

SafeTrack 1

40, 100, 125, 250, 315

**INSTALLATION & MAINTENANCE
INSTRUCTIONS**

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SafeTrack

CONDUCTOR SYSTEM NOMENCLATURE



SINGLE CONDUTOR.



HANGER CLAMP.



CONDUCTOR JOINT.



ANCHOR CLAMP.



EXPANSION SECTION.



POWERFEED.



END CAP.



COLLECTOR.



ISOLATING SECTION
ISOLATION -
INSULATING MATERIAL.



ISOLATING SECTION.
ISOLATION - AIR GAP.

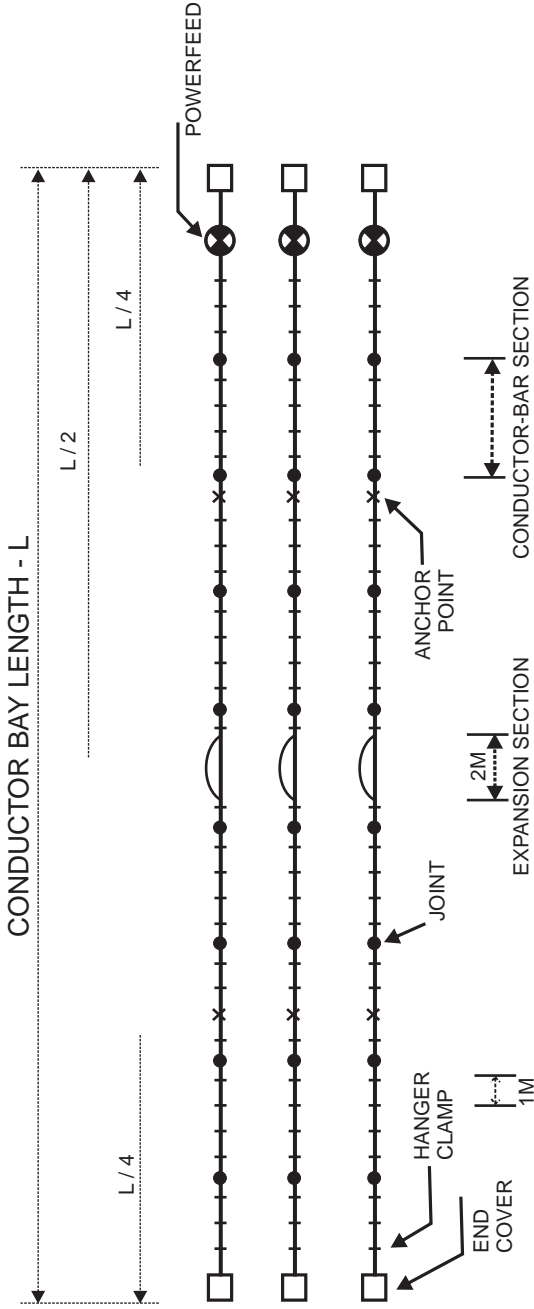


ISOLATING SWITCH.



SWITCH FUSE.

TYPICAL 3 PHASE CONDUCTOR SYSTEM



Safetrack		40	100	125	250	315	METRES
STANDARD CONDUCTOR LENGTH	4	4	4	4	4	4	
EXPANSION SECTION LENGTH	2	2	2	2	2	2	2
MAXIMUM HANGER SPACING :	1	1	1	1	1	1	1
	1	1	1	1	1	1	1
CURVE SECTIONS	0.5	0.5	0.5	0.5	0.5	0.5	0.5
MAXIMUM SYSTEM LENGTH WITHOUT EXPANSION SECTION	200	200	200	200	150	150	150
* POWER FEED PREFERABLY AT CENTER. MULTI FEED REQD. FOR LONGER BAYS/HIGHER CURRENT INSTALLTION.							

INSTALLATION NOTES

1. TOOL KIT REQUIRED

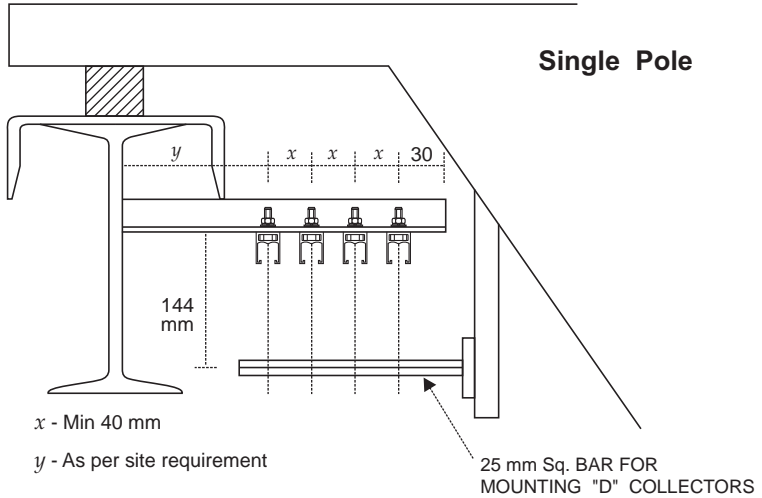
- i) **Safetrack** JOINTING TOOL . Supplied with every installtion.
- ii) **Safetrack** COLLECTOR MOUNTING GAUGE. Supplied with every installtion.
- iii) SCREW DRIVER - 6".
- iv) SPANNERS - 6/7, 10/11 & 12/13.
- v) **Safetrack** CRIMPING TOOL FOR COPPER CONDUCTOR ONLY.

2. ATTENTION TO THE FOLLOWING WILL ENSURE A TROUBLE FREE SYSTEM

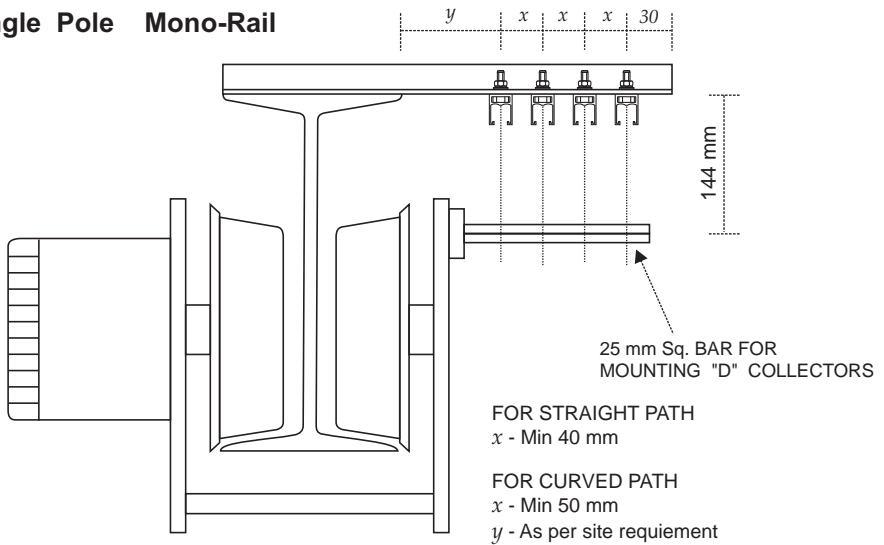
- i) CORRECT ALIGNMENT OF SUPPORT BRACKETS.
- ii) ENSURE THAT CONDUCTOR JOINTS ARE NOT AGAINST HANGER CLAMPS.
- iii) WHEREVER POSSIBLE USE THE STANDARD BRACKET PITCH. THIS WILL AVOID CONDUCTOR JOINTS FOULING SUPPORT BRACKETS.
- iv) **CORRECT ALIGNMENT OF COLLECTOR WITH CONDUCTOR BARS WITH THE USE OF COLLECTOR MOUNTING GAUGE.**
- v) ENSURE THAT ALL POWER CABLE CONNECTIONS ARE FLEXIBLE TO ALLOW FOR CONDUCTOR MOVEMENT DUE TO EXPANSION & CONTRACTION. MAINS CABLE PREFERABLY BE TERMINATED IN A JUCTION BOX. SEPERATE FLEXIBLE LEADS FOR CONNECTION TO CONDUCTOR FEED POINTS.

TYPE OF INSTALLATIONS

HORIZONTAL MOUNTING



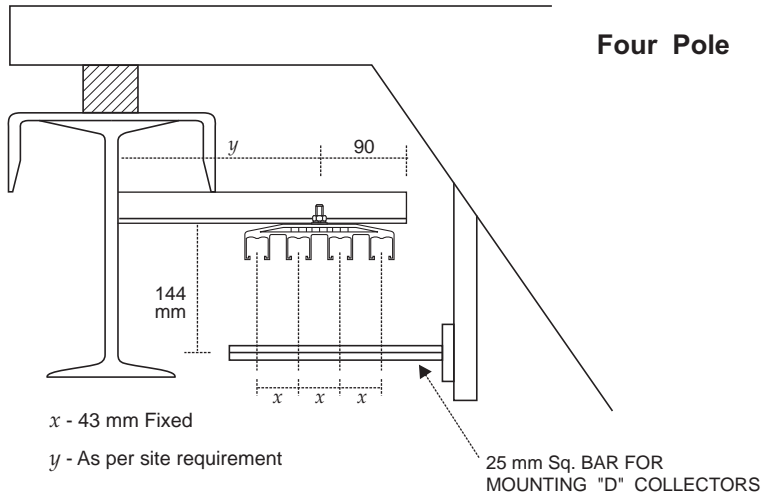
Single Pole Mono-Rail



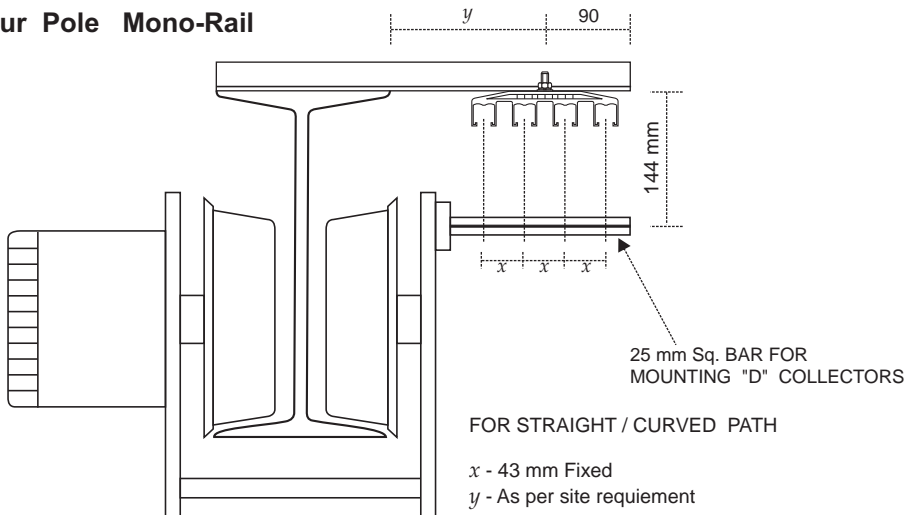
ALL ILLUSTRATIONS WITH "D" TYPE COLLECTOR

TYPE OF INSTALLATIONS

HORIZONTAL MOUNTING



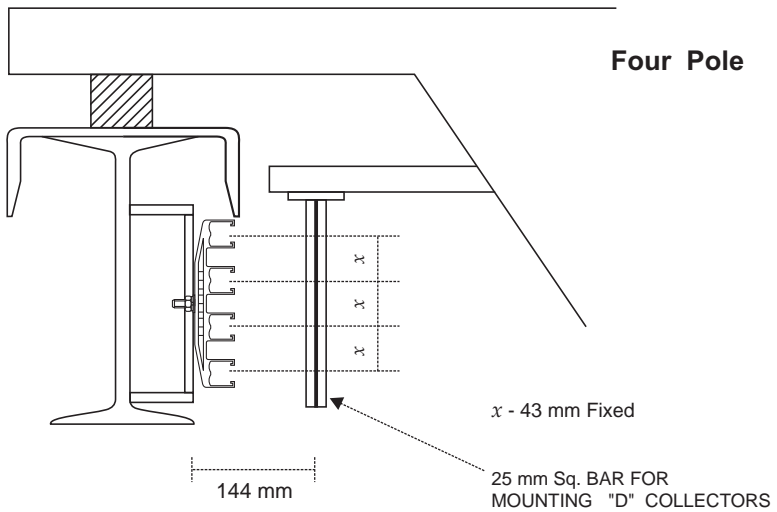
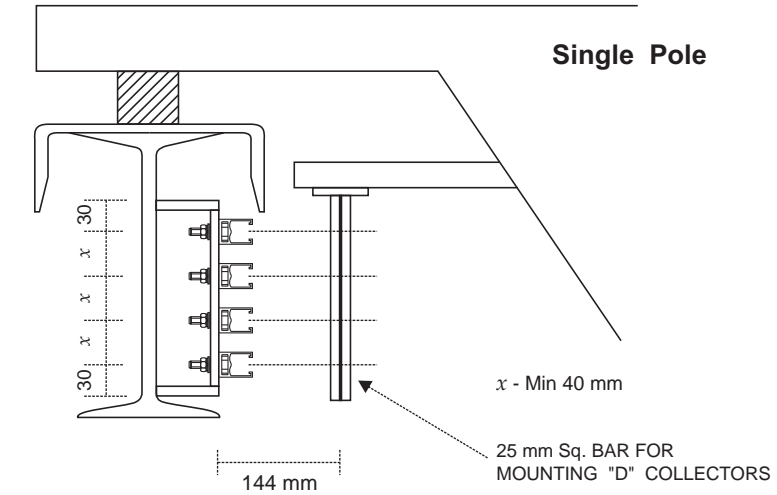
Four Pole Mono-Rail



ALL ILLUSTRATIONS WITH "D" TYPE COLLECTOR

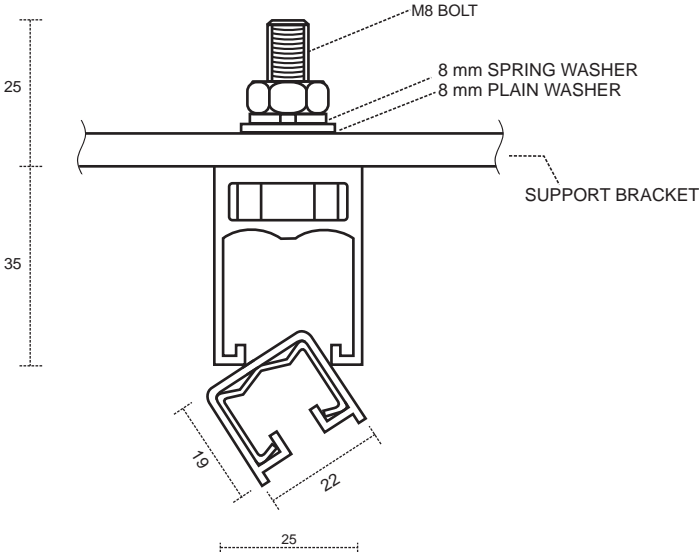
TYPE OF INSTALLATIONS

VERTICAL MOUNTING

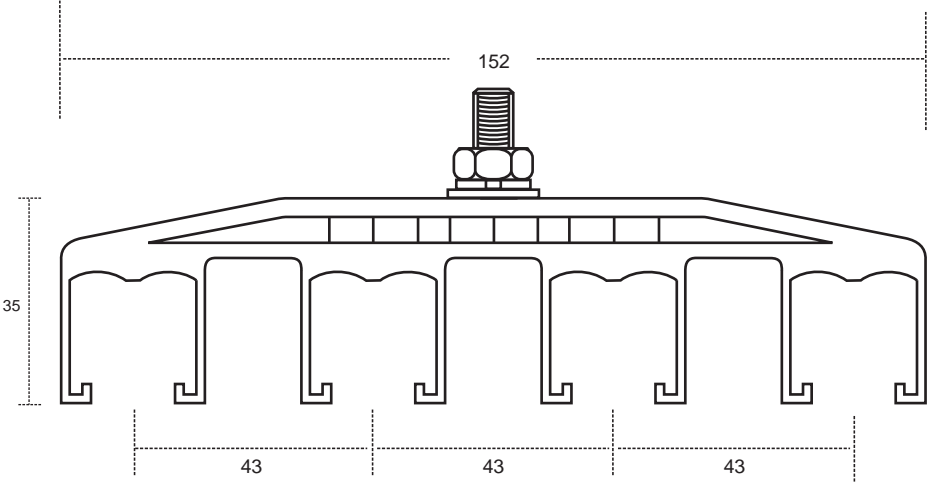


FITTING CONDUCTOR INTO HANGER CLAMPS

Single Pole



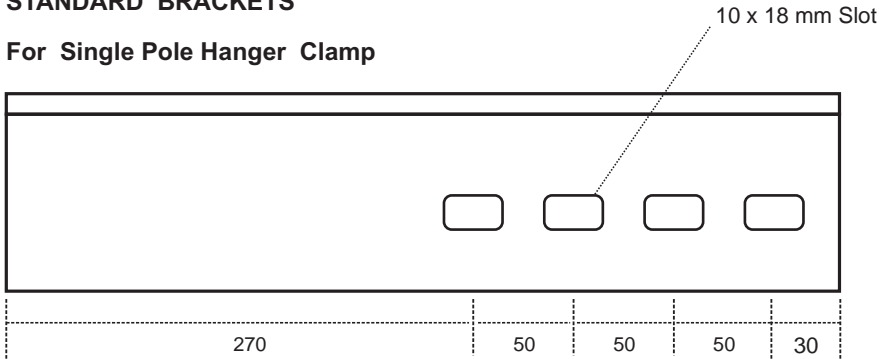
Four Pole



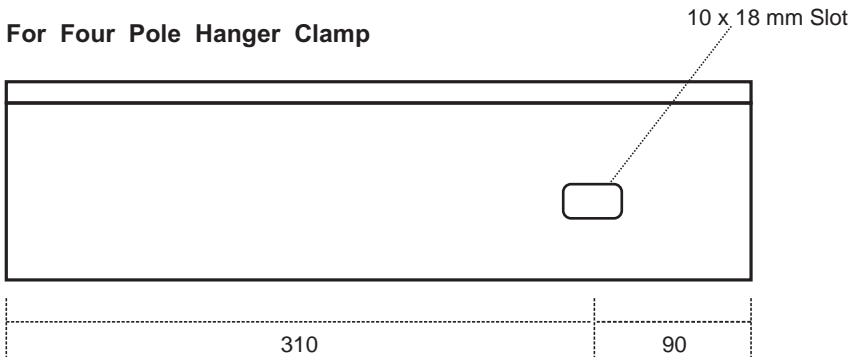
HANGER CLAMP SUPPORT

STANDARD BRACKETS

For Single Pole Hanger Clamp



For Four Pole Hanger Clamp



FIX SUPPORT BRACKETS AT THE CORRECT PITCH.

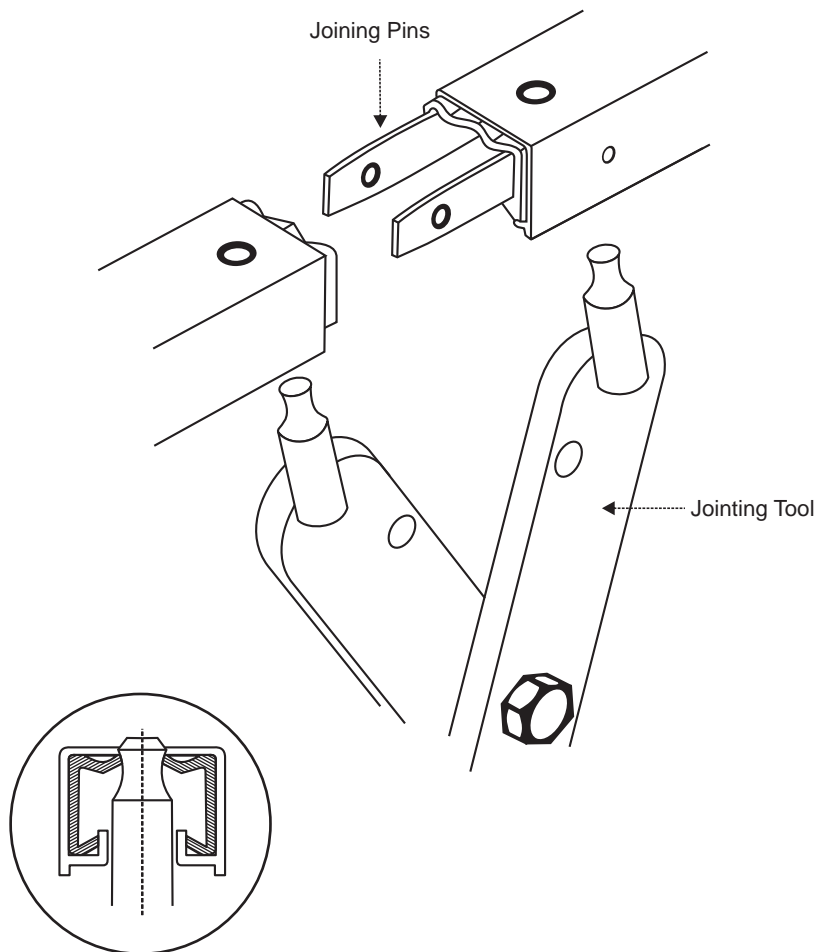
USE PLUMB LINE AND ENSURE ALIGNMENT - 9 mm DIA HOLE REQUIRED FOR HANGER CLAMP MOUNTING. 10 X 18 MM SLOT IS RECOMMENDED FOR EASE OF ALIGNMENT.

FIT HANGER CLAMP FIRST. **CHECK - HANGER CLAMPS OF DIFFERENT PHASES ARE PARALLEL TO EACH OTHER AND ALSO PARALLEL TO RAILS. USE PLUMB LINE FOR CHECKING AND ALIGNING BEFORE FINAL TIGHTENING.**

THEN INSERT CONDUCTOR AS PER SKETCH ON PAGE 7.

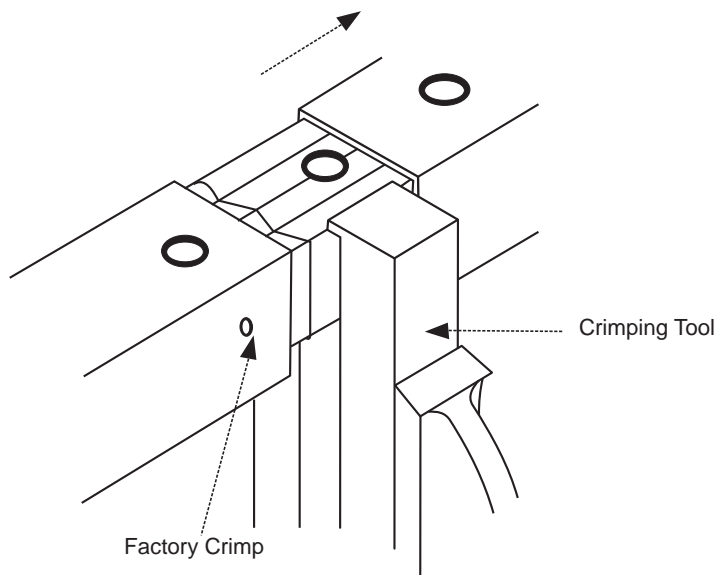
Safetrack CAN SUPPLY CUSTOM MADE SUPPORT BRACKETS.

JOINING CONDUCTOR LENGTHS



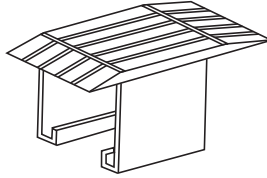
ENSURE JOINTING TOOL ENGAGES IN JOINT HOLE PROPERLY AS SHOWN

CRIMPING OF **SafeTrack** 250 / 315 A COPPER BAR

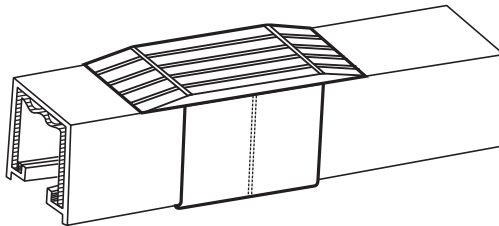
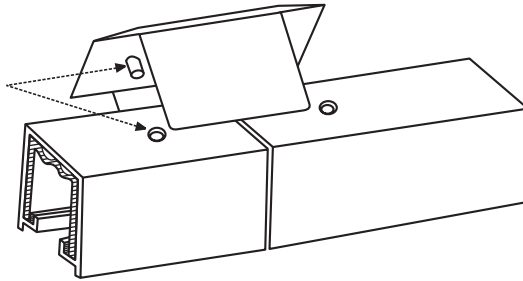


SLIDE PVC COVER TOWARDS MALE SIDE OF CONDUCTOR
AFTER CRIMPING THE JOINT SLIDE BACK PVC COVER.

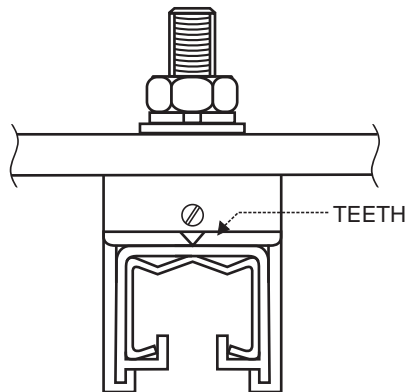
JOINT COVER FITTING



LOCATE THE
PIN IN THE
HOLE



ANCHOR CLAMP ASSEMBLY

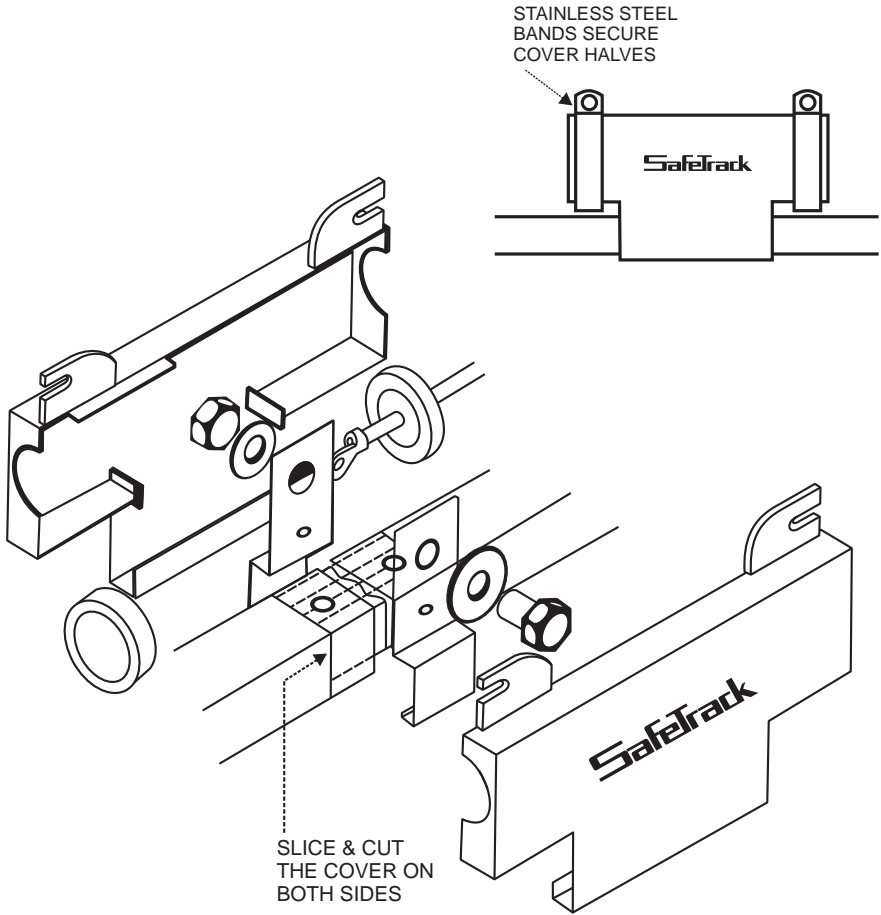


AFTER FITTING CONDUCTOR TIGHTEN THE NUT TO FORCE THE TEETH OF THE CLAMP INTO THE INSULATION.

ONLY ONE SET FOR INSTALLATION.

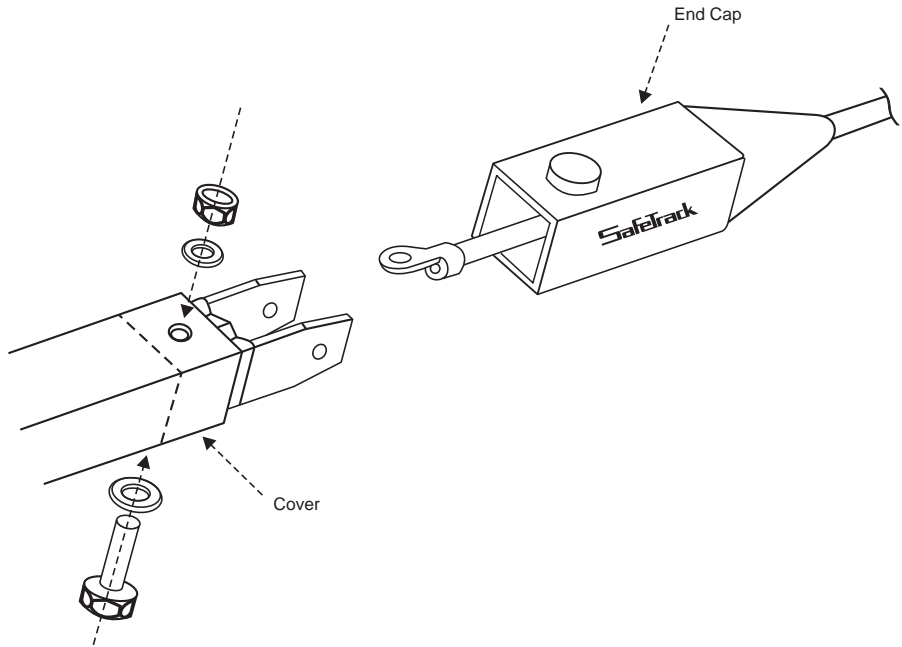
EXPANSION ASSEMBLY - ONE ON EITHER SIDE.

CENTER POWER FEED ASSEMBLY



30 mm CUT REQUIRED IN COVER FOR PLACING JUMPERS FOR TERMINATION.

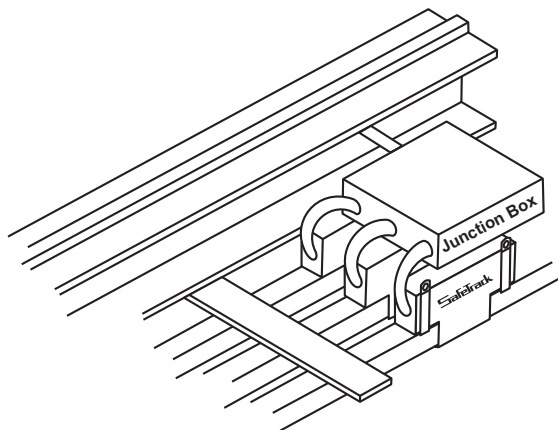
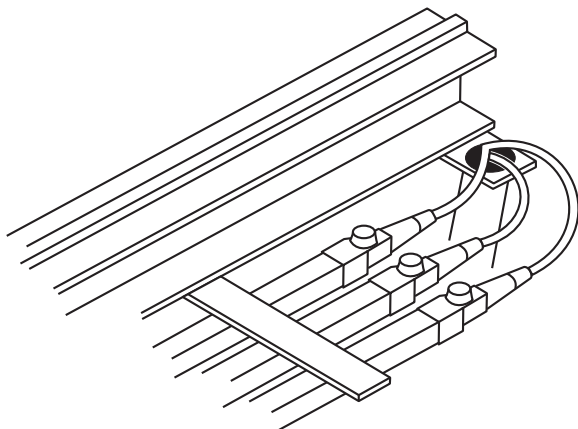
END CAP AND END POWER FEED ASSEMBLY



FOR END POWER FEED SLICE & CUT THE COVER.

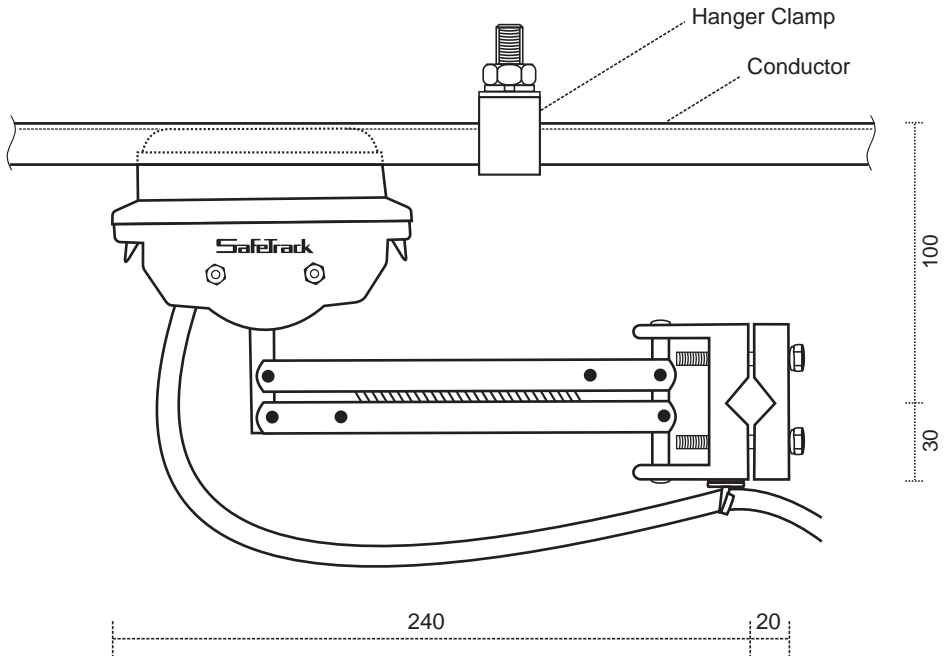
SAME CAP FOR BOTH ENDS. SLIT END FOR WIRE ENTRY.

TYPICAL POWER CABLE CONNECTION



ALWAYS ALLOW SUFFICIENT SLACK CABLE FOR EXPANSION AND CONTRACTION OF CONDUCTORS.

MOUNTING DETAILS FOR 60A MMACC

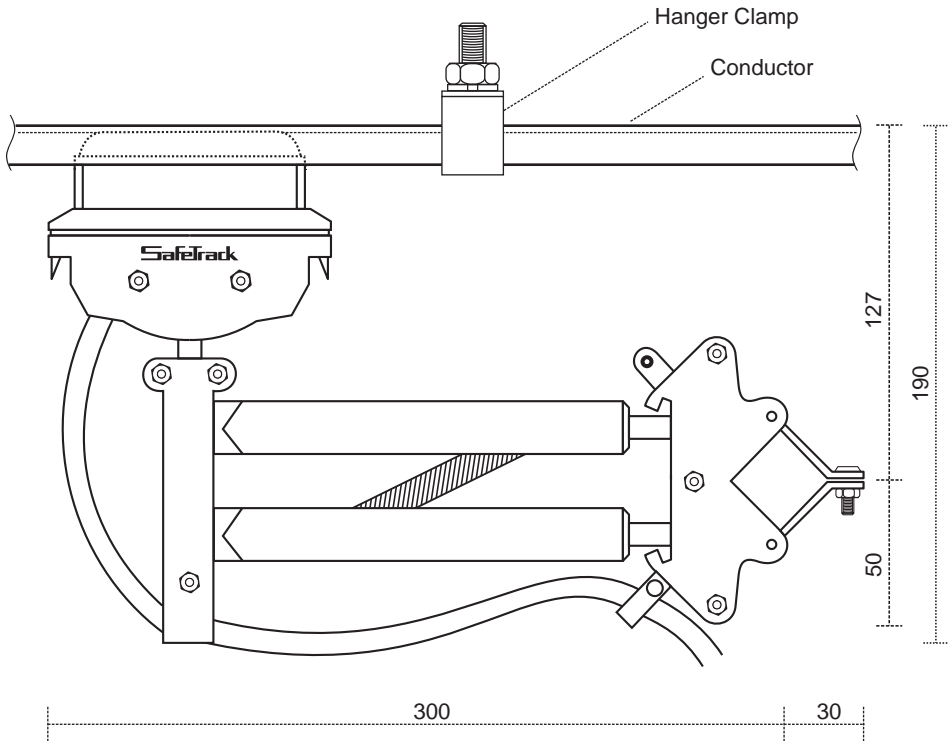


COLLECTORS MUST BE MOUNTED ON 16 mm SQUARE BAR.

FOR THE CORRECT SETTING HEIGHT,
USE COLLECTOR MOUNTING GAUGE. REF PAGE 20.

**IT IS IMPORTANT TO MAINTAIN CORRECT VERTICAL
AND LATERAL ALIGNMENT WITH THE CONDUCTOR.**

MOUNTING DETAILS FOR 125A DACC

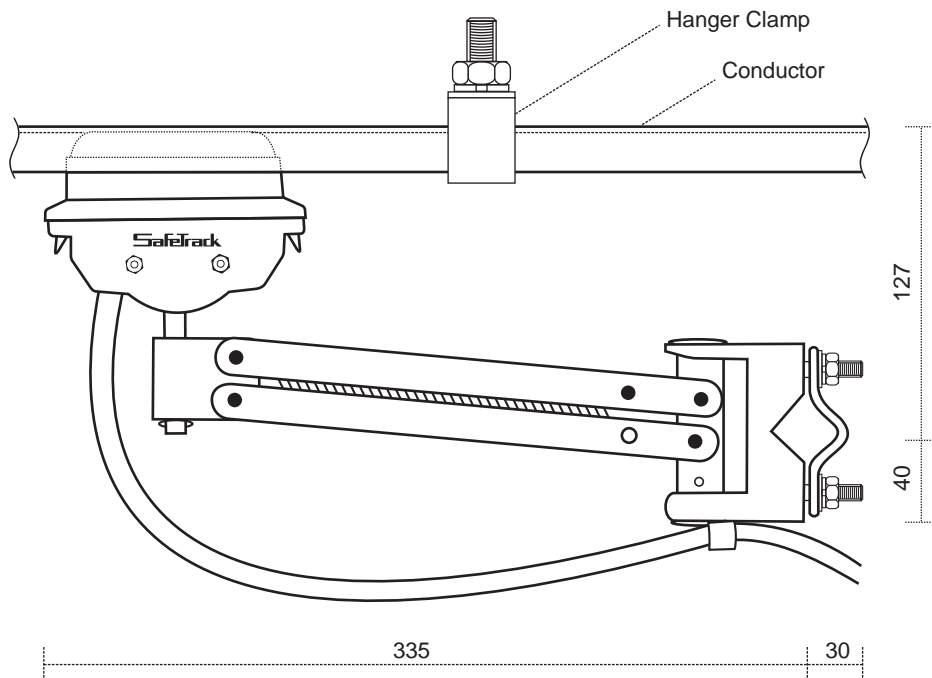


COLLECTORS MUST BE MOUNTED ON 25 mm SQUARE BAR.

FOR THE CORRECT SETTING HEIGHT,
USE COLLECTOR MOUNTING GAUGE. REF PAGE 20.

**IT IS IMPORTANT TO MAINTAIN CORRECT VERTICAL
AND LATERAL ALIGNMENT WITH THE CONDUCTOR.**

MOUNTING DETAILS FOR 125A MACC

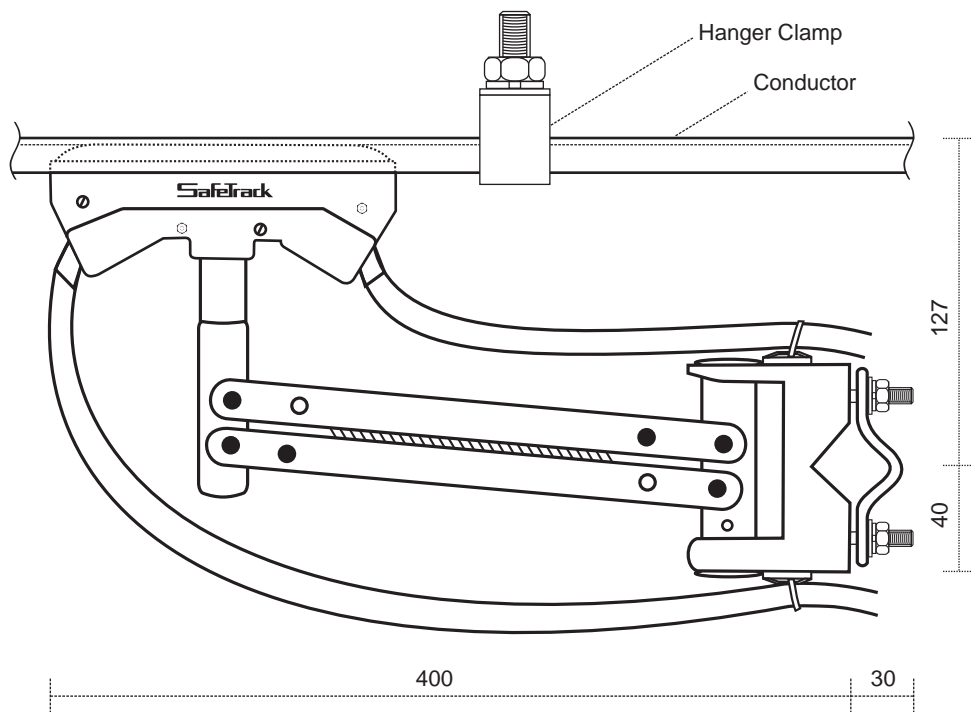


COLLECTORS MUST BE MOUNTED ON 25 mm SQUARE BAR.

FOR THE CORRECT SETTING HEIGHT,
USE COLLECTOR MOUNTING GAUGE. REF PAGE 20.

**IT IS IMPORTANT TO MAINTAIN CORRECT VERTICAL
AND LATERAL ALIGNMENT WITH THE CONDUCTOR.**

MOUNTING DETAILS FOR 250A MACC

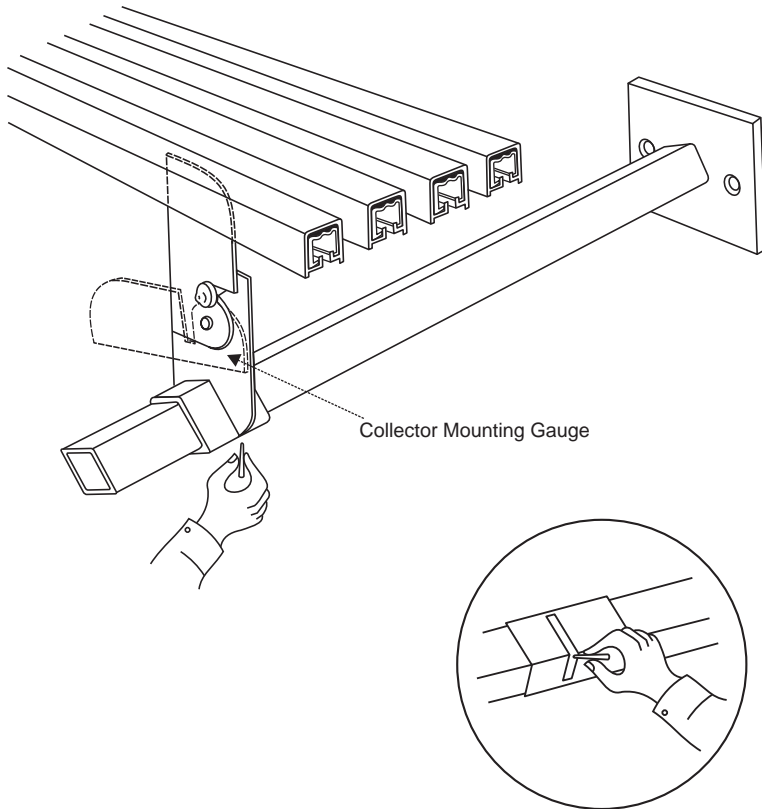


COLLECTORS MUST BE MOUNTED ON 25 mm SQUARE BAR..

FOR THE CORRECT SETTING HEIGHT,
USE COLLECTOR MOUNTING GAUGE. REF PAGE 20.

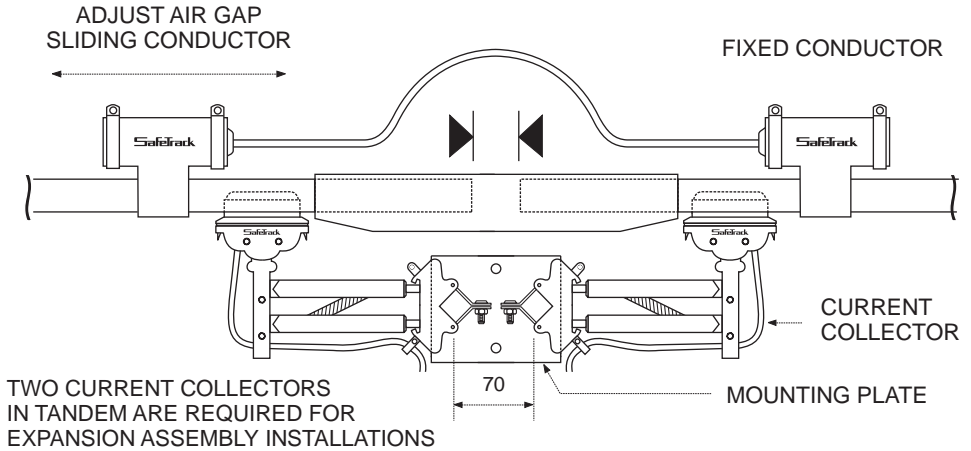
**IT IS IMPORTANT TO MAINTAIN CORRECT VERTICAL
AND LATERAL ALIGNMENT WITH THE CONDUCTOR.**

INSTALLING OF CURRENT COLLECTOR



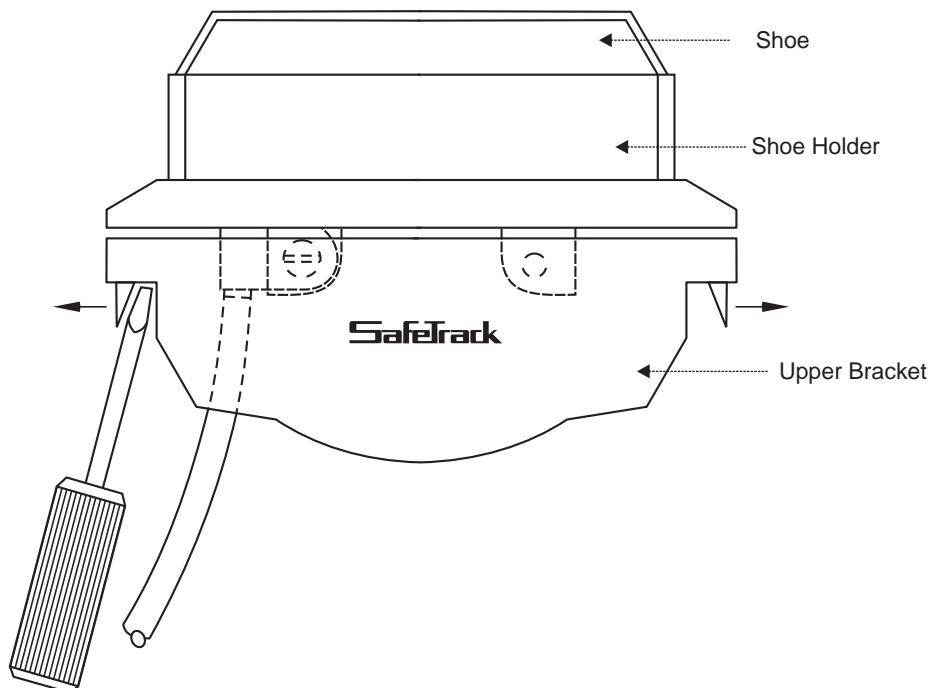
- 1) ADJUST THE HEIGHT OF THE SQUARE BAR.
- 2) MARK LOCATION OF EACH PHASE AND MOUNT COLLECTORS ON POSITION.

EXPANSION ASSEMBLY AIR GAP SETTING



AMBIENT TEMP °C	AIR GAP SETTING
+50	28
+40	42
+30	56
+20	70
+10	84

REPLACEMENT OF COLLECTOR CONTACT SHOE AND SHOE HOLDER

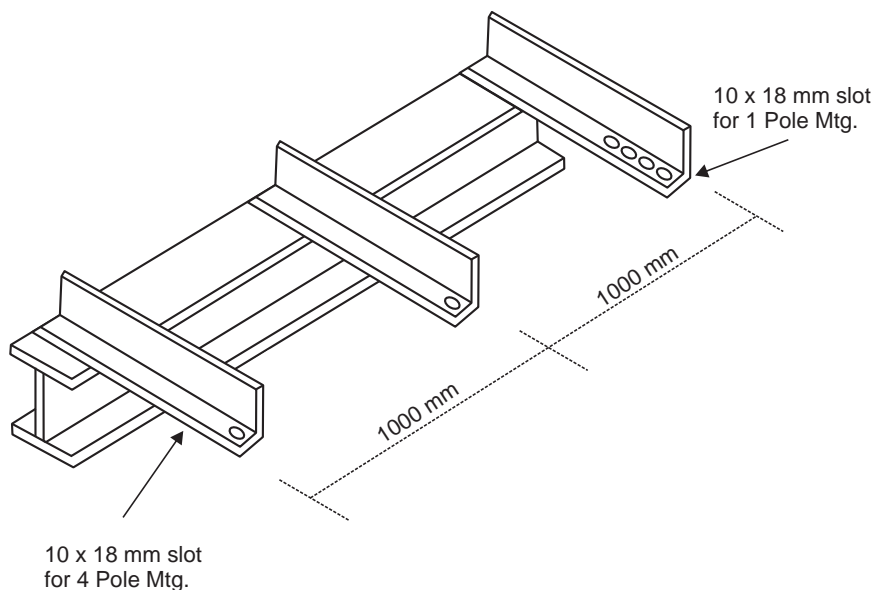


NOTE :

COLLECTOR CONTACT SHOE AND SHOE HOLDER ARE SUPPLIED AS REPLACEMENT PART.

1. LEVER LUGS IN DIRECTION SHOWN.
2. LIFT SHOE AND HOLDER.
3. DISCONNECT CABLE.
4. REVERSE PROCEDURE TO FIT NEW SHOE.

SUPPORT BRACKET INSTALLATION



1. LOCATE AND SECURE SUPPORT BRACKETS AT THE RECOMMENDED SPACING.

(NOTE : LOCATE SUPPORT BRACKET AT A SPACING THAT IS DIVISIBLE INTO THE CONDUCTOR BAR LENGTHS. THIS WILL ALWAYS ENSURE THAT THE JOINT POSITIONS DO NOT INTERFERE WITH THE SUPPORT BRACKETS).

2. ENSURE OF ALL BRACKETS ARE ALIGNED IN HORIZONTAL AND VERTICAL PLANE.

HANGER SUPPORT BRACKETS COME COMPLETE WITH ALL NECESSARY MOUNTING HOLES.

SYSTEM MAINTENANCE

1. CONTACT SHOES SHOULD BE CHECKED FOR WEAR ON A MONTHLY BASIS UNTIL A WEAR PATTERN CAN BE ESTABLISHED. FAILURE TO REPLACE WORN OUT CONTACT SHOES WILL RESULT IN DAMAGE TO THE CONDUCTOR, AND REDUCE SUBSEQUENT CONTACT SHOE LIFE.
2. WHEN CHECKING FOR CONTACT SHOE WEAR, ALSO CHECK THAT ALL COLLECTOR PIVOT POINTS ARE FREE, AND GENERALLY CHECK ALIGNMENT OF THE COLLECTOR TO THE CONDUCTORS.
3. CHECK CONDUCTOR SYSTEM FOR ANY MECHANICAL DAMAGE AND CLEAN THE SYSTEM ESPECIALLY FOR CONDUCTIVE DUST.

Safetrack

SUSHEEL ENGINEERING CORPORATION

PRODUCT RANGE					
Safetrack 1		Safetrack 2		Safetrack s	
35A	95A	100A 125A	250A 315A 500A	60A 100A 125A	160A 250A 400A
FOR ELECTRIC HOISTS, STRAIGHT/CURVED MONORAILS, EMS SYSTEM, CT APPLICATION.		FOR EOT CRANES, ELECTRIC HOISTS, STRAIGHT/CURVED MONORAILS, ELECTRIC TROLLIES, AMUSEMENT DRIVE, MATERIAL HANDLING APPLICATIONS.		FOR EOT CRANES, ELECTRIC HOISTS, STRAIGHT/CURVED MONORAILS, ELECTRIC TROLLIES, AMUSEMENT DRIVE, MATERIAL HANDLING APPLICATIONS.	

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