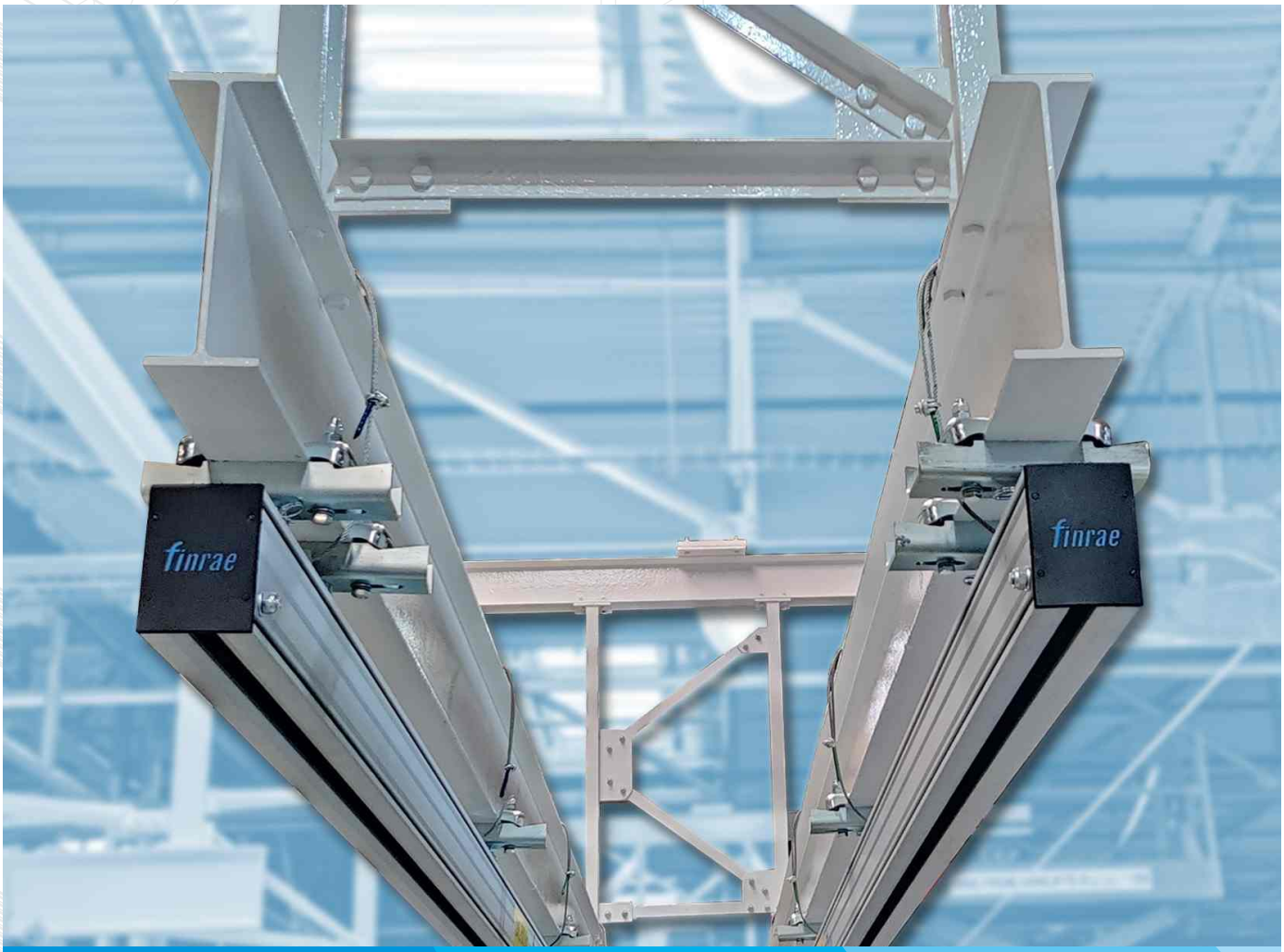
finrae®
advanced rail systems

Experience the finest in material movement

Modular Aluminium Rail Systems

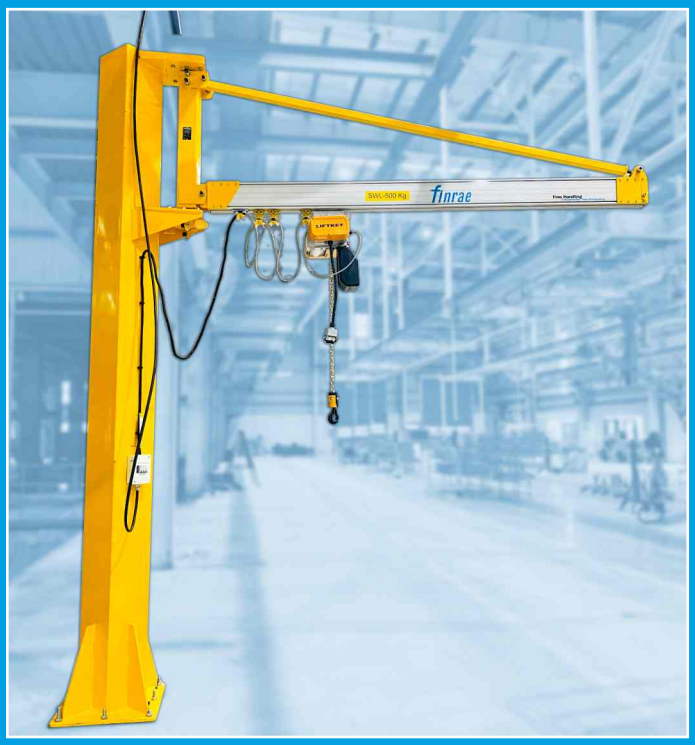


Manufactured with superior quality Aluminium

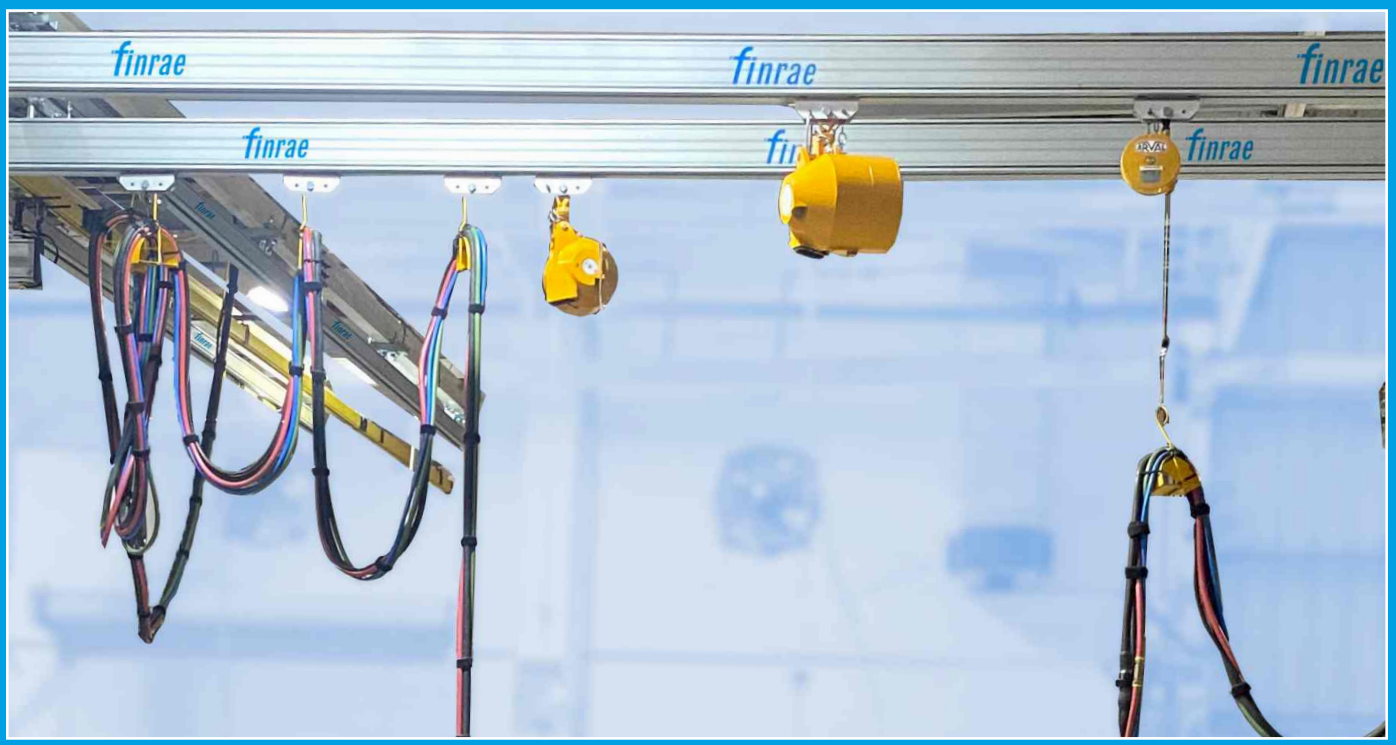
Extremely light weight

Modular and compact design

Specialized Trolleys for smooth & noiseless movement


finrae
SWL-500 Kg


finrae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CT REV
CT FWD
finrae
finrae
SWL- 900 Kg
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CT REV
CT FWD


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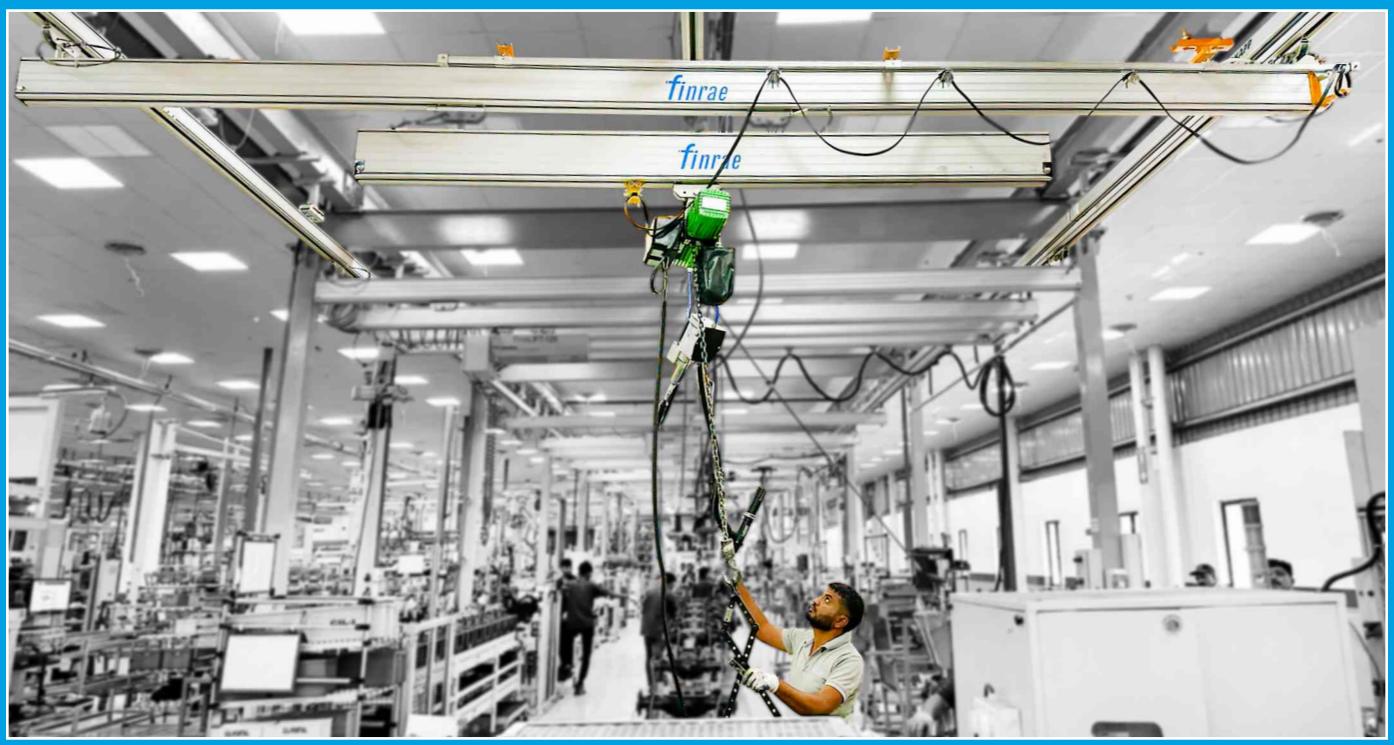
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Experience Engineering Finesse.

Advanced Aluminium Rail Systems for Speedy, Smooth and Safe movement of material

Aluminium profile based rail systems are a perfect tool for handling and transfer of material and equipment from one location to another. These rails are overhead mounted and are either suspended from an existing structure or from a separate floor mounted structure. The rails can be assembled in various configurations and are purely modular in construction. A light weight yet strong trolley enables movement of equipment suspended on it. The trolley has rollers made out of patented material which enables smooth movement in-spite of having heavy loads suspended on it.

Being light weight, in most of the cases no external source of energy such as motorized drives are needed for moving the loads in horizontal plane. This fact makes the Aluminium rail systems highly efficient and saves a lot in energy consumption. In case where motorised drives are needed for example to develop automated solutions, the energy consumed by the drive motors is comparatively much laser than other kind of motorised travelling arrangements.

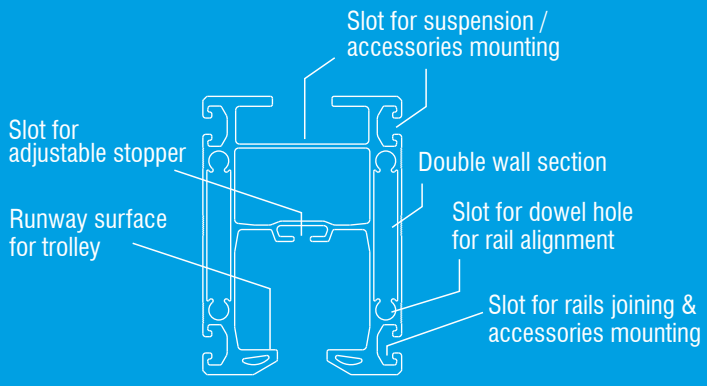
Depending on the load to be suspended or handled and the necessary movement required, various sizes of the Aluminium profile rails and configurations are selected. This catalogue gives a detailed explanation of the various Aluminium rail sizes, their weight carrying capacities and about various accessories available to make various layouts and configurations.

Finrae Aluminium Profile Rails

Finrae rails are designed and manufactured as double walled sections. The profile has various features as explained in the diagram below. A combination of several available standard components enable users to incorporate the Finrae rails in their layouts. May it be for material handling or for other applications such as tools and nut runners, Finrae modular system becomes very easy for users to integrate and use effortlessly.

The handling efforts needed are extremely low making material movement easy and economic.

The Finrae profiles have round slots available which enable two profiles to be connected to each other using a round pin. This helps to maintain the alignment of the two profiles for a long period of service life. With a proper alignment the trolley moves smoothly and gives a better life of the rollers.



Profile section details

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General Information

This product catalogue describes the various components in the Finrae range of crane profiles and rules of selection for variety of configurations.

Product Selection

Finrae Aluminium Rail Profile is a fully modular and lightweight overhead crane system. The Crane Profile is made up of aluminium and is suitable for manual or power-driven handling of components/goods using a variety of pick and place devices.

The Crane Profile can be floor mounted (with appropriate support structure). The combination of Profile and accessories must be selected after calculation of forces acting on the system when in operation. The calculations must be performed by a qualified professional and validated and tested before use.

Safety

Finrae modular Aluminium Rail System is designed and manufactured to meet the global safety, quality, and manufacturing norms. Finrae Profile is also approved by some of the world's leading and most reputed industries.

Precautions

Finrae modular Aluminium Rail System must be used with authentic accessories and parts approved or supplied by authorized Finrae representatives. Any component from other sources may involve risks to safety or hamper the seamless operation of the profiles and supporting accessories. When installing the Rail System, safety precautions must be documented. The installations are to be carried out only by authorized professionals.

Preventive maintenance

Finrae modular Aluminium Rail System is designed with integrated accessories and components which will require negligible maintenance. Preventive maintenance is carried out annually and also it depends upon the usage of the system. (Follow Finrae user manual). In general, the tightening torques of the bolts need to be checked regularly.

Within one to two months of the installation being put into operation and during regular inspections, all bolted connections of the accessory/safety components must be checked and, if necessary, tightened or secured to compensate for the settling which always occurs in bolted connections and any reduction in initial tension.

Installation

Only authorized and trained personnel approved by Finrae may work on the installation.

The installation may only be carried, used, operated, maintained, and removed by trained personnel when it is in perfect working order. Ensure Finrae accessories, safety components are used to avoid the risk of failure (equipment and personnel). Using non-standard parts or components of Finrae will void the warranty claim. Every individual given the task of working on or with the installation must have read and understood the instructions before any work starts. The installation work zone will be barricaded.

Material Properties

Finrae modular Aluminium Rail is made of Aluminium alloy Al 6063 T66.

Rails are anodized to have aesthetic look which requires no maintenance.

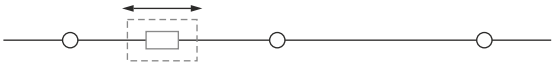
Temperature Condition

Finrae Rails and its accessories are designed for indoor use. This can be used in industrial environments like the automotive industry, production, and general manufacturing.

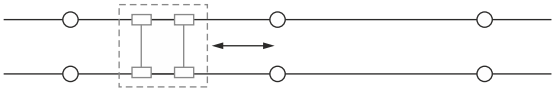
Temperature ranges from +5 to +45 °C.

EXAMPLES OF CONFIGURATION

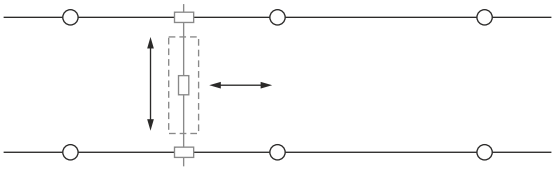
Rail Suspension Load Trolley



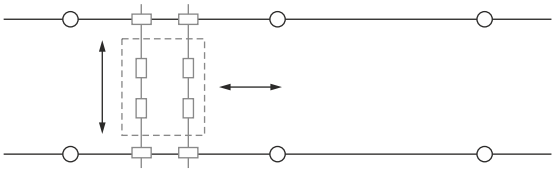
1) Single Rail System



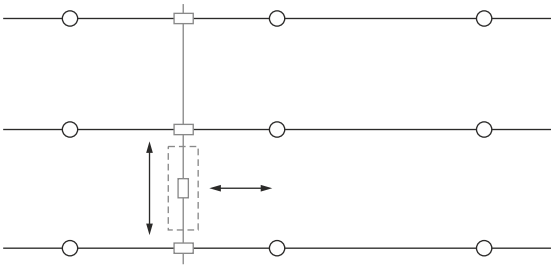
2) Double Rail System



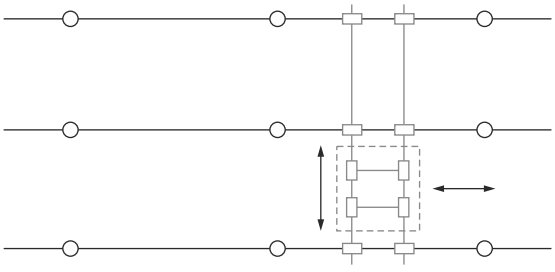
3) Double Long Single Cross Rail



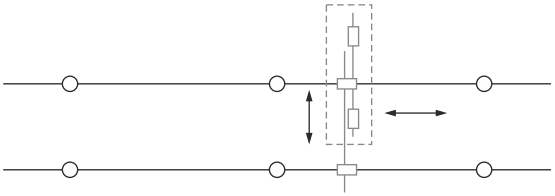
4) Double Long Double Cross Rail



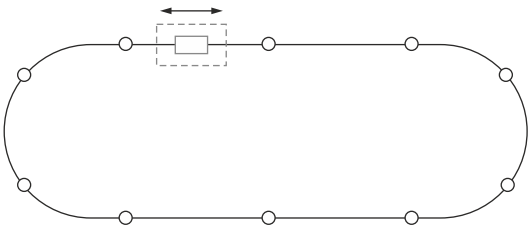
5) Triple Long Single Cross Rail



6) Triple Long Double Cross Rail



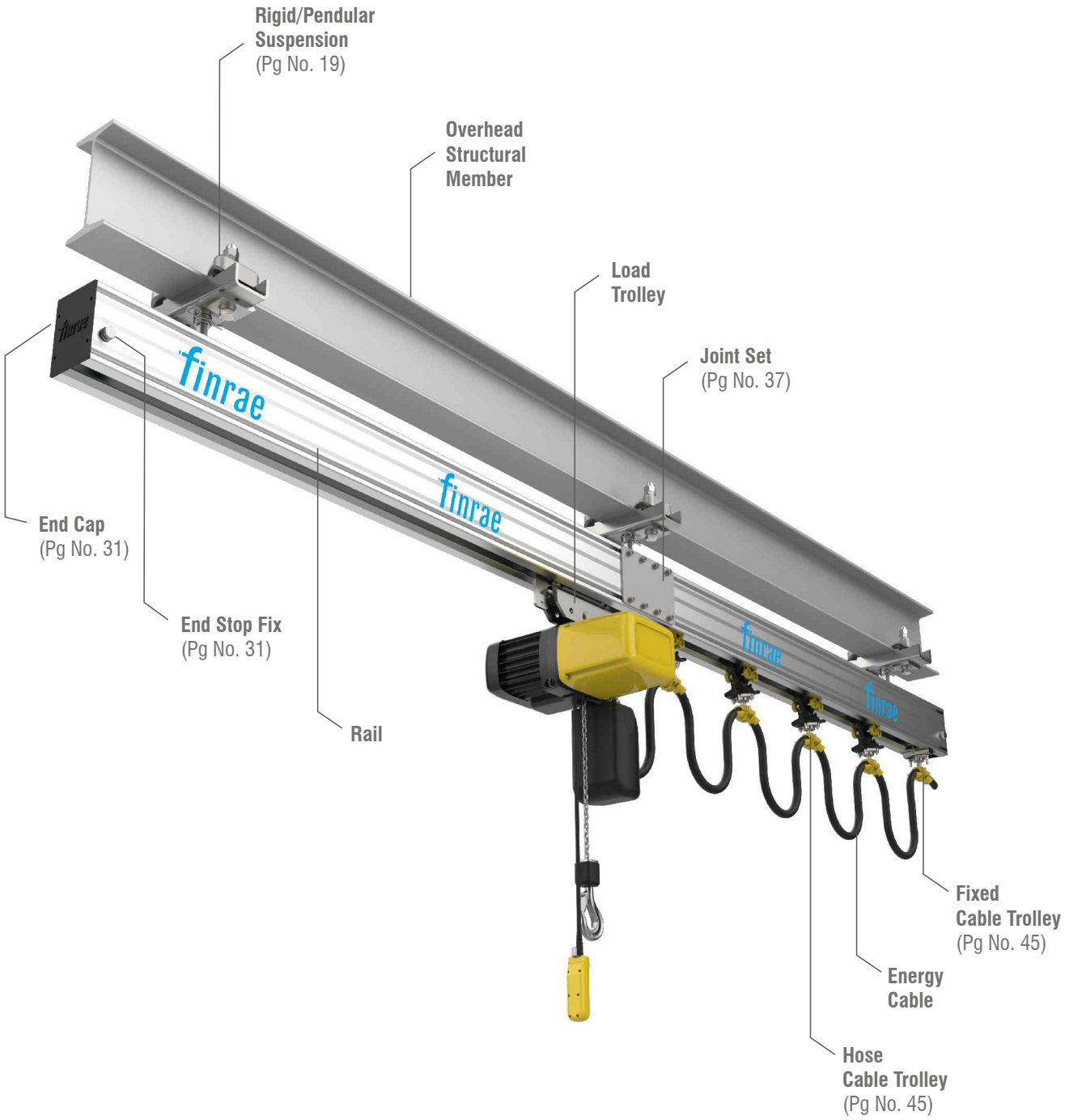
7) Telescopic System

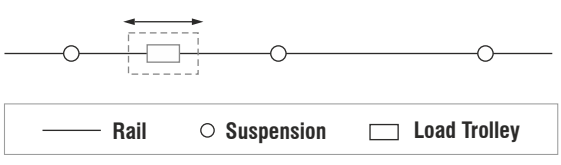


8) Curved Rails

SINGLE RAIL SYSTEM

This configuration is also called as a Monorail or Single Runway. This configuration uses a single piece of rail or rails connected to each using joining kits, in a straight line. This configuration is used where loads are to be carried in one straight line.

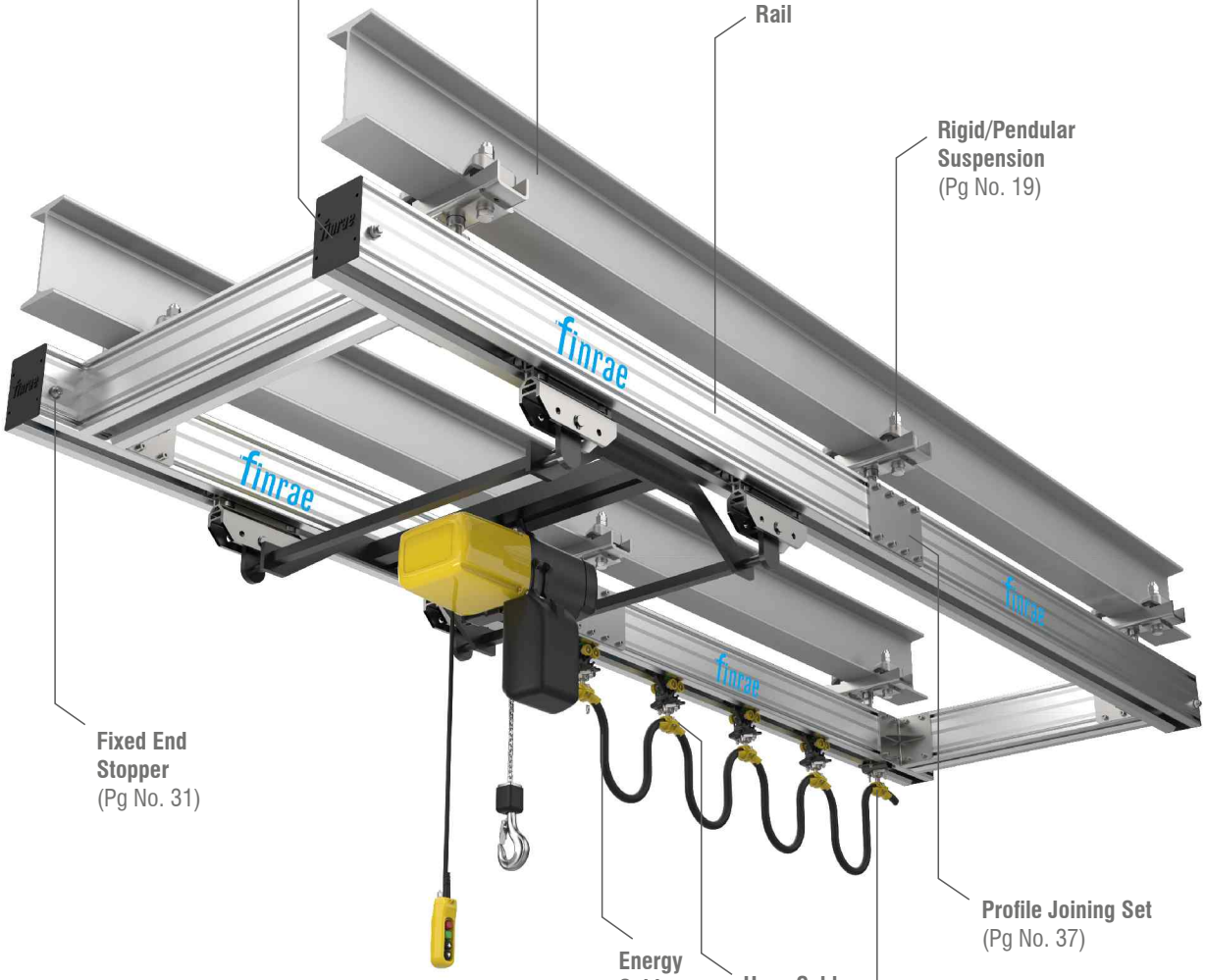


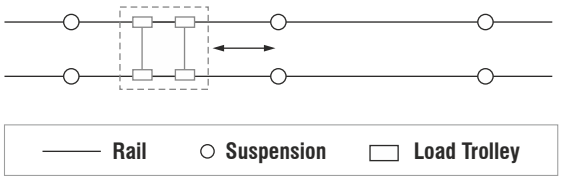


1) Schematic line diagram

DOUBLE RAIL SYSTEM

This configuration is used where two rails are installed in parallel to each other. When two long rails are installed in parallel a frame with four trollies can be used to move the load in a straight line. This is required for suspending a hoist on a frame or for articulated arm handling devices or for cantilever load taking mechanisms.

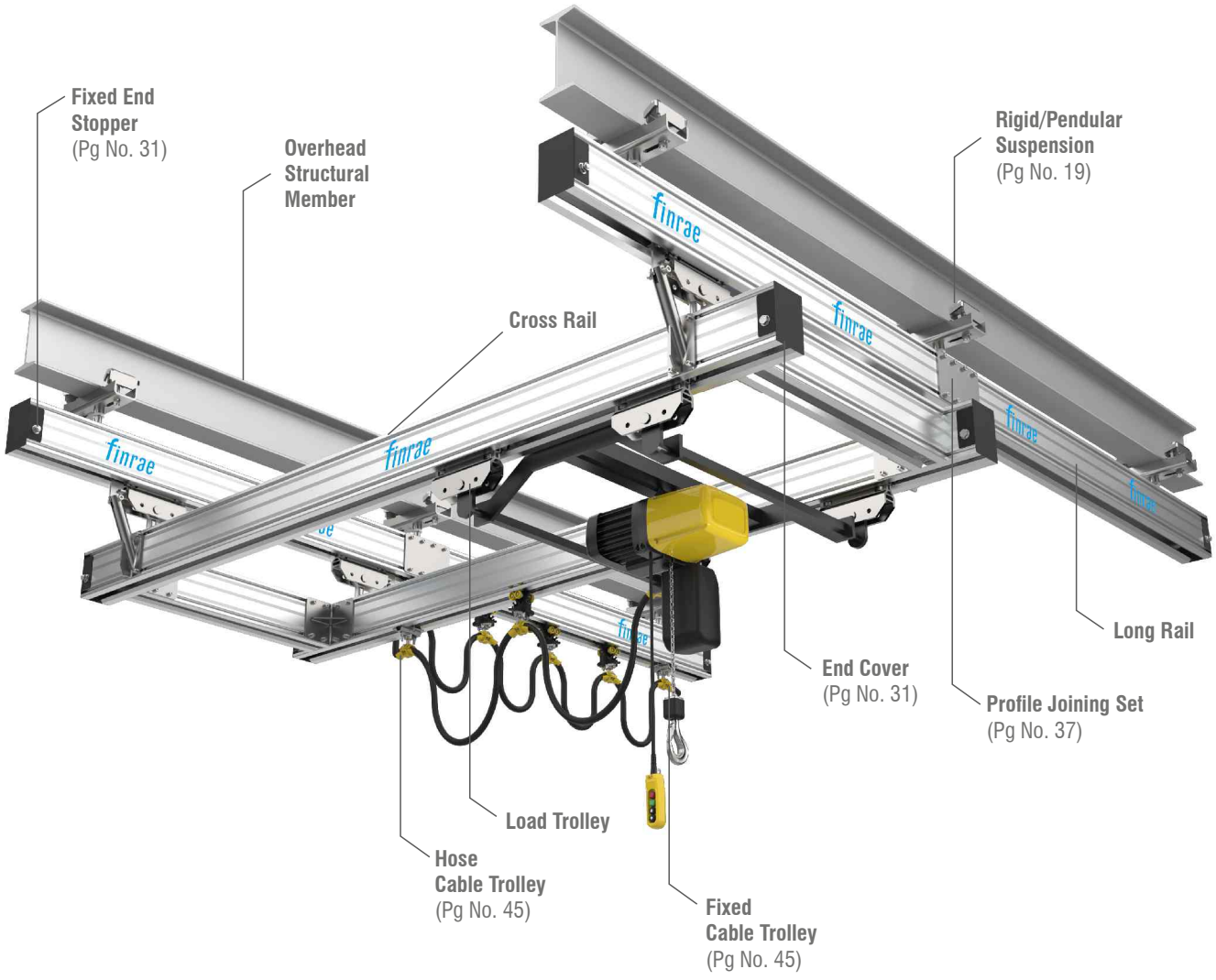


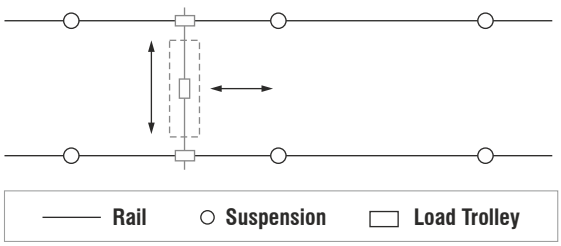


2) Schematic line diagram

DOUBLE LONG SINGLE CROSS RAIL

This configuration is also called Single Girder configuration or Single Bridge system. This configuration uses two long rails and one cross rail. This is normally used in case of lifting Hoists or balancers which need to be suspended on singe or Tandem trolley (dual trolley). This type enables movement of loads in X-Y plane. The length of rails are selected according to the area to be covered.

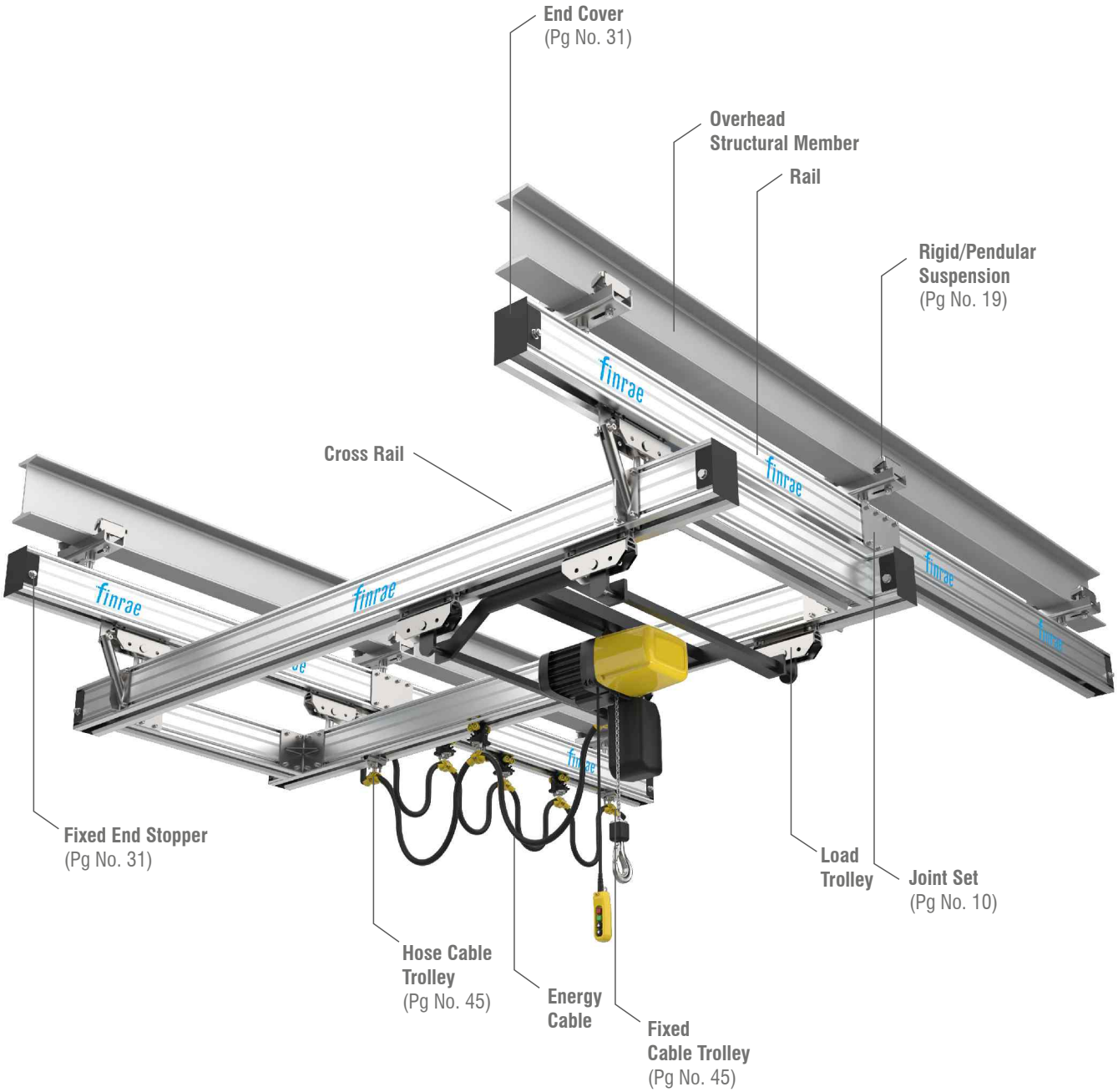


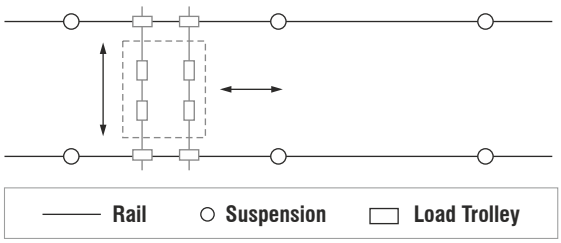


3) Schematic line diagram

DOUBLE LONG DOUBLE CROSS RAIL

This configuration is also called as Double Girder crane. This uses two long rails and two cross rails. The reason for using two cross rails instead of one is that the load carrying capacity increases and where a frame is to be suspended on four trollies. For example: articulated arm assist devices or nut runner system or customised tailor made handling devices are to be used two cross rails are needed.

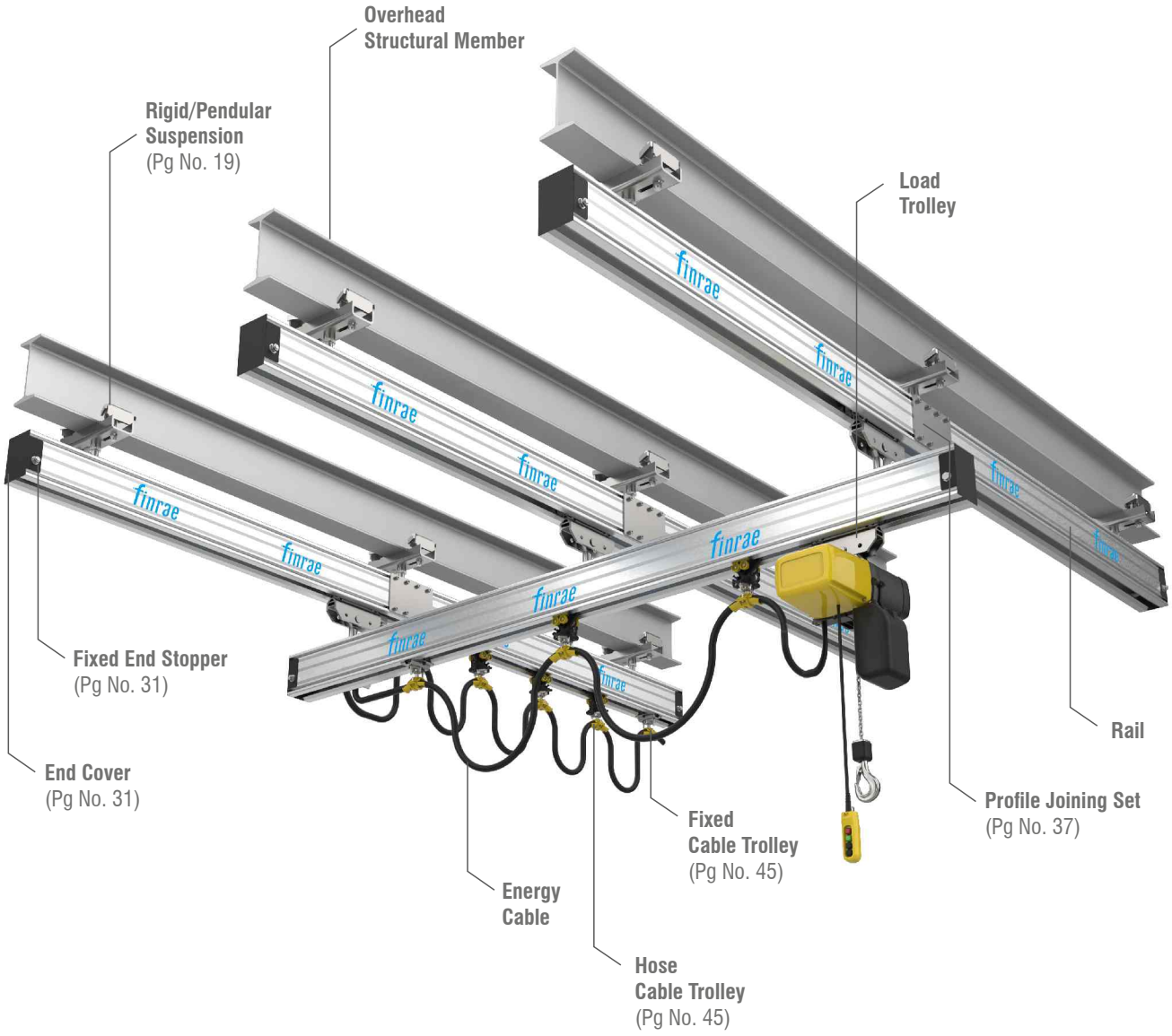


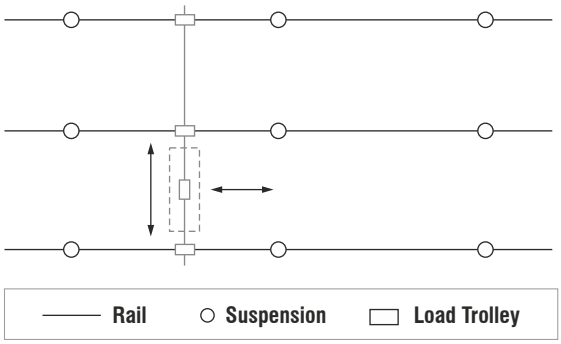


4) Schematic line diagram

TRIPLE LONG SINGLE CROSS SYSTEM

This configuration is also called Triple Runway and Single Girder. This is used where a frame for hoist or other systems to be mounted on a single cross rail.

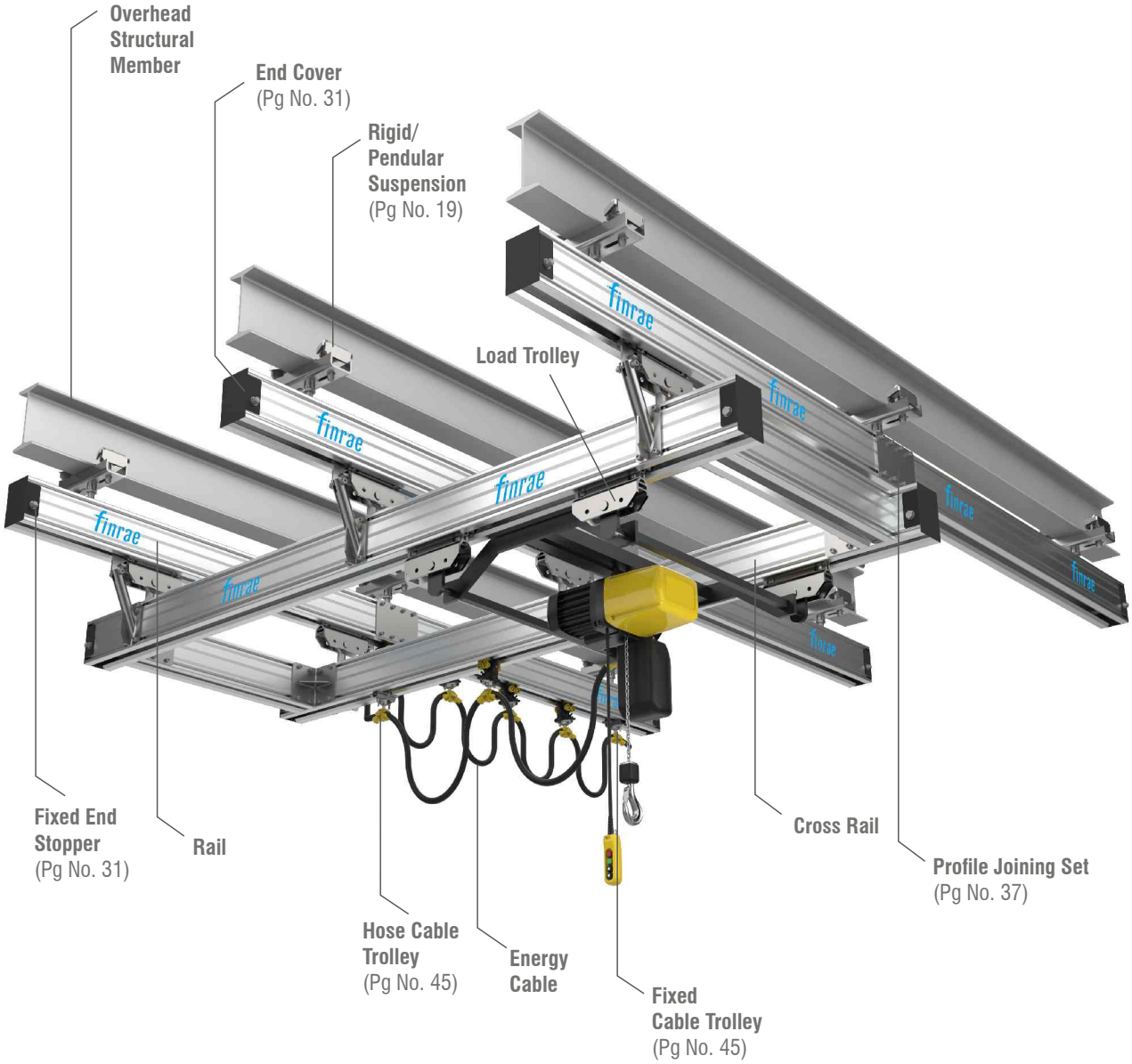


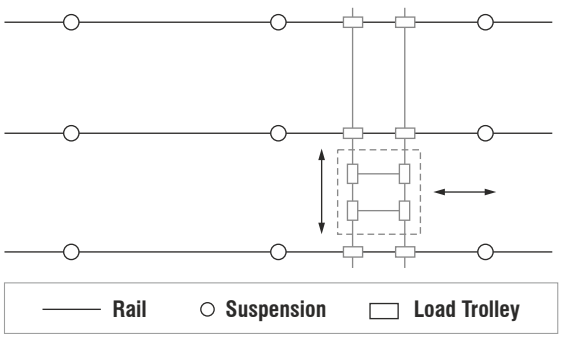


5) Schematic line diagram

TRIPLE LONG DOUBLE CROSS SYSTEM

This configuration is also called Triple Runway and Double Girder. This is used where a frame for hoist or frame for articulated handling devices or other systems are to be mounted on the cross rails.

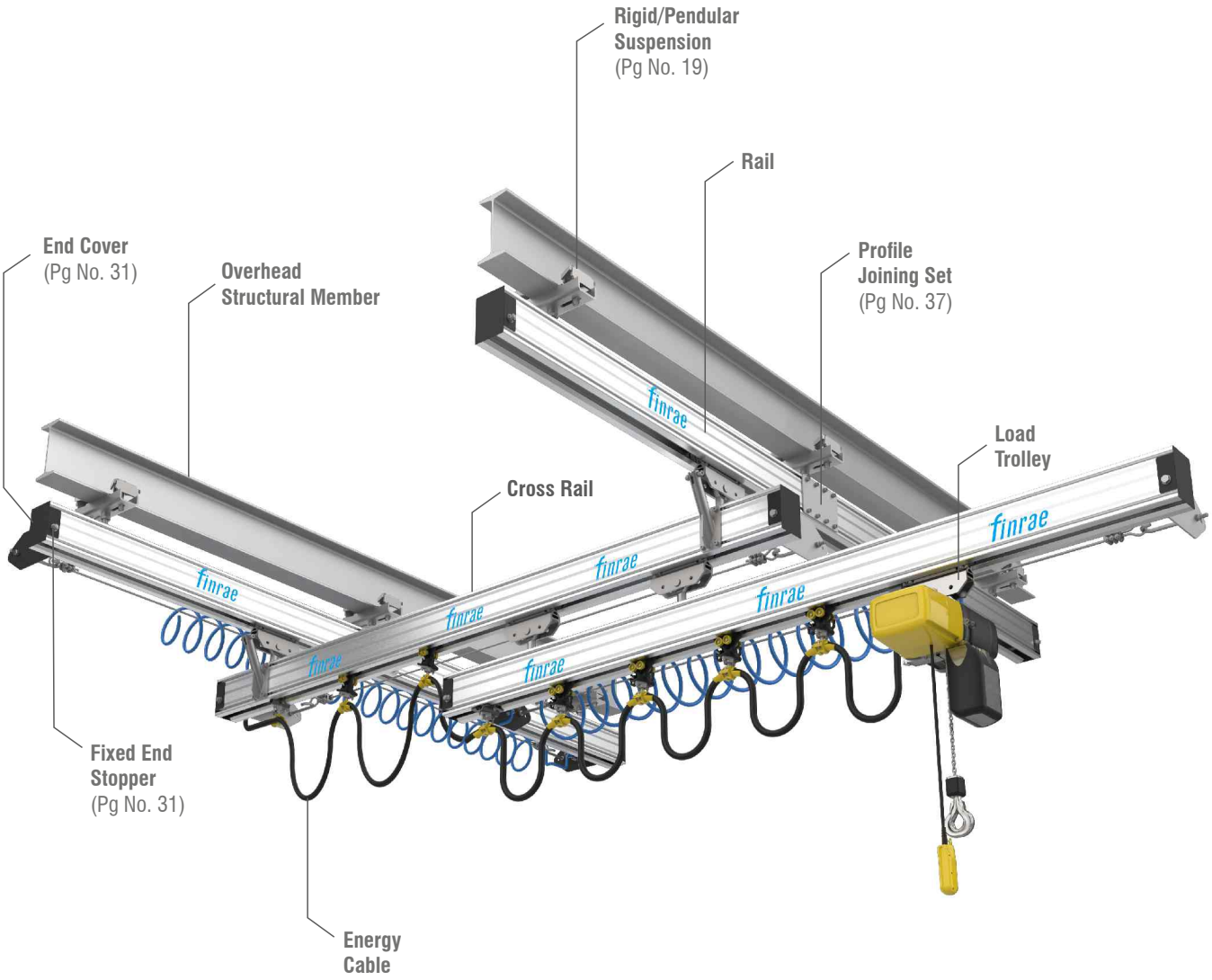


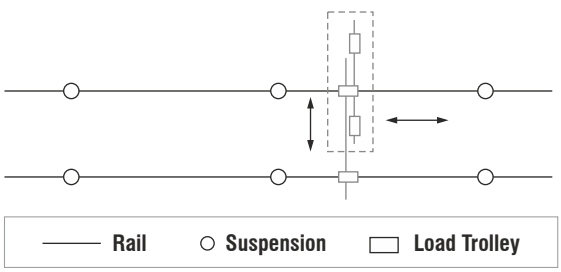


6) Schematic line diagram

TELESCOPIC SYSTEM

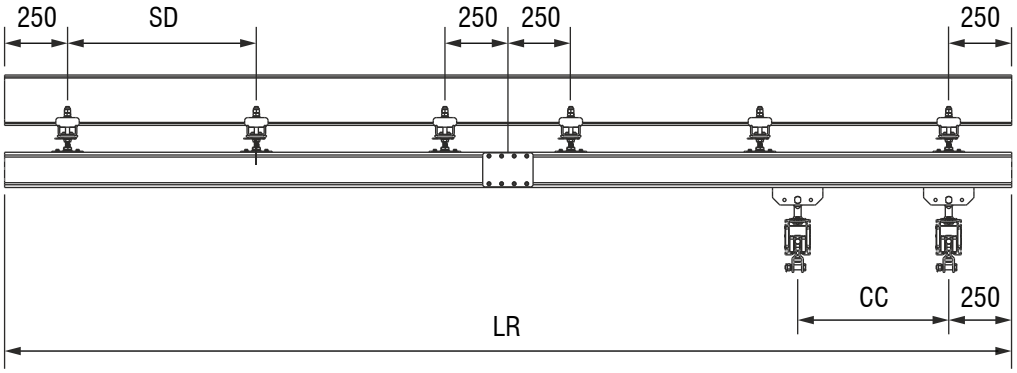
This configuration is also called Telescopic Bridge. This configuration is used where the load has to travel beyond the long rail.

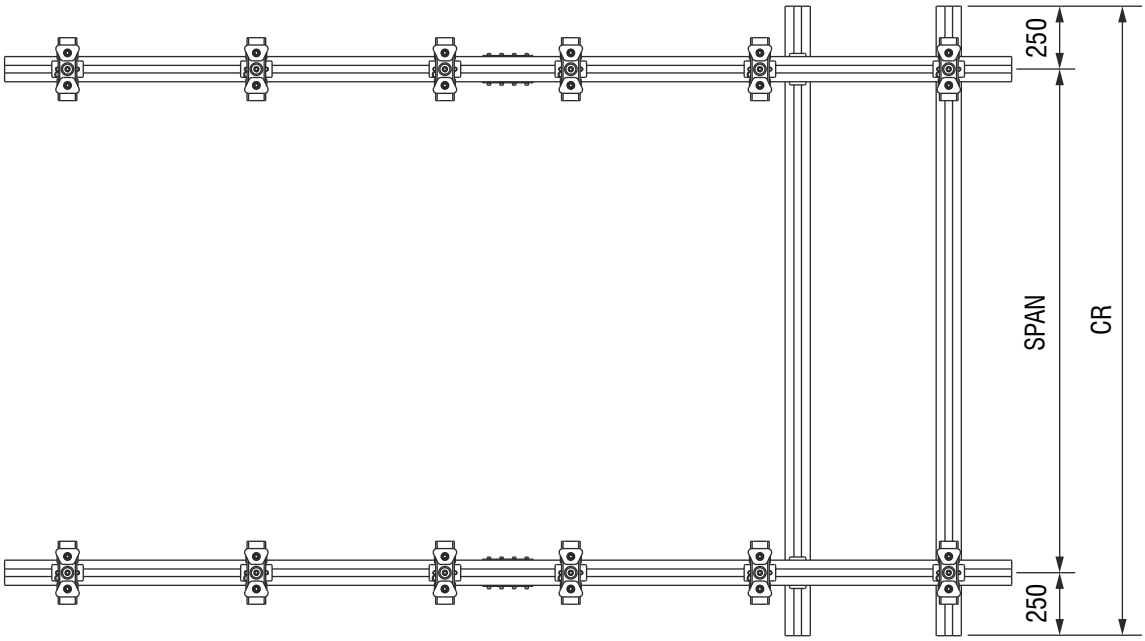


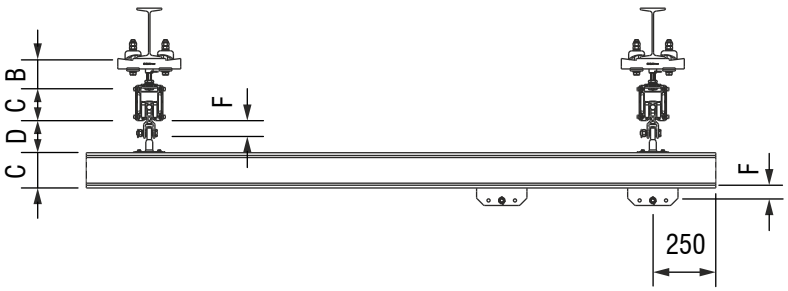


7) Schematic line diagram

Installation Details

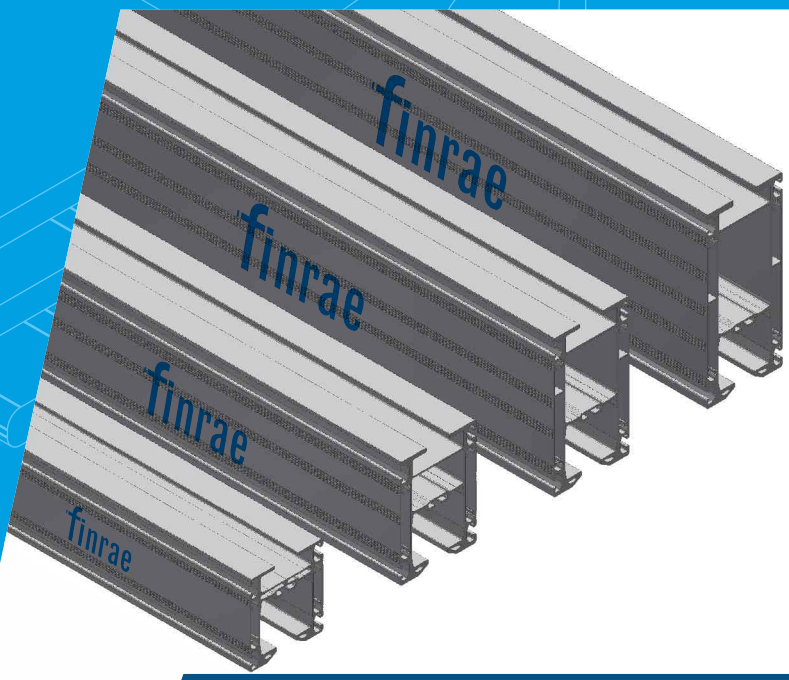






LR - Long Rail length
CR - Cross Rail length
SPAN - Center distance of 2 long rail
CC - Center distance of 2 cross rail
SD - Suspension Distance

- Two suspensions has to be installed on both sides of the rail joint (as shown above)
- Fixed Stoppers to be mounted in all rail ends



CRANE PROFILE

Rails

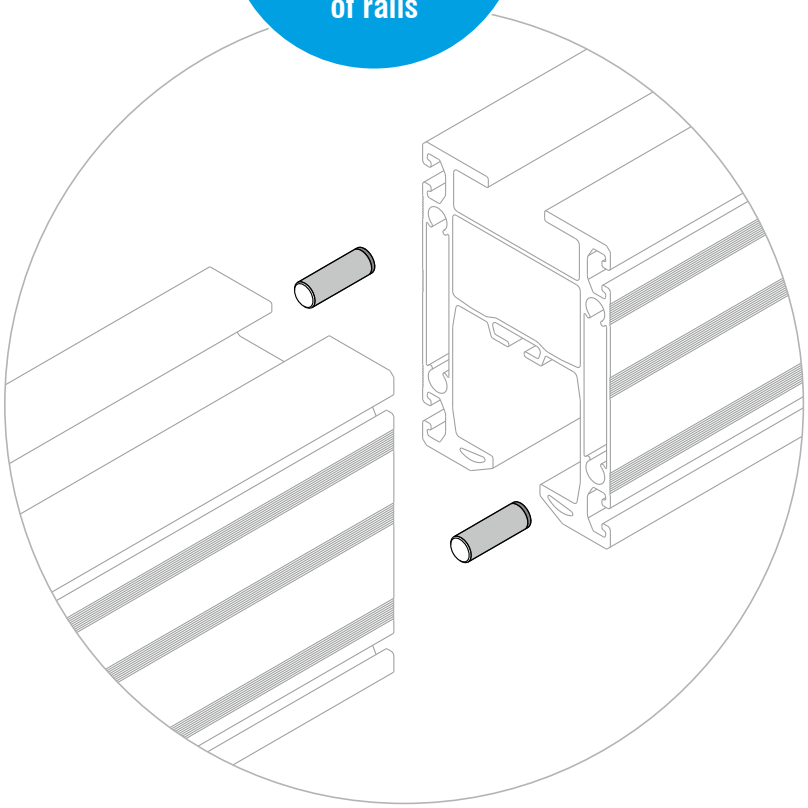
**Finrae offers highly advanced and modular rail profiles, which serves as the backbone of all the material transfer tasks.
Designed for ergonomic and easy operation, Finrae rail profiles come with very unique and innovative features.**

One of Finrae's most unique features is to join two rails with innovative Alignment Pins. This rail profiles come with built-in round pockets for Alignment Pin, which keeps two rail profiles in perfect alignment during the use of profiles under load. The Alignment Pins ensure precise and perfect alignment of the rail profiles and provides smooth movement of trolley. This also enhances the life of the rollers.

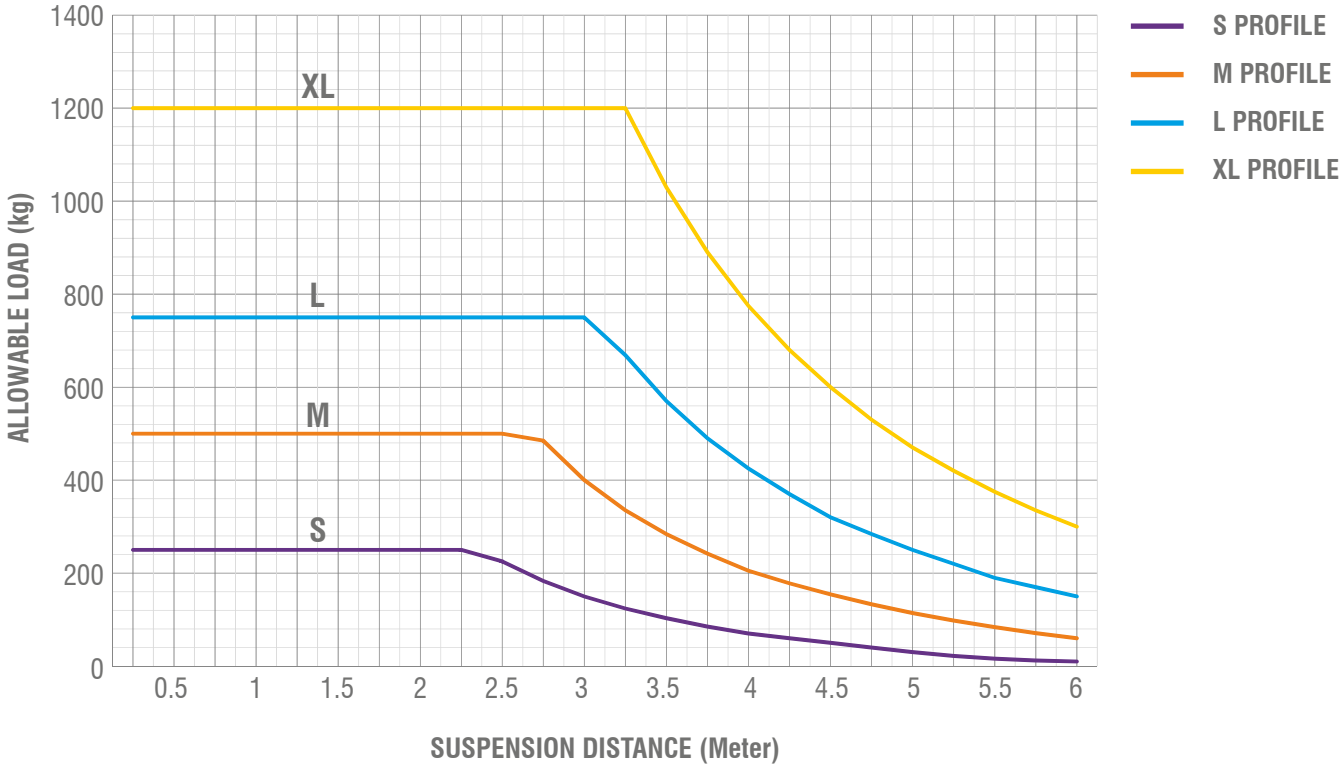
Features

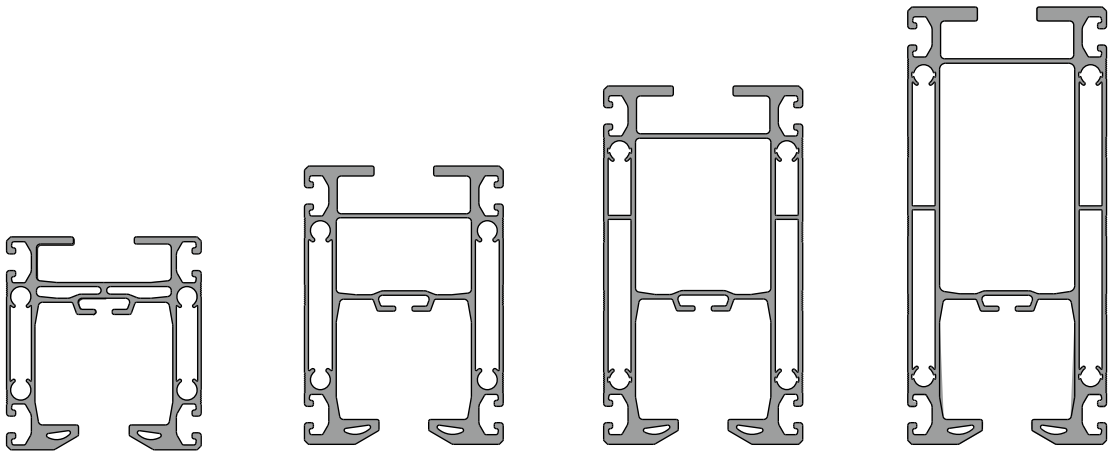
- Manufactured with superior quality Aluminium.
- Low weight to load carrying capacity ratio.
- Modular and compact design.
- Specialized Trolleys for smooth and noiseless movement.
- Ergonomic design for easy operation.
- Easy to join profiles.
- Slots running through out the length for easy addition of parts or sensors.

Special Highlight
Unique pockets and alignment pin for precise joining of rails



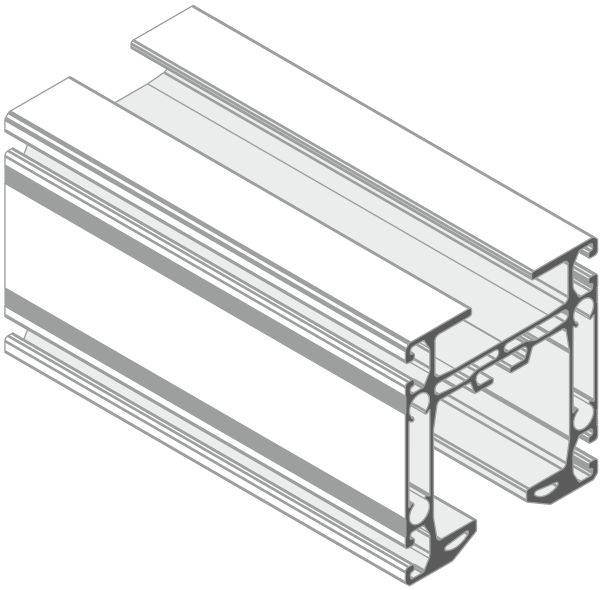
LOAD CHART

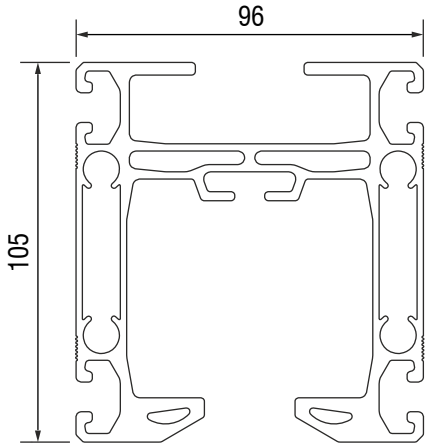




S M L XL

ALUMINIUM S PROFILE





Technical Data

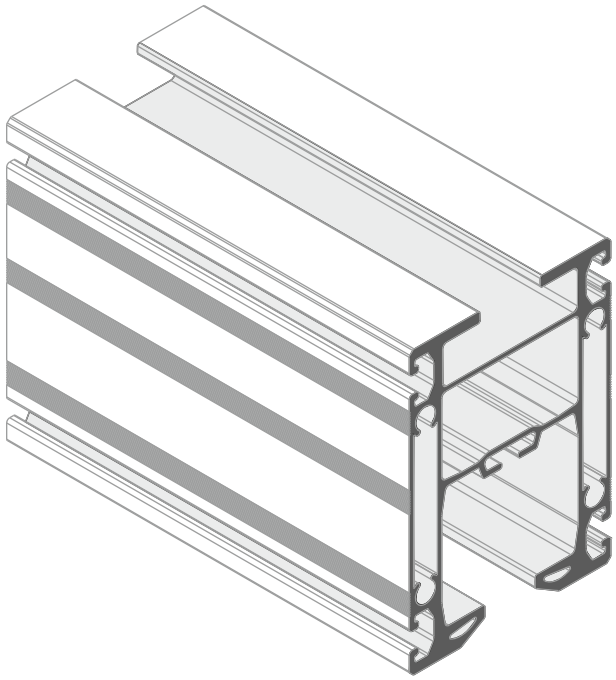
Material Data	Al 6063 T66 silver anodized 15 microns
Weight	5.581 kg/m
Moment of Plane Area Ixx/Iyy	Ixx=2636240 mm^4 Iyy=2396180 mm^4
Section Modulus Zxx/Zyy	Zxx=50690 mm^3 Zyy=49900 mm^3

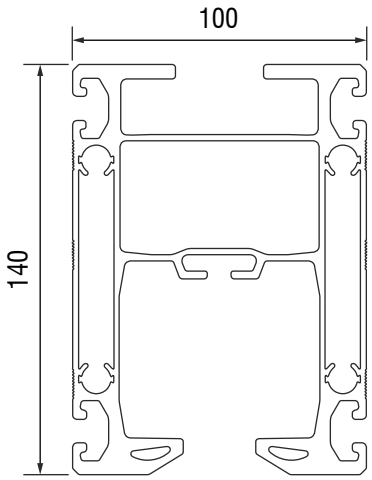
Part No.	Profile Length (mm)	Weight (kg)
1121	1000	5.58
1122	2000	11.16
1123	3000	16.74
1124	4000	22.32
1125	5000	27.91
1126	6000	33.48

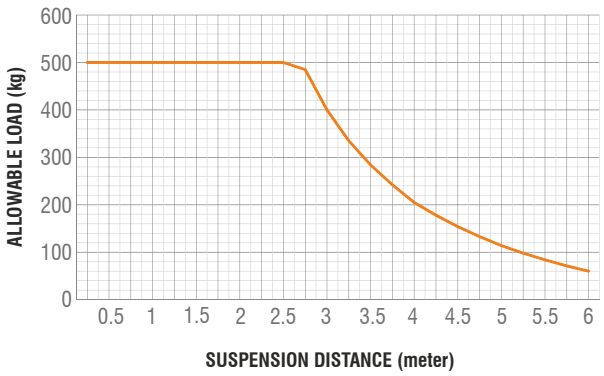
Features

- Load capacity of 250 kg for suspension distance of 2 m.
- Unique pockets for Alignment Pin which results in precise joining of two rail profiles.
- Requires minimum installation height.
- Compact design with profile of height 105 mm.
- Extremely light weight 5.581 kg/m.
- Finrae's unique 2 zigzag pattern shows identity of S Profile.

ALUMINIUM M PROFILE







Technical Data

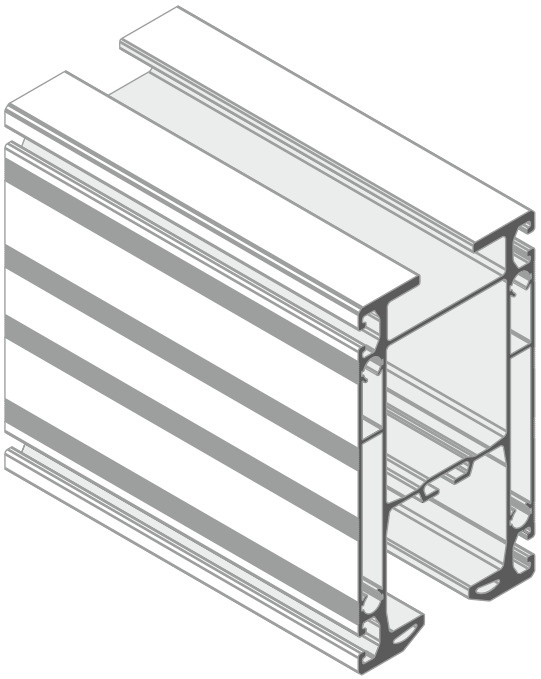
Material Data	Al 6063 T66 silver anodized 15 microns
Weight	7.55 kg/m
Moment of Plane Area Ixx/Iyy	Ixx=6677620 mm^4 Iyy=3699810 mm^4
Section Modulus Zxx/Zyy	Zxx = 93580 mm^3 Zyy = 73990 mm^3

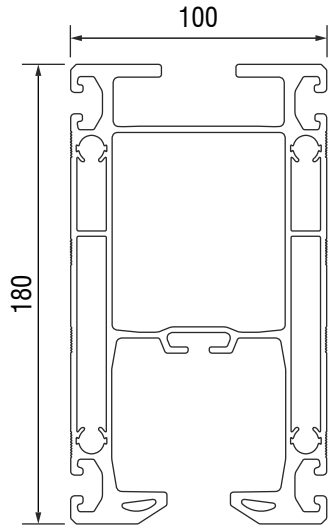
Part No.	Profile Length (mm)	Weight (kg)
1131	1000	7.55
1132	2000	15.11
1133	3000	22.65
1134	4000	30.20
1135	5000	37.75
1136	6000	45.30

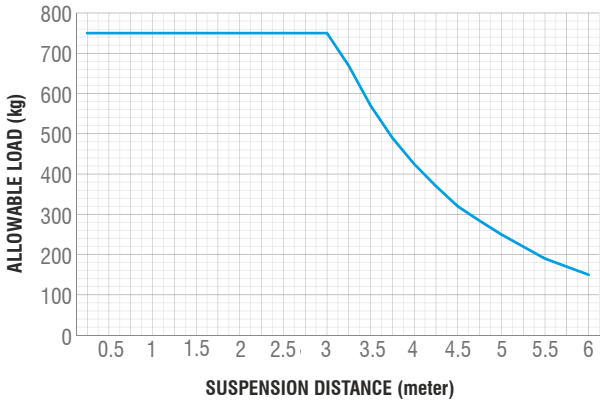
Features

- Load capacity of 500 kg for suspension distance of 2.4 m.
- Unique pockets for Alignment Pin which results in precise joining of two rail profiles.
- Compact design with profile of height 140 mm.
- Extremely light weight 7.55 kg/m.
- Finrae's unique 3 zigzag pattern shows identity of M Profile.

ALUMINIUM L PROFILE







Technical Data

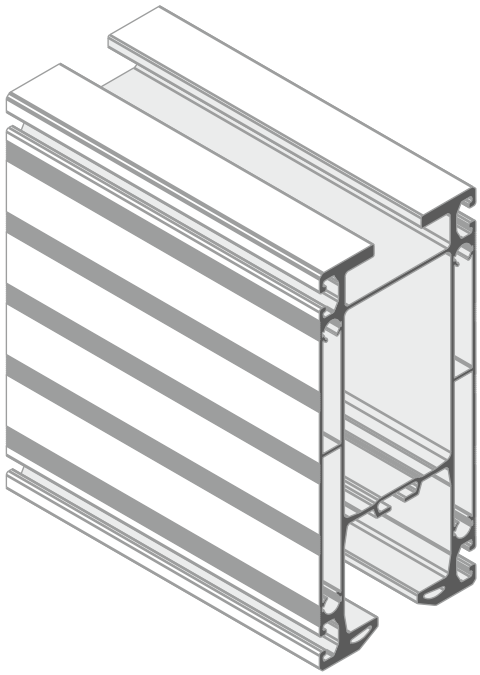
Material Data	Al 6063 T66 silver anodized 15 microns
Weight	8.89 kg/m
Moment of Plane Area Ixx/Iyy	Ixx=12913130 mm^4 Iyy=4611150 mm^4
Section Modulus Zxx/Zyy	Zxx = 140350 mm^3 Zyy = 92200 mm^3

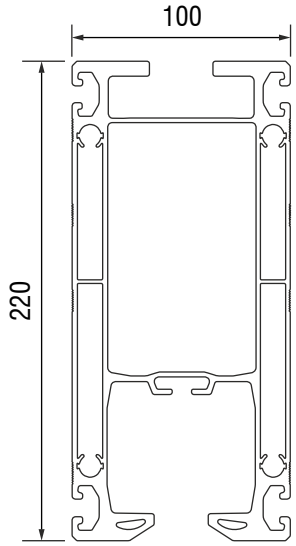
Part No.	Profile Length (mm)	Weight (kg)
1141	1000	8.89
1142	2000	17.78
1143	3000	26.67
1144	4000	35.56
1145	5000	44.45
1146	6000	53.34

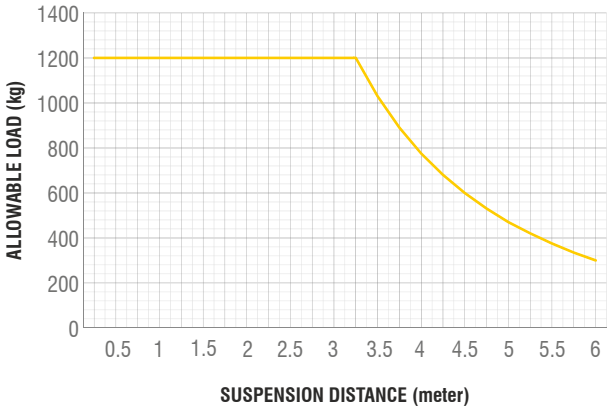
Features

- Load capacity of 750 kg for suspension distance of 2.7 m.
- For load above 600 kg Tandem trolley must be used.
- Unique pockets for Alignment Pin which results in precise joining of two rail profiles.
- Compact design with profile of height 180 mm.
- Profile weight 8.89 kg/m.
- Finrae's unique 4 zigzag pattern shows identity of L Profile.

ALUMINIUM XL PROFILE







Technical Data

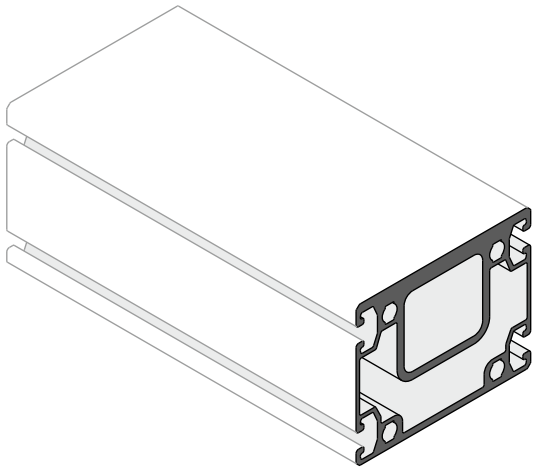
Material Data	Al 6063 T66 anodised 15 microns
Weight	10.311 kg/m
Moment of Plane Area Ixx/Iyy	Ixx=22906500 mm^4 Iyy=5452850 mm^4
Section Modulus Zxx/Zyy	Zxx = 204686 mm^3 Zyy = 109057 mm^3

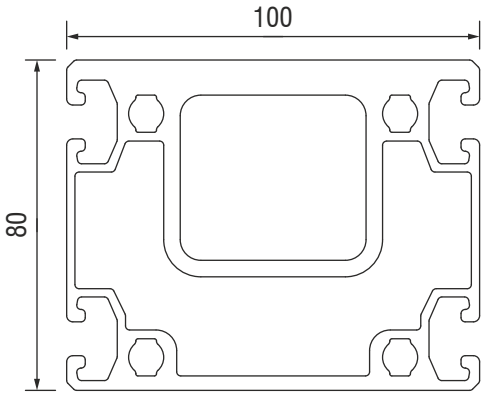
Part No.	Profile Length (mm)	Weight (kg)
1151	1000	10.31
1152	2000	20.62
1153	3000	30.93
1154	4000	41.24
1155	5000	51.55
1156	6000	61.86

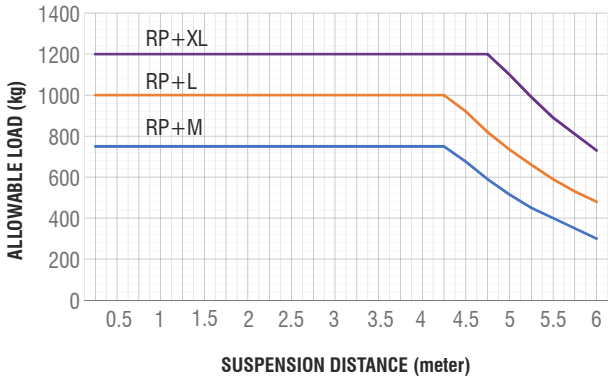
Features

- Load capacity of 1200 kg for suspension distance of 2.9 m.
- For loads over 600 kg tandem trolley must be used.
- Unique pockets for Alignment Pin which results in precise joining of two rail profiles.
- Compact design with profile of height 220 mm.
- Profile weight 10.311 kg/m.
- Finrae unique 5 zigzag pattern shows identify of XL Profile.

REINFORCEMENT PROFILE







Technical Data

Material Data	Al 6063 T66 anodised 15 microns
Weight	6.4 kg/m
Moment of Plane Area Ixx/Iyy	Ixx=1956108 mm^4 Iyy=2281210 mm^4
Section Modulus Zxx/Zyy	Zxx = 48902 mm^3 Zyy = 45624 mm^3

Part No.	Profile Length (mm)	Weight (kg)
1211	1000	6.40
1212	2000	12.80
1213	3000	19.21
1214	4000	25.61
1215	5000	32.02
1216	6000	38.42

Features

- To reinforce capacities of Rail Profiles M, L and XL.
- Reduce deflection.
- To provide higher suspension distance or higher working loads.

Moment of Plane Area Ixx Reinforcement Rail Combinations

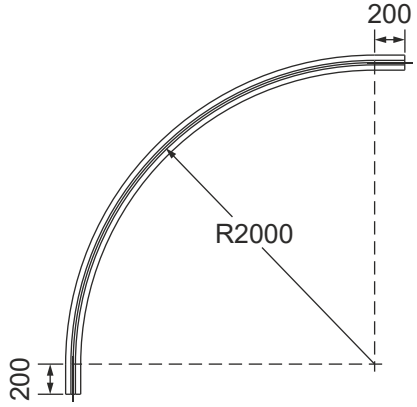
Ixx RP+M =26435100 mm^4
Ixx RP+L = 41278300 mm^4
Ixx RP+XL =61590400 mm^4

CURVED RAILS

This configuration is used where the loads are transferred in a closed loop. This can also be used in monorail open loop with forward and return option (Electrical / Manual).

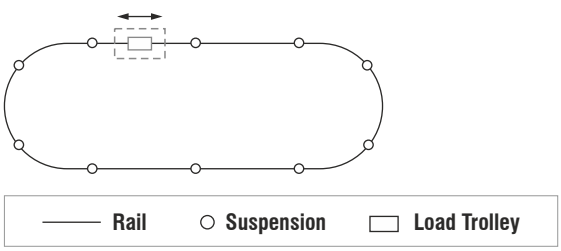
Technical Data

Part No.	Curved Segment	Radius (mm)	Weight (kg)
1320	Profile S	2000	20.40
1330	Profile M	2000	27.62
1340	Profile L	2000	32.49
1350	Profile XL	2000	37.69

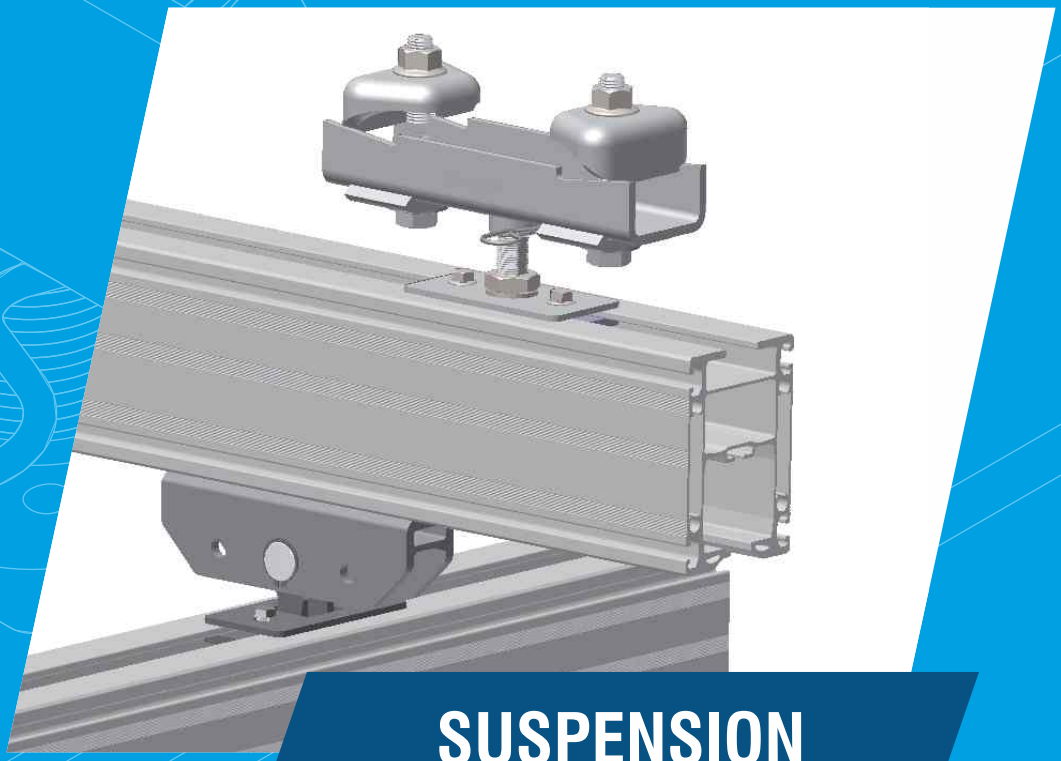


Features

- Curved rails are design for S, M, L, XL profiles.
- Mostly these rails are used to form curve segments and curve loops.



8) Schematic line diagram



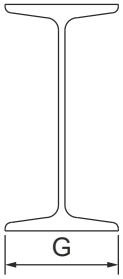
SUSPENSION

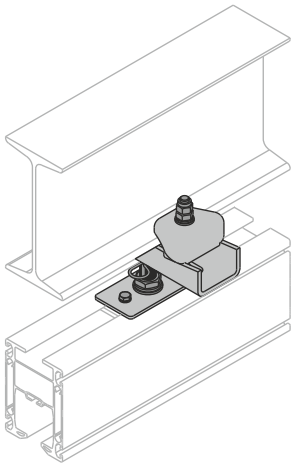
SUSPENSION

Suspensions are used to mount Rail Profile below the overhead structure. Once the Suspension are clamped with I-beam the rails are then mounted below the suspension.

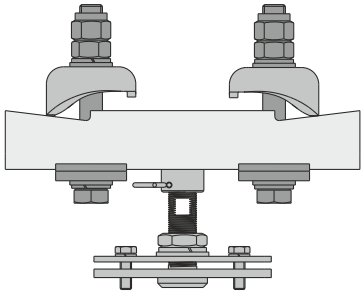
Finrae provide two types of Suspension:

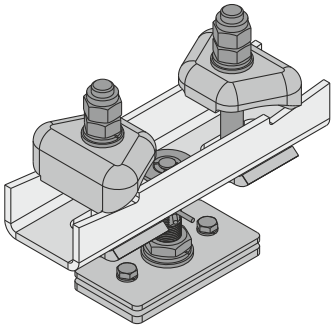
1) Rigid Suspension 2) Pendular Suspension





Rigid Suspension





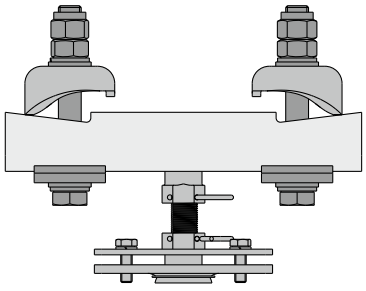
Technical Data

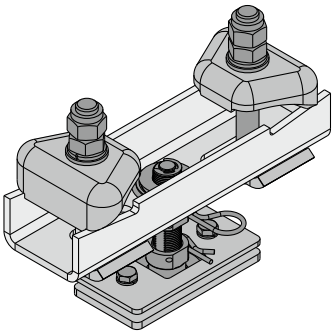
Part No.	Load Capacity (kg)	Weight (kg)	Flange Width G (mm)
1410	2000	4.5	80-150
1420	2000	4.6	150-190
1430	2000	4.8	250-300

Features

- This type of Suspension does not allow the swivel movement. These Suspension are used where upward directed forces may occur.
- Flexibility of adjusting height.
- These suspensions are used where the rail profile is needed to be held rigidly. Especially used if forces/loads in upward as well as downward direction are acting.

Pendular Suspension



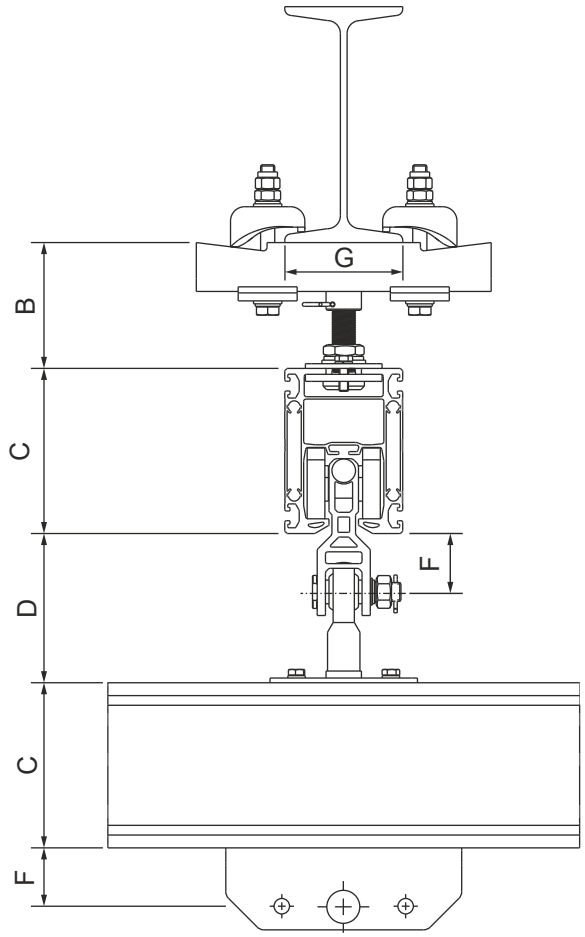


Technical Data

Part No.	Load Capacity (kg)	Weight (kg)	Flange Width G (mm)
1510	2000	4.5	80-150
1520	2000	4.5	150-190

Features

- This type of Suspension allow the swivel movement.
- Flexibility of adjusting height.
- Used where the swing helps smooth movement of hoists.

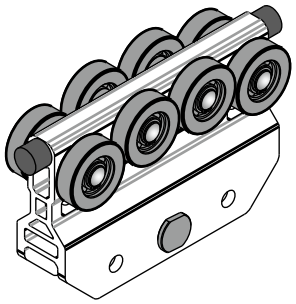


Suspension height details during mounting of Long Rail and Cross Rail (All Dimensions are in mm)

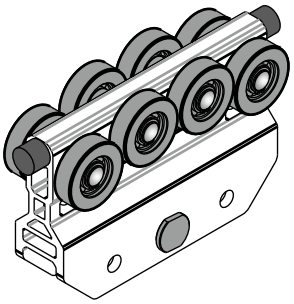
Profile	Height Adjustment B min/B max	Rail Profile (C)	Long Rail Bottom to Cross Rail Top (D)	Rail Bottom to Trolley Pin Axis (F)
S	85-105	105	127	49.8
M	85-105	140	127	49.5
L	85-105	180	127	49.5
XL	85-105	220	127	49.5

TROLLEY

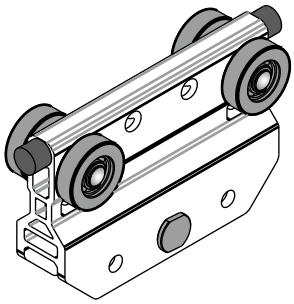
LOAD TROLLEY



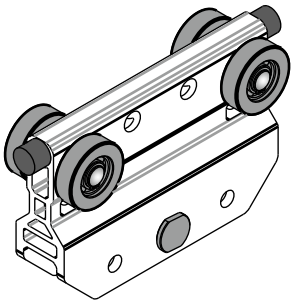
Part No.1680



Part No.1682



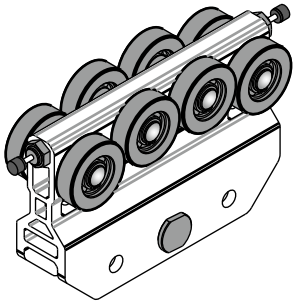
Part No.1640



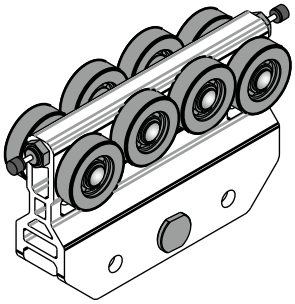
Part No.1642

Technical Data

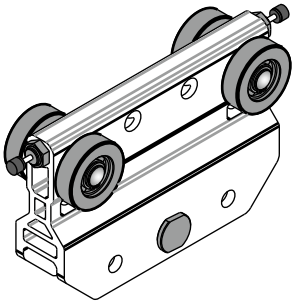
Part No.	Description	Capacity (kg)	Weight (kg)
1680	8 Main Roller 0 Side Roller with Bumper	600	2.3
1682	8 Main Roller 2 Side Roller with Bumper	600	2.3
1640	4 Main Roller 0 Side Roller with Bumper	300	1.9
1642	4 Main Roller 2 Side Roller with Bumper	300	1.9



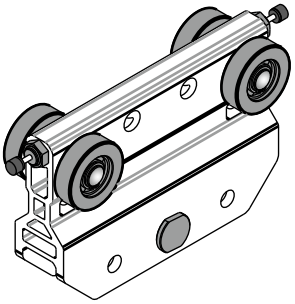
Part No.1780



Part No.1782



Part No.1740

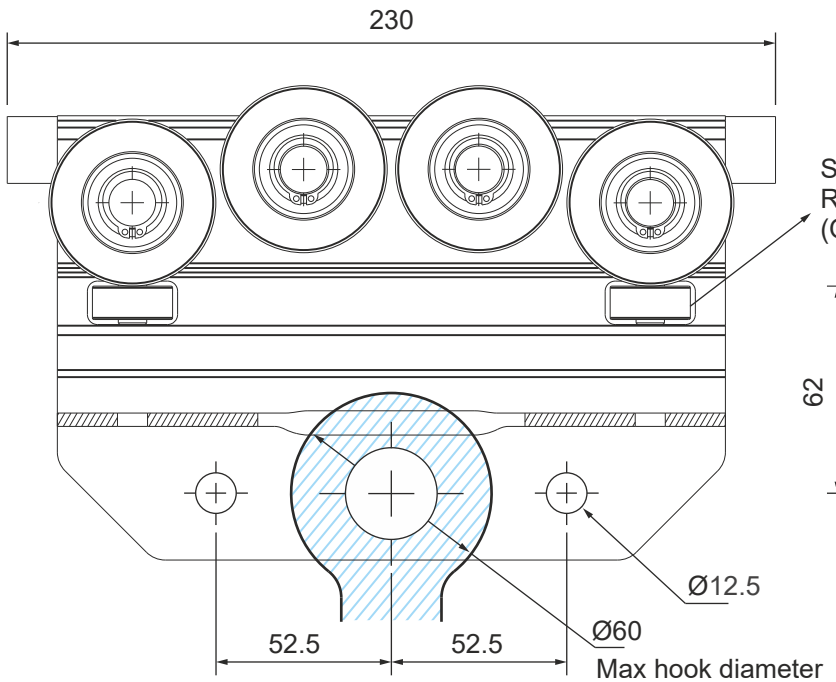


Part No.1742

Technical Data

Part No.	Description	Capacity (kg)	Weight (kg)
1780	8 Main Roller 0 Side Roller with Shock Absorber	600	2.3
1782	8 Main Roller 2 Side Roller with Shock Absorber	600	2.3
1740	4 Main Roller 0 Side Roller with Shock Absorber	300	1.9
1742	4 Main Roller 2 Side Roller with Shock Absorber	300	1.9

LOAD TROLLEY



(All Dimensions are in mm)

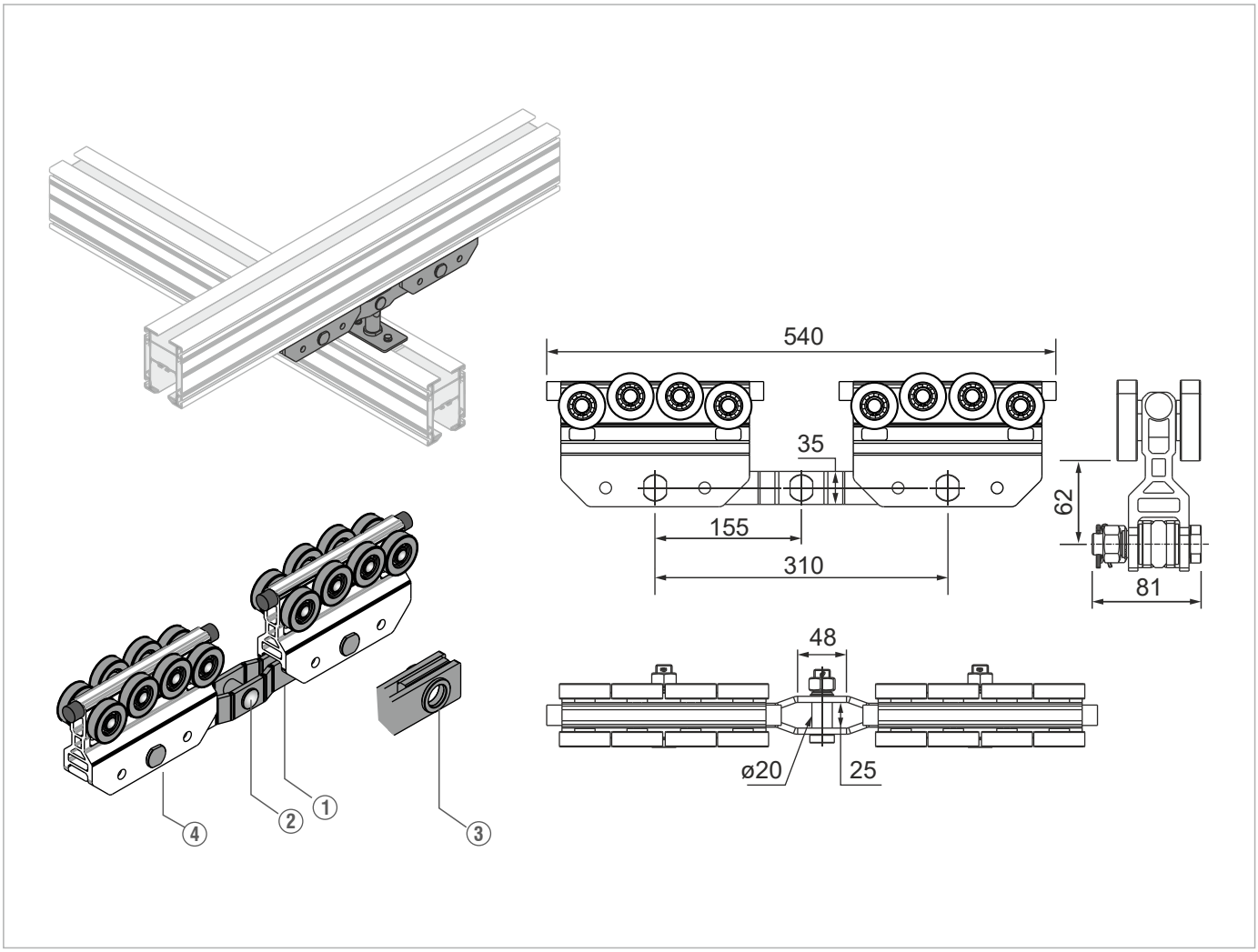
Technical Data

Material Data	Al 6063 T66 anodised 15 microns
Weight	2.3 kg
Load Pin Diameter	20 mm
Max. Hook Diameter	60 mm
Max. Hook Width	28 mm

Features

- High quality Aluminium extrusion body.
- Smooth movement and noiseless operations.
- Finrae trolley are best suitable for direct acting loads.
- Finrae trolley comes with Built-in rubber bumper or shock absorber within the trolley.
- Roller with patented material for smooth rolling.

TANDEM TROLLEY FOR GIRDER



Features

- With optimum arrangement of two trolley it can take loads up to 1200 kg.
- Robust and sturdy construction for heavy load operation.
- Smooth and silent movement, even for heavy loads.
- Tandem trolley for girder can be equipped with 0°, 90° girder.
- Very low break-away forces.
- With rubber bumper or shock absorber.

Technical Data

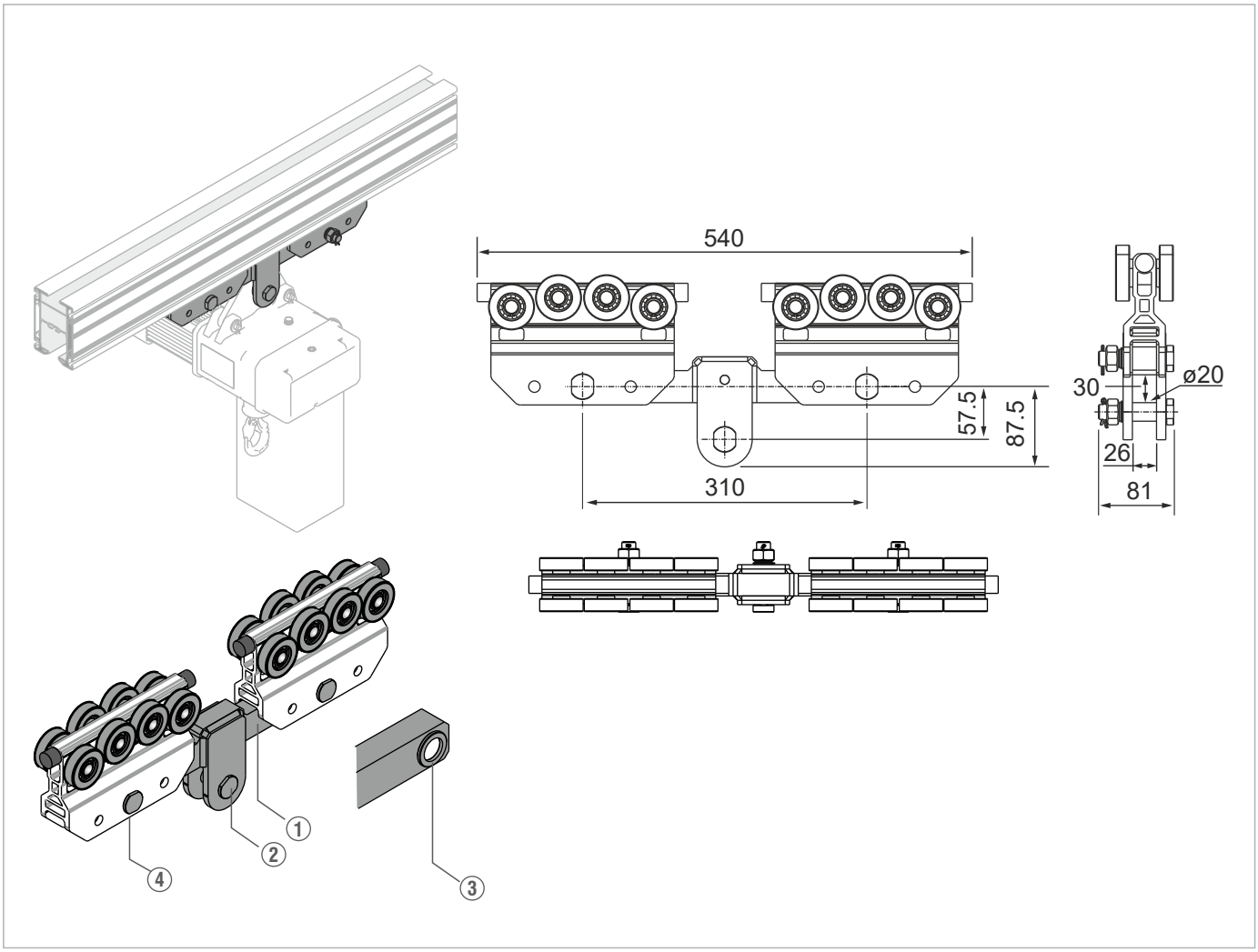
Part No.	Load Capacity (kg)	Weight (kg)
1810	1200	6.2

Scope of Supply

Item	Description	Quantity
1	Girder Bracket	1
2	Girder Pin	1
3	Girder Spacer	4
4	Load Trolley (As per model selected)	2

Refer pg. no. 24 for load trolley model selection

TANDEM TROLLEY FOR LIFTING UNIT



Features

- With optimum arrangement of two trolley it is mainly designed to carry hoist.
- Load carrying capacity of up to 1200 kg.
- Smooth movement and noiseless operations.
- With rubber bumper or shock absorber.

Technical Data

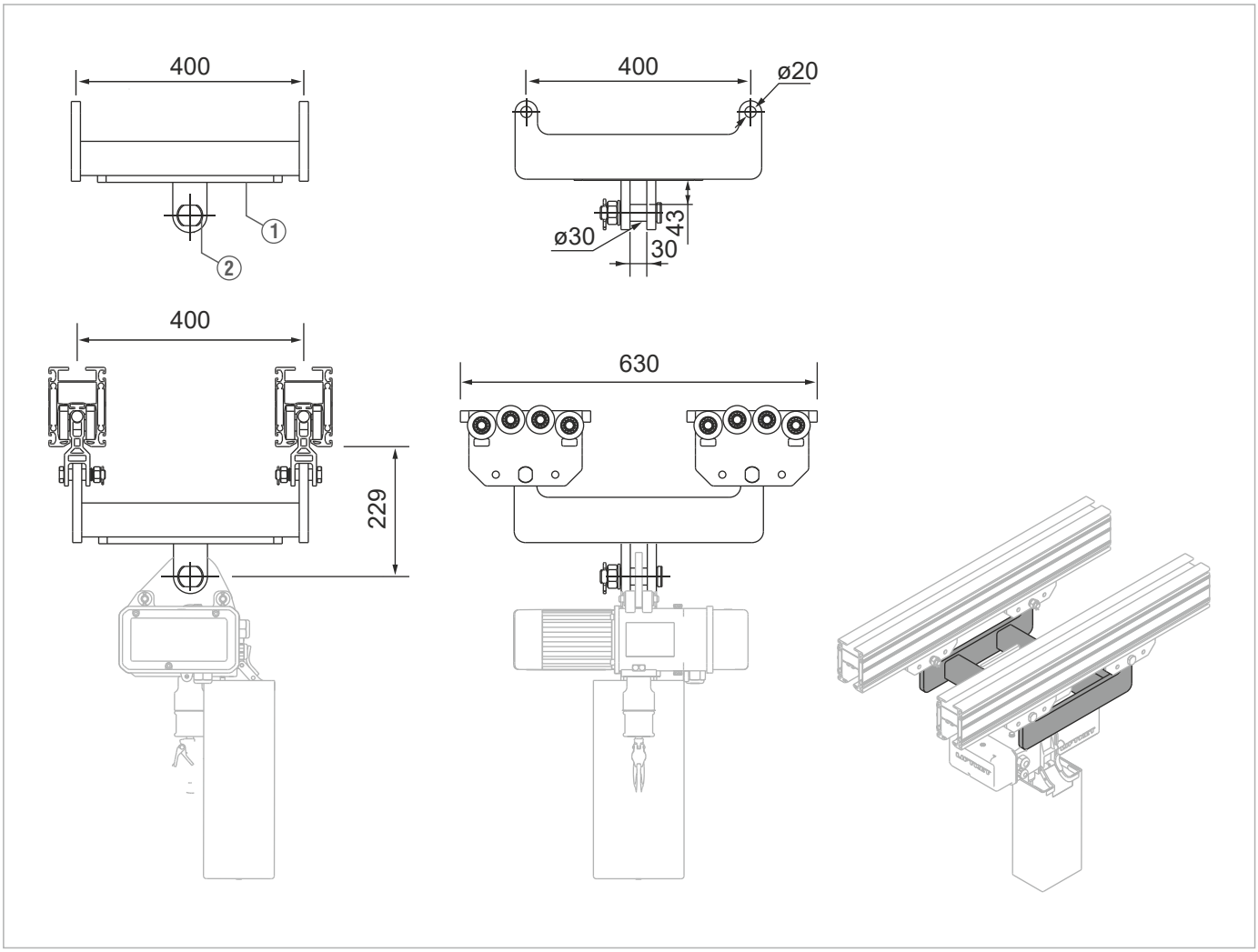
Part No.	Load Capacity (kg)	Weight (kg)
1820	1200	6.3

Scope of Supply

Item	Description	Quantity
1	Lifting Unit Bracket	1
2	Lifting Unit Pin	1
3	Lifting Unit Spacer	4
4	Load Trolley (As per model selected)	2

Refer pg. no. 24 for load trolley model selection

TRAVELING FRAME



Technical Data

Part No.	Load Capacity (kg)	Weight (kg)
1830	1200	6.3

Scope of Supply

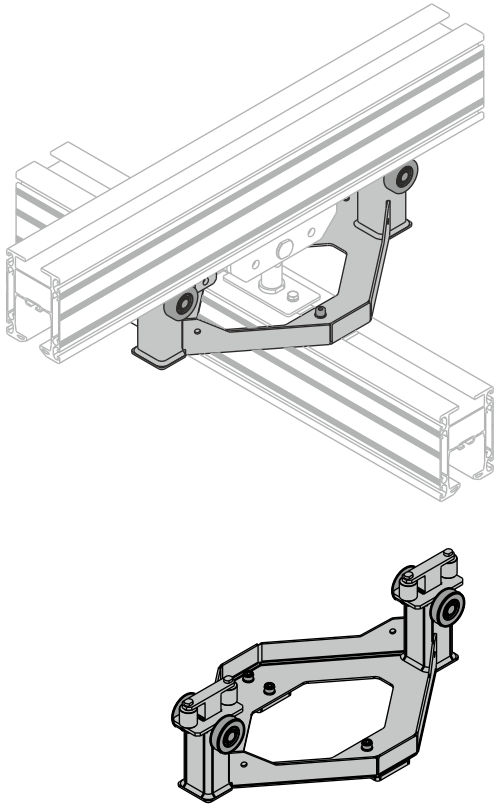
Item	Description	Quantity (nos)
1	Travel Unit Bracket	1
2	Travel Unit Pin	1

*Hoist is not included in Scope of Supply

Features

- With optimum arrangement of two trolley it is mainly designed to carry hoist.
- Load carrying capacity of up to 1200 kg.
- Smooth movement and noiseless operations.

ANTI-ROTATION BRACKET FOR BRIDGE



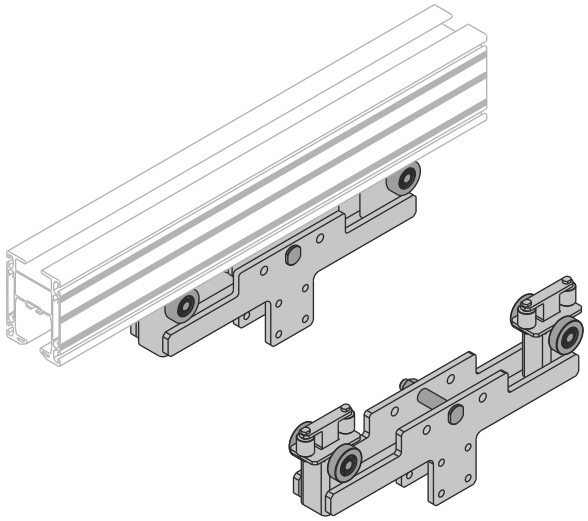
Technical Data

Part No.	Weight (kg)
1910	5.0

Features

- Anti-roration bracket absorb torque forces.
- It is optimum for screw applications.
- It is mostly used in Single Girder crane bridge.
- It provides precise positioning by avoiding traversal of crane bridge.

ANTI-ROTATION BRACKET FOR ARM



Technical Data

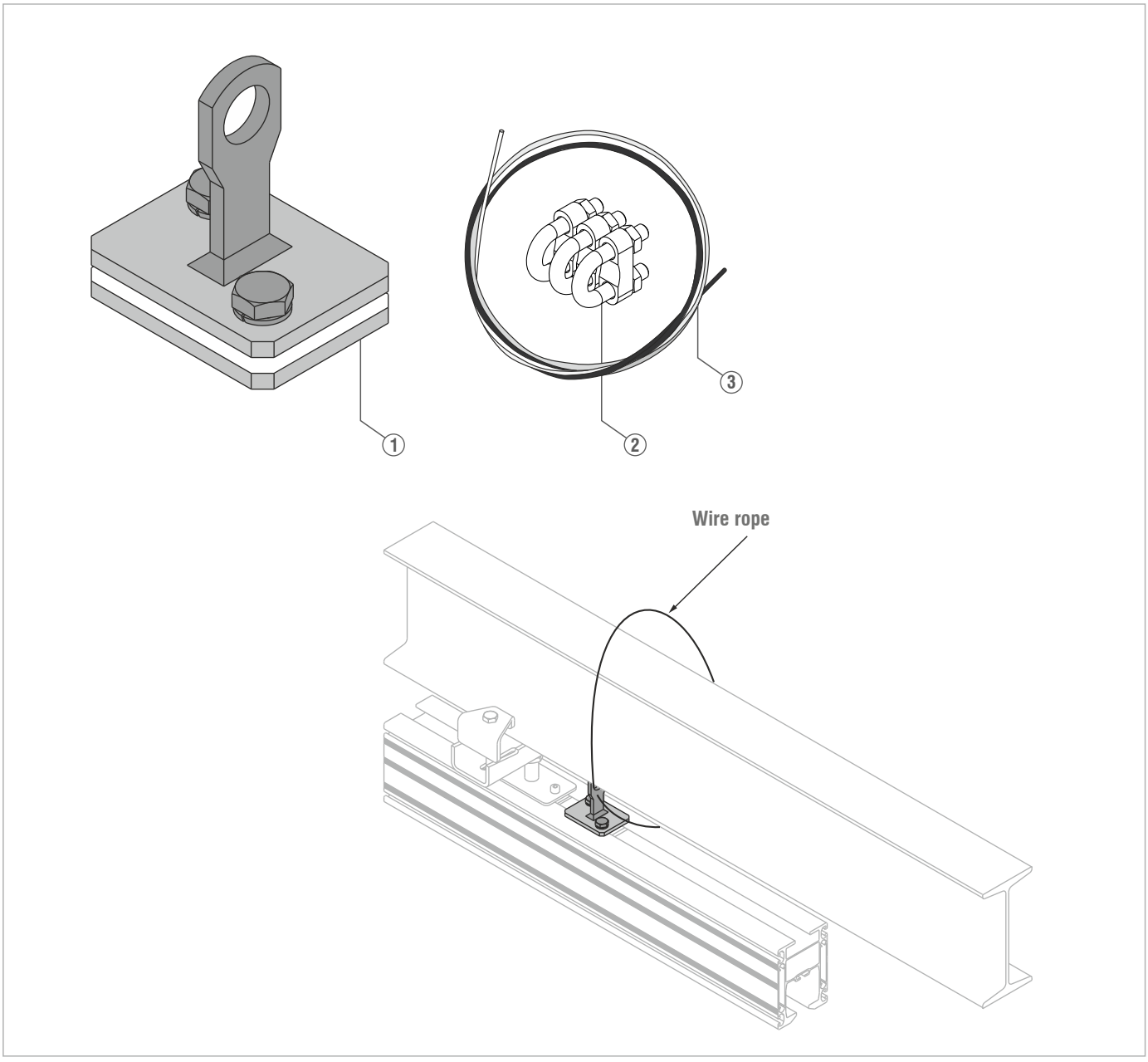
Part No.	Weight (kg)
1920	5.4

Features

- Anti-rotation bracket for arm is mostly used for screw torque application.
- It allows transmission of torque in rail track.

SAFETY SYSTEM

LONG RAIL SAFETY GIRDER



Technical Data

Part No.	Weight (kg)
2010	0.6

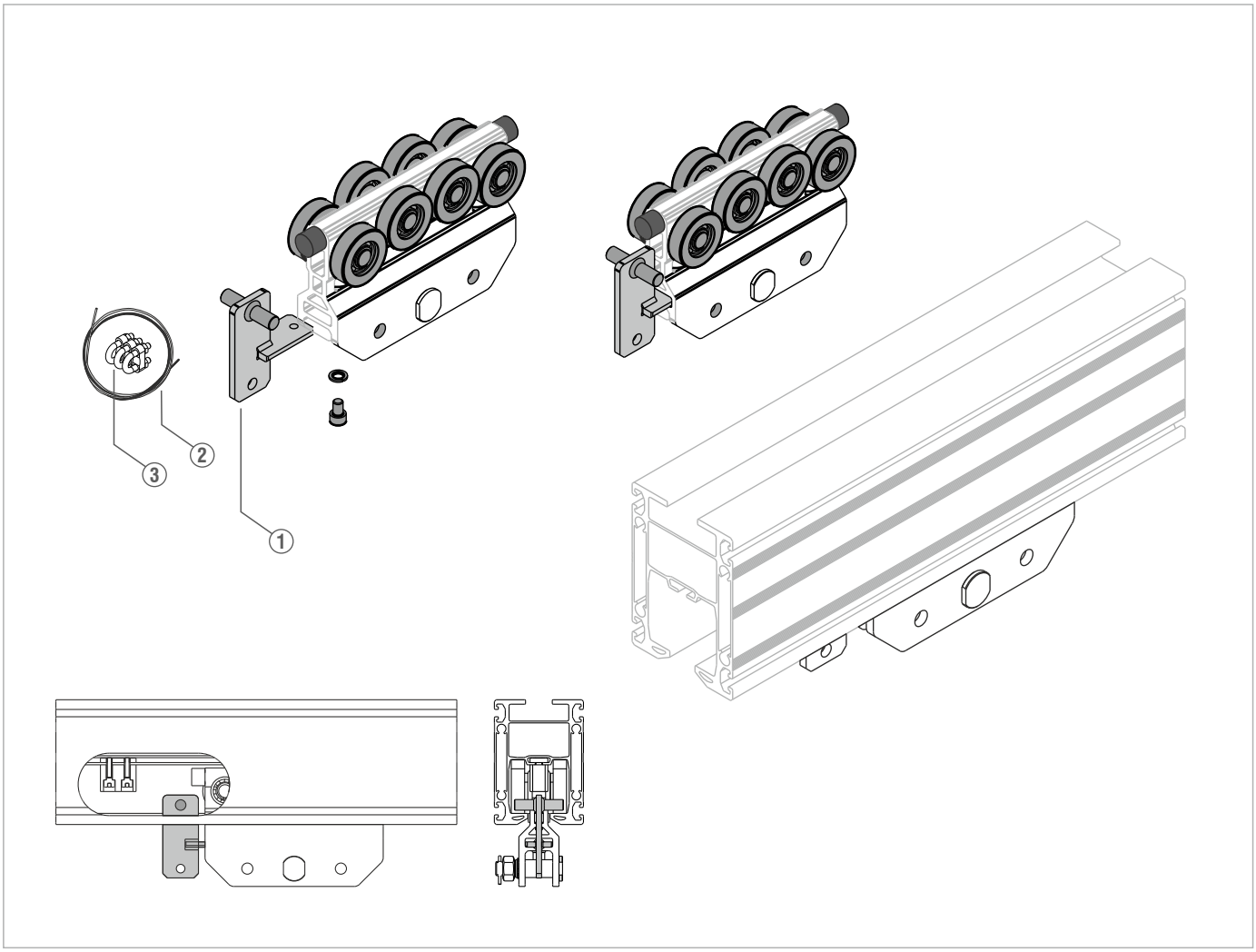
Scope of Supply

Item	Description	Quantity (nos.)
1	Long Rail Safety Girder Bracket	1
2	U Clip	3
3	Wire Rope Diameter 6mm Length 1.5m	1

Features

- Long Rail Safety Girder is the primary safety unit.
- The safety girder is mounted above the rail.
- The wire rope unit is then wound to I-beam with safety girder.
- Safety girder are mounted near each suspension.

LOAD TROLLEY SAFETY GIRDER



Technical Data

Part No.	Weight (kg)
2110	0.3

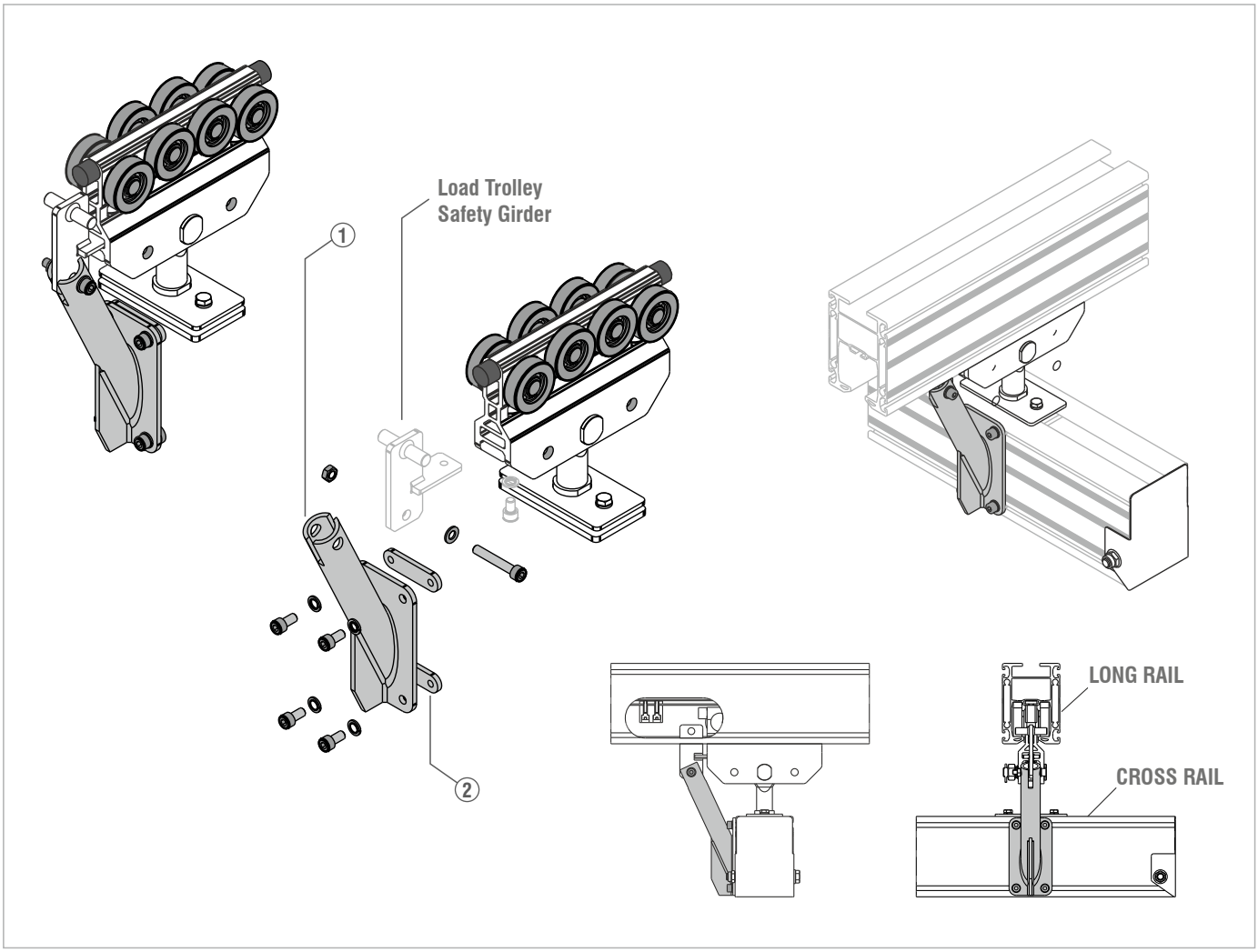
Scope of Supply

Item	Description	Quantity (nos.)
1	Load Trolley Safety Girder Bracket	1
2	U Clip	3
3	Wire Rope Diameter 6mm Length 0.3m	1

Features

- Load Trolley Safety Girder is used for long rail system.
- The Load Trolley safety girder bracket is connected to the load trolley with allen bolt.
- In case of Load Trolley failure, Load Trolley Safety Girder will hold the rail profile.

CROSS RAIL SAFETY GIRDER



Scope of Supply

Item	Description	Quantity (nos.)
1	Cross Rail Safety Girder Bracket	1
2	Cross Rail Safety Girder Back Plate	2

Technical Data

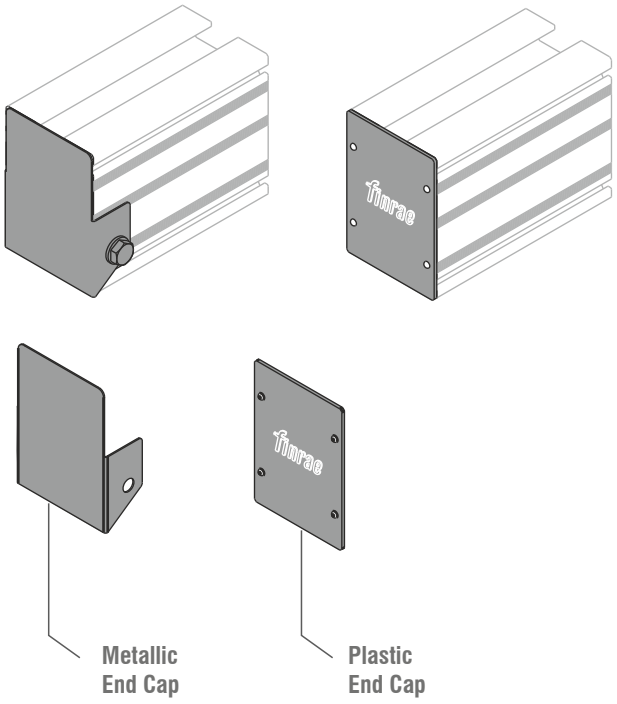
Part No.	Profile	Weight (kg)
2220	S	1
2230	M	1.3
2240	L	1.5
2250	XL	1.7

Features

- Cross Rail Safety Girder is used for cross rail system.
- The load trolley safety bracket is connected to load trolley & cross rail safety bracket is connected to cross rail. Both the brackets are connected together with nut & bolt.
- This safety system ensures the safety of cross rail with load trolley of long rail.

ACCESSORIES

PROFILE END CAP



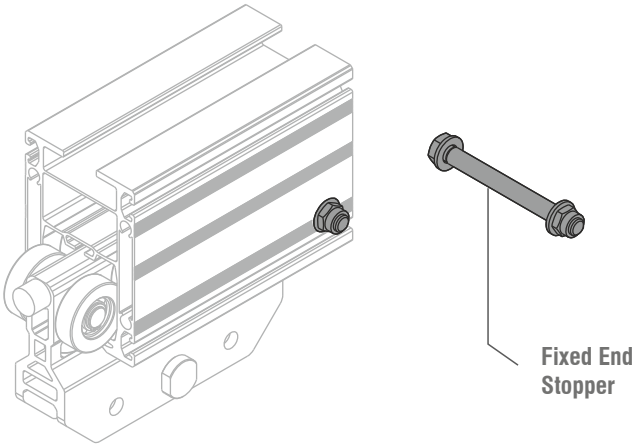
Technical Data

Part No. (Metallic)	Weight (kg)	Part No. (Plastic)	Weight (kg)	Profile
2320	0.14	2321	0.03	S
2330	0.18	2331	0.05	M
2340	0.21	2341	0.07	L
2350	0.25	2351	0.09	XL

Features

- Each and every Finrae Al profiles must be mount with end cap to protect it against undesirable element that spoil the profile surface.
- Ensures longer operating life, smooth movement and lesser maintenance of trolley wheels.
- Easy to install with a nut and bolt.
- No hardware comes along with profile end cap.
- For each different size of Al profile S, M, L & XL respective end caps are available.

FIXED END STOPPER



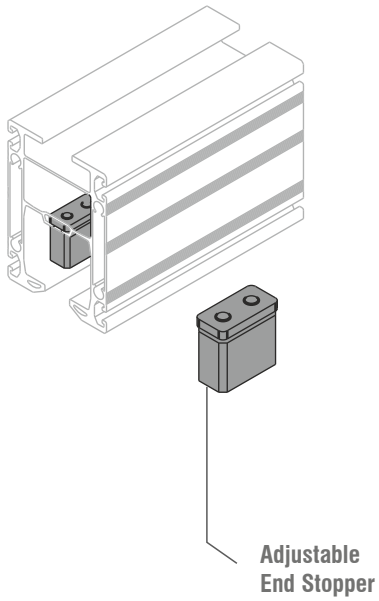
Technical Data

Part No.	Weight (kg)
2410	0.16

Features

- Fixed end stopper is mounted at free end of Al profiles.
- Fixed end stopper prevents trolley to fall out of profiles.
- Common for all rail profile.

ADJUSTABLE END STOPPER



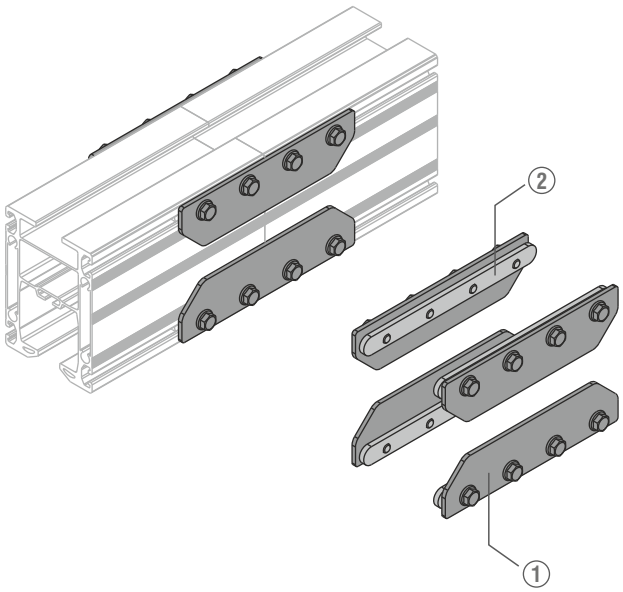
Technical Data

Part No.	Weight (kg)
2510	0.2

Features

- Adjustable End Stopper stops the movement of trolley at desired location.
- The bumper of the trolley hits the adjustable stopper & thus restricts the movement of trolley.
- It is easy to fix at any point along the length of rails.
- Designed to compensate thrust loads of trolley.
- Space underneath the stopper allows cable trolley to pass through it.
- Common for all rail profile.
- Comes along with suitable hardware.

PROFILE JOINING SET



Technical Data

Part No.	Weight (kg)
2610	2

Scope of Supply

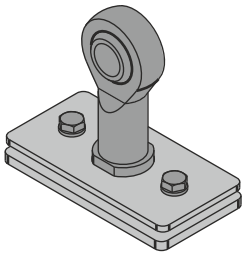
Item	Description	Quantity (nos.)
1	Profile Joining Plate	4
2	Profile Joining Back Plate	4

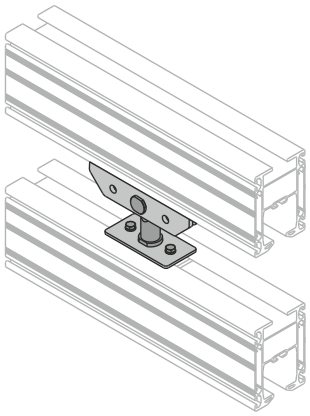
Features

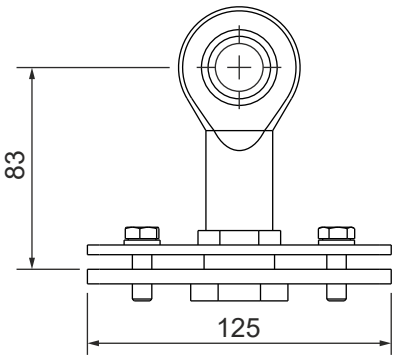
- Profile Joining Set connects two Rail profiles.
- Ensures precise joining of the rails.
- Common for all rail profile.
- Comes along with suitable hardware.

BALL JOINT GIRDER

0⁰ Ball Joint Girder



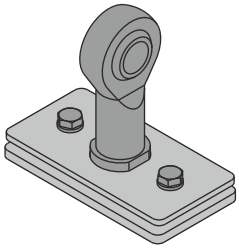


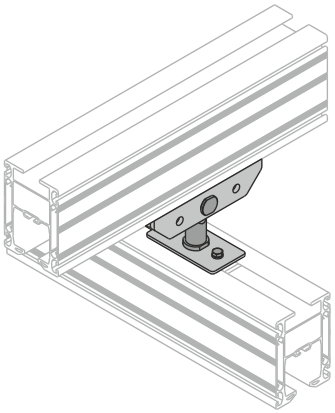


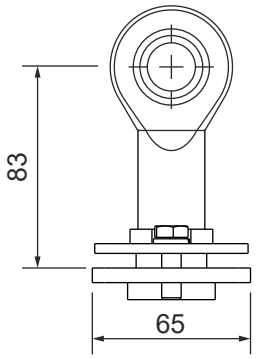
Technical Data

Part No.	Description	Capacity (kg)	Weight (kg)
2710	0⁰ Ball Joint Girder	600	1.3

90⁰ Ball Joint Girder

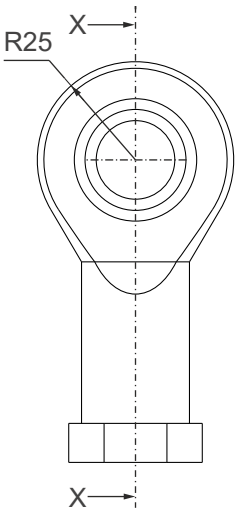


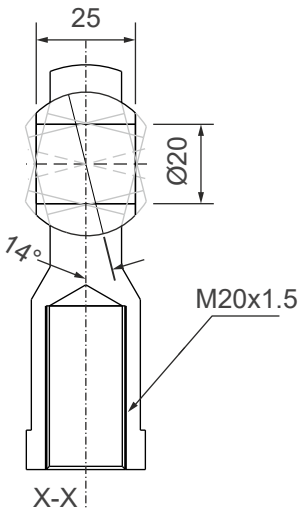




Technical Data

Part No.	Description	Capacity (kg)	Weight (kg)
2720	90⁰ Ball Joint Girder	600	1.3

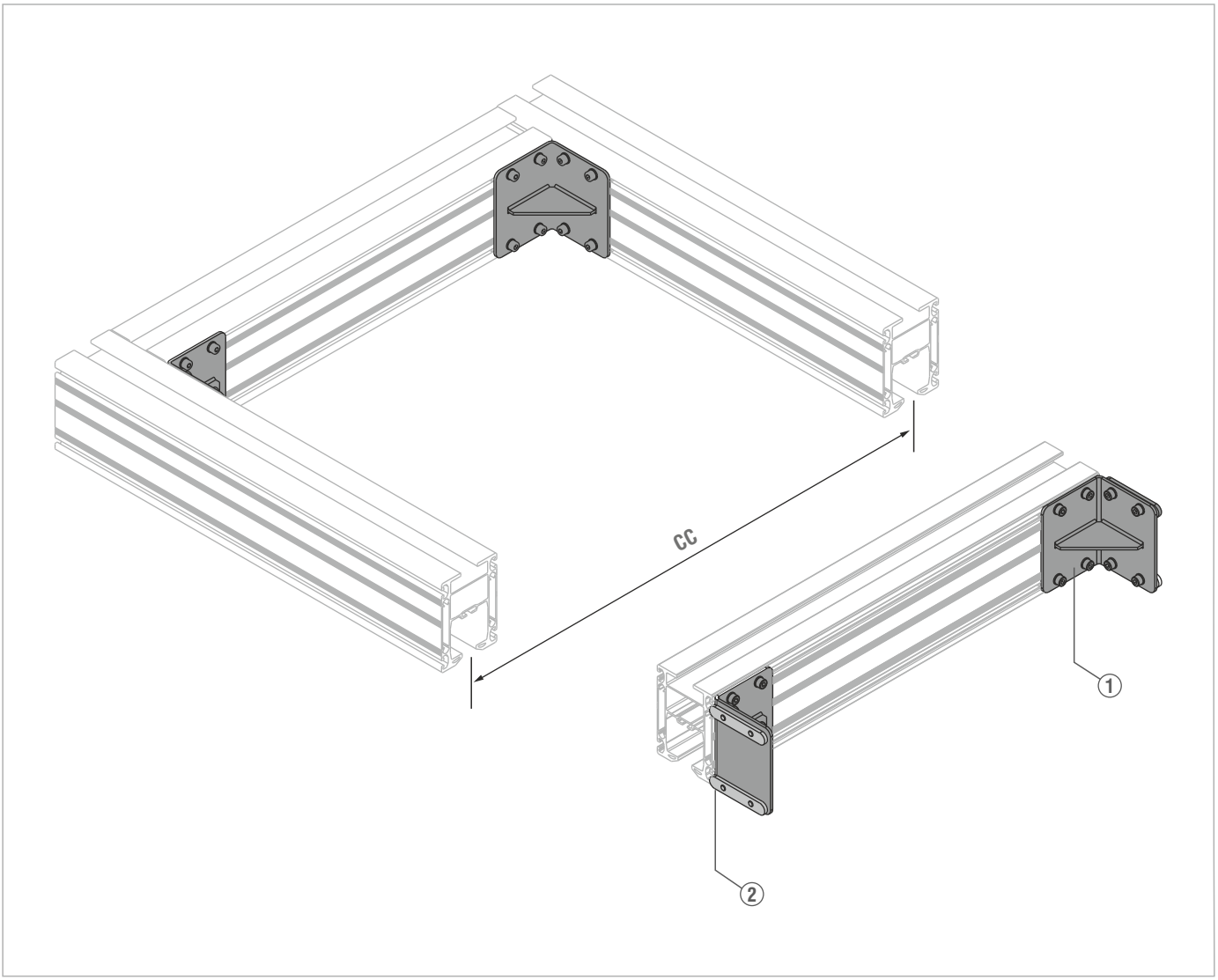




Features

- Ball joint girders are used to connect two rail profiles.
- The rail profile can be connected parallel or perpendicular as per application requirement.
- In case where profiles are connected parallel to each other 0° ball joint girder is used.
- In case where profiles are connected perpendicular to each other 90° ball joint girder is used.
- Common for all rail profile.

RAIL SPACER



Technical Data

Part No.	Profile	Weight (kg)
2820	S	2.8
2830	M	3.4
2840	L	4
2850	XL	5

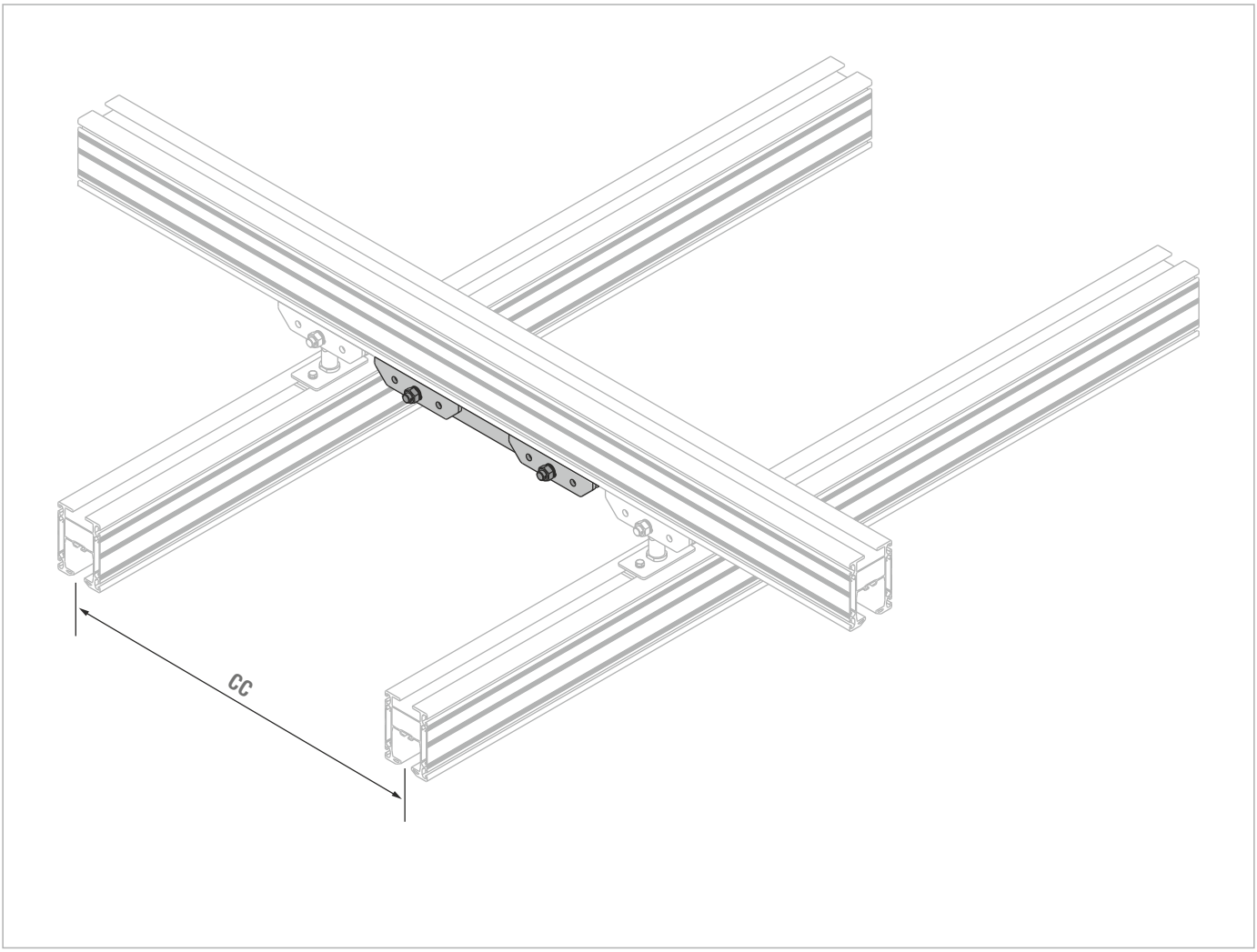
Scope of Supply

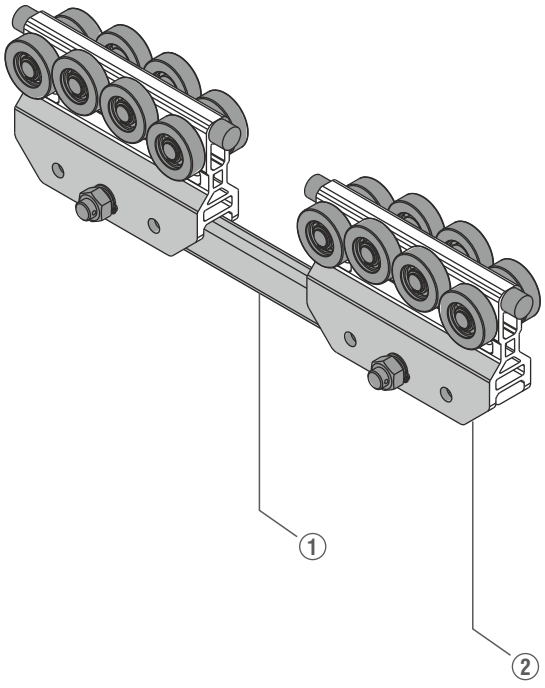
Item	Description	Quantity (nos.)
1	Rail Spacer Bracket	4
2	Rail Spacer Back Plate	16

Features

- Rail Spacer keeps two Rail profiles apart at a fixed distance.
- Provides strength to rail system.
- Specify center distance of bridge when ordering rail spacer Please ask for a layout.
- Rail length for spacer = CC in mm -96mm. (S Profile)
- Rail length for spacer = CC in mm -100mm. (M, L & XL Profile)
- For each different size of Al profile S, M, L & XL respective joining sets are available.
- Comes along with suitable hardware.

RAIL SPACER BRIDGE





Technical Data

Part No.	Weight (kg)
2910	6

Scope of Supply

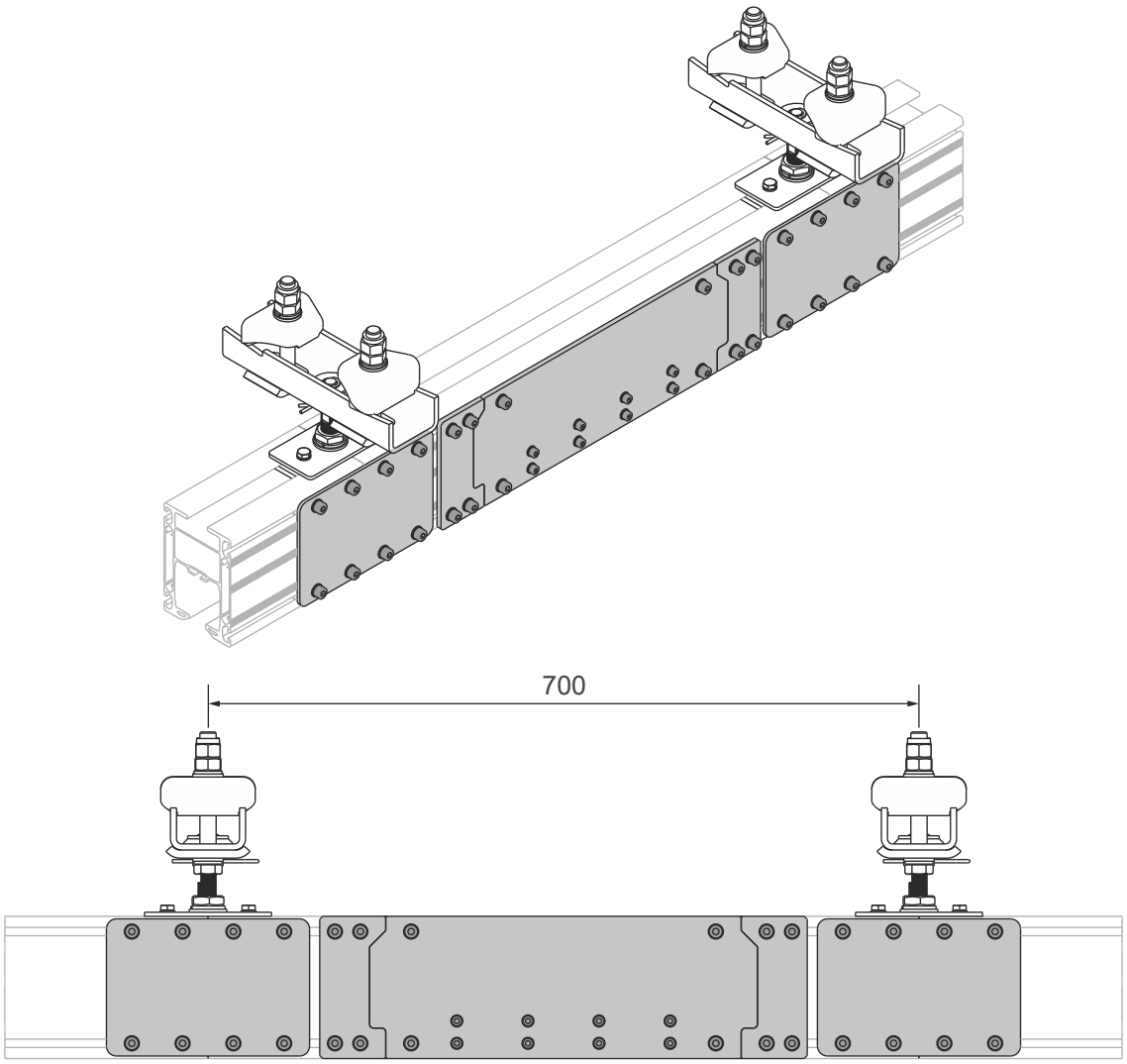
Item	Description	Quantity (nos.)
1	Rail Spacer Bridge Bracket	1
2	Load Trolley (As per model selected)	2

Refer pg. no. 24 for load trolley model selection

Features

- Rail Spacer Bridge is used to maintain constant distance between two Rail profiles which are mounted on a system.
- Optimum design provides smooth movement.
- Easy to mount.
- Mention CC - Center Distance of 2 Cross rail as per Layout.
- Common for all Rail Profile.

SERVICE STATIONS



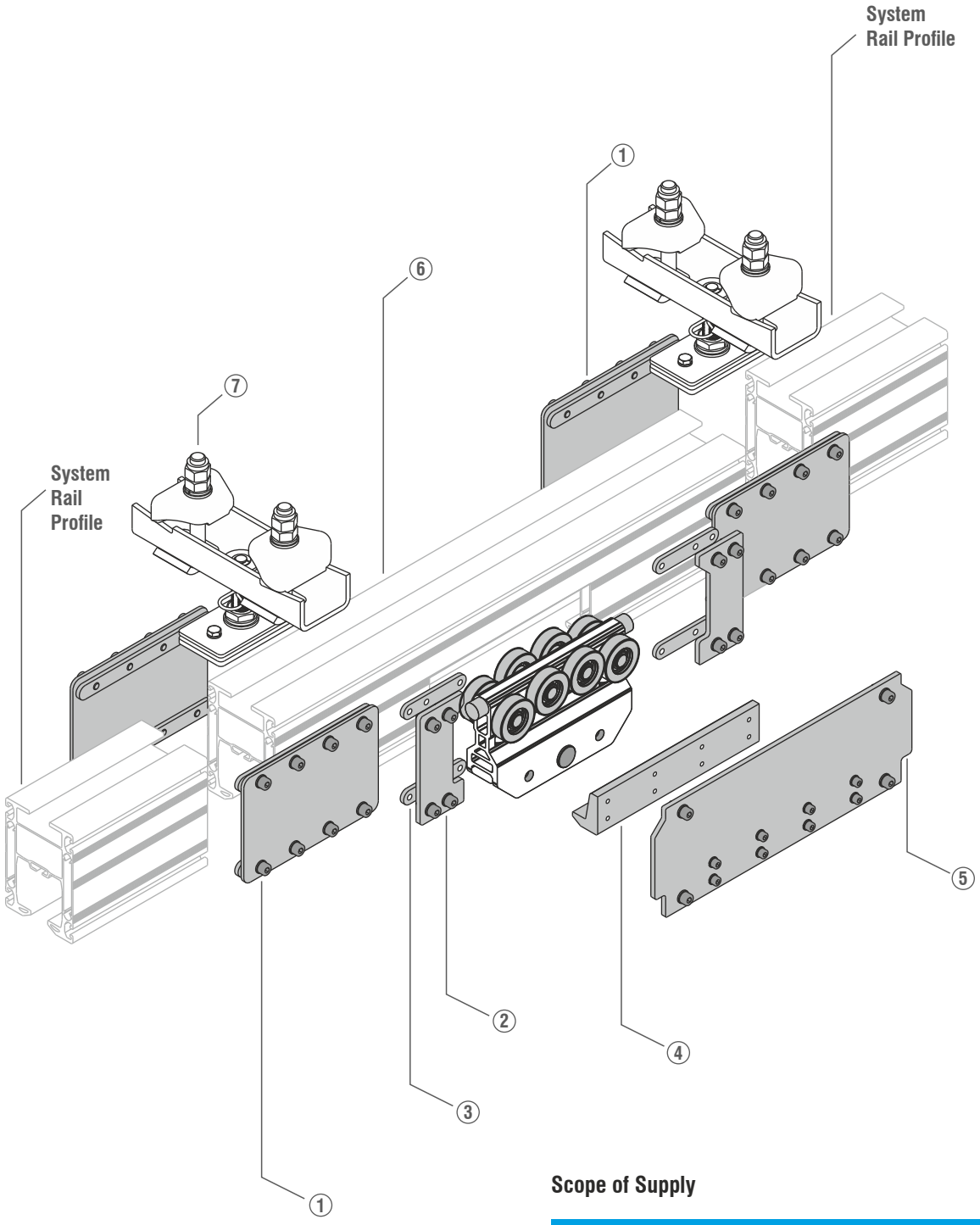
Technical Data

Part No.	Profile	Length (mm)	Weight (kg)
3020	S	700	21
3030	M	700	24
3040	L	700	27
3050	XL	700	30

Features

- Service station is used to simplify the maintenance and exchange of trolley.
- It is a time saving option for checking the trolley condition.
- Suspensions must be mounted at each end of service station.
- Rail joint set and suspensions is as per the configurations of rail selection.
- Comes along with suitable hardware.

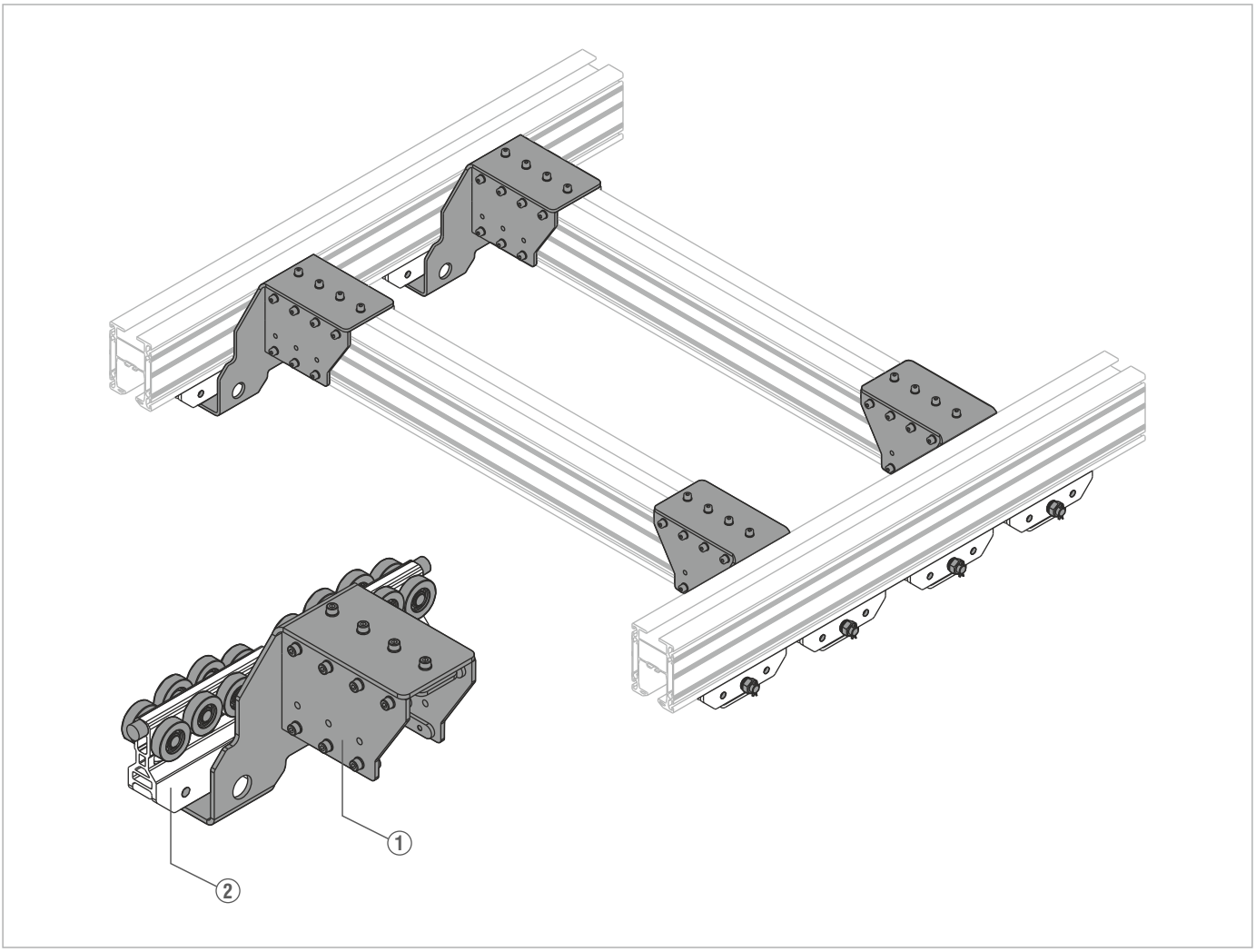
SERVICE STATIONS



Scope of Supply

Item	Description	Quantity (nos.)
1	Rail Joint Set	2
2	Locking Plate	2
3	Back Plate	4
4	Rail Profile Section	1
5	Profile Section back Plate	1
6	Service Rail Profile	1
7	Suspension	2

ELEVATION MODULE



Technical Data

Part No.	Profile	Compatibility
3120	S	S
3130	M	S,M
3140	L	S,M,L
3150	XL	S,M,L,XL

Scope of Supply

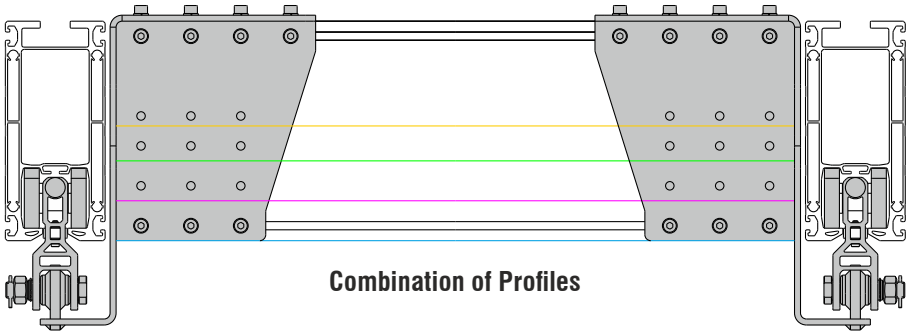
Item	Description	Quantity (nos.)
1	Elevation Model Set	2
2	Load Trolley (As per model selected)	4

Scope above mention is for single cross rail
Refer pg. no. 24 for load trolley model selection

Features

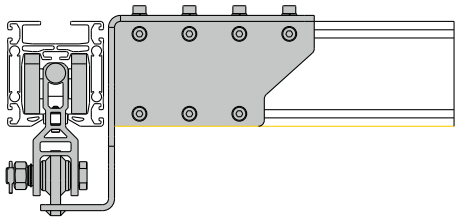
- Elevation Module is used to lift crane profile to bring its elevation to a higher level.
- Ideal in places with low vertical heights.
- Customized as per the requirement.
- Possible to mount with different profile sizes.
- For combination of profiles and height requirement please ask for a layout.

ELEVATION MODULE TABLE

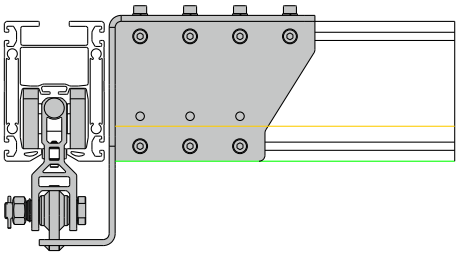


Combination of Profiles

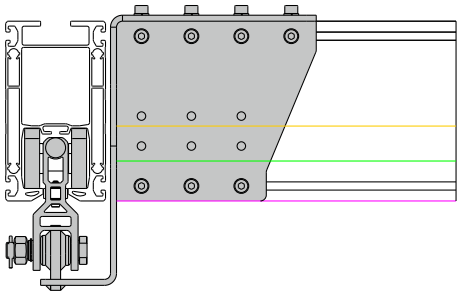
Elevation Module - S



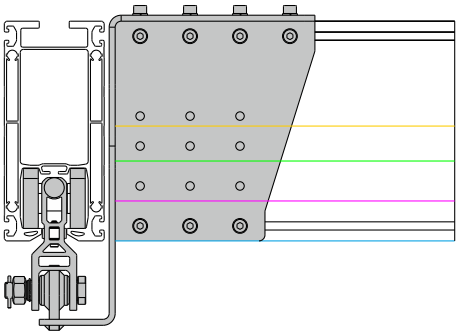
Elevation Module - M



Elevation Module - L



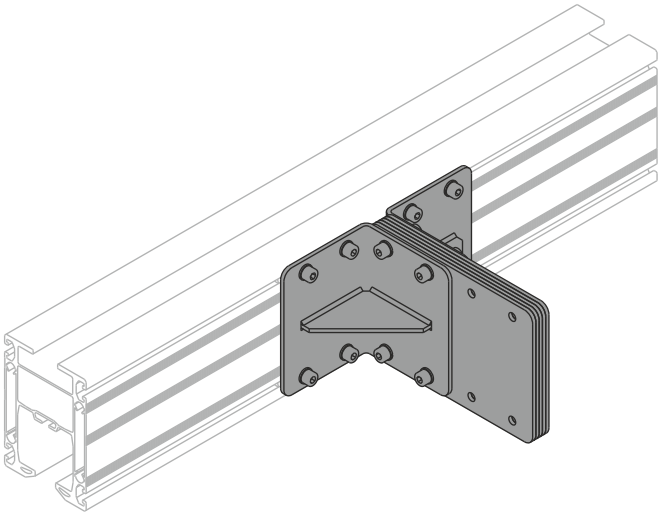
Elevation Module - XL

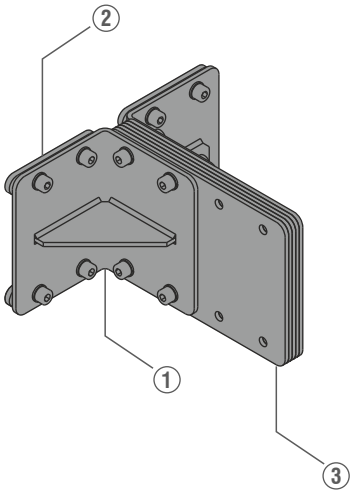


Technical Data

	Types of elevation modules			
Profile	**S**	**M**	**L**	**XL**
S	✓	✓	✓	✓
M		✓	✓	✓
L			✓	✓
XL				✓

COUNTER WEIGHT





Technical Data

Part No.	Profile	Bracket Weight (kg)	Plate Weight (kg)
3220	S	2	0.6
3230	M	2.7	0.9
3240	L	4	1
3250	XL	4.7	1.3

Features

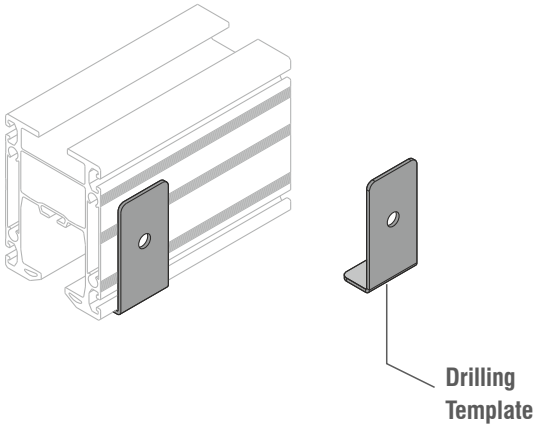
- Counter Weight prevents inclination of the rail profile when secured with drag chain, tray, towing arms etc.
- Provides correct alignment.
- No. of Plate varies as per weight. Please ask for a layout.
- For each different size of Al profile S, M, L & XL respective joining sets are available.
- Comes along with suitable hardware.

Scope of Supply

Item	Description	Quantity (nos.)
1	Counter Weight Bracket	2
2	Counter Weight Back Plate	4
3	Counter Weight Plate*	4

*As per weight requirement

DRILLING TEMPLATE



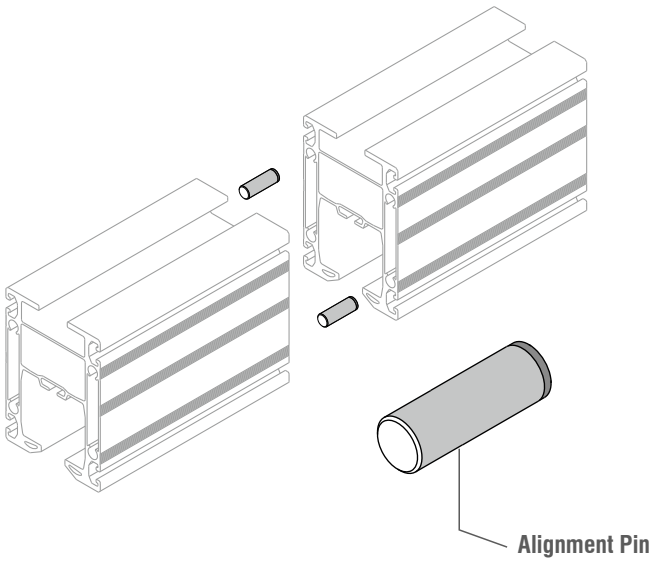
Technical Data

Part No.	Weight (kg)
3310	0.14

Features

- Drilling Template provides accurate location of holes for fixed end stopper.
- Common for all rail Profile.

ALIGNMENT PIN



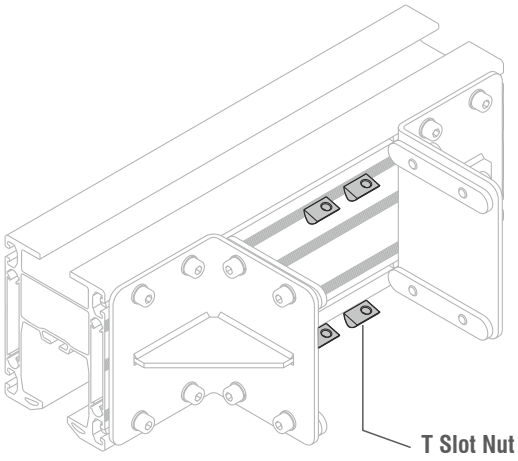
Technical Data

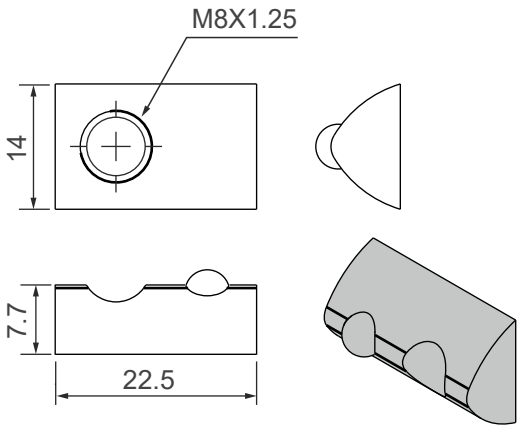
Part No.	Weight (kg)
3410	0.02

Features

- Finrae Alignment Pin is designed to achieve precise alignment of profiles.
- Common for all rail profile.

T SLOT NUT





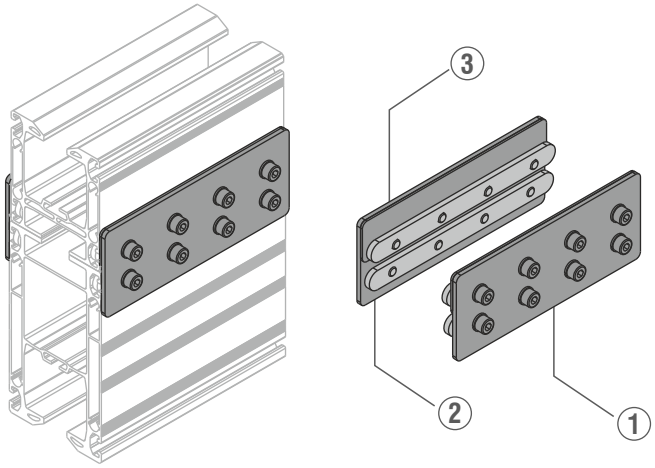
Technical Data

Part No.	Size (mm)	Weight (kg)
3510	M8	0.01
3520	M6	0.01
3530	M5	0.01

Features

- T Slot Nut are suitable for subsequent installation in the profiles.
- Easy insertion without removal of existing brackets.
- Common for all rail profile.

S PROFILE REINFORCEMENT SET



Technical Data

Part No.	Weight (kg)
3610	1.6

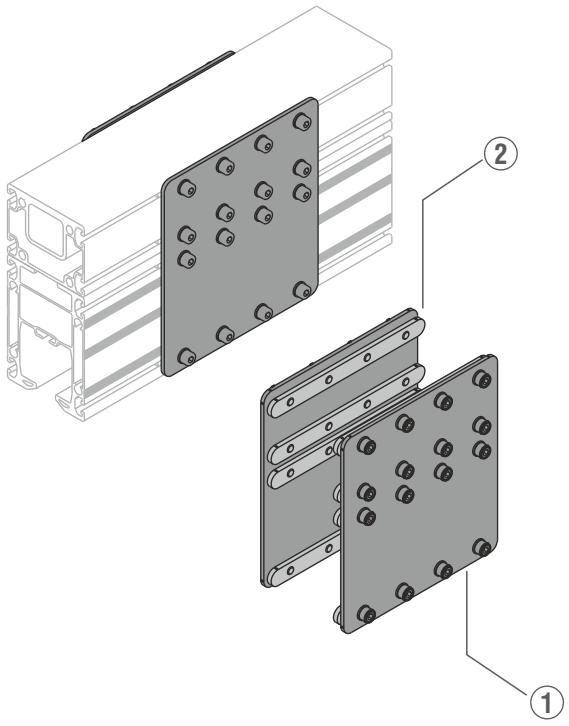
Scope of Supply

Item	Description	Quantity (nos.)
1	Outer Joining Plate	2
2	Back Plate	4
3	Shim	2

Features

- S Profile Reinforcement Set is used to reinforce other profile with S profile.
- Comes along with suitable hardware.

REINFORCEMENT PROFILE JOINING SET



Technical Data

Part No.	Profile	Weight (kg)
3630	M	2.1
3640	L	2.4
3650	XL	2.7

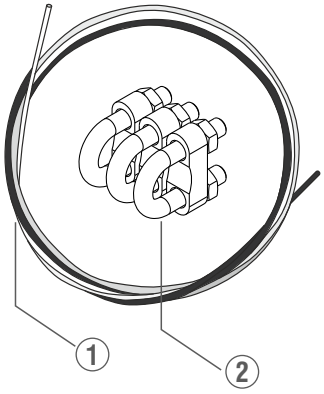
Scope of Supply

Item	Description	Quantity (nos.)
1	Reinforcement Profile Joining Plate	2
2	Reinforcement Profile Back Plate	8

Features

- Reinforcement Profile Joining Set is used to connect the Rail profile with reinforcement profiles.
- For different size of Al profile S, M, L & XL respective joining sets are available.
- Comes along with suitable hardware.

SAFETY WIRE ROPE



Technical Data

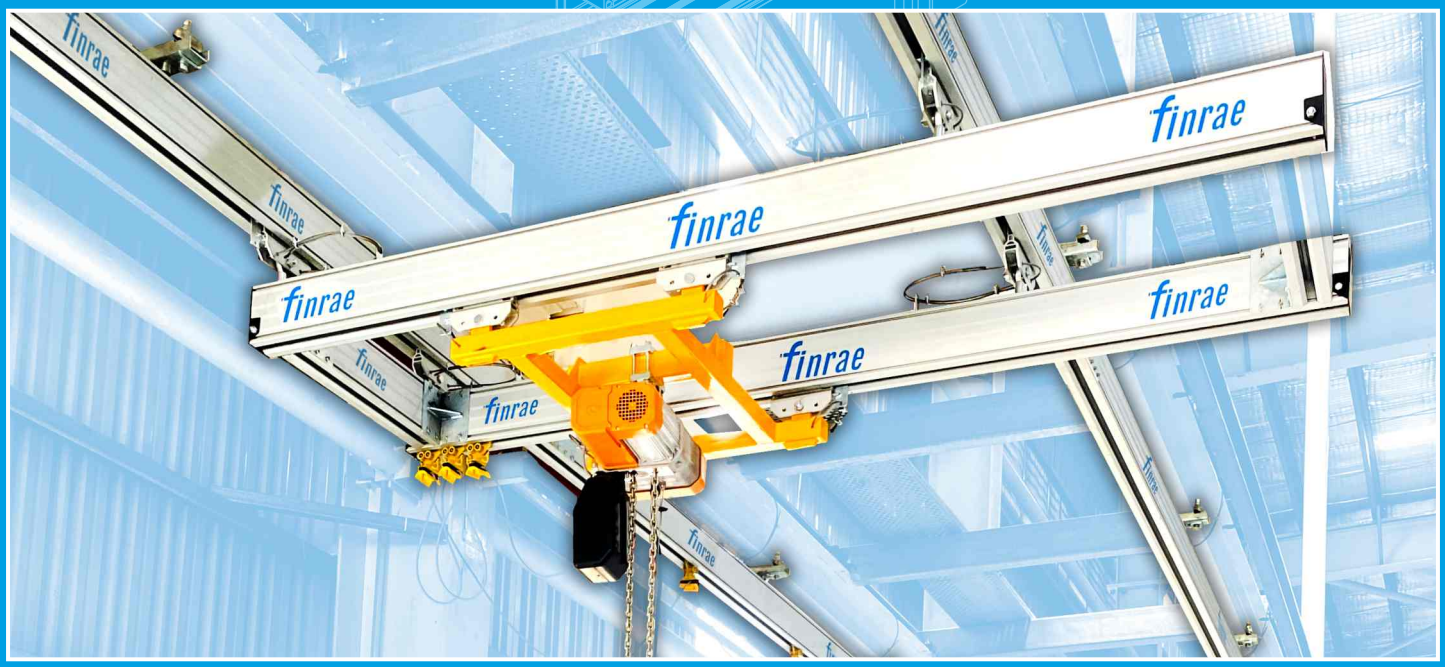
Part No.	Weight (kg)
3710	0.4

Scope of Supply

Item	Description	Quantity (nos.)
1	Wire rope diameter 6mm length 1.5m	1
2	U Clip	3

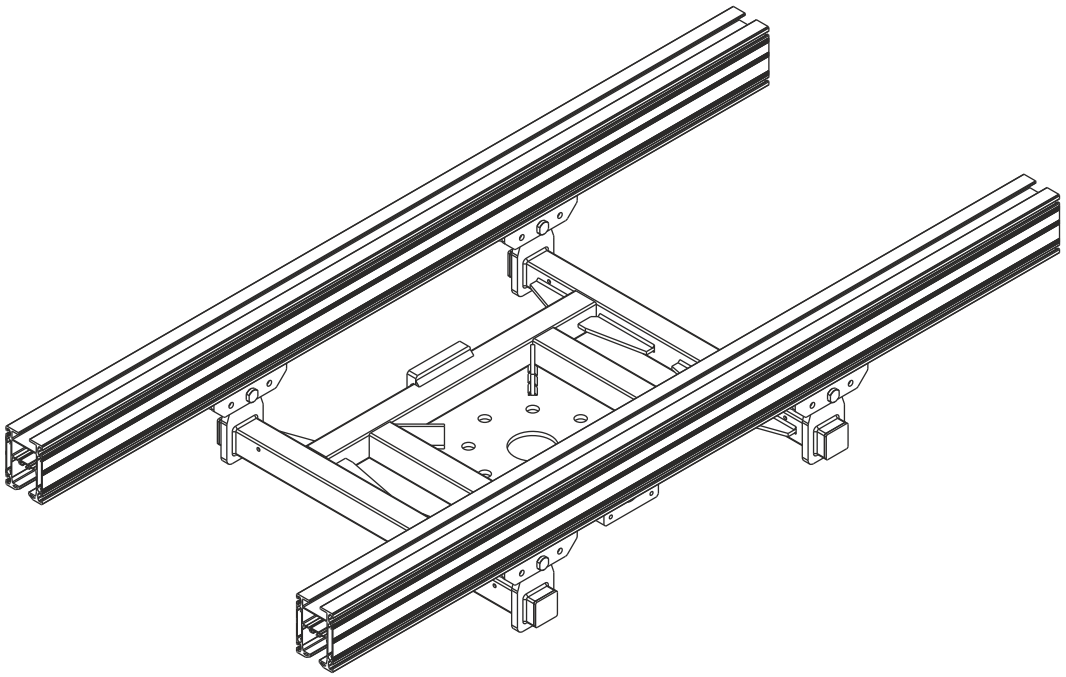
Features

- To provide safety of overhead system along with I-beam and other structural member/manipulator systems.



OVERHEAD SYSTEMS

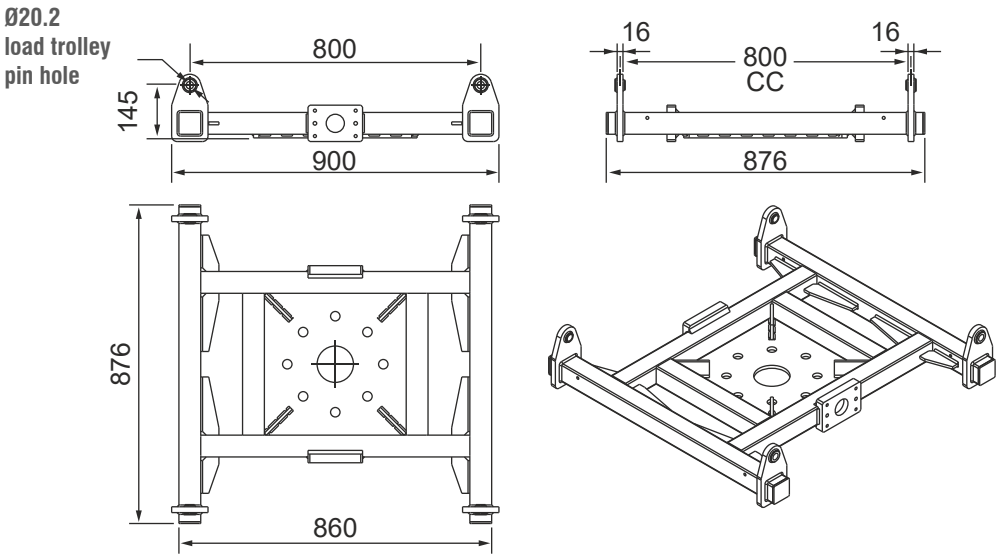
OVERHEAD TROLLEY FRAMES FOR MANIPULATOR



Features

- The Overhead Trolley Frames are used to mount the manipulator. This Frames travels in long and cross direction carrying the efficient load of overhead handling system.

Finrae 80

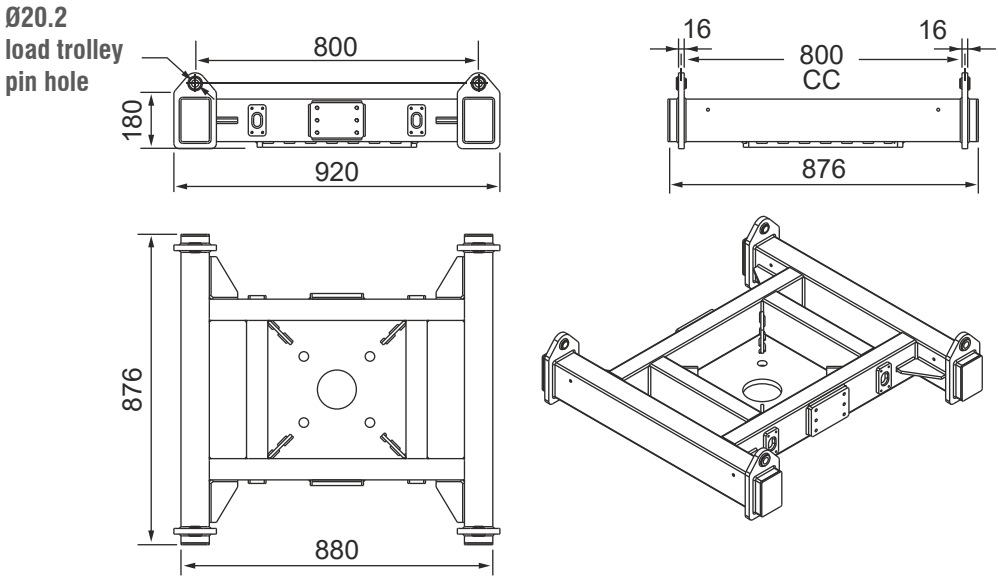


Technical Data

Part No.	SWL (gripper + component) (kg)	Weight (kg)
4010	80	58

OVERHEAD TROLLEY FRAMES FOR MANIPULATOR

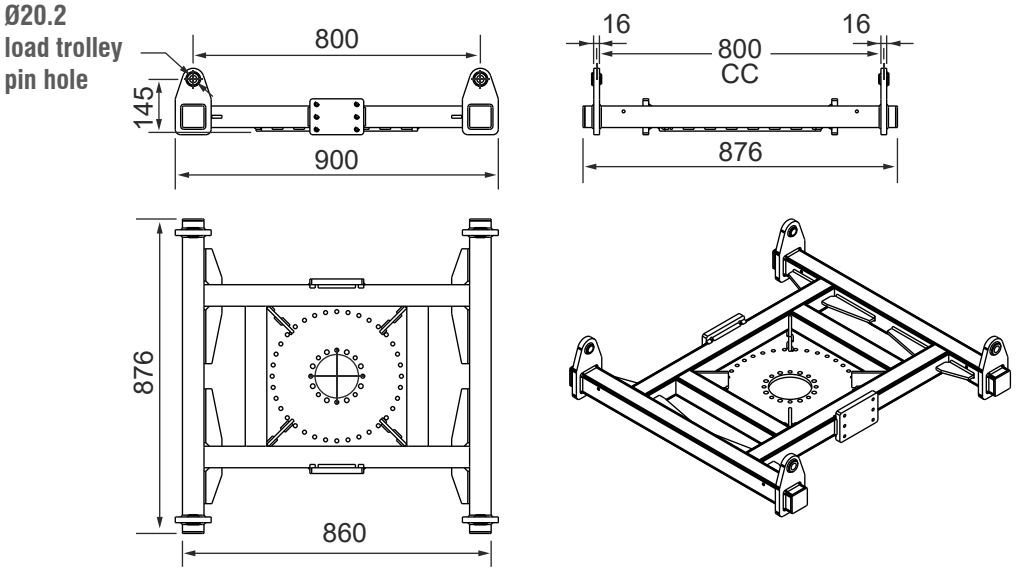
Finrae 160



Technical Data

Part No.	SWL (gripper + component) (kg)	Weight (kg)
4020	160	80

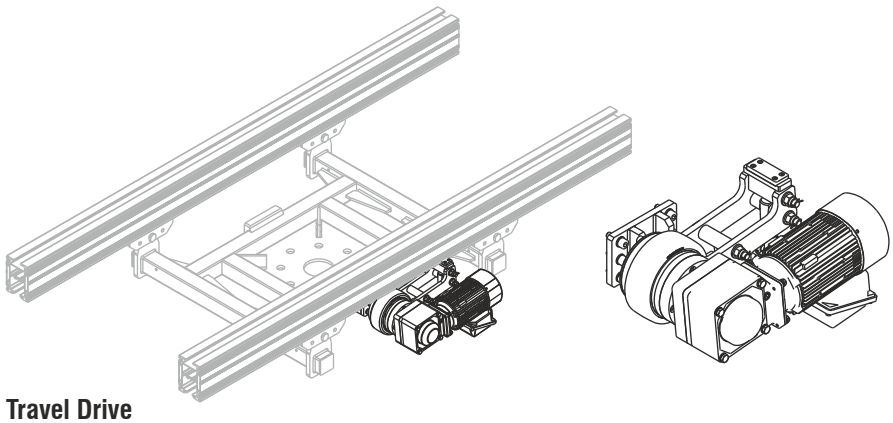
Finrae C80



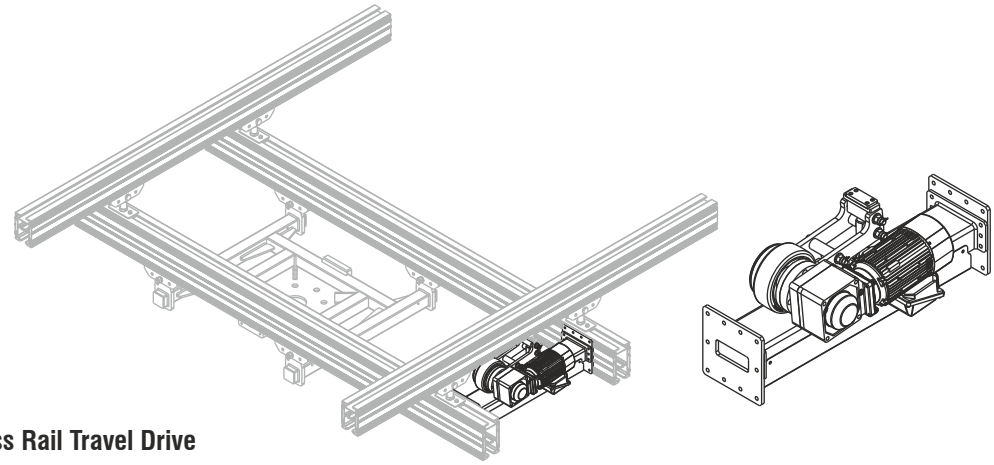
Technical Data

Part No.	SWL (gripper + component) (kg)	Weight (kg)
4030	80	58

TRAVEL DRIVE



Electric - Long Rail Travel Drive



Electric - Cross Rail Travel Drive

Features

- Industrial travel drive for finrae Rail profiles.
- Load moving capacity is 600 kg.
- finrae offers smooth running of system through travel drive at required speed.
- finrae travel drive comes up with friction wheel coupled through lever and operated via pneumatic cylinder.
- finrae travel drive offers electric as well as pneumatic motors.
- Travel drive with brake motor.
- Capacity Range: 0.2kW 4 pole.
- Housing structure IP44 (Totally enclosed fan cooled type).
- Power supply 415V 50Hz.
- Insulation class F.
- Standard IEC.
- Temperature -10 to 40'C.
- Humidity: 85% max. No dewing

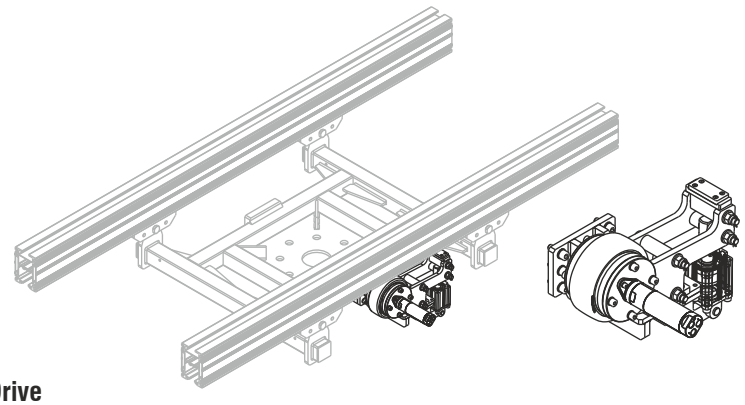
Technical Data

Part No.	Speed (m/min)	Electric
4110	4.5 – 28	Long Rail Travel Drive
4122	4.5 – 28	Cross Rail Travel Drive (S profile)
4123	4.5 – 28	Cross Rail Travel Drive (M profile)
4124	4.5 – 28	Cross Rail Travel Drive (L profile)
4125	4.5 – 28	Cross Rail Travel Drive (XL profile)

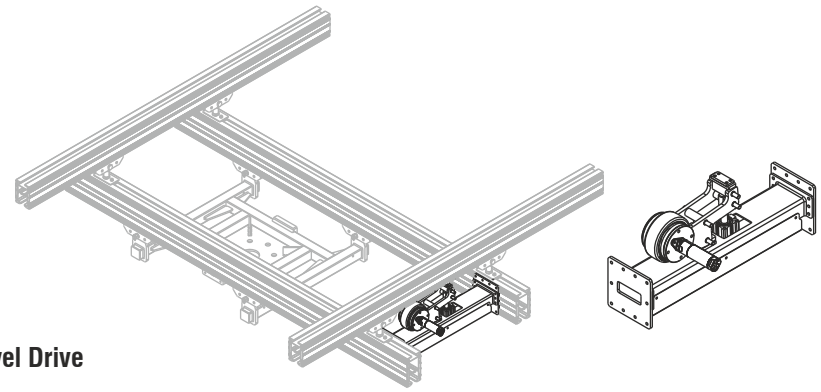
Scope of Supply

Item	Description	Quantity (nos.)
1	Mounting systems & accessories (Mech)	1
2	Motor (Electrical)	1
3	Electrical Selector switch	1
4	Pneumatic cylinder	1
5	Direction control valve for attach/detach	1
6	Pneumatic Selector switch	1

TRAVEL DRIVE



Pneumatic - Long Rail Travel Drive



Pneumatic - Cross Rail Travel Drive

Features

- Air motors can be stalled indefinitely without overheating or sustaining any other damage. They can be started and stopped repeatedly to an unlimited extent.
- Load moving capacity is 250 kg.
- Torque, speed and direction of rotation can be changed easily using simple control methods.
- The performance of an air motor is dependent on the inlet pressure. At a constant inlet pressure, ungoverned air motors exhibit the characteristic linear output torque/speed relationship.
- However, by simply regulating the air supply, using the techniques of throttling or pressure regulation, the output of an air motor can be easily modified.
- Air pressure of 6 bar is optimum for working of air motor.
- Maximum air motor output 0.23 kW.

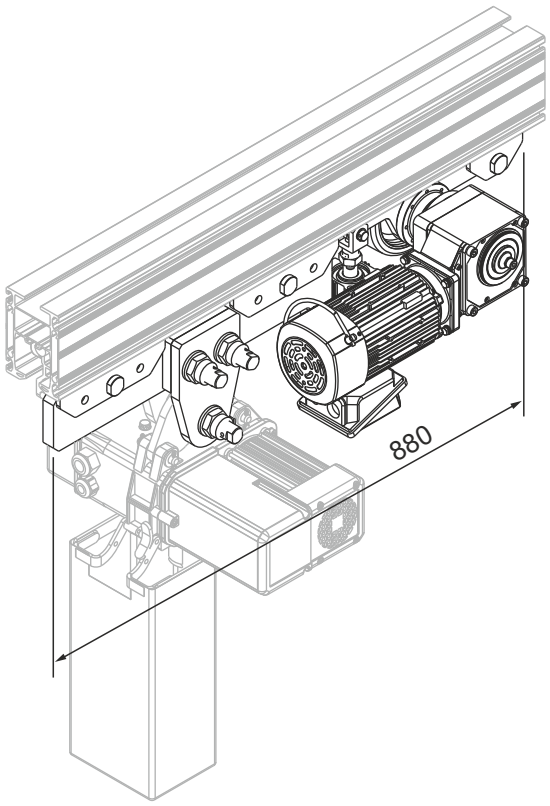
Technical Data

Part No.	Speed (m/min)	Pneumatic
4210	Max 20	Long Rail Travel Drive
4222	Max 20	Cross Rail Travel Drive (S Profile)
4223	Max 20	Cross Rail Travel Drive (M Profile)
4224	Max 20	Cross Rail Travel Drive (L Profile)
4225	Max 20	Cross Rail Travel Drive (XL Profile)

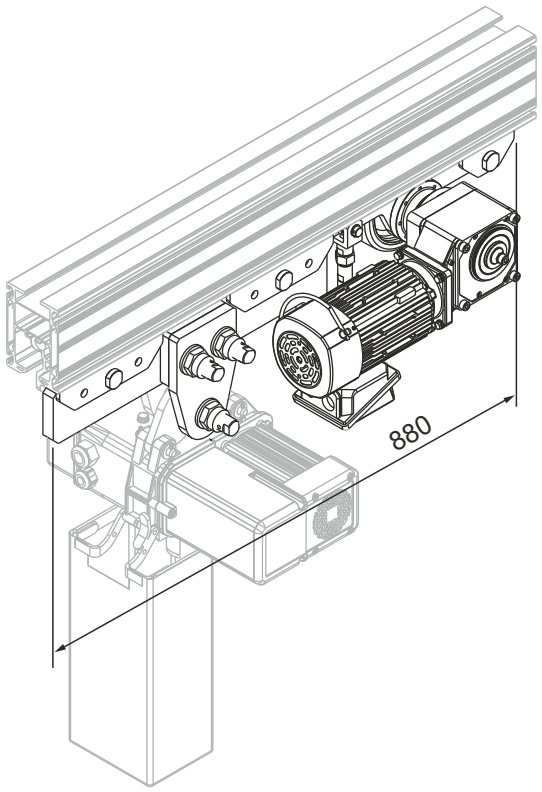
Scope of Supply

Item	Description	Quantity (nos.)
1	Mounting systems & accessories (Mech)	1
2	Motor (Pneumatic)	1
3	Direction control valve for forward/reverse	1
4	Push Button for Air motor	1
5	Pneumatic cylinder	1
6	Direction control valve for attach/detach	1
7	Pneumatic Selector switch	1

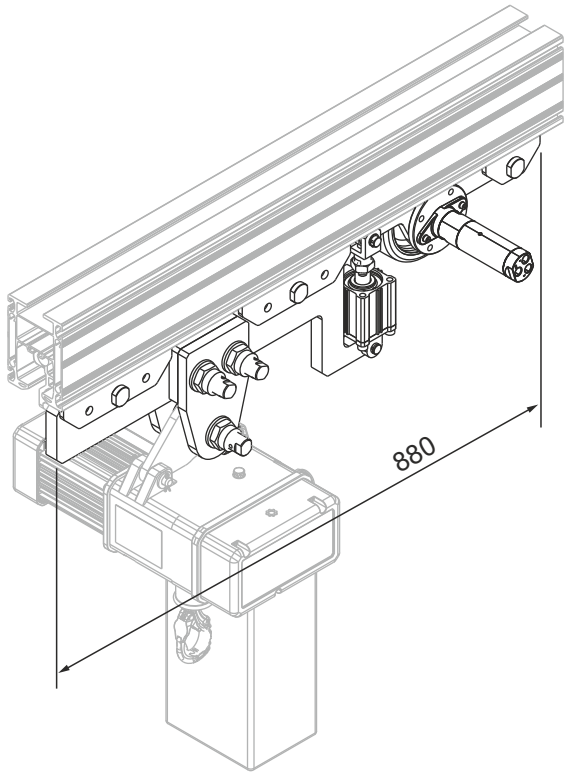
TRAVEL DRIVE FOR HOIST



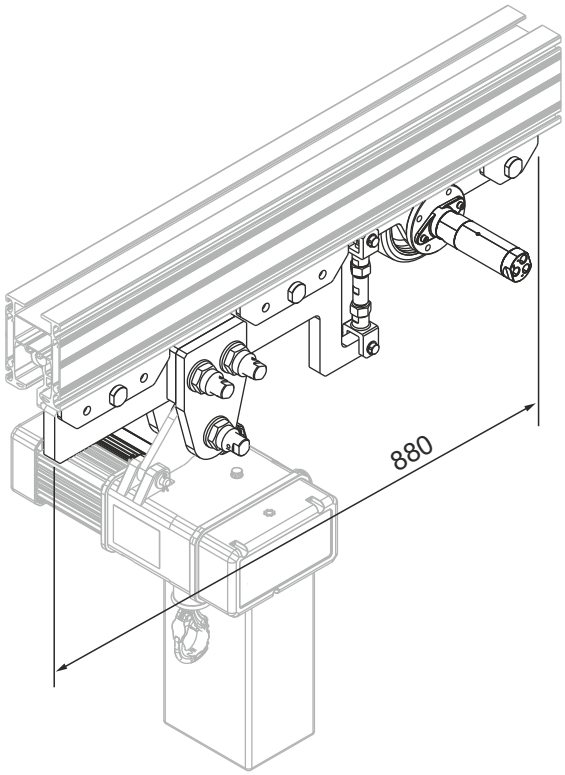
4310 - Electrical Travel Drive with Pneumatic Actuation



4320 - Electrical Travel Drive with Manual Actuation



4330 - Pneumatic Travel Drive with Pneumatic Actuation



4340 - Pneumatic Travel Drive with Manual Actuation

TRAVEL DRIVE FOR HOIST

Technical Data

Part No.	Speed (m/min)	Motor	Engagement	Capacity (kg)
4310	4.5-28	Electrical	Pneumatic	1000
4320	4.5-28	Electrical	Manual	1000
4330	Max 20	Pneumatic	Pneumatic	250
4340	Max 20	Pneumatic	Manual	250

Scope of Supply

Item	Description	Quantity
1	Mounting systems & accessories (Mech)	1
2	Motor (As per variant)	1
3	Pneumatic cylinder (As per variant)	1
4	Direction control valve (As per variant)	-

Features

- Travel Drive for Hoist is use to carry the load along the rail system through electric or pneumatic motors.
- This type of Travel Drive comes with 2 variant (electric & pneumatic) & these drive can be engaged with rail through pneumatic & manual mode.
- Hoist is not included in Scope of Supply.
- **Please ask for detail scope.**

ELECTRICAL PANEL BOX FOR TRAVEL DRIVE

Technical Data

Part No.	Description
4350	For one drive
4351	For two drives

Features

- Electrical Panel Box for Travel Drive consisting of electrical accessories such as VFD, SMPS, MCB, Lamps etc. which are used for travel drive applications.
- For more details & components make contact Finrae

REMOTE PENDANT

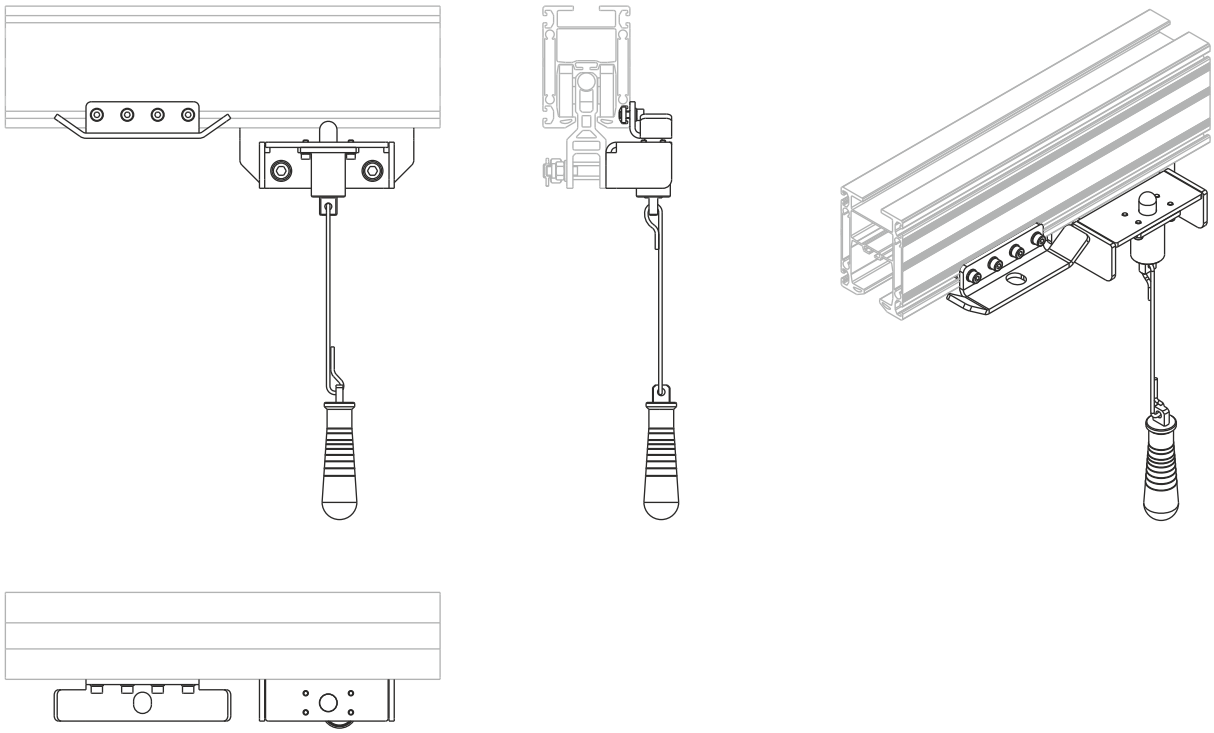
Technical Data

Part No.
4360

Features

- Remote Pendant is used to move the system in forward/reverse and up/down direction.

MANUAL PIN TYPE LATCHING



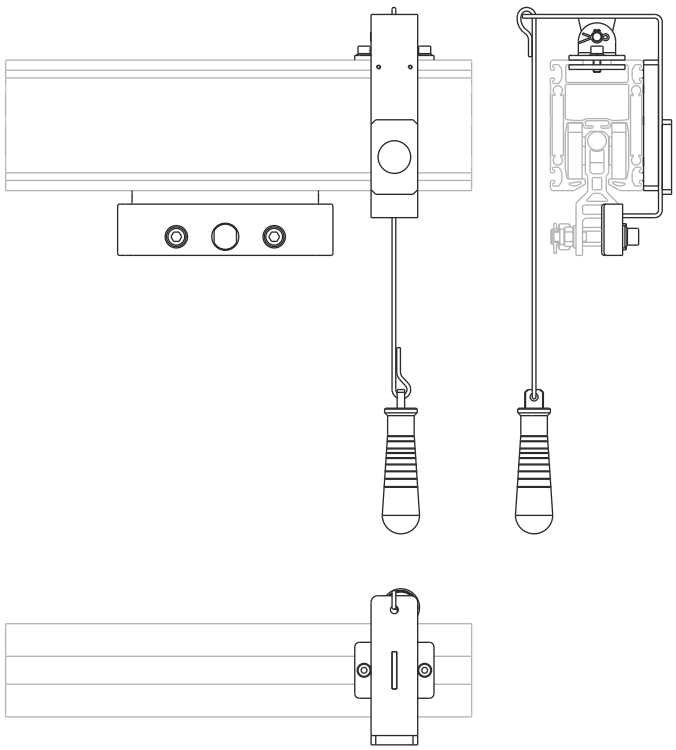
Technical Data

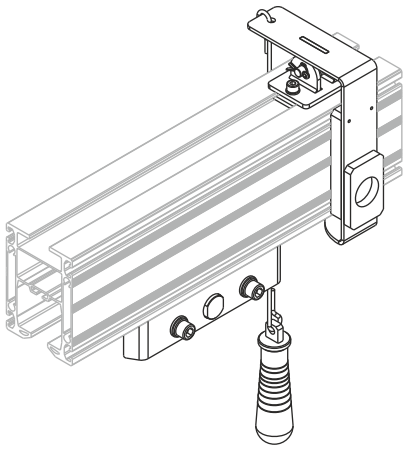
Part No.	Weight (kg)
4410	3.2

Features

- Manual Pin Type Latching is used to engage the system at defined place.
- The latch bracket having pin gets engaged in the locking plate mounted on the rail when the operator bring the system below the locking plate and pulls handle downward.
- To detach the system, pull the wire rope and move the system away from lock plate and release the handle.
- Design can vary according to system application & Rail profile.
- The handle position can be defined according to layout.

MANUAL LEVER TYPE LATCHING





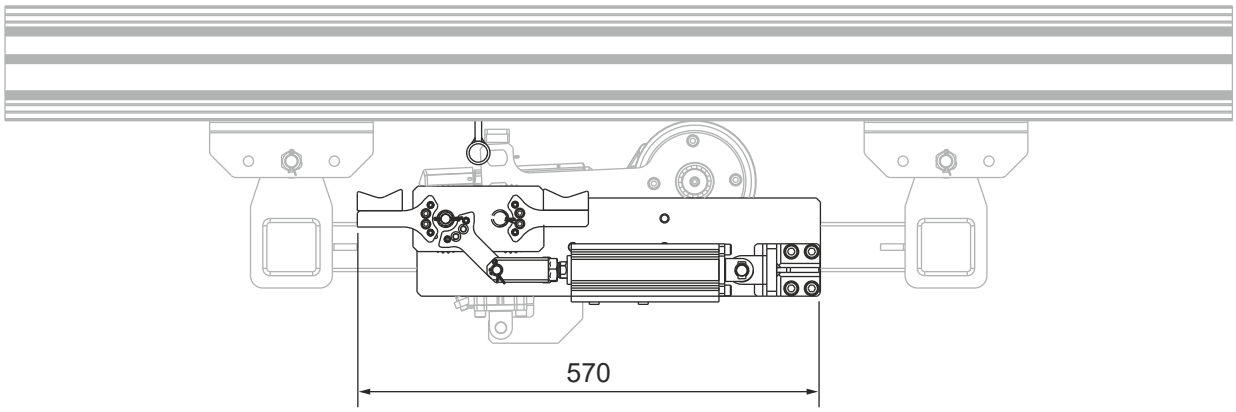
Technical Data

Part No.	Profile	Weight (kg)
4520	S	1
4530	M	1.2
4540	L	1.5
4550	XL	1.9

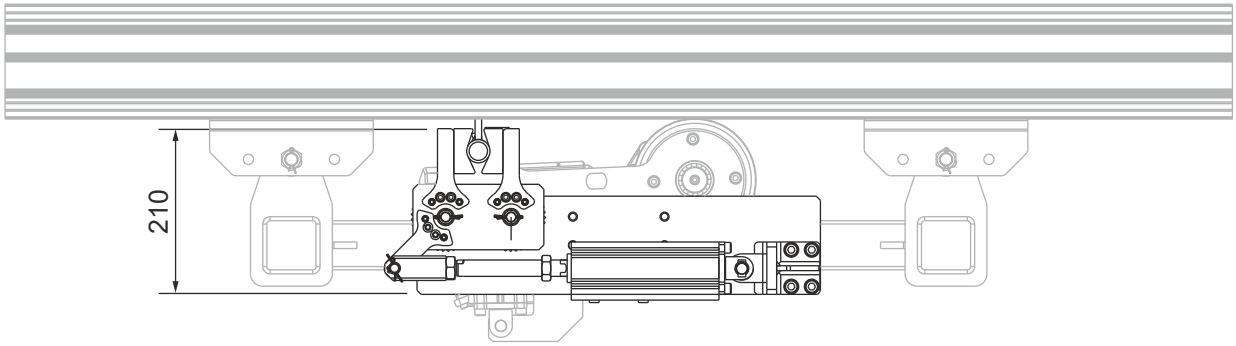
Features

- Lever Type Latching is used to latch/lock the system at defined place.
- A Lever type of arrangement is mounted on the rail. When the operator moves the system towards the latching the lever gets lifted and get locked.
- To detach the system, pull handle downward and move the system away from latch lever and then release the handle.
- Design can vary according to system application & rail profile.

PNEUMATIC GEAR TYPE LATCHING



Open Condition



Latch Condition

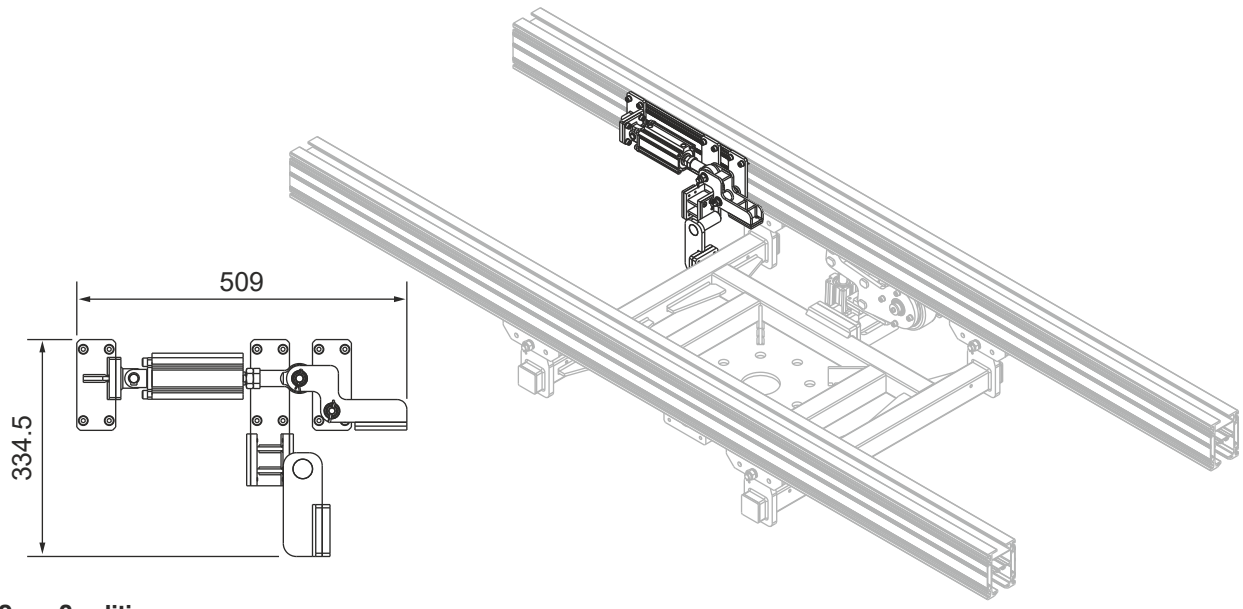
Technical Data

Part No.	Weight (kg)
4610	5.8

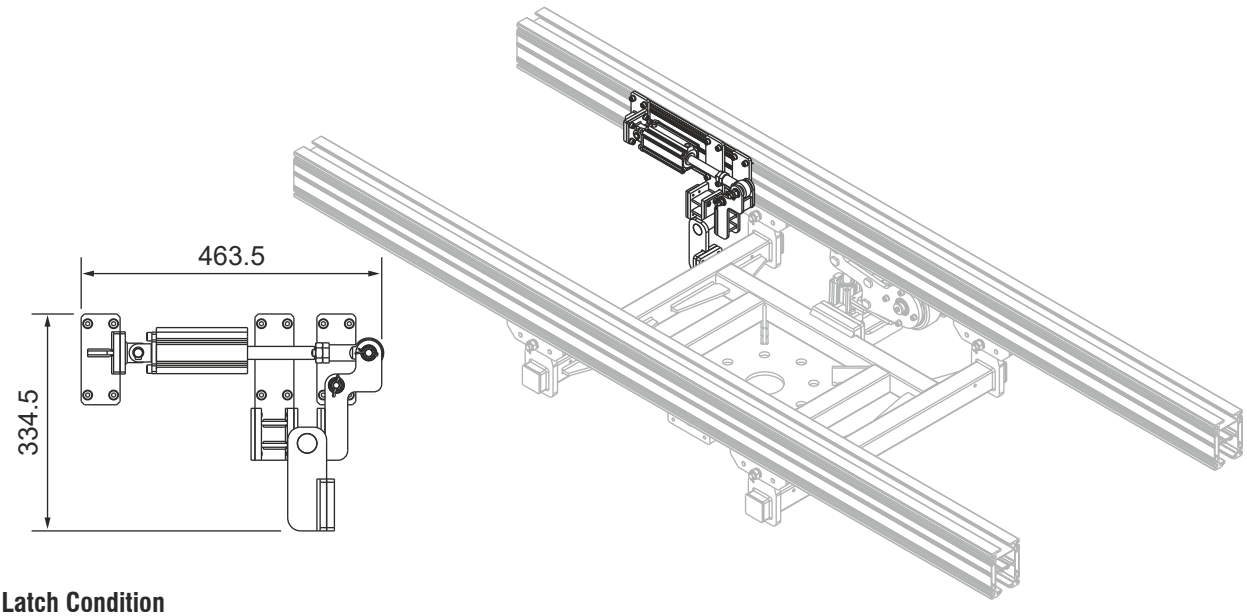
Features

- Pneumatic Gear Type Latching is used to latch/lock the system pneumatically at defined place via limit switch inputs.
- Activating a limit switch arrangement system can be locked by activating pneumatic cylinder which is use for clamping the bracket.
- Design can vary according to system application & rail profile.
- It is mounted on overhead trolley frame.
- **Travel drive, pneumatic valves and accessories are not in scope, please ask for details.**

PNEUMATIC LEVER TYPE LATCHING



Open Condition



Latch Condition

Technical Data

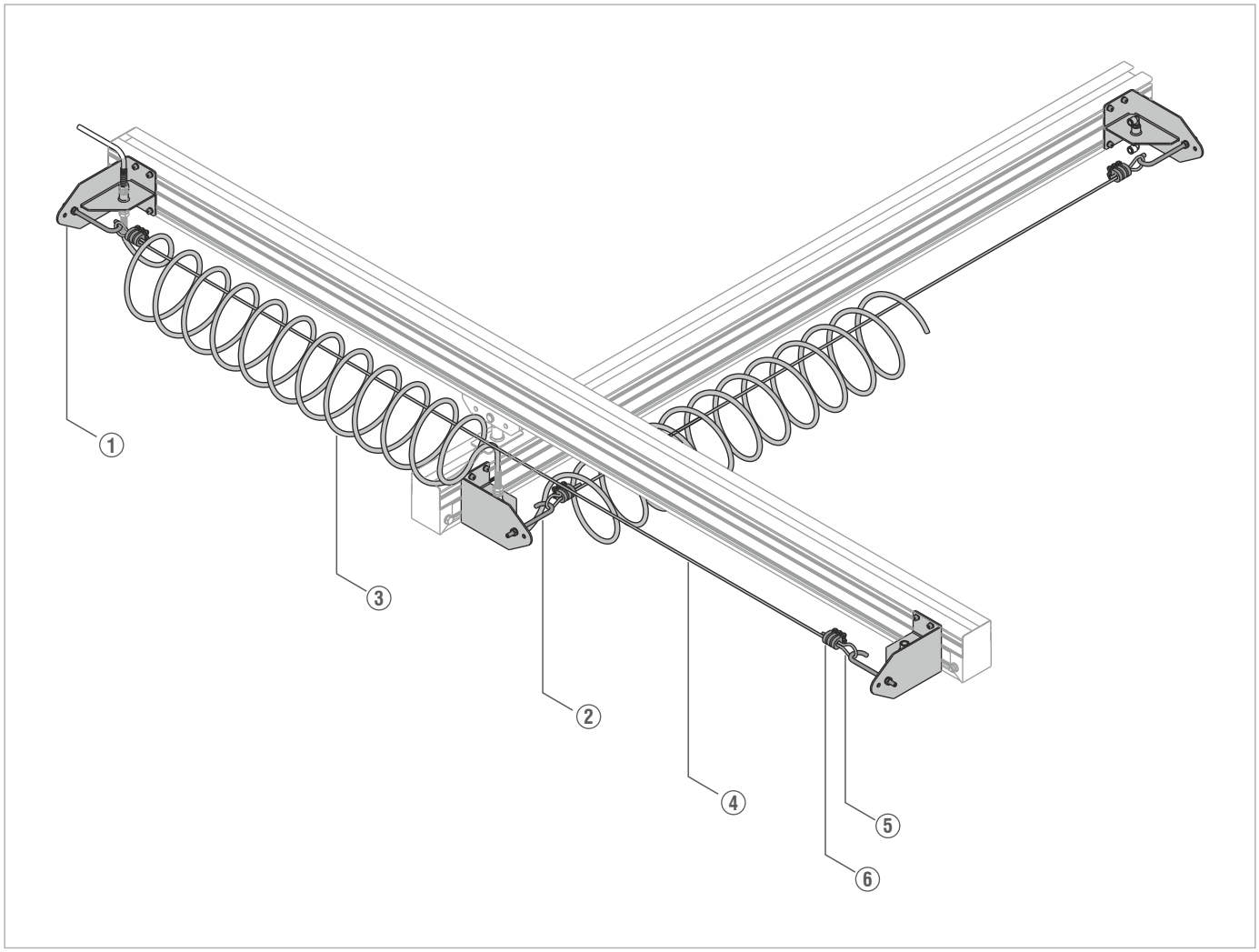
Part No.	Profile	Weight (kg)
4720	S	6.5
4730	M	9
4740	L	12
4750	XL	16.5

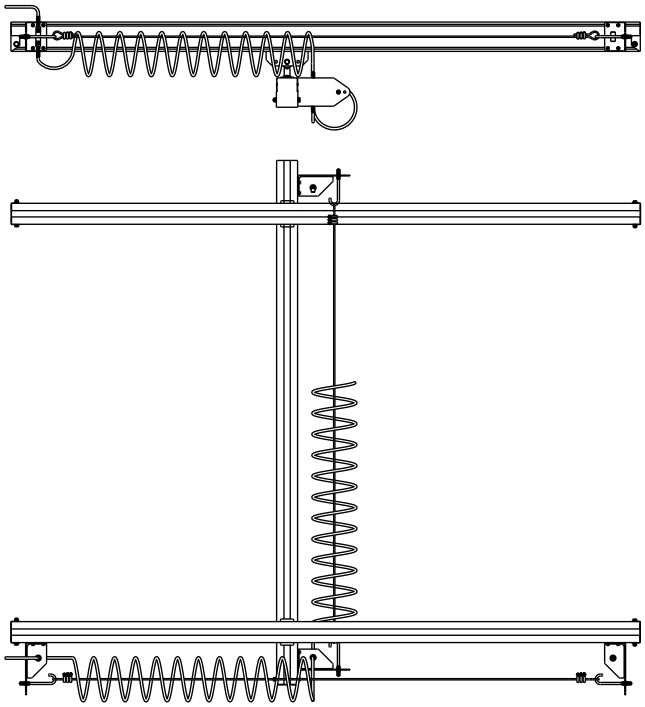
Features

- Pneumatic Lever Type Latching is used to latch/lock the system pneumatically at defined place via limit switch inputs.
- Activating a limit switch arrangement system can be locked by activating pneumatic cylinder which in turn activates a lever to lock the system.
- Design can vary according to system application & rail profile.
- It is mounted on overhead trolley frame.
- **Travel drive, pneumatic valves and accessories are not in scope, please ask for details.**

ENERGY

SPIRAL HOSE





Features

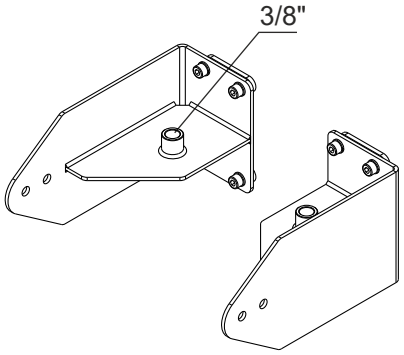
- Spiral Hose is one of the type of energy supply.
- Mainly spiral hose system is used when system is purely pneumatic.
- Spiral hose length depends on the travelling distance.

Scope of Supply

Item	Description	Quantity (nos.)
1	Coil Hose Bracket	2
2	J Hook Assembly	2
3	Coil Hose (according to Rail Length)	1
4	PU Coated Wire Rope (according to Rail Length)	1
5	Thimble	2
6	U Clip	6

*Scope of Supply for mounting on single rail.

SPIRAL HOSE



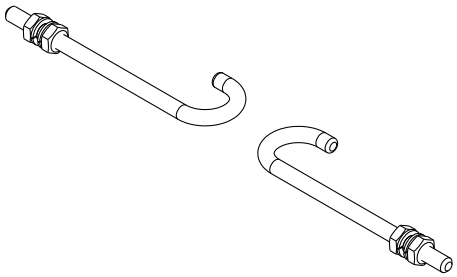
Spiral Hose Bracket

Technical Data

Profile	Part No.	Weight (kg)
S	5020	3.2
M	5030	4
L	5040	4.8
XL	5050	5.6

Features

- Spiral Hose bracket are mounted at each end of the rails.
- The brackets has a female threads of Rc 3/8".



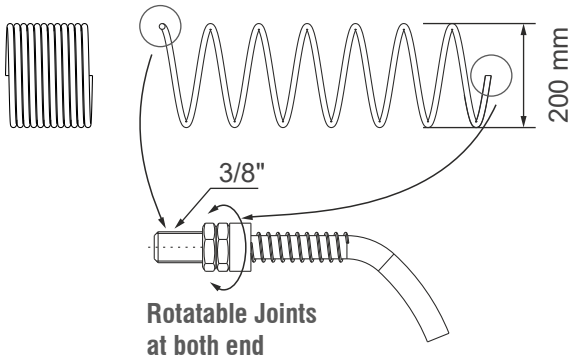
J Hook Assembly

Technical Data

Part No.	Weight (kg)
5110	0.3

Features

- J hooks are mounted on the spiral hose brackets at each end.
- PU coated wire ropes is then tightened with thimbles over these J hooks.



Coil Hose

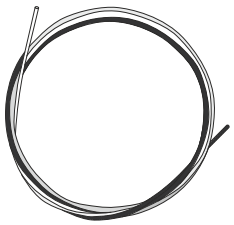
Technical Data

Part No.	Length (m)
5111	10, 15, 20 & 25

Features

- Spiral hose carry the supplied air at high pressure to the system.
- At both ends of coil hose metallic connectors with rotatable joints of male threads size 3/8 are attached.
- The connectors of spiral hose are connected to coil hose brackets. The outside PA is wear resistance & inside PU maintains the softness needed for flexibility.
- Max pressure capacity 10bar

SPIRAL HOSE



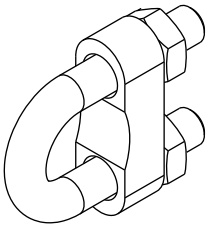
PU Coated Wire Rope

Technical Data

Part No.	Wire rope Length (m)	Wire rope Dia. (mm)
5112	10	ϕ4

Features

- Spiral hose hangs over the PU coated wire rope.
- These are tightened at both end on spiral hose bracket via J hook assembly.



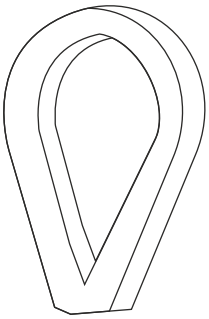
U Clip

Technical Data

Part No.	Quantity (nos.)
5113	6

Features

- It is used to tight the PU coated wire rope with J hook assembly.



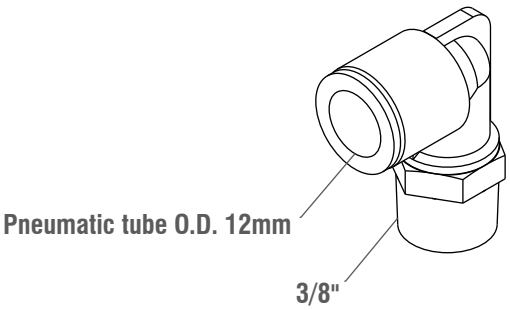
Thimble

Technical Data

Part No.	Quantity (nos.)
5114	4

Features

- It is used to wound PU coated wire rope with J hook assembly.



Elbow Connector

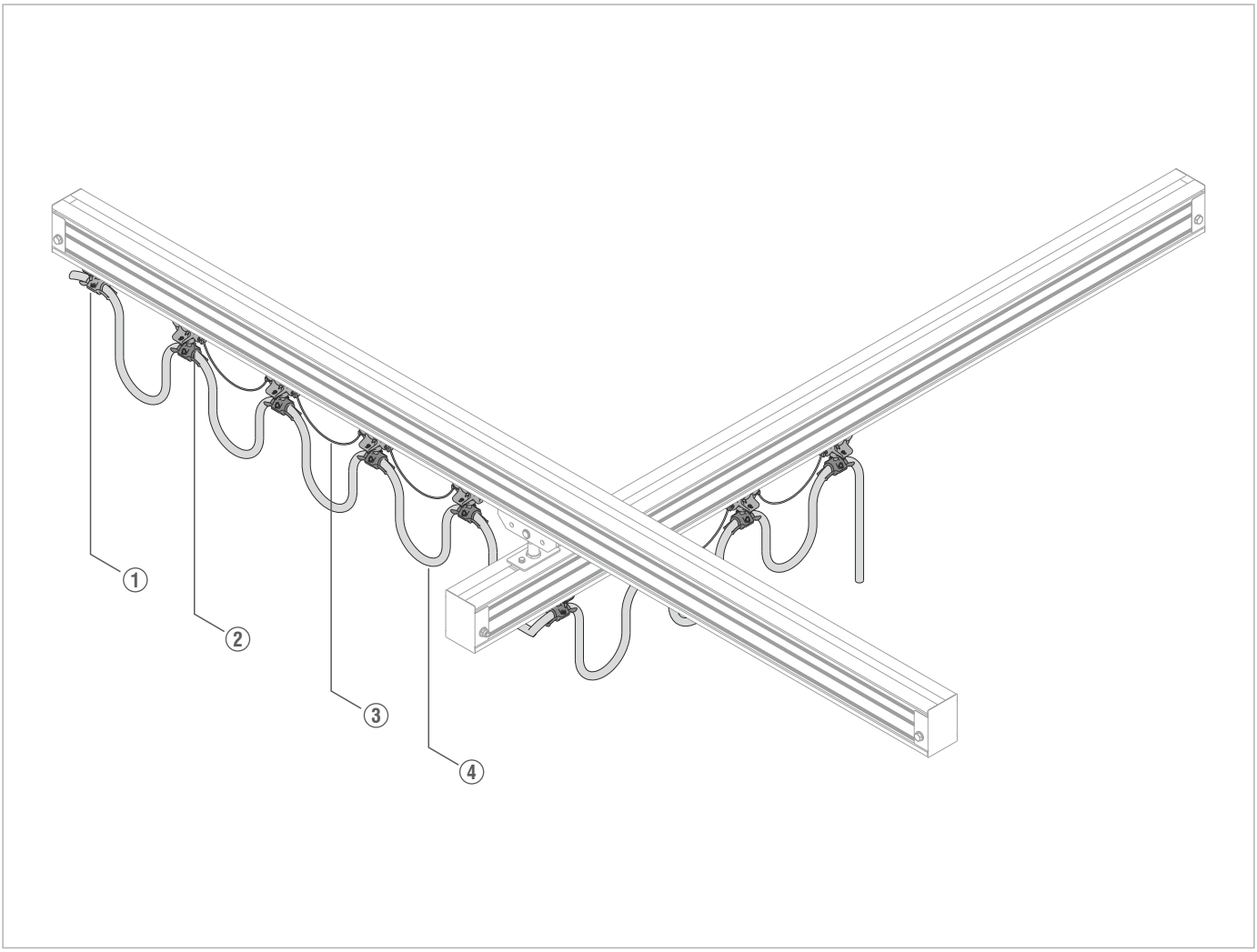
Technical Data

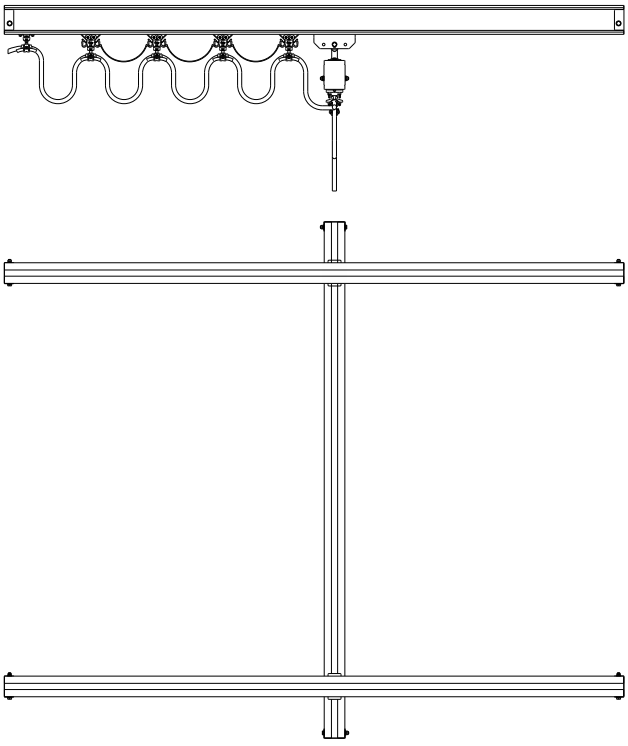
Part No.	Quantity (nos.)
5115	2

Features

- It is connected at coil hose bracket to give air supply from air preparation unit.

CABLE TROLLEY





Features

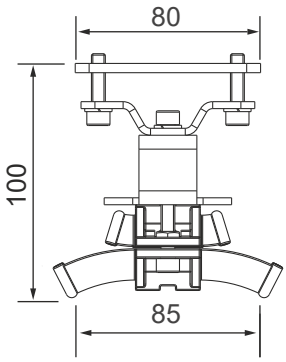
- When the energy is supplied with help of hoses/cable (round, flat) it requires cable trolley.
- Mainly cable trolley are used when system can be both pneumatic or electric.
- The hoses or cables hangs in cable trolley.
- The cable trolley has separate mountings for flat and round cable.
- There is a fixed cable trolley at start and remaining are the moving trolleys which are hold in loop using towing cable.

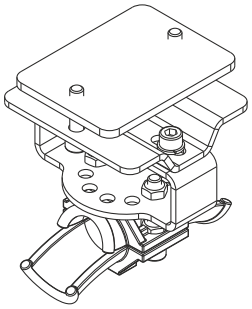
Scope of Supply

Item	Description	Quantity (nos.)
1	Fixed Hose Trolley / Fixed Flat Cable Trolley	1
2	Hose Cable Trolley / Flat Cable Trolley	L/1.5
3	Towing Cable	L/1.5 - 1
4	Rubber Hose	L X 1.5

*Scope of supply for 1 set of cable trolley system
*For rail length = L meter

CABLE TROLLEY





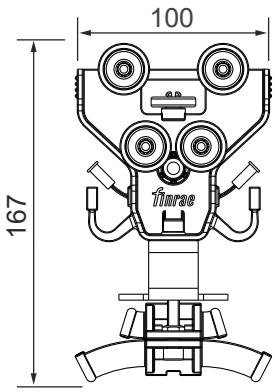
Fixed Hose Trolley

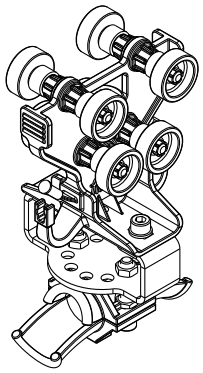
Technical Data

Part No.	Weight (kg)
5210	0.4

Features

- Fixed hose trolley is mounted at start of rail.
- Generally it is use for round cables & rubber hose.





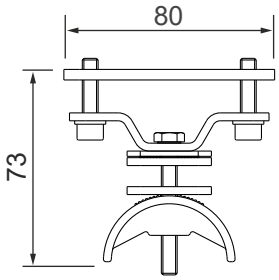
Hose Cable Trolley

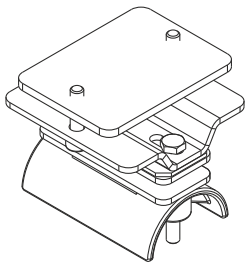
Technical Data

Part No.	Weight (kg)
5211	0.3

Features

- Hose cable trolleys moves inside the rail profiles.
- It is used for round cables & rubber hoses.





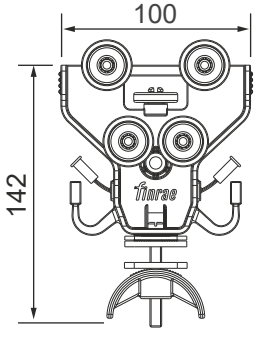
Fixed Flat Trolley

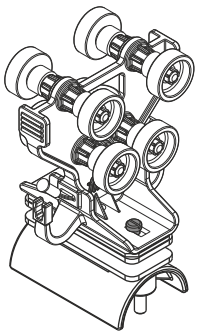
Technical Data

Part No.	Weight (kg)
5212	0.4

Features

- Fixed flat trolley is mounted at start of the rail.
- Generally it is use for flat cables.





Flat Cable Trolley

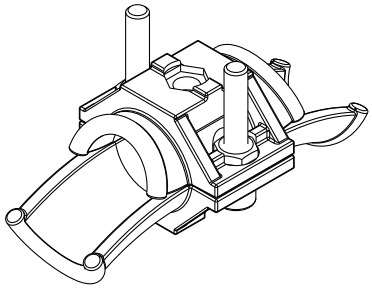
Technical Data

Part No.	Weight (kg)
5213	0.3

Features

- Flat cable trolleys moves inside the rails profiles.
- It is use for flat cables.

CABLE TROLLEY



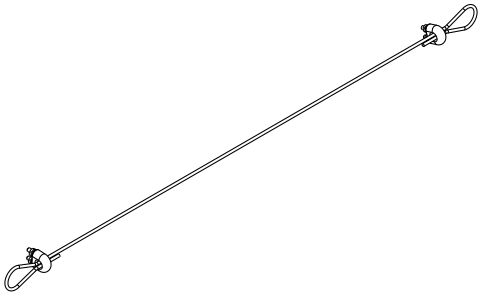
Hose Brackets

Technical Data

Part No.	Weight (kg)
5214	0.35

Features

- Hose brackets are used when number of cable increases.
- This can be added as an attachment with Hose cable trolley.



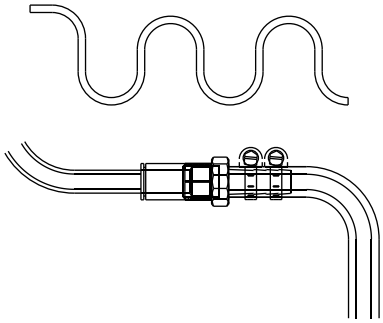
Towing Cable

Technical Data

Part No.	Weight (kg)
5215	0.15

Features

- Towing cable is used to make loop of trolley or to held them together at a specific distance when the system travels apart from starting point.



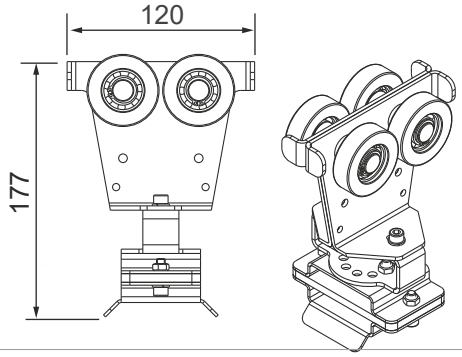
Rubber Hose

Technical Data

Part No.	ID (mm)
5216	8

Features

- Rubber hose is used when system is pneumatic.
- Rubber hose is connected to the system with a 3/8" female straight push in fitting having a 3/8" male nipple tightened with to hose clips.
- Max pressure capacity 10bar



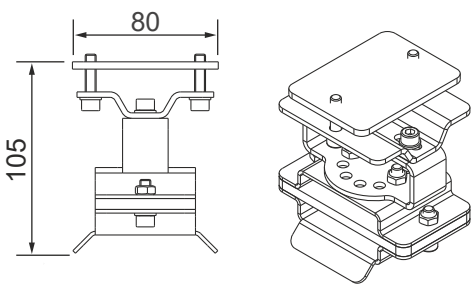
Metal Trolley For Cables (Heavy Duty)

Technical Data

Part No.	Weight (kg)
5217	1.4

Features

- Sheet Metal Flat Cable Trolleys moves inside the rail profiles.
- It is mainly used for flat cable.



Fixed Metal Trolley For Cables (Heavy Duty)

Technical Data

Part No.	Weight (kg)
5218	0.8

Features

- Sheet Metal Fixed Cable Trolley is mounted at start of rail.
- It is mainly used for flat cable.

STRAP CABLE TROLLEY

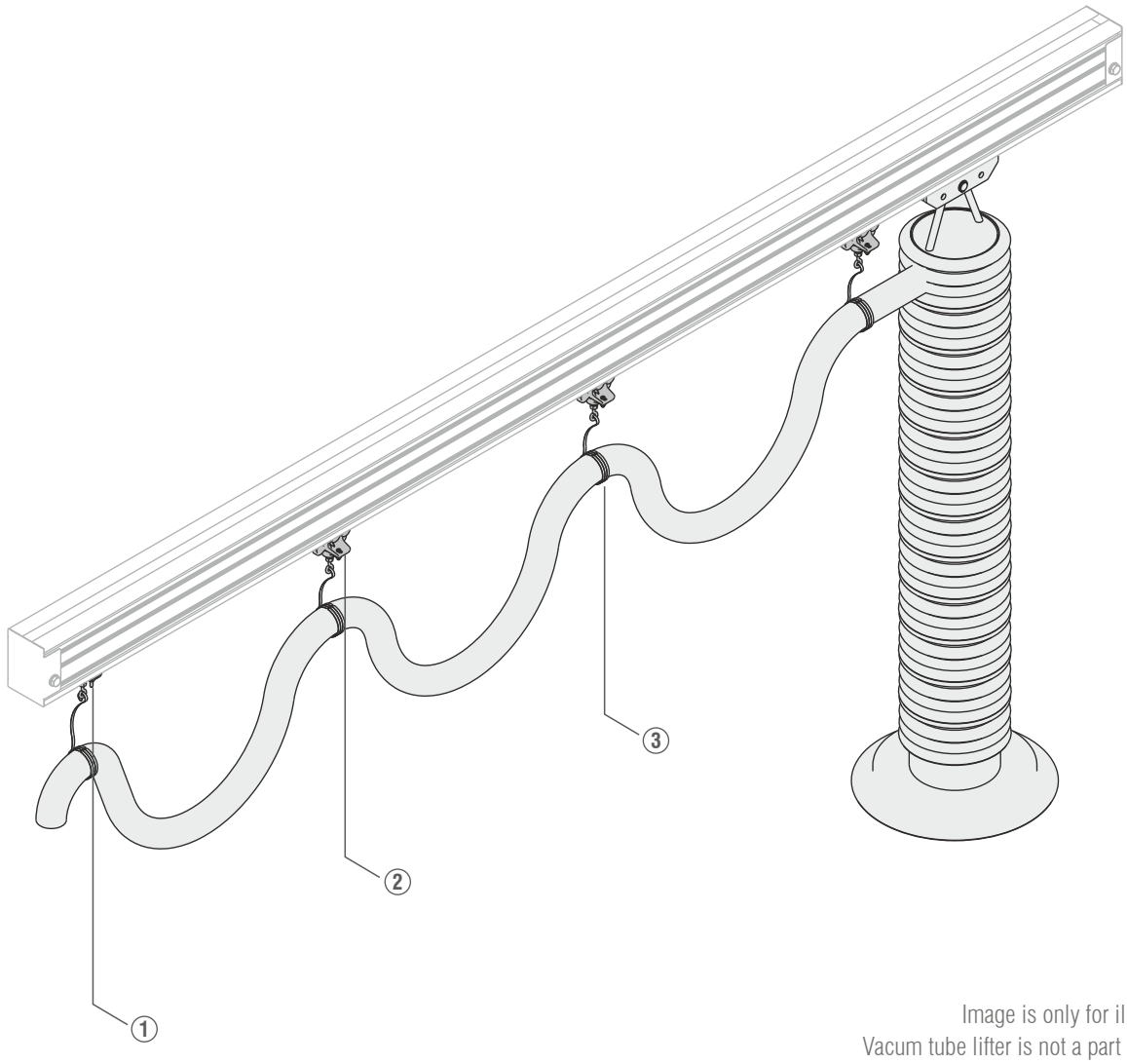


Image is only for illustration.
Vacum tube lifter is not a part of supply.

Scope of Supply

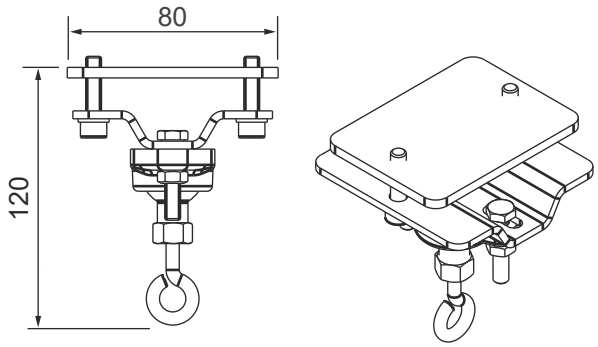
Item	Description	Quantity (nos.)
1	Fixed Strap Cable Trolley	1
2	Strap Cable Trolley	L/1.5
3	Strap	L/1.5
4	Towing Cable	L/1.5-1

*Scope of supply for 1 set of strap cable trolley system
*For rail length = L meter

Features

- When the energy is supplied with help of large diameter conduits which cannot be carried by hose cable trolley it requires straps to carry them.
- Mainly strap cable trolley are used when system is pneumatic the large diameter conduits is hang with straps in cable trolley.
- There is a fixed strap cable trolley at start and remaining are the moving.
- This can be used for electric & pneumatic festooning..

STRAP CABLE TROLLEY



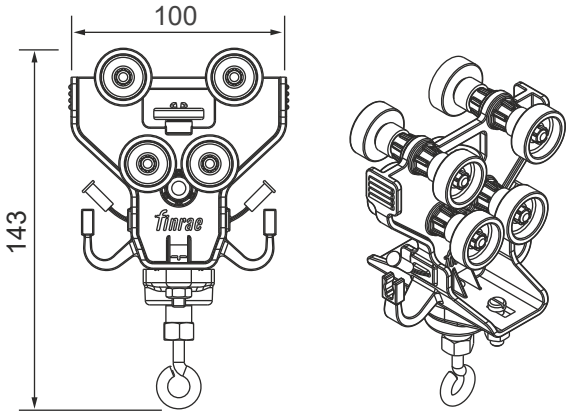
Strap Fixed Trolley

Technical Data

Part No.	Weight (kg)
5310	0.4

Features

- Strap Fixed Trolley is mounted at start of the rail.
- It is used to carry large diameter conduits with the help of straps.



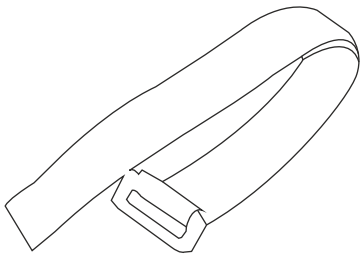
Strap Cable Trolley

Technical Data

Part No.	Weight (kg)
5311	0.3

Features

- Strap Cable Trolleys moves inside the rail profiles.
- It is used to carry large diameter conduits with the help of straps.



Strap

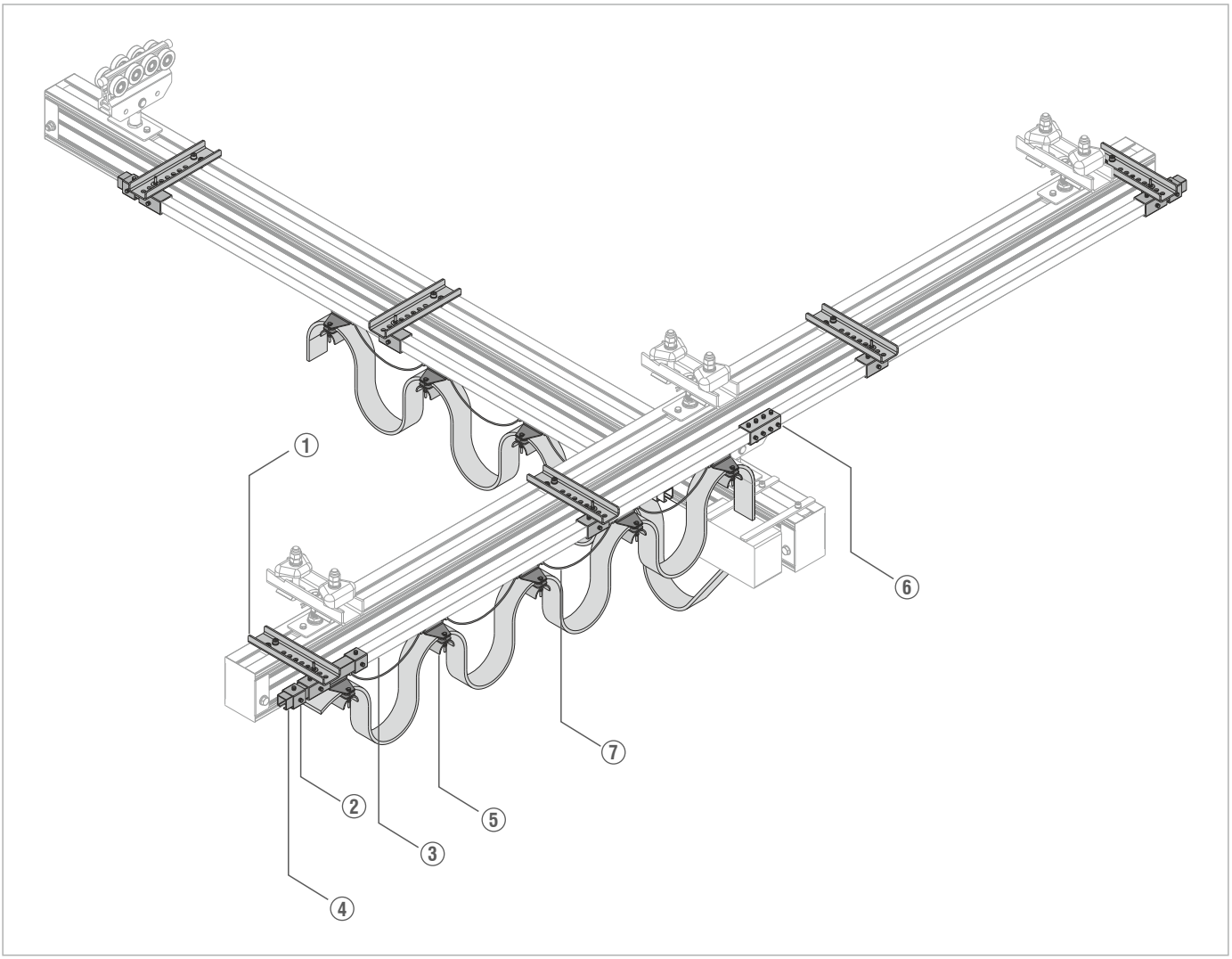
Technical Data

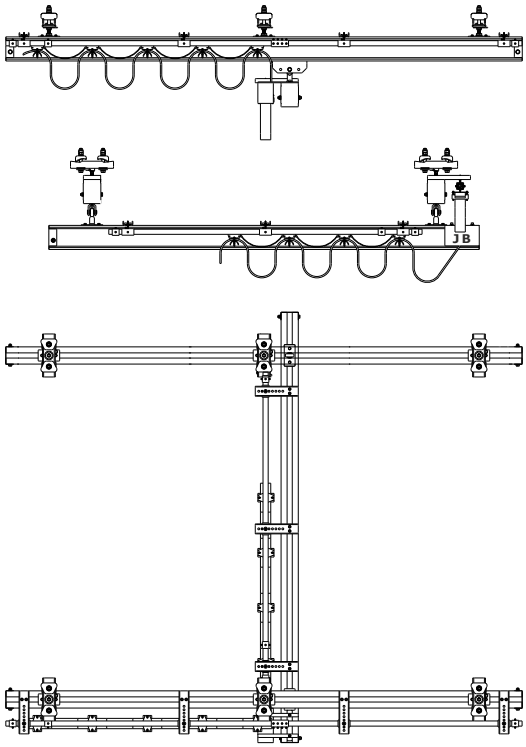
Part No.	Conduit Diameter
5312	upto 90 mm

Features

- Strap is used tie cable trolley with large diameter conduit.

C TRACK TROLLEY





Features

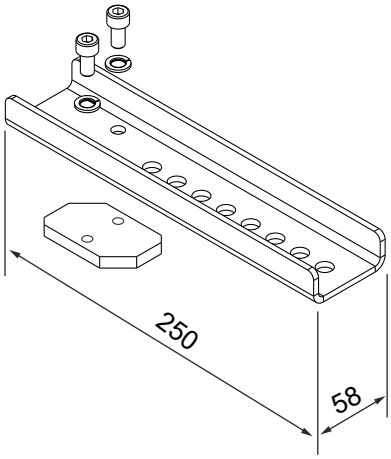
- When the energy is supplied with help of hoses/cable (Round/flat) it requires C-trak cable trolley.
- In C-track Cable Trolley System the cable trolley moves in a track mounted beside the rail.
- C-track cable trolleys are metallic.

Scope of Supply

Item	Description	Quantity (nos.)
1	C Track Mounting	L/2 + 1
2	C Track Suspension	L/2 + 1
3	C Track	L
4	C Track End Cover	3
5	C Track Trolley	L/1.5 + 1
6	C Track Joint Set	1 for L > 4m, 3 for L > 12m 2 for L > 8m, 4 for L > 16m
7	Towing Cable	L/1.5 - 1

*Scope of supply for 1 set of C track trolley system
*For rail length = L meter

C TRACK TROLLEY



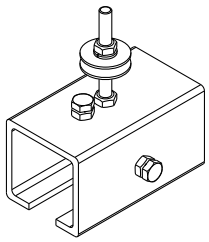
C-Track Mounting

Technical Data

Part No.	Weight (kg)
5410	1.2

Features

- C-Track Mounting is used to mount the C-track suspension.



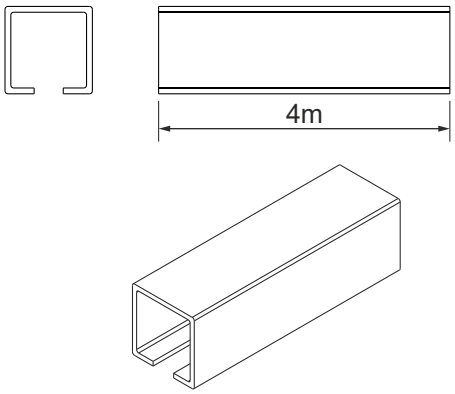
C-Track Suspension

Technical Data

Part No.	Weight (kg)
5411	1.2

Features

- C-Track Suspension is mounted on the C-track mounting & then C-track is tightened with suspension.



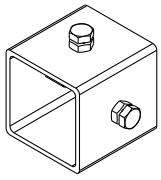
C-Track

Technical Data

Part No.	Weight (kg)
5412	2

Features

- C-Track is used as travelling medium for C-track trolley (track length - 4m).



C-Track End Cover

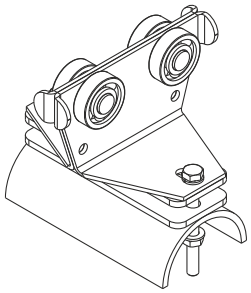
Technical Data

Part No.	Weight (kg)
5413	0.4

Features

- C-Track End Cover is used to stop the C-track trolley.

C TRACK TROLLEY



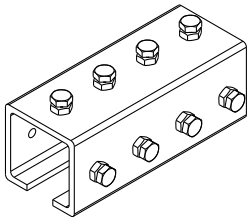
C-Track Trolley

Technical Data

Part No.	Weight (kg)
5414	0.5

Features

- C-Track Trolley is a metallic trolley travel in C-track & carry the energy cables.



C-Track Joint Set

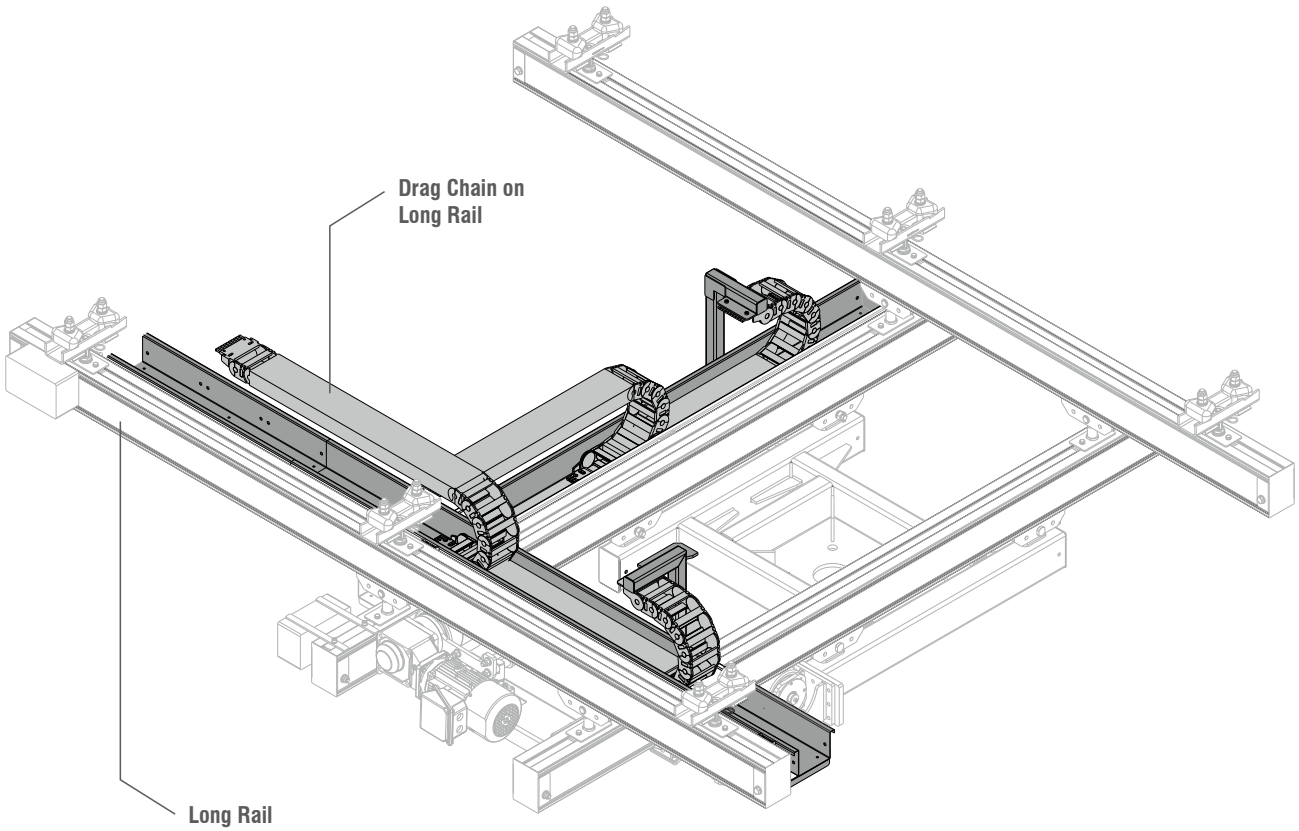
Technical Data

Part No.	Weight (kg)
5415	0.8

Features

- C-Track Joint Set is used to joint 2 C-tracks.

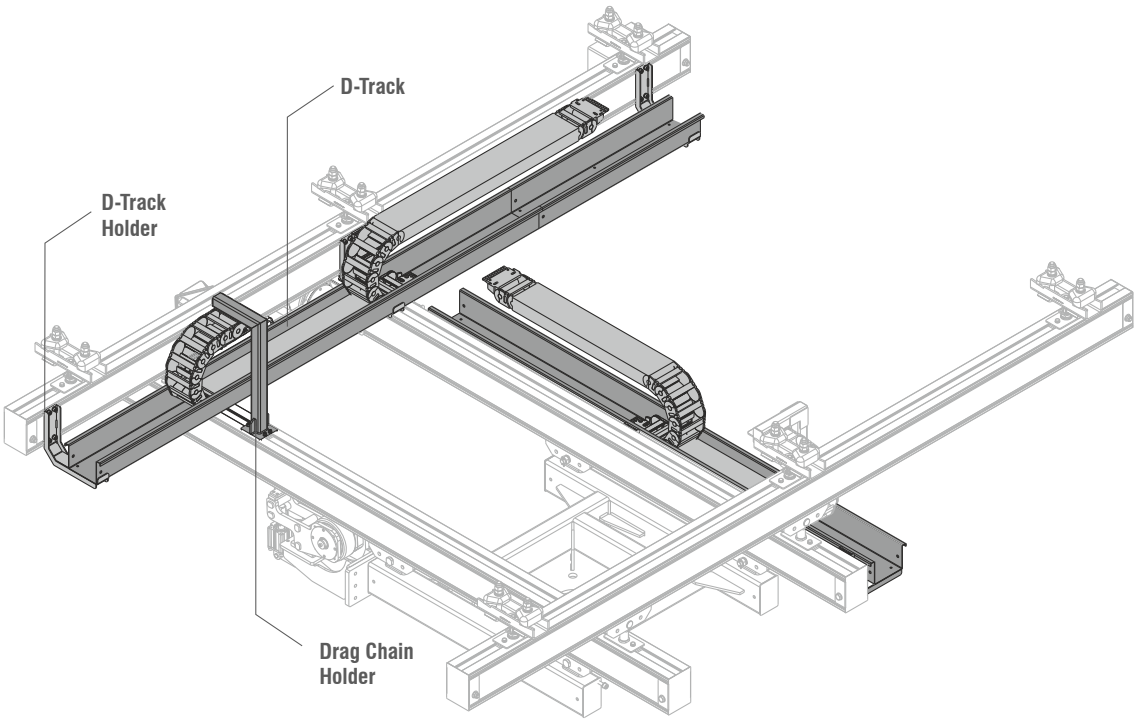
DRAG CHAIN

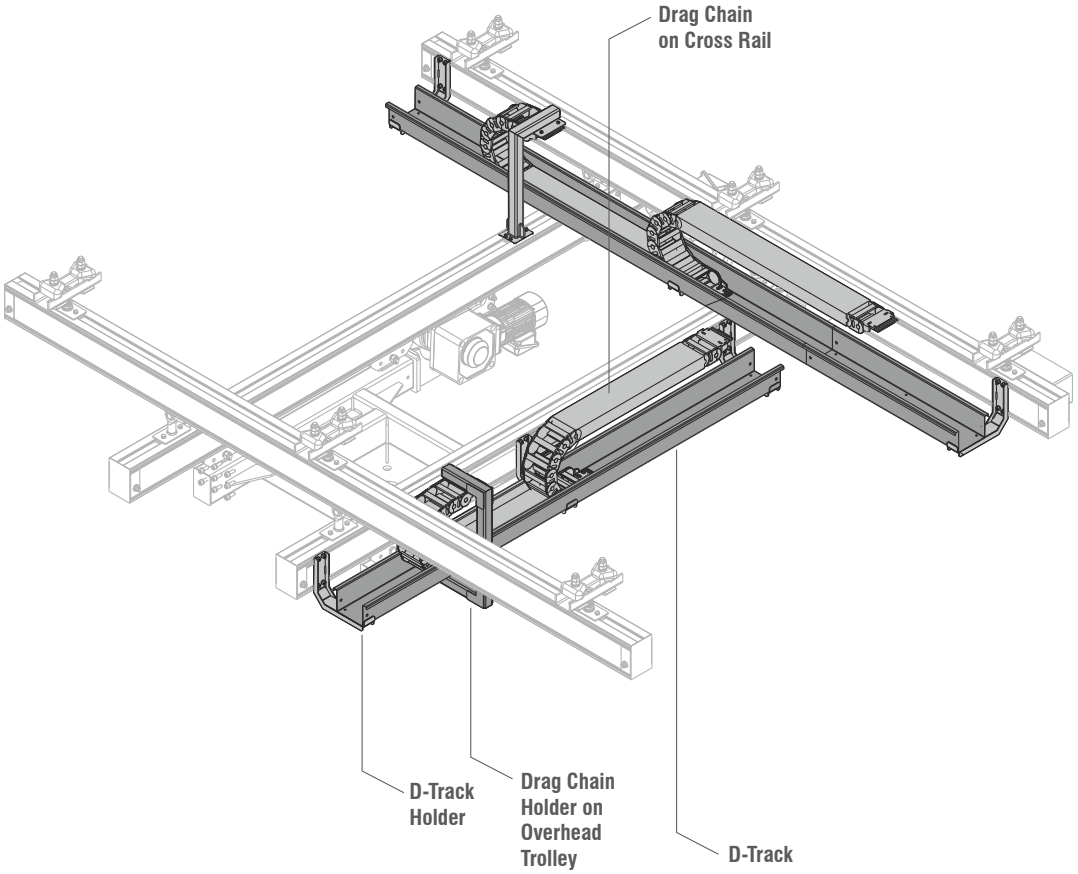


Features

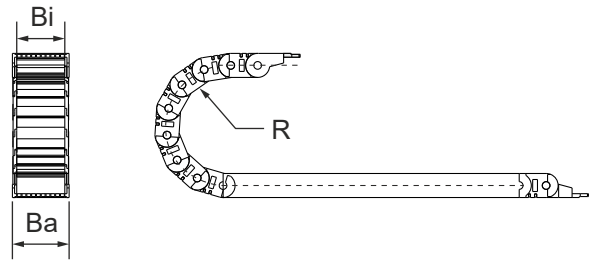
- This system is mainly use for electro-pneumatic or purely electrical system.
- To avoid tangling of cables and to identify easily the specific cables drag chain are used.
- The drag chain is placed over the D-tack.
- The D-track is mounted on D-tack holder.
- The D-track holder is mounted on the rails.
- The one end of Drag chain is fixed with D-track & other end is connected to moving system with Drag chain holder.
- Mostly drag chain is used where electric drives are used.

DRAG CHAIN


D-Track
D-Track Holder
Drag Chain Holder


Drag Chain on Cross Rail
D-Track Holder
Drag Chain Holder on Overhead Trolley
D-Track

DRAG CHAIN



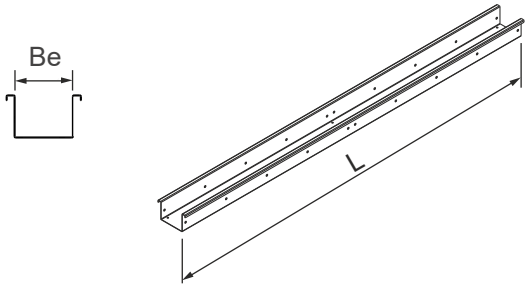
Drag Chain

Technical Data

Part No.	Ba (mm)	Bi (mm)	R (mm)
5510	91	75	63
5511	116	100	125

Features

- Drag chain is a cable carrier which avoids tangling of cables when system travels from one end to others.
- Standard color black.



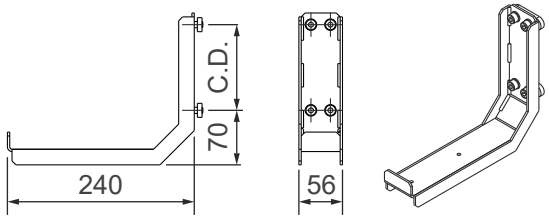
D-track

Technical Data

Part No.	Be (mm)	L (mm)	Weight (kg)
5520	125	2000	1.2
5521	100	2000	1

Features

- D-track is mounted on D-track holder & is used to carry the drag chain.



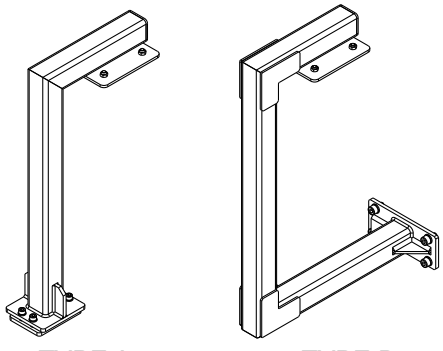
D-track holder

Technical Data

Part No.	Profile	Weight (kg)
5532	S	0.8
5533	M	1
5534	L	1.2
5535	XL	1.4

Features

- D-track holder is mounted on rails and is used to hold D-track.



Drag Chain Holder

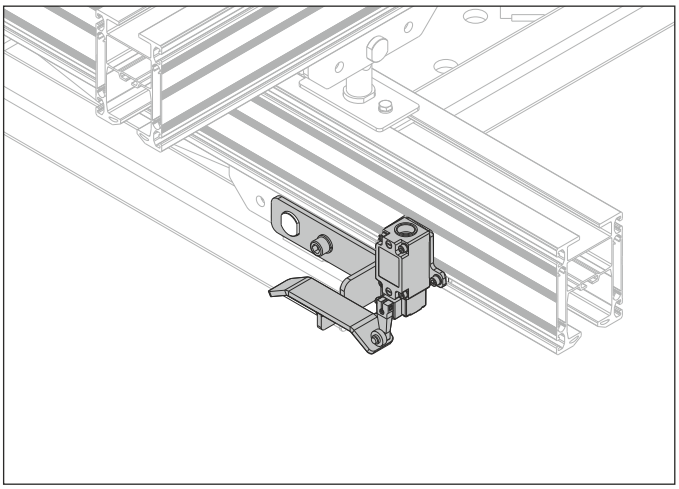
Technical Data

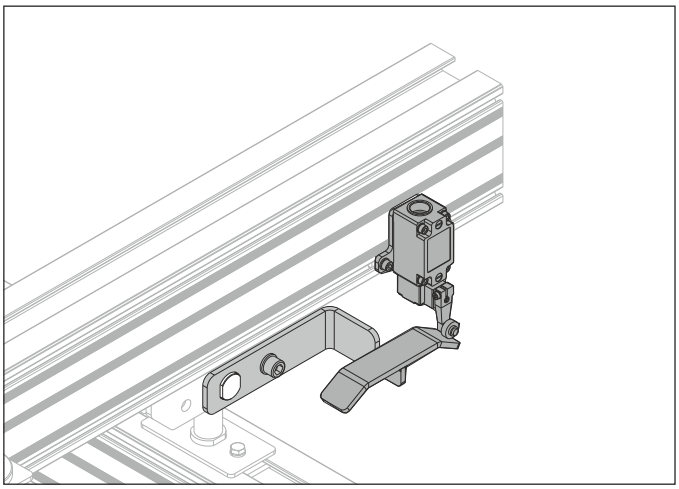
Part No.	Type	Weight (kg)
5540	A	3
5541	B	4

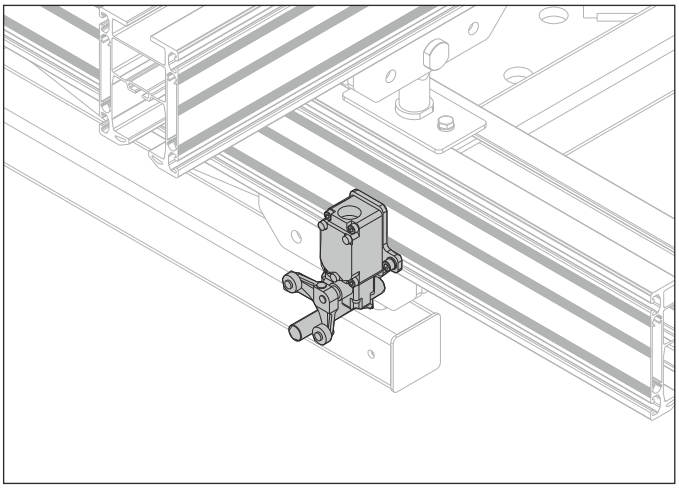
Features

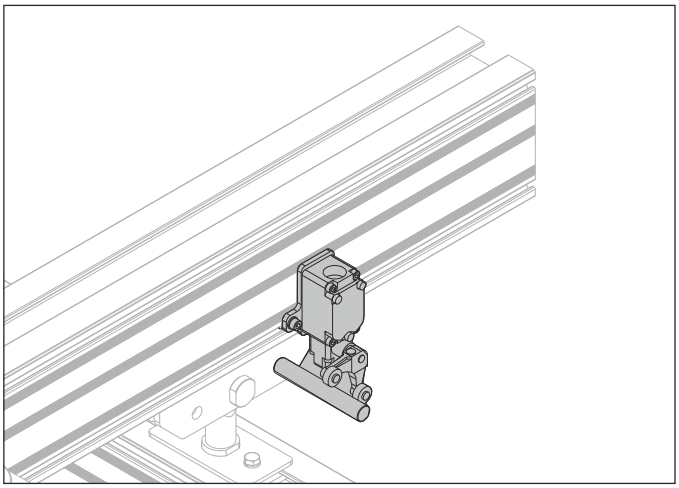
- Drag chain holder connect drag chain with moving system.
- Type A holder is mainly used to connect drag chain of long rail to cross rail.
- Type B holder is mainly used to connect drag chain of cross rail to the overhead trolley of manipulator.

LIMIT SWITCH





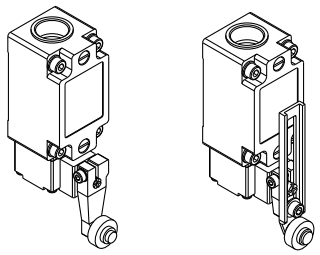




Features

- Limit Switches offers limitation to the system as per defined by the user or as per requirement of the application.
- If the travel happen a more than defined range due to any failure then there are limit switches which stops/alarm the system immediately and reduced risk of accidents.
- Finrae comes up mainly with two types of limit switches.
  1) Roller/adjustable roller lever type limit switch
  2) Latch type limit switch
- Finrae offers standard Limit Switch dogs for each type of limit switches that can be directly mounted on the load trolley.

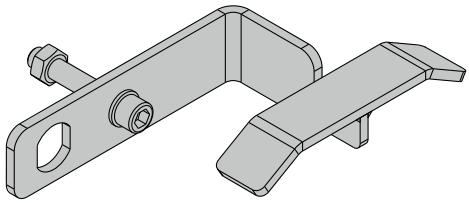
LIMIT SWITCH



Roller Lever Type Limit Switch

Technical Data

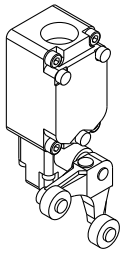
Part No.	Type	Weight (kg)
6110	Fixed Roller	0.5
6111	Adjustable Roller Lever	0.5



Roller Lever Type Limit Switch Dog

Technical Data

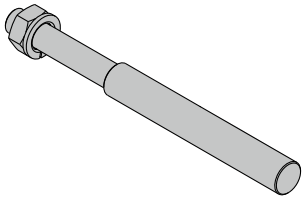
Part No.	Weight (kg)
6112	0.9



Latch Type Limit Switch

Technical Data

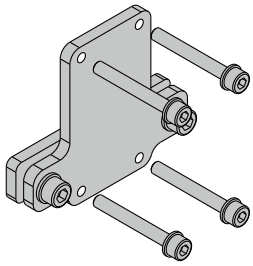
Part No.	Weight (kg)
6210	0.5



Latch Type Limit Switch Dog

Technical Data

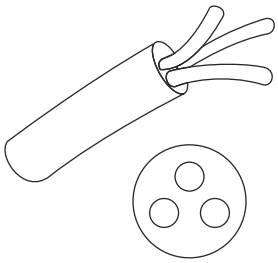
Part No.	Weight (kg)
6212	0.3



Limit Switch Mounting

Technical Data

Part No.	Weight (kg)
6310	0.3



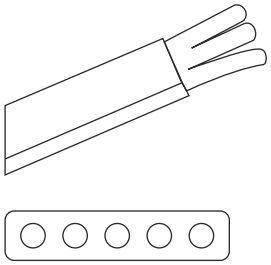
Round Cable

Technical Data

Part No.	Core	Sq.mm	Length (m)
6410	2C	0.75	30
6412	5C	1.5	30

Features

- It is used for main power supply, motor, brakes, multi core for junction box and communication cables.
- Length to be confirmed as per site requirements.



Flat Cable

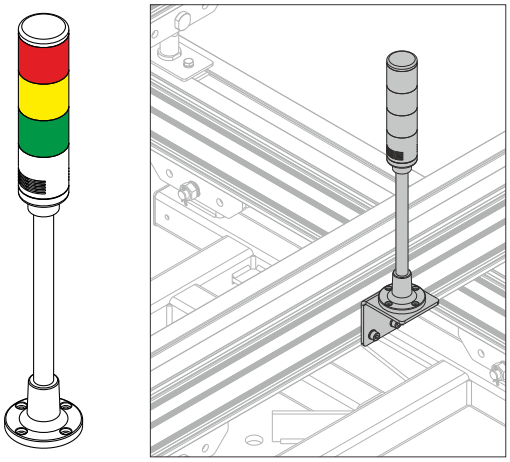
Technical Data

Part No.	Core	Sq.mm	Length (m)
6510	5C	1.5	30

Features

- It is mainly used for power supply and motors.
- Length to be confirmed as per site requirements.

TOWER LAMP



Technical Data

Part No.	Description
6610	Single Tier Red 24V dc
6611	Two Tier Green, Red 24V dc
6612	Three Tier Green, Red, Yellow 24V dc

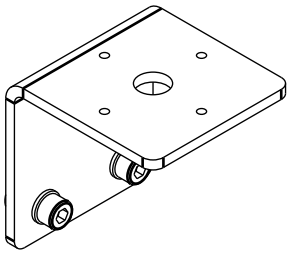
Vaient comes with & without buzzer
For Tower Lamp with buzzer use suffix-B. For example: 6610-B

Features

Tower lamp is used to indicate the phase of system travel.

Red	Second limit switch hit and line will stop.
Yellow	First limit switch hit and alarm will start.
Green	Normal usage.

TOWER LAMP MOUNTING



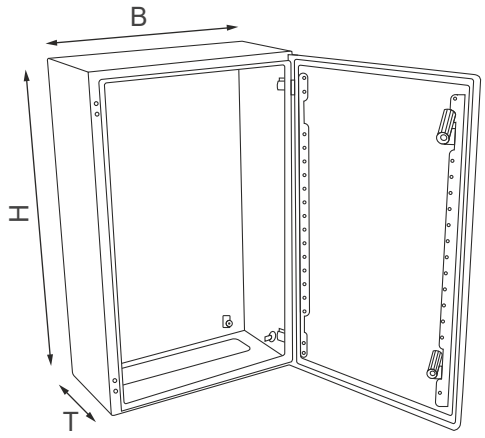
Technical Data

Part No.	Weight (Kg)
6620	0.6

Features

- It is used to mount tower lamp on rail profiles.

PANEL BOX



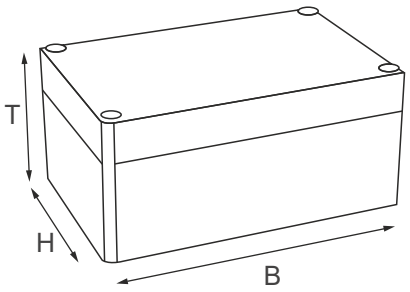
Technical Data

Part No.	Description (B x H x T mm)
6711	400 x 500 x 210
6712	300 x 400 x 210
6713	200 x 300 x 155

Features

- Colour; RAL 7035.
- Material : Sheet Steel, all-round foamed in PU seal.
- Mounting Plate: Zinc-plated.
- With camlock.

JUNCTION BOX



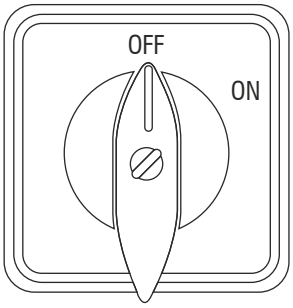
Technical Data

Part No.	Description (B x H x T mm)
6714	200 x 120 x 90 (ABS)

Features

- Junction box is an enclosure housing electrical connections.
- Junction box help protection against weather, as well as prevent from accidental electric shock.

MAIN SWITCH



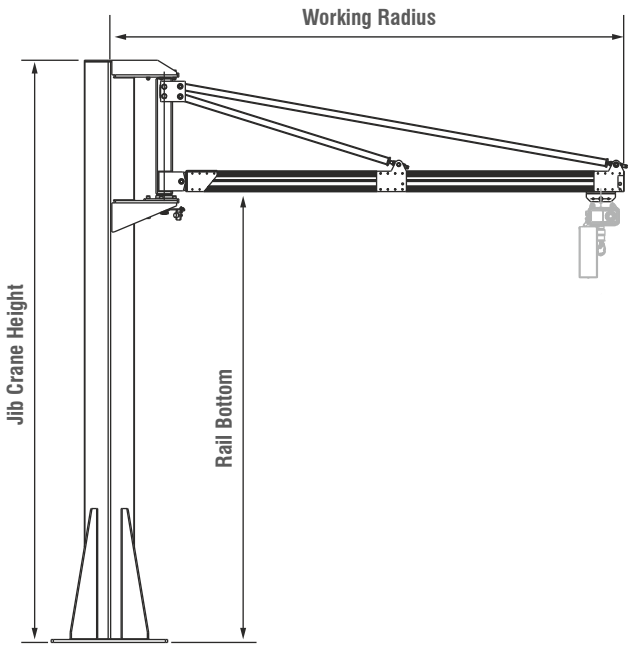
Technical Data

Part No.	Description
6910	2P, 6A, 10A
6920	3P, 6A, 10A, 16A

Features

- The main switch is one of the part of a control panel which has large impact on progressing a project, and applies or disconnects the power of control panel.

COLUMN MOUNTED JIB CRANE



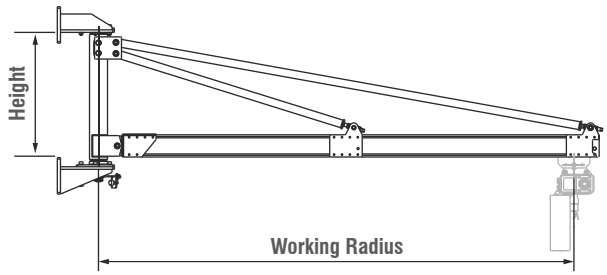
Features

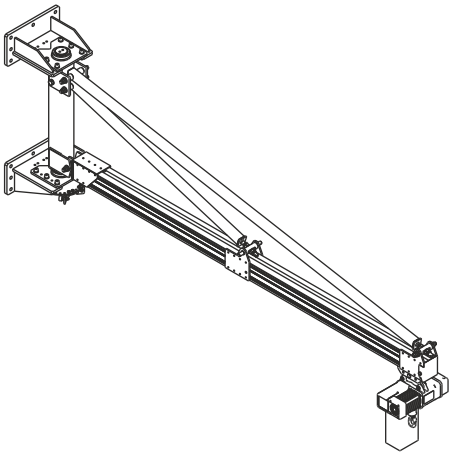
- Jib Crane is used for pick and place application using hoist.
- Mostly used for higher working radius application.
- Finrae offers Jib Crane with optimum undertaking of crane profile for suitable loads.
- Comes along with installation anchor bolts.
- Design of Jib Cranes can be customised according to weight, height and working radius.
- Load trolley (As per model selected), fixed cable trolley & cable trolley are included in scope.
- **Hoist & Hoist related electrical parts are not in scope of supply.**
- **Final dimension to be decided by Finrae after layout.**

Part No.	Capacity	Profile	Working Radius (m)	Rail Bottom (m)	Jib Crane Height (m)
8011	125	S	2	3	4
		S	2.5		
		S	3		
		M	3.5		
		M	4		
8012	250	M	2	3	4.1
		M	2.5		
		M	3		
		L	3.5		
		L	4		
8013	500	L	2	3	4.3
		L	2.5		
		L	3		
		L	3.5		
		L	4		

Ordering code for Jib Crane Capacity 250 kg, Working radius 3.5 m, Rail bottom 3 m. **8012-250-3.5-3**
For customized dimensions please specify required ordering code.

WALL MOUNTED JIB CRANE





Technical Data

Part No.	Capacity (kg)
8021	125
8022	250
8023	500

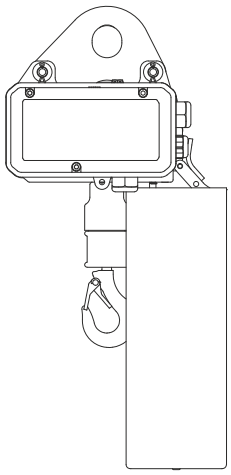
Features

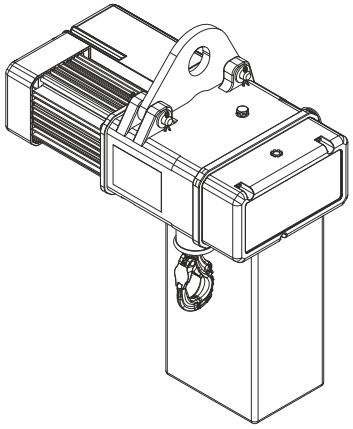
- Wall Mounted Jib Crane is used for pick and place application using hoist.
- Mostly used for higher working radius application.
- Design of Wall Mounted Jib Cranes can be customised according to weight, height and working radius.
- Load trolley (As per model selected), fixed cable trolley & cable trolley are included in scope.
- **Hoist & Hoist related electrical parts are not in scope of supply.**
- **Final dimension to be decided by Finrae after layout.**

Part No.	Capacity	Profile	Working Radius (m)	Height (m)
8021	125	S	2	1
		S	2.5	
		S	3	
		M	3.5	
		M	4	
8022	250	M	2	1.1
		M	2.5	
		M	3	
		L	3.5	
8023	500	L	2	1.3
		L	2.5	
		L	3	

Ordering code for Jib Crane Capacity 250 kg, Working radius 3.5 m. **8022-250-3.5**
For customized dimensions please specify required ordering code.

ELECTRIC CHAIN HOIST





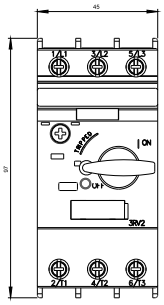
Technical Data

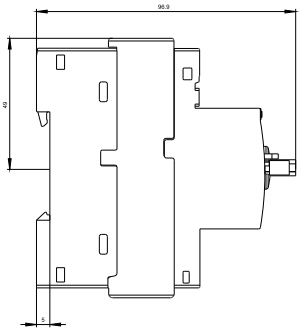
Part No.	Load (kg)	ISO	Speed m/min
8031	125	M7	8/2
8032	250	M6	8/2
8033	500	M5	8/2
8034	1000	M6	8/2

Features

- Mostly used for pick and place application.
- 3 Pph / 400 V 50Hz (380-415 V 50 Hz), IP55.
- 1.5m control cable.
- Control pendent with emergency stop.
- Maximum speed 8m/min & minimum speed 2m/min.
- Compact design.
- Easy to install.
- Please contact for different speed & lifting height requirement.

MOTOR PROTECTION CIRCUIT BRAKER MPCB





Technical Data

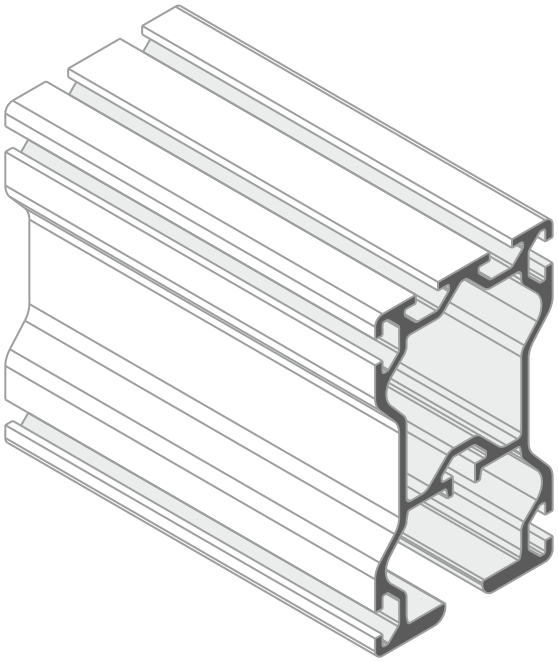
Part No.	Rating (A)
8041	0.22-0.32
8042	0.7-1

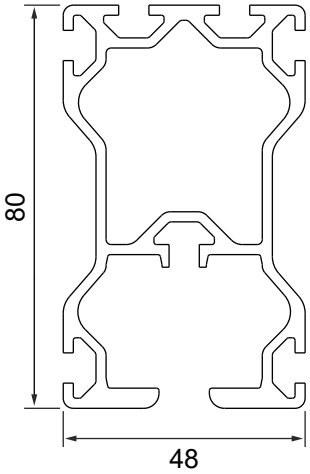
Features

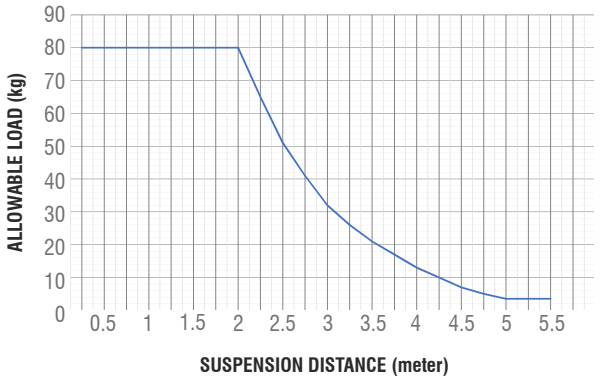
- MPCB is a combination protection unit comprising the function of a switch, a short circuit protective device & an overload relay.
- They are designed for various current rating to suit different motor ratings.

TOOL RAIL PROFILE

TOOL RAIL PROFILE







Technical Data

Material Data	Al 6063 T66 silver anodized 15 microns
Weight	2.19 kg/m
Moment of Plane Area Ixx/Iyy	Ixx=623233 mm^4 Iyy=217388 mm^4
Section Modulus Zxx/Zyy	Zxx=15.4 mm^3 Zyy=9 cm^3

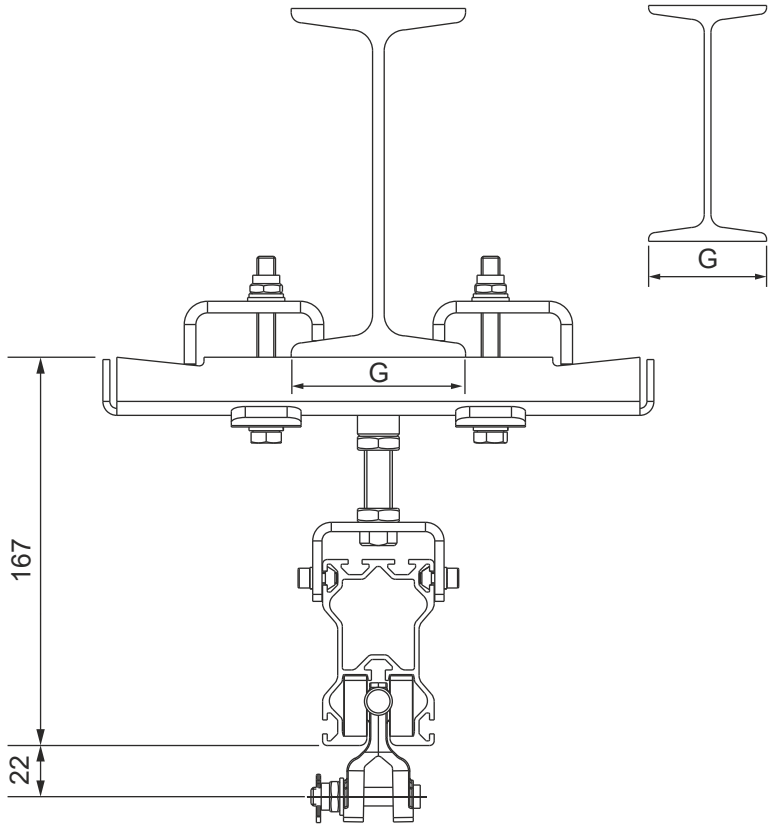
Part No.	Profile Length (mm)	Weight (kg)
1011	1000	2.19
1012	2000	4.38
1013	3000	6.57
1014	4000	8.76
1015	5000	10.95
1016	6000	13.14

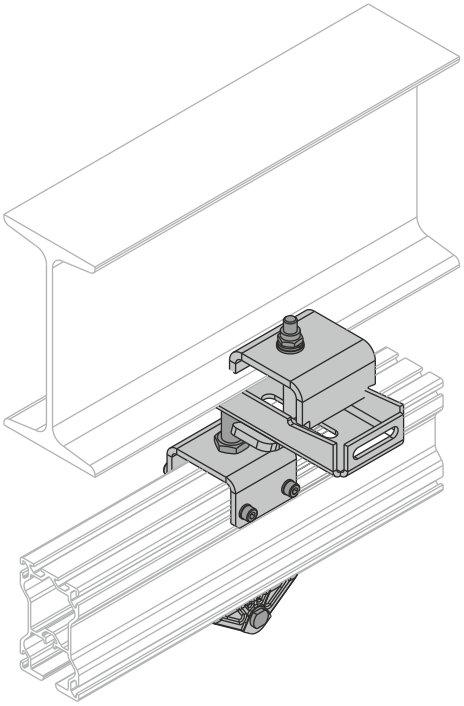
Features

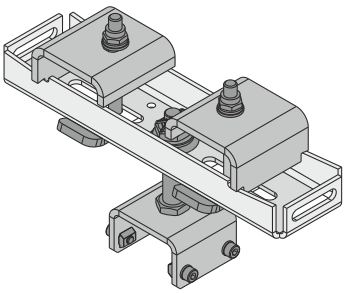
- Load capacity of 80 kg for suspension distance of 2 m.
- Light weight, designed to facilitate smooth movement of tools such as nut-runners, screw drivers on a compact assembly station or a layout.
- Finare rails profiles are made out of high quality aluminium.
- Designed to suit various type of mounting options even for the places with space constraints.
- Compact design with profile of height 80 mm.

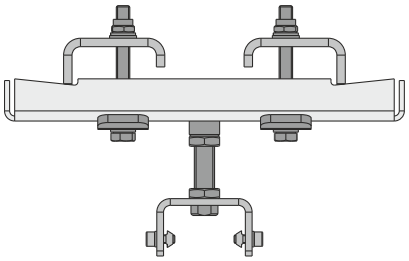
TOOL RAIL SUSPENSION

Suspensions are used to mount Rail Profile below the overhead structure. Once the Suspension are clamped with I-beam the rails are then mounted below the suspension.









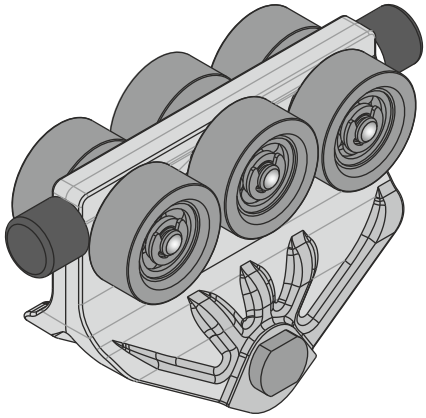
Features

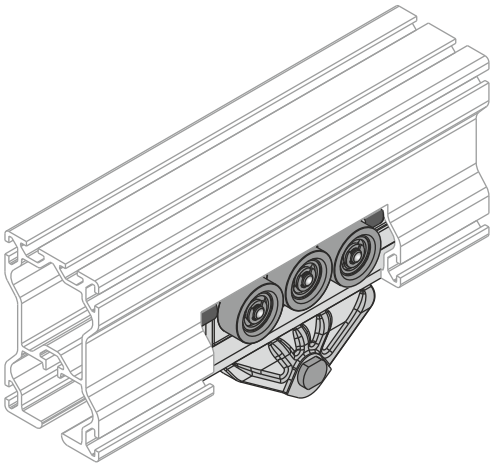
- Suitable in places with space constraints.
- Suitable for I beam mounting.
- It is a rigid type of suspension.

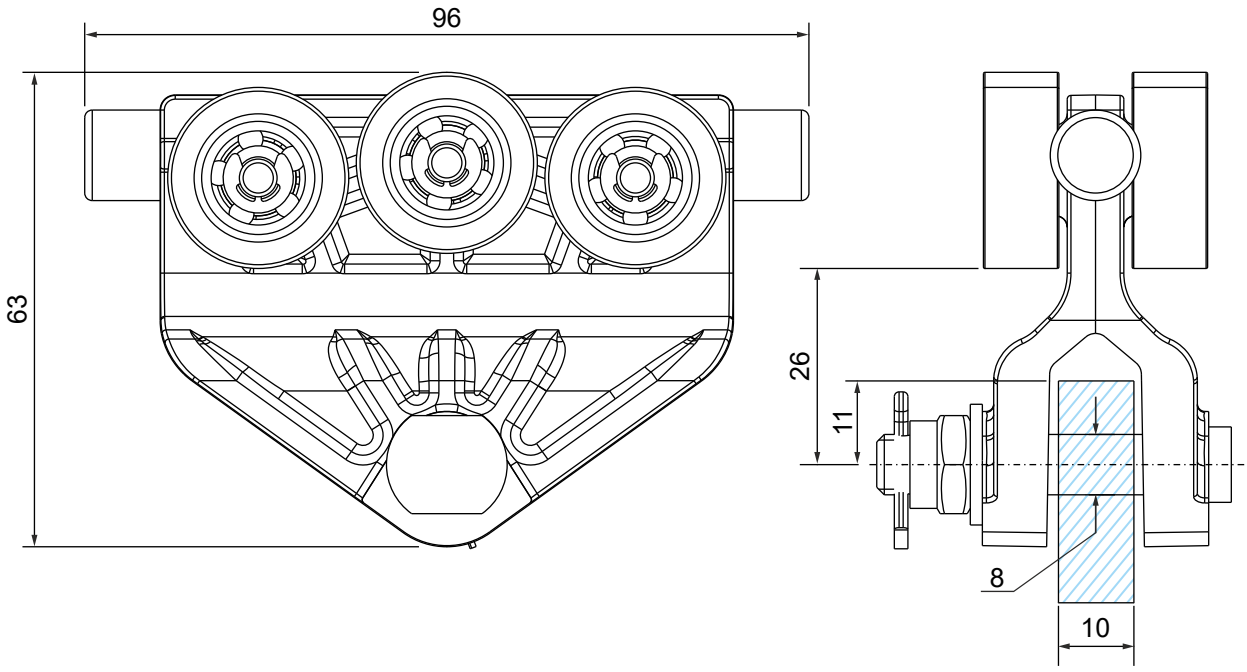
Technical Data

Part No.	Load Capacity (kg)	Weight (kg)	Flange Width G (mm)
2021	75	1.4	80-125

TOOL RAIL TROLLEY







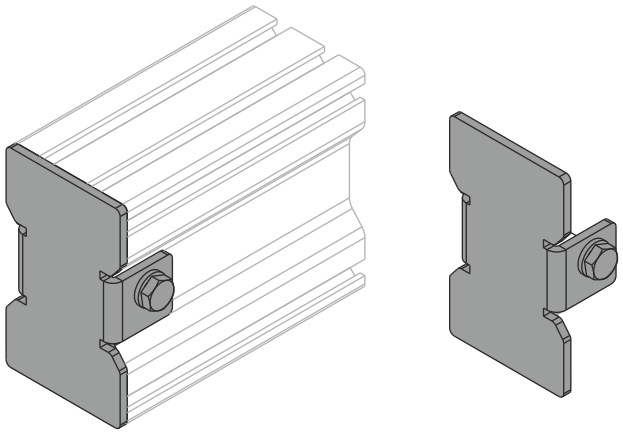
Technical Data

Part No.	Load Capacity (kg)	Weight (kg)
3031	75	0.2

Features

- Smooth movement and noiseless operations.
- Finrae tool rail load trolley are best suitable for direct acting loads.
- Finrae tool rail load trolley comes with built-in rubber bumper.
- Roller with patented material for smooth rolling.

TOOL RAIL END CAP



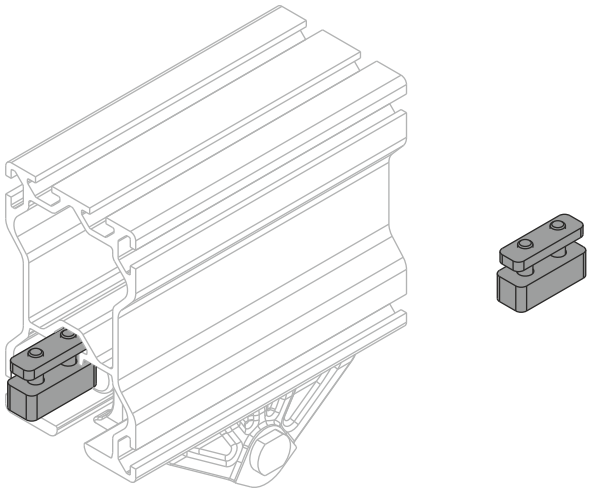
Technical Data

Part No.	Weight (kg)
4041	0.15

Features

- Each and every Finrae tool rail profiles must be mount with end cap to protect it against undesirable element that spoil the profile surface.
- Ensures longer operating life, smooth movement and lesser maintenance of trolley wheels.
- Easy to install with a nut and bolt.

TOOL RAIL ADJUSTABLE END STOPPER



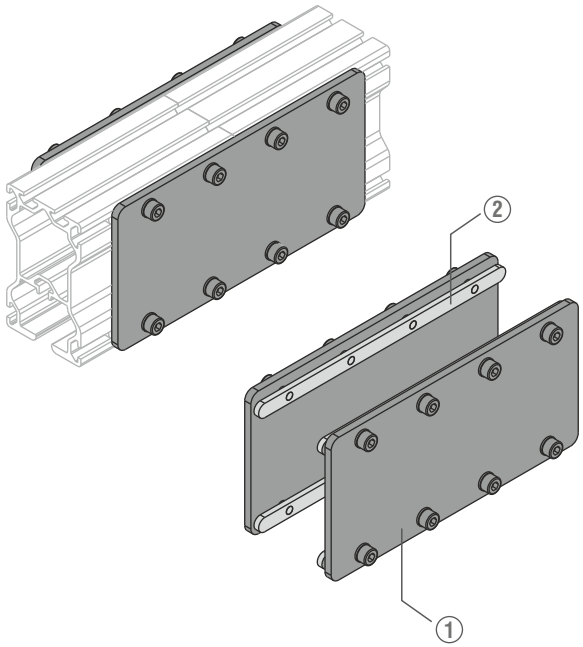
Technical Data

Part No.	Weight (kg)
4042	0.15

Features

- Tool Rail Adjustable End Stopper stops the movement of trolley at desired location.
- The bumper of the trolley hits the tool rail adjustable end stopper & thus restricts the movement of trolley.
- It is easy to fix at any point along the length of rails.
- Designed to compensate thrust loads of trolley.

TOOL RAIL PROFILE JOINING SET



Technical Data

Part No.	Weight (kg)
4043	0.8

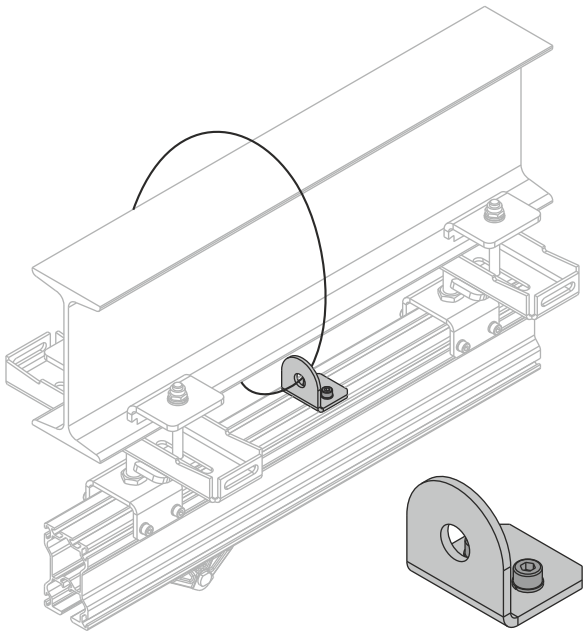
Scope of Supply

Item	Description	Quantity (nos.)
1	Profile Joining Plate	2
2	Profile Joining Back Plate	4

Features

- Connects two Tool Rail profiles.
- Ensures precise joining of the Rail.

TOOL RAIL SAFETY GIRDER



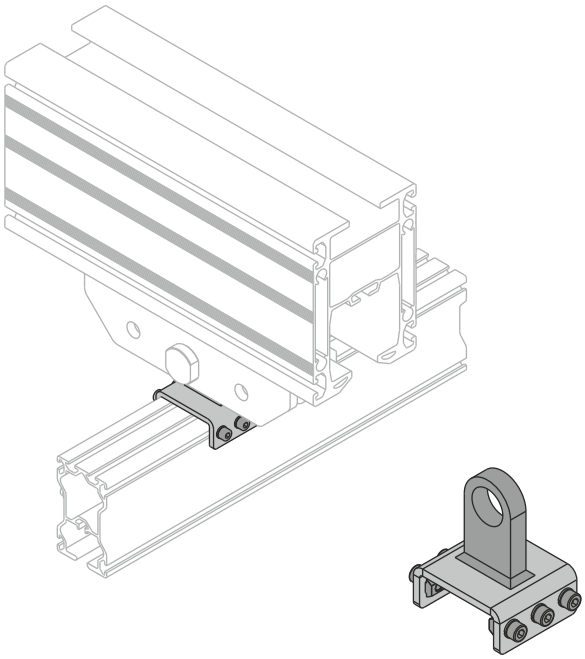
Technical Data

Part No.	Weight (kg)
4044	0.8

Features

- Tool Rail Safety Girder is the primary safety unit.
- It is mounted over the rail.
- The wire rope unit is then wound to I-beam with safety girder.
- Safety girder are mounted near each suspension.
- The tool rail safety girder system has a safety girder bracket, 3 u-clips and
- 1.5 m wire rope of diameter 6 mm.

TOOL RAIL 90 DEGREE GIRDER



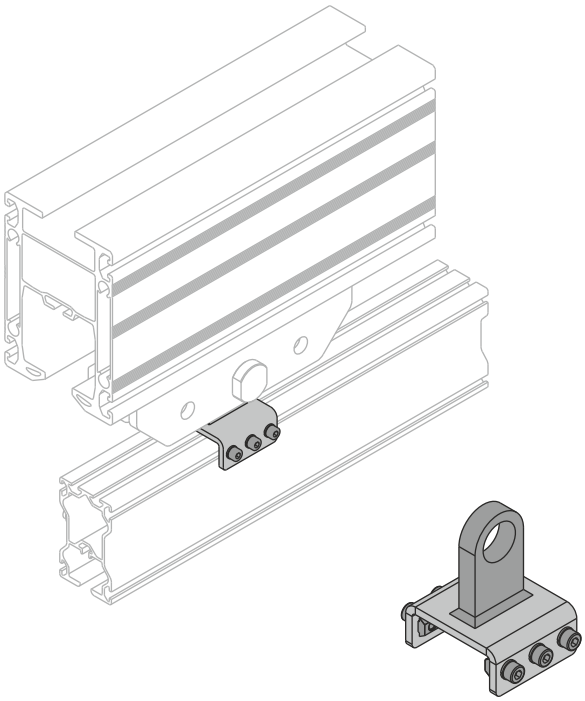
Technical Data

Part No.	Weight (kg)
4045	0.6

Features

- With this girder, Tool Rail profile can be connected to with load trolley in 90 degree orientation for load carrying capacity of upto 75 kg.

TOOL RAIL 0 DEGREE GIRDER



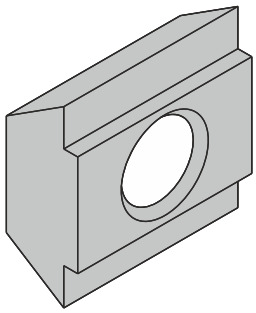
Technical Data

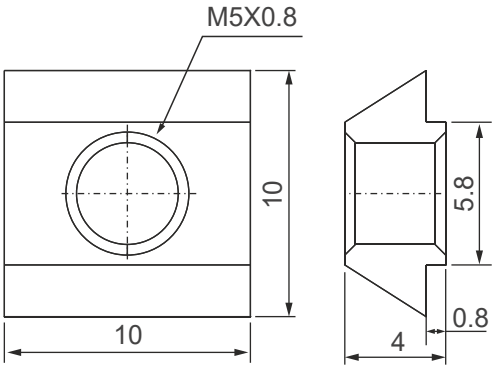
Part No.	Weight (kg)
4046	0.6

Features

- With this girder, Tool Rail profile can be connected to with load trolley in 0 degree orientation for load carrying capacity of upto 75 kg.

T SLOT NUT





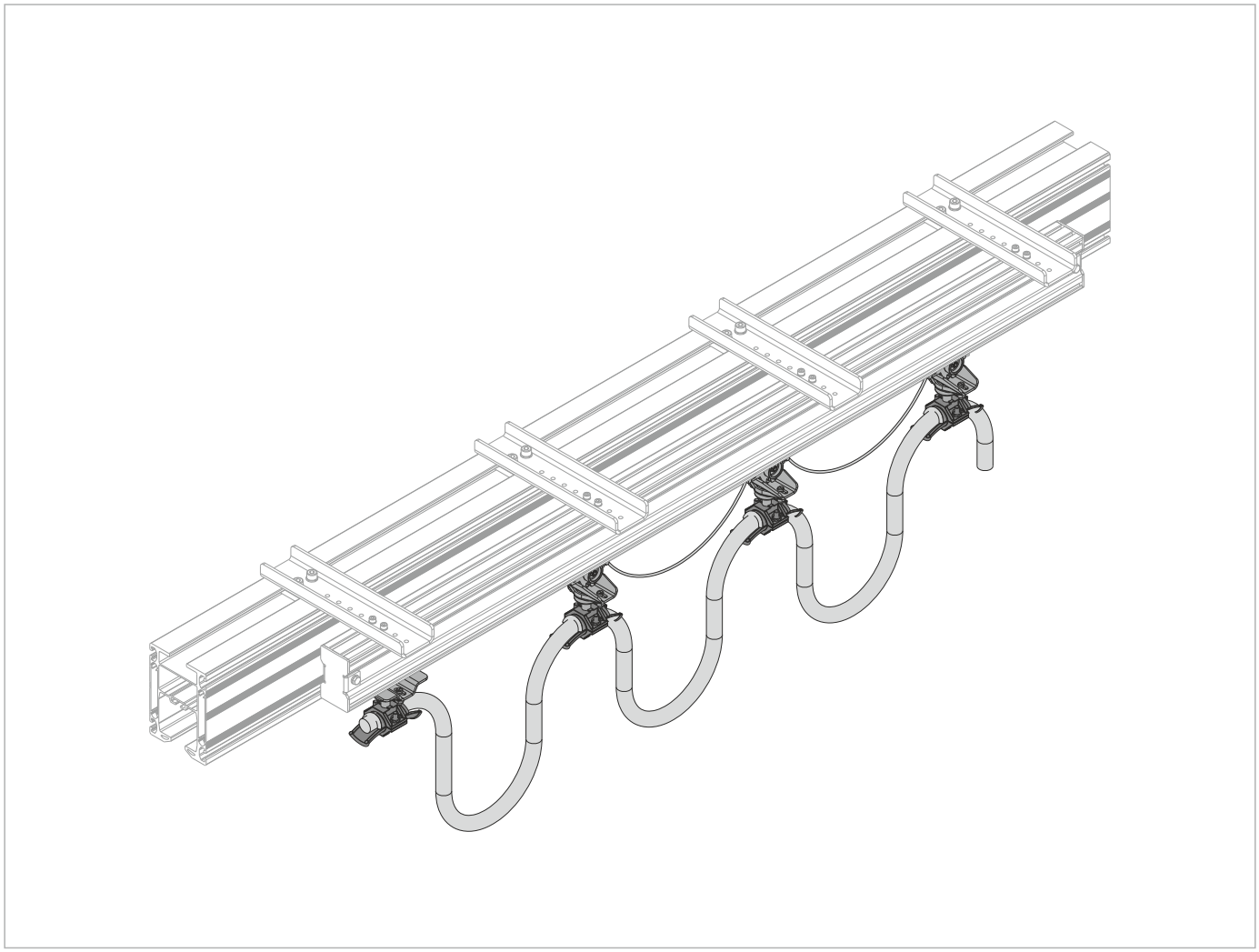
Technical Data

Part No.	Weight (kg)
4047	0.1

Features

- Suitable for subsequent installation in the profiles.
- Nuts with thread generate an abutment for the screws in the nut.

TOOL RAIL CABLE TROLLEY



Scope of Supply

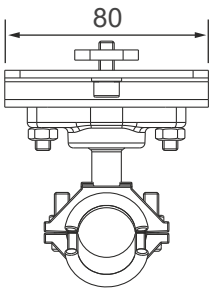
Item	Description	Quantity (nos.)
1	Tool Rail Fixed Hose/Flat Cable Trolley	1
2	Tool Rail Hose/Flat Cable Trolley	L/1.5
3	Tool Rail Mounting	L/1.5
4	Towing Cable	L/1.5-1

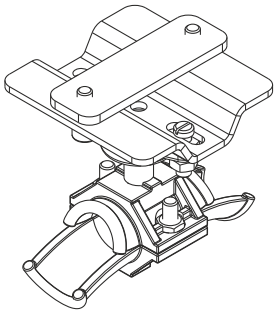
*Scope of supply for 1 set of tool rail cable trolley
*For tool rail length = L meter

Features

- Tool Rail Cable Trolley are used when Tool Rails are used as a energy carrying medium.
- The hoses or cables hangs in cable trolley.
- The cable trolley has separate mountings for flat and round cable.
- There is a fixed cable trolley at start and remaining are the moving trolleys which are hold in loop using towing cable.

TOOL RAIL MOUNTING FOR FESTONNING





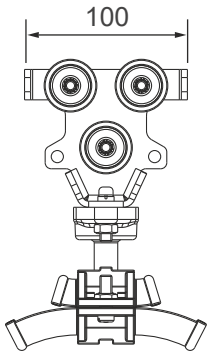
Tool Rail Fixed Hose Cable Trolley

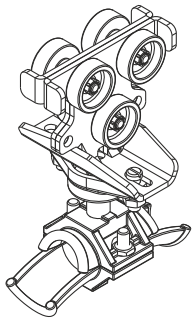
Technical Data

Part No.	Weight (kg)
5051	0.4

Features

- Tool Rail Fixed Hose Cable Trolley is mounted at start of tool rail.
- Generally it is use for round cables & rubber hose.





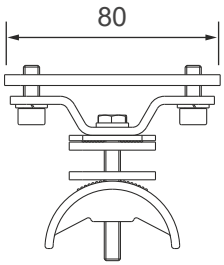
Tool Rail Hose Cable Trolley

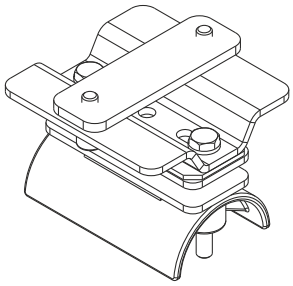
Technical Data

Part No.	Weight (kg)
5052	0.5

Features

- Tool Rail Hose Cable Trolleys moves inside the tool rail profiles.
- It is used for round cables & rubber hoses.





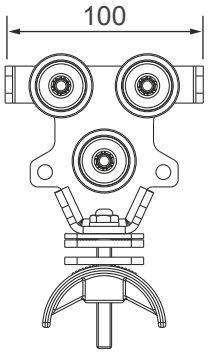
Tool Rail Fixed Flat Cable Trolley

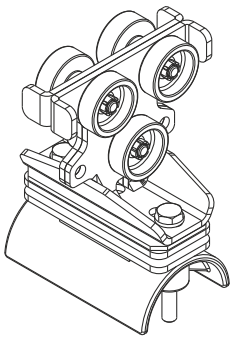
Technical Data

Part No.	Weight (kg)
5053	0.4

Features

- Tool Rail Fixed Flat Trolley is mounted at start of the rail.
- Generally it use for flat cables.





Tool Rail Flat Cable Trolley

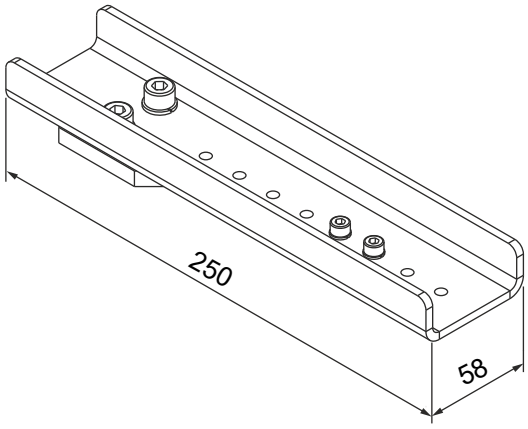
Technical Data

Part No.	Weight (kg)
5054	0.4

Features

- Tool Rail Flat Cable Trolleys moves inside the rails profiles.
- It is use for flat cables.

TOOL RAIL MOUNTING



Technical Data

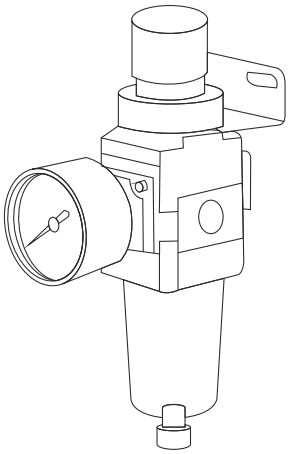
Part No.	Weight (kg)
5055	0.4

Features

- Tool Rail Mounting is used for mounting tool rail if festooning is to be done with Main Rail (Finrae).

AIR PREPARATION ACCESSORIES

AIR PREPARATION ACCESSORIES



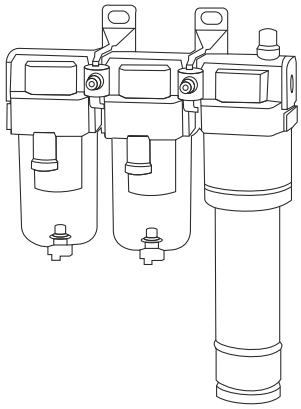
Filter Regulator

Technical Data

Part No.
7010

Features

- Without backflow function.
- Port size 3/8 & 1/2.
- With mounting bracket & round type pressure gauge indicator.
- Set pressure 0.02 – 0.2 mpa setting.
- Nominal filtration range 5 microns.



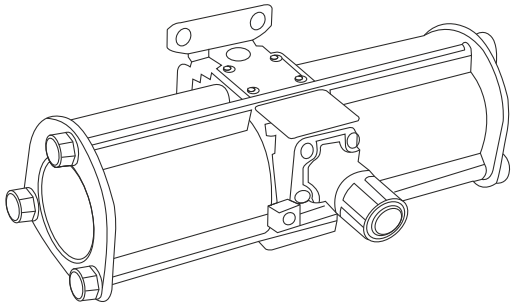
Air Dryer

Technical Data

Part No.
7020

Features

- Used to supply dry air.
- Comes along with mist separator & micro mist separator.
- Outlet air flow rate 300 L/min.
- Port size 3/8.
- With auto drain.



Air Booster

Technical Data

Part No.
7030

Features

- Increases air pressure.
- Air only operations requires no power supply.
- Reduce heat generation and allows easy installation.
- Pressure increase ratio is twice.
- Pressure adjustment mechanism is handle operated with relief mechanism max flow rate 1000 L/min.
- Set pressure range 0.2 – 2.0 MPA.
- Port size 3/8.
- With silencer & pressure gauge.

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