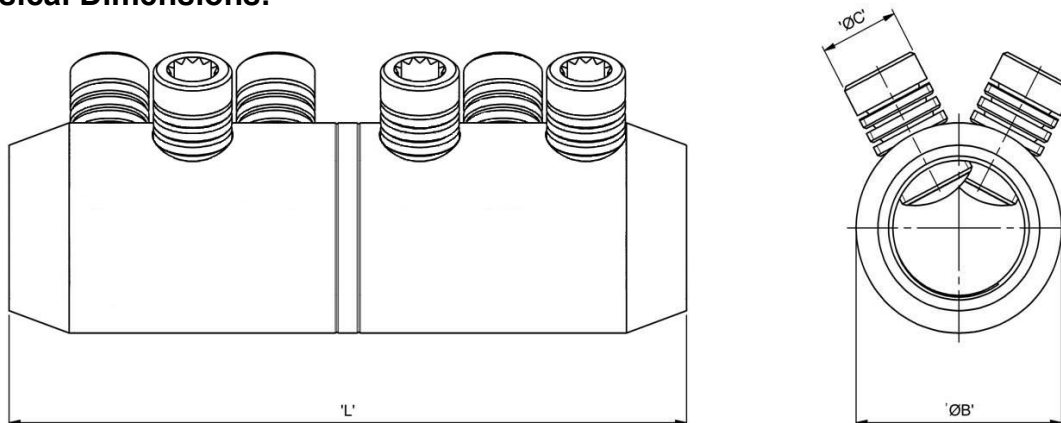


'JTS/37' 5/8" AF Drive (Disposable)

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## 'USMF' Aluminium In-Line Splices

### Physical Dimensions:



Connector Reference	Dimensions		
	'L'	'ØB'	'ØC'
USMF1*	3.98" (101mm)	1.10" (28mm)	M16
USMF1/1			
USMF2	4.37" (111mm)	1.34" (34mm)	M16
USMF3	6.10" (155mm)	1.85" (47mm)	M18
USMF7	5.70" (145mm)	1.47" (37.5mm)	M18
USMF8	6.10" (155mm)	2.00" (50.8mm)	M18

**Material:** Aluminium Alloy (Electro-Tinned)

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

**Test Report No:** TTR/271 & TTR/272

### 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 socket, until the bolts have sheared.
5. De-burr and clean the connector as appropriate **ensuring the profile of the screws are level with the connector body and leaving no sharp edges.**

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