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

'USMF' In-Line Splices

Principle Application:

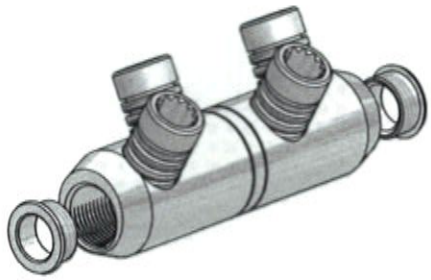
Straight jointing of circular stranded aluminum or copper conductors for all cable voltages through 46kV.

Range:

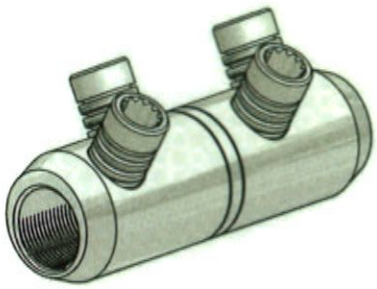
Connector Reference	Stranded Core Size			
	Min	Max	Min	Max
USMF1*	# 3 (27mm²)	250 kcmil (127mm²)	# 3 (27mm²)	250 kcmil (127mm²)
USMF2	2/0 (67mm²)	500 kcmil (253mm²)	2/0 (67mm²)	500 kcmil (253mm²)
USMF3	500 kcmil (253mm²)	1000 kcmil (507mm²)	500 kcmil (253mm²)	1000 kcmil (507mm²)
USMF3A	500 kcmil (253mm²)	1000 kcmil (507mm²)	500 kcmil (253mm²)	1000 kcmil (507mm²)
USMF7	350 kcmil (177mm²)	750 kcmil (380mm²)	350 kcmil (177mm²)	750 kcmil (380mm²)
USMF8	800 kcmil (400mm²)	1250 kcmil (630mm²)	800 kcmil (400mm²)	1250 kcmil (630mm²)

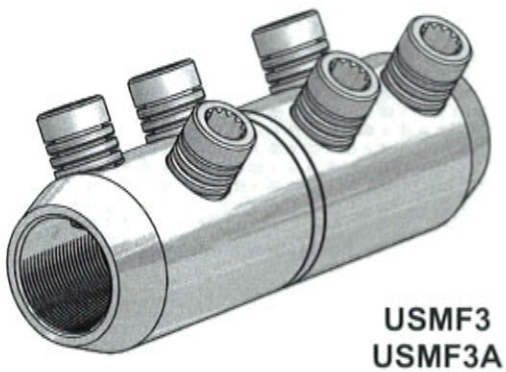
***IMPORTANT:** When using the USMF1 the centralising ring must be used on cable sizes #3 to 2/0 AWG, inclusive.

USMF1



USMF2





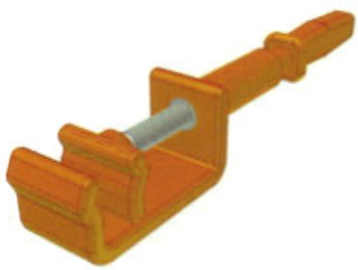
USMF3
USMF3A
USMF7
USMF8

Description:

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.

JTS/22
Holding Tool



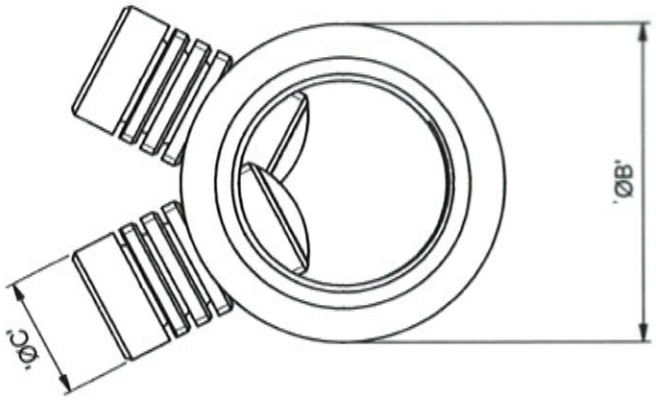
JTS/9
½" Square Driver

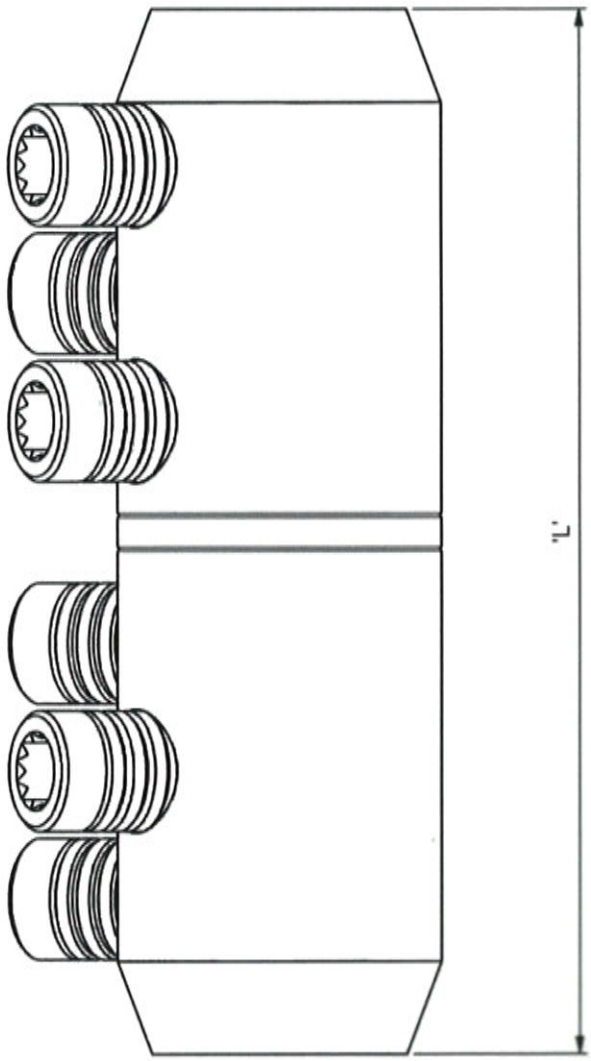
Mechanical In-Line Splice with Moisture/Contaminant Block for Medium/High Voltage Applications

'USMF' In-Line Splices

Physical Dimensions:

Connector Reference	Dimensions		
	'L'	'ØB'	'ØC'
USMF1*	3.98" (101mm)	1.10" (28mm)	M16
USMF2	4.37" (111mm)	1.34" (34mm)	M16
USMF3	6.10" (155mm)	1.85" (47mm)	M18
USMF3A	5.98" (152mm)	1.85" (47mm)	M18
USMF7	5.70" (145mm)	1.47" (37.5mm)	M18
USMF8	6.10" (155mm)	2.00" (50.8mm)	M18





Material: Aluminum Alloy (Electro-Tinned) or Copper (Electro-Tinned) Suffix '-C'

Test Specification: ANSI C119.4 Class 2 Partial Tension

Test Report No: TTR/271 & TTR/272 (Aluminum)

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 center 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.
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.***

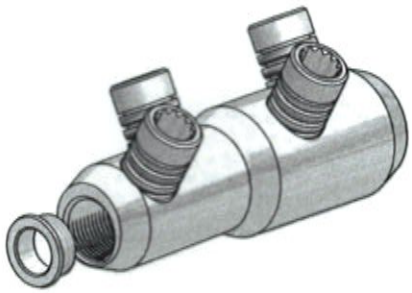
Mechanical In-Line Splice with Moisture/Contaminant Block for Medium/High Voltage Applications

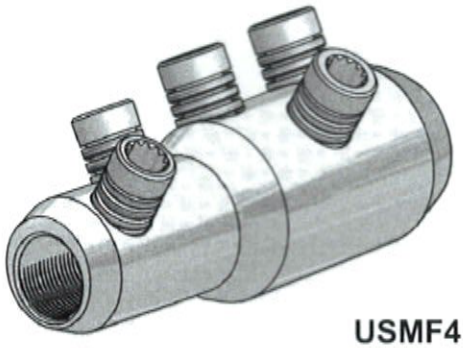
'USMF' In-Line Splices (Stepped)

Principle Application:

Straight jointing of circular stranded aluminum or copper conductors for all cable voltages through 46kV.

USMF5





USMF4
USMF6

Range:

Connector Reference	Stranded Core Size			
	Min	Max	Min	Max
USMF4	1/0 (53mm²)	500 kcmil (253mm²)	500 kcmil (253mm²)	1000 kcmil (507mm²)
USMF5*	# 3 (27mm²)	250 kcmil (127mm²)	4/0 (107mm²)	500 kcmil (253mm²)
USMF6	4/0 (107mm²)	350 kcmil (177mm²)	350 kcmil (177mm²)	750 kcmil (380mm²)

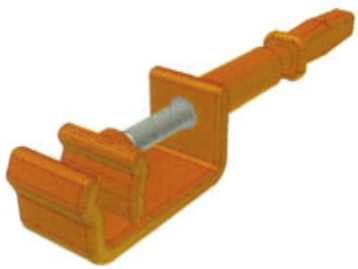
***IMPORTANT:** When using the USMF5 the centralising ring must be used on cable sizes #3 to 2/0 AWG, inclusive.

Description:

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.

JTS/22
Holding Tool



JTS/9
½" Square Driver

'USMF' In-Line Splices (Stepped)

Physical Dimensions:

Connector Reference	Dimensions				
	'L'	'ØC'	'ØD'	'ØE'	'ØF'
USMF4	5.51" (140mm)	M18	1.50" (38mm)	1.85" (47mm)	M16
USMF5*	4.33" (110mm)	M16	1.14" (29mm)	1.34" (34mm)	M16
USMF6	5.33" (135.5mm)	M18	1.25" (32mm)	1.47" (37.5mm)	M16

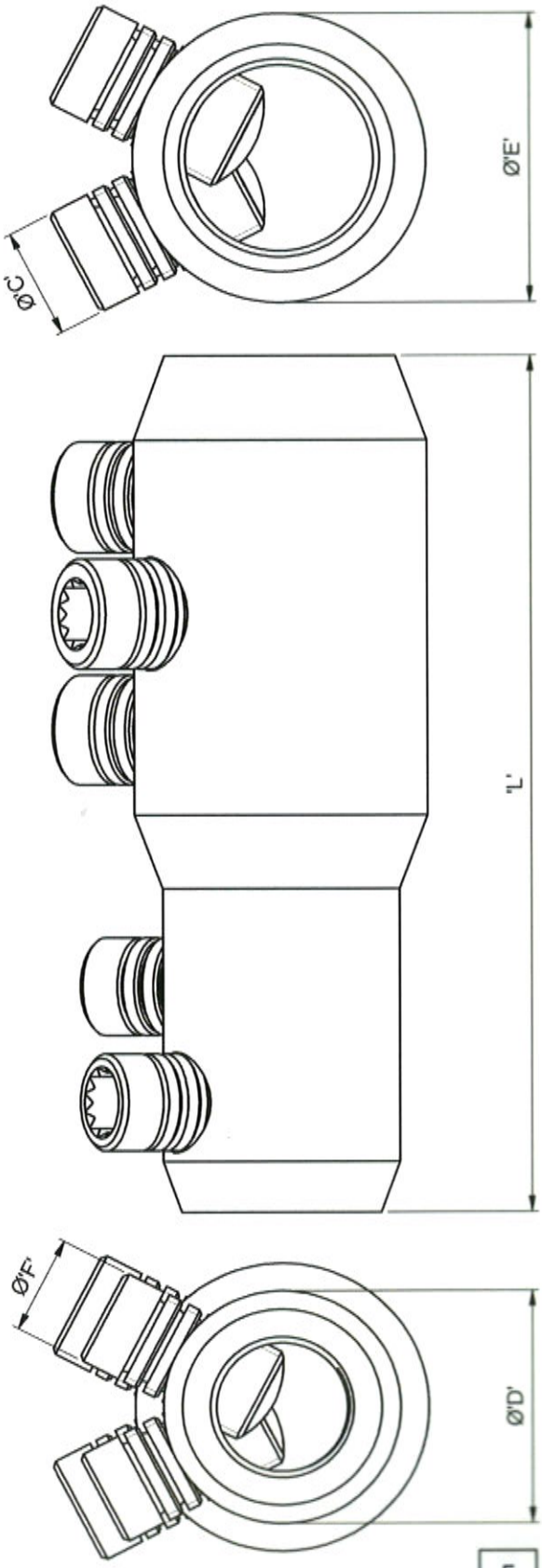
Material: Aluminum Alloy (Electro-Tinned) or Copper (Electro-Tinned) Suffix '-C'

Test Specification: ANSI C119.4 Class 2 Partial Tension

Test Report No: TTR/271 & TTR/272 (Aluminum)

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 center 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.
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.***



Mechanical 'Y' Connector with Moisture/Contaminant Block for Medium/High Voltage Applications

'USMB' 'Y' Connectors

USMB/FPL-3
USMB5

Principle Application:

'Y' Branch jointing of circular aluminum or copper stranded conductors.

Range:

Connector Reference	Stranded Core Size					
	Main			Tap		
	Min	Max	Qty	Min	Max	Qty
USMB/FPL	#3 (27mm²)	350 kcmil (177mm²)	2	#3 (27mm²)	350 kcmil (177mm²)	1
USMB/FPL-2	350 kcmil (177mm²)	750 kcmil (380mm²)	2	#3 (27mm²)	350 kcmil (177mm²)	1
USMB/FPL-3	500 kcmil (253mm²)	1000 kcmil (507mm²)	2	#3 (27mm²)	350 kcmil (177mm²)	1
USMB/FPL-4	2/0 (67mm²)	500 kcmil (253mm²)	2	2/0 (67mm²)	500 kcmil (253mm²)	1
USMB/DE	350 kcmil (177mm²)	750 kcmil (380mm²)	2	350 kcmil (177mm²)	750 kcmil (380mm²)	1
USMB5	500 kcmil (253mm²)	1000 kcmil (507mm²)	3	N/A	N/A	0

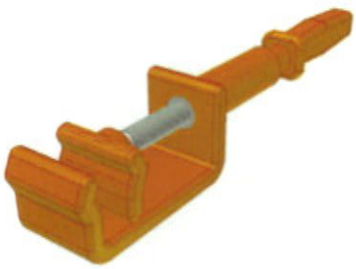
USMB/FPL
USMB/FPL-2
USMB/FPL-4
USMB/DE

Description:

The **'USMB'** range of mechanical 'Y' 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.

JTS/22
Holding Tool



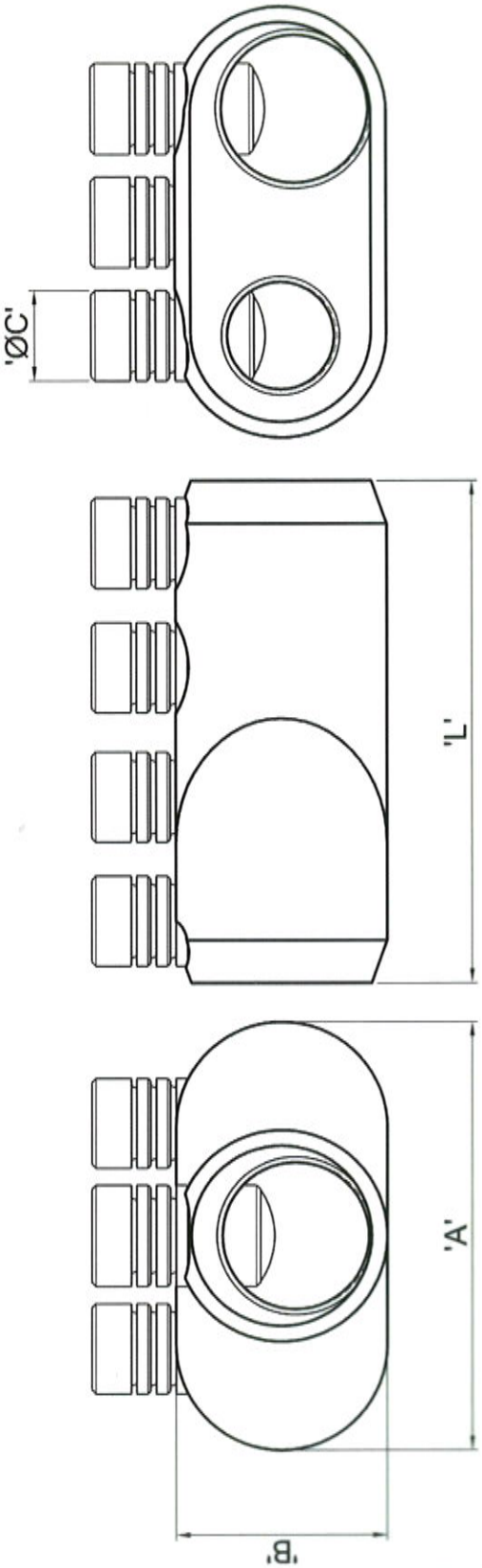
JTS/9
½" Square Driver

Mechanical 'Y' Connector with Moisture/Contaminant Block for Medium/High Voltage Applications

'USMB' 'Y' Connectors

Physical Dimensions:

Connector Reference	Dimensions			
	'L'	'B'	'A'	'C'
USMB/FPL	3" (76mm)	1.48" (37.5mm)	3" (76mm)	6 x M16
USMB/FPL-2	3.50" (89mm)	1.48" (37.5mm)	3" (76mm)	6 x M16
USMB/FPL-3	6.10" (155mm)	1.85" (47mm)	3.74" (95mm)	6 x M18 2 x M16
USMB/FPL-4	3.50" (89mm)	1.48" (37.5mm)	3" (76mm)	6 x M16
USMB/DE	3.50" (89mm)	1.48" (37.5mm)	3" (76mm)	6 x M16
USMB5	6.10" (155mm)	1.85" (47mm)	3.74" (95mm)	9 x M18



Material: Aluminum Alloy (Electro-Tinned) or Copper (Electro-Tinned) Suffix '-C'

Test Specification: ANSI C119.4 Class 2 Partial Tension / IEEE 404

Test Report No: TTR/274 (Torque Resistance & Tensile)

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 center 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.
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.***

Mechanical 'H' Connector with Moisture/Contaminant Block for Medium/High Voltage Applications

'USMH' 'H' Connectors

Principle Application:

'H' Branch jointing of circular aluminum or copper stranded conductors.

USMH/FPL-3
USMH/FPL-4

Range:

Connector Reference	Stranded Core Size					
	Main			Tap		
	Min	Max	Qty	Min	Max	Qty
USMH/FPL-1	#3 (27mm²)	350 kcmil (177mm²)	4	N/A	N/A	0
USMH/FPL-2	350 kcmil (177mm²)	750 kcmil (380mm²)	2	#3 (27mm²)	350 kcmil (177mm²)	2
USMH/FPL-2A	350 kcmil (177mm²)	750 kcmil (380mm²)	3	#3 (27mm²)	350 kcmil (177mm²)	1
USMH/FPL-3	500 kcmil (253mm²)	1000 kcmil (507mm²)	3	#3 (27mm²)	4/0 (107mm²)	1
USMH/FPL-4	500 kcmil (253mm²)	1000 kcmil (507mm²)	2	#3 (27mm²)	350 kcmil (177mm²)	2

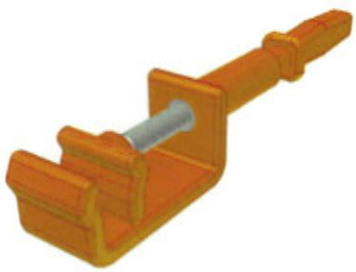
USMH/FPL-1
USMH/FPL-2
USMH/FPL-2A

Description:

The **'USMH'** range of mechanical 'H' 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.

JTS/22
Holding Tool



JTS/9
½" Square Driver

Mechanical 'H' Connector with Moisture/Contaminant Block for Medium/High Voltage Applications

'USMH' 'H' Connectors

Physical Dimensions:

Connector Reference	Dimensions			
	'L'	'B'	'A'	'C'
USMH/FPL-1	3.50" (89mm)	1.48" (37.5mm)	3" (76mm)	8 x M16
USMH/FPL-2	3.50" (89mm)	1.48" (37.5mm)	3" (76mm)	8 x M16
USMH/FPL-2A	3.50" (89mm)	1.48" (37.5mm)	3" (76mm)	8 x M16
USMH/FPL-3	6.10" (155mm)	1.85" (47mm)	3.74" (95mm)	9 x M18 2 x M16
USMH/FPL-4	6.10" (155mm)	1.85" (47mm)	3.74" (95mm)	6 x M18 4 x M16

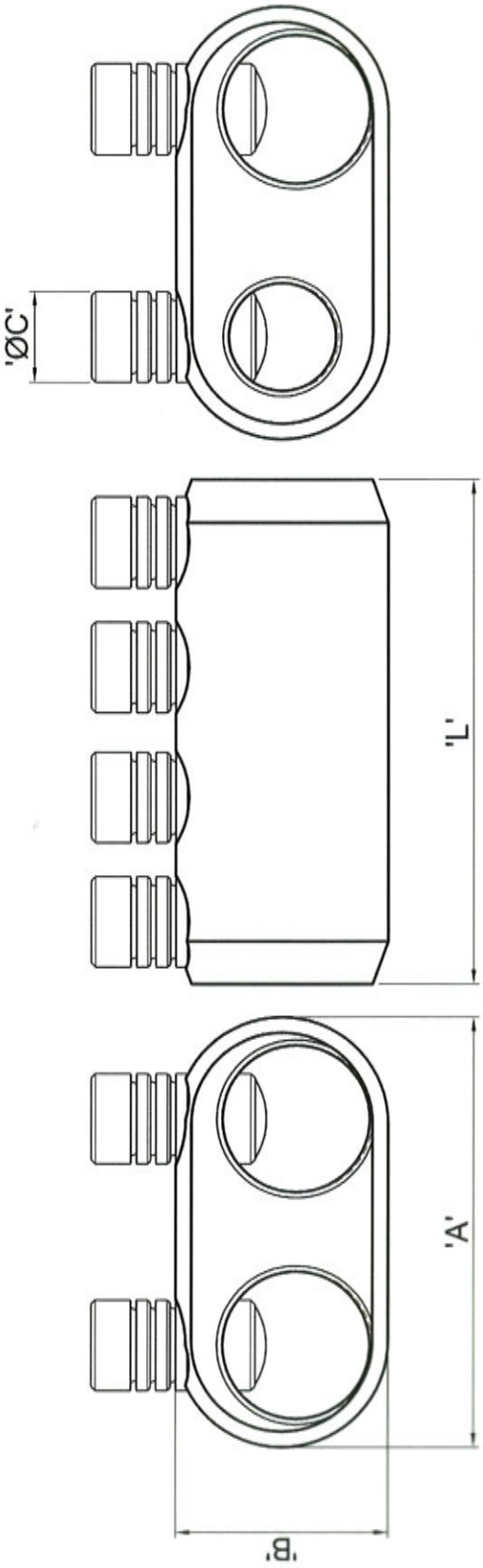
Material: Aluminum Alloy (Electro-Tinned) or Copper (Electro-Tinned) Suffix '-C'

Test Specification: ANSI C119.4 Class 2 Partial Tension / IEEE 404

Test Report No: TTR/274 (Torque Resistance & Tensile)

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 center 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.
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.***



'LVML/….-2H' Connectors

Principle Application:

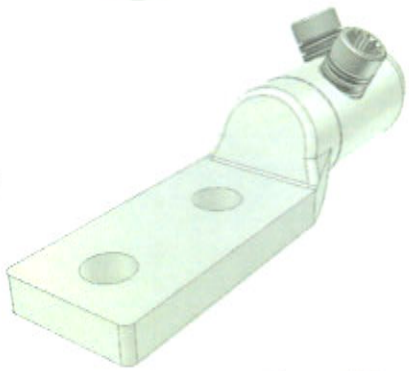
Termination of circular stranded aluminum or copper conductors.

Range:

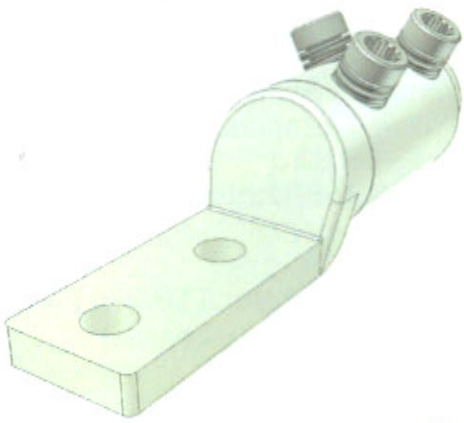
Product Reference	Stranded Core Size		Stud Size
	Min	Max	
LVML/1-2H	#3 (27mm²)	250 kcmil (127mm²)	2 x 1/2"
LVML/2-2H	4/0 (107mm²)	500 kcmil (253mm²)	2 x 1/2"
LVML/3-2H	500 kcmil (253mm²)	1000 kcmil (507mm²)	2 x 1/2"
LVML/3A-2H*	500 kcmil (253mm²)	1000 kcmil (507mm²)	2 x 1/2"

LVML/1-2H

LVML/2-2H



LVML/3-2H
LVML/3A-2H

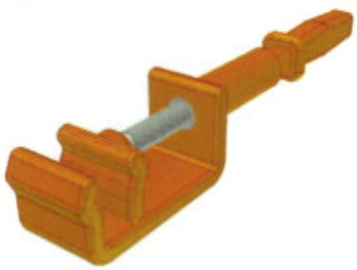


Description:

The **'LVML/x-2H'** range of mechanical terminations are manufactured from a single piece hot forging thereby ensuring a water proof connection. The product utilises the patented universal range taking shear bolts.
(USA Patent No's 6209424 & 6321624)

It is recommended that the appropriate tooling is to be used at all times, typical examples shown.

JTS/22
Holding Tool

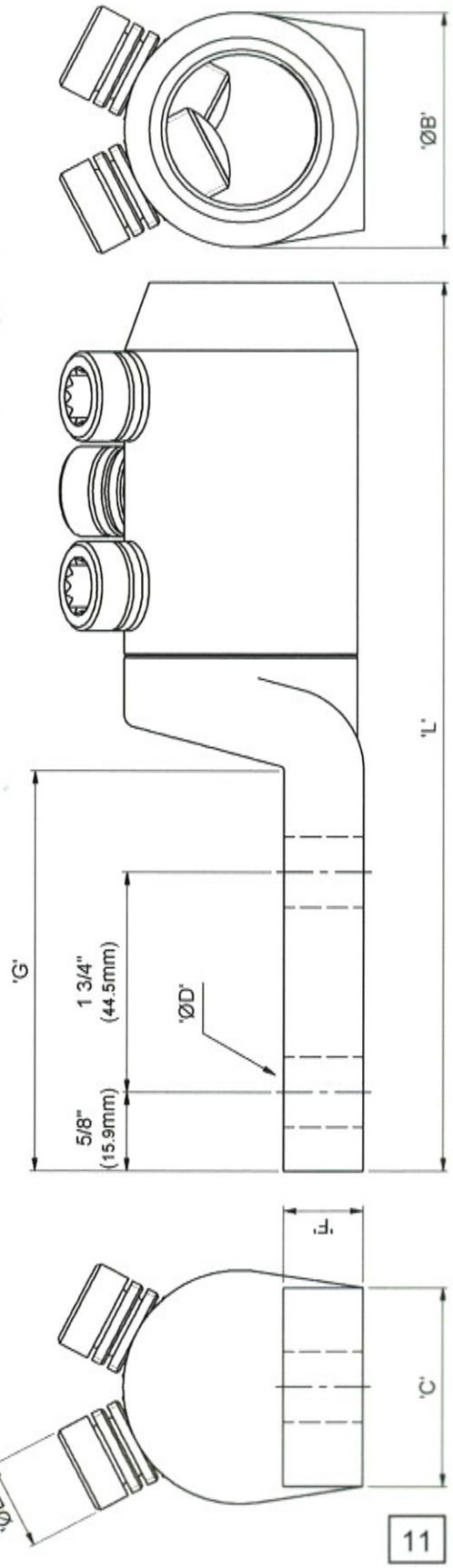


JTS/9
½" Square Driver

'LVML/....-2H' Connectors

Physical Dimensions:

Connector Reference	Dimensions						
	'L'	'ØB'	'C'	'ØD'	'ØE'	'F'	'G'
LVML/1-2H	5.86" (149mm)	1.10" (28mm)	1.41" (36mm)	0.56" (14.3mm)	M16	3/8" (10mm)	3.29" (83.7mm)
LVML/2-2H	6.06" (154mm)	1.33" (34mm)	1.57" (40mm)	0.56" (14.3mm)	M16	7/16" (11mm)	3.18" (80.7mm)
LVML/3-2H	7.04" (179mm)	1.85" (47mm)	1.57" (40mm)	0.56" (14.3mm)	M18	5/8" (16mm)	3.18" (80.7mm)
LVML/3A-2H*	7.04" (179mm)	1.85" (47mm)	1.57" (40mm)	0.56" (14.3mm)	M18	5/8" (16mm)	3.18" (80.7mm)



***IMPORTANT:** The LVML/3A-2H has been designed to have flat sides on the barrel 1.73" (44mm) A/F to provide a more efficient arrangement when using multiple connectors side by side.

Material: Aluminum Alloy (Electro-Tinned)

Test Specification:

Designed to meet the requirements of ANSI C119.4 Class 2 Partial Tension / IEEE 404

Test Report No: TTR/274 (Torque Resistance & Tensile)

Fitting instructions:

1. Strip insulation from the core equal to the depth of the bore.
2. Wire brush the exposed conductor core and wipe clean (optional).
3. Align and position the conductor core into the bore ensuring that the core is fully inserted.
4. Hand tighten the universal shear screws and then torque tighten one turn at a time, using the correct tool, 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.***

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

'USMFx/RS' Repair Sleeves

Principle Application:

Straight in-line splicing of damaged cable cores, suitable for use on stranded aluminum/copper cored cables.

USMF1

Range:

USMF2

Connector Reference	Stranded Core Size			
	Min	Max	Min	Max
USMF1/RS*	# 3 (27mm²)	250 kcmil (127mm²)	# 3 (27mm²)	250 kcmil (127mm²)
USMF2/RS	2/0 (67mm²)	500 kcmil (253mm²)	2/0 (67mm²)	500 kcmil (253mm²)
USMF3/RS	500 kcmil (253mm²)	1000 kcmil (507mm²)	500 kcmil (253mm²)	1000 kcmil (507mm²)
USMF7/RS	350 kcmil (177mm²)	750 kcmil (380mm²)	350 kcmil (177mm²)	750 kcmil (380mm²)

USMF3
USMF7

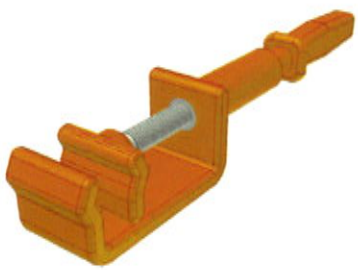
***IMPORTANT:** When using the USMF1/RS the centralising ring must be used on cable sizes #3 to 2/0 AWG, inclusive.

Description:

The **'USMFx/RS'** range of mechanical connectors incorporate an integral moisture/contaminant block and utilises 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.

JTS/22
Holding Tool

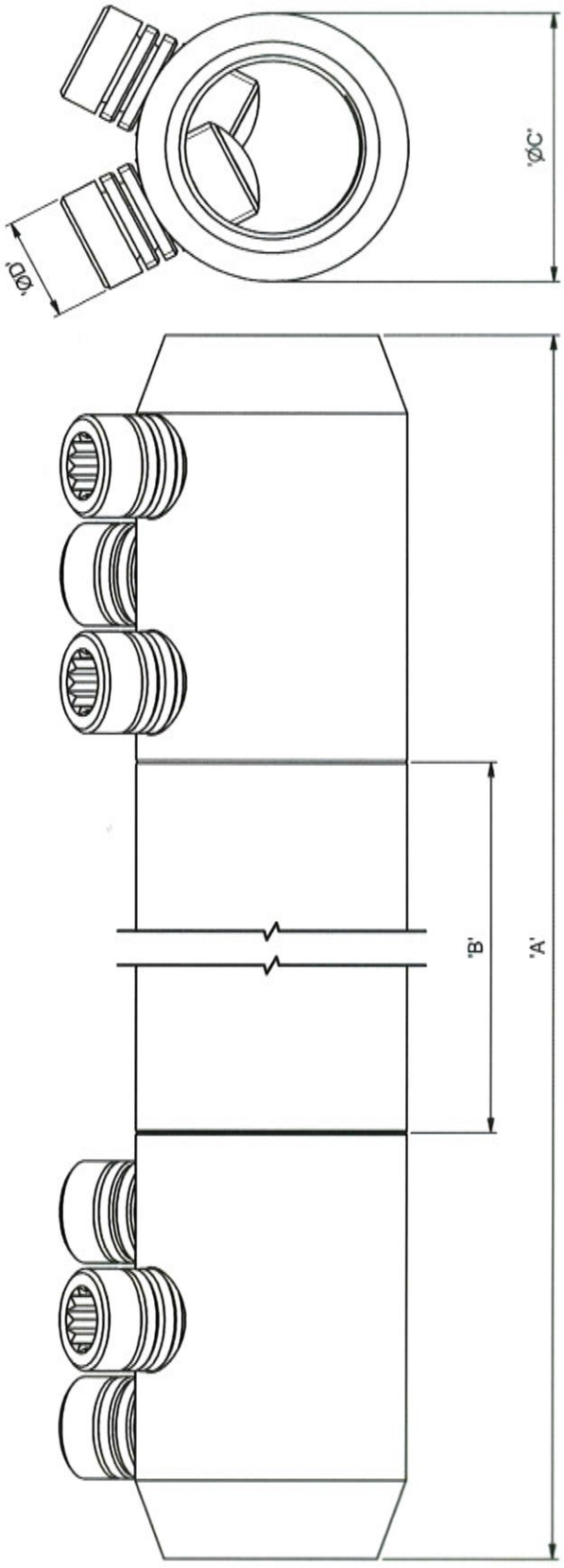


JTS/9
½" Square Driver

'USMFx/RS' Repair Sleeves

Physical Dimensions:

Connector Reference	Dimensions			
	'A'	'B'	'ØC'	'ØD'
USMF1/RS*	9.76" (248mm)	6" (152mm)	1.10" (28mm)	M16
USMF2/RS	12.17" (309mm)	8" (203mm)	1.34" (34mm)	M16
USMF3/RS	17.91" (455mm)	12" (305mm)	1.85" (47mm)	M18
USMF7/RS	15.00" (381mm)	10" (254mm)	1.50" (38mm)	M18



Material: Aluminum Alloy (Electro-Tinned)

Test Specification: ANSI C119.4 Class 2 Partial Tension

Test Report No: TTR/274 (Torque Resistance & Tensile)

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 center 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.
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.***