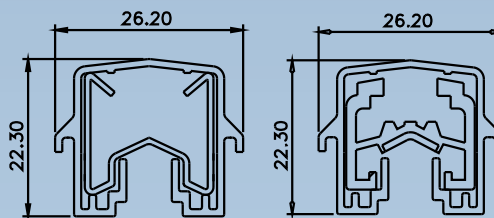


**SAFE-LINE W**

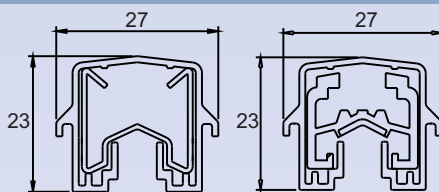
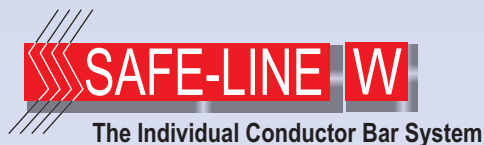
The Individual Conductor Bar System

Wide Range of Conductor Bar System



**Mobile Electrification Systems**

# Safeline W-Individual Conductor Bar System- Bolted Joint



**Safeline-W** Insulated conductor bars are used for power transmission. Current Capacity ranges from 60 Amps. to 1250 Amps rated at 100% duty cycle & nominal voltage upto 660 V. They fulfill the requirements of latest international standards.

All are safe to touch and designed finger proof. Conductor rail provide a safe and economical supply of electrical power for track guided mobile machinery

## SAFELINE W

### Features

Insulated conductor are touch proof, no exposed live parts to contact.

Quick and easy installation with single bolt, 4 pole hanger.

60 to 400 Amps. Conductor in same standard

60,100 & 125 Amps. Galvanised Steel

200 & 315 Amps. Aluminium / Stainless Steel

160,250 & 400 Amps rolled Copper.

4.5 meters bar length

Cover designed to shed water and dust

Joint cover provides total protection of joints.

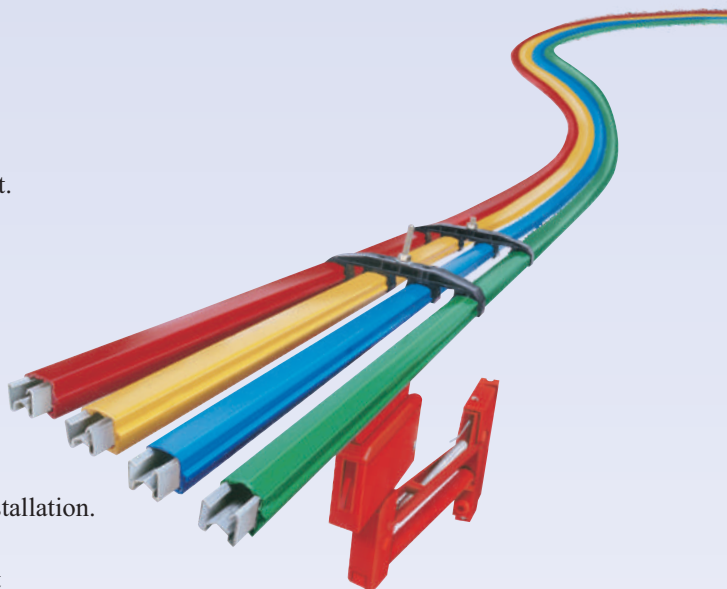
Enclosed wiring for connection on collectors for safe and simple installation.

No expansion joints up to 150 meters long system

Slide in slot features for hanger supports to eliminate mis-alignment

Track configuration :Straight or Curved.

Degree of protection IP:21

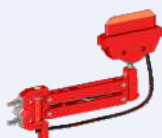


## COMPONENTS / PARTS

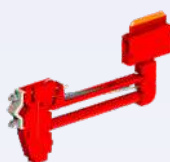
25 Amps Collector



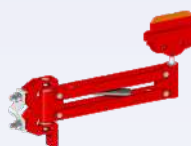
50 Amps Collector SP



100 Amps STD



100 Amps. SP



250 Amps Collector W



End Power feed



End Cover



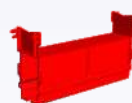
Steel Joint /Copper Joint



Power feed Cover



Joint Cover



Shoe and Shoe Holder



250 Amp Shoe



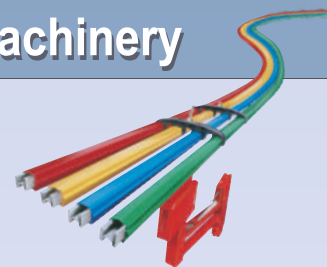
“Our customer do not buy our products, They buy the benefits that our product provides.”



# Safe & Reliable Power Transmission for Mobile Machinery



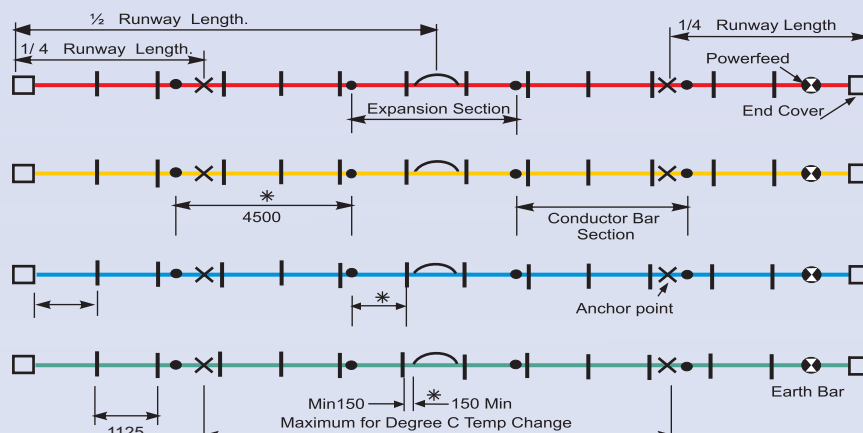
The Individual  
Conductor Bar System



## NOMENCLATURE

- Single Conductor
- Conductor System
- Expansion Section
- End cap
- Isolating Switch
- Hanger Clamp
- X — Anchor Position
- Powerfeed
- Collector
- Switch Fuse

## TYPICAL LAYOUT OF A 3 PHASE AND EARTH CONDUCTOR SYSTEM SAFE-LINE W ( 60Amps to 400 Amps)



## Effects of various Power feed Positions on Volt Drop Calculations.

Selection of feed-in points. The feed-in point for every application must be selected because the length L between power feed and conductor rail end is used for calculating the voltage drop. Following feed - in points can normally be used.

Powered Position	Schematic Diagram Collector symbol Indicates Positions of Maximum Volt Drop	Effective Length to be used in Volt Drop Calculations
Endfeed		$LVD = L$
Center-feed		$LVD = \frac{L}{2}$
Two end feed		$LVD = \frac{L}{4}$
Two feeds both in from end		$LVD = \frac{L}{6}$
Three feeds at in from ends and centre		$LVD = \frac{L}{10}$

### Voltage Drop

The allowable volt drop determines, the maximum allowable resistance of conductor. The value of volt drop within a conductor system is effected by effective length of system and current drawn.

### Volt Drop Calculation

For A. C. Machine 3 phase

$\Delta U$  Volt drop = length (D) x Impedance (Z)

x Current (I) x  $3\sqrt{3}$

$U \% = \frac{\Delta U}{U_n} \times 100 [\%]$

## PRODUCT RANGE - INDIVIDUAL

System Design	Insulated Conductor Bar			Heavy Conductor Bar		Enclosed Conductor Bar
Conductor Bar System	Safeline - W	Safeline - M	Safeline - C	Safeline - V	Safeline - V	Safe-Duct
Type of Joints	Bolted	Pin	Joint Less	Aluminium	Copper	Bolted /Joint less
Nominal Current ( A )	60 - 400	60-315	40-140	500 -800-1000-1250	500-800-1000-1250-2000	40-60-80-100-140-200
Volts ( V )	600	600	600	600	600	600
Support Spacing ( m )	1.125	1.125	1.2	2.25	2.25	1.333
Bar Cover Length ( mm )	4500	4500	4800	4500	4500	4000
Outside Dimensions ( mm )	23 x 27	20 x 22	34 x 19	42 x 32	42 x 32	85 x 56

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**INSULATED CONDUCTOR BARS**