NOVA HOIST&CRANE

# Workstation Light Crane Systems

## Alu-line Product Catalogue

www.nova-lift.com


# Company Profile

**Nova Lifting Co., Ltd** was established to provide quality products and excellent services to lifting & hoisting equipment, crane components, lashing equipment, material handling markets. "Top quality, first reputation, reasonable price" is our business purpose.

Our products have been exported to many countries and regions throughout the world in Europe, North America, South America, Australia, Southeast Asia, South Africa, etc. With the experience of being leader provider in this filed for more than 10 years, we believe that we have an excellent mix of technical, sales administration and service personnel with a wealth of experience and knowledge and feel we are geared to provide you, the customer, with first class products and service.

We look forward to the opportunity of doing business with you and increasing the value and effectiveness of your business.

# Application

## NOVA Components

Rail for simultaneously moving tool and material racks at assembly lines

Guide rail for Z lifting units

Monorail with curves

Double rail

Telescopic rail system

# Appilcationsof
## NOVA Components

Rail system for components
handling unit or manipulator

Guide rail installed in the floor or
floor-guided lifting units

Rail system for screw handling systems
with torque

Overheadcrane systems X and Y
with lifting unit in Z

Cranesystems with multiple runways

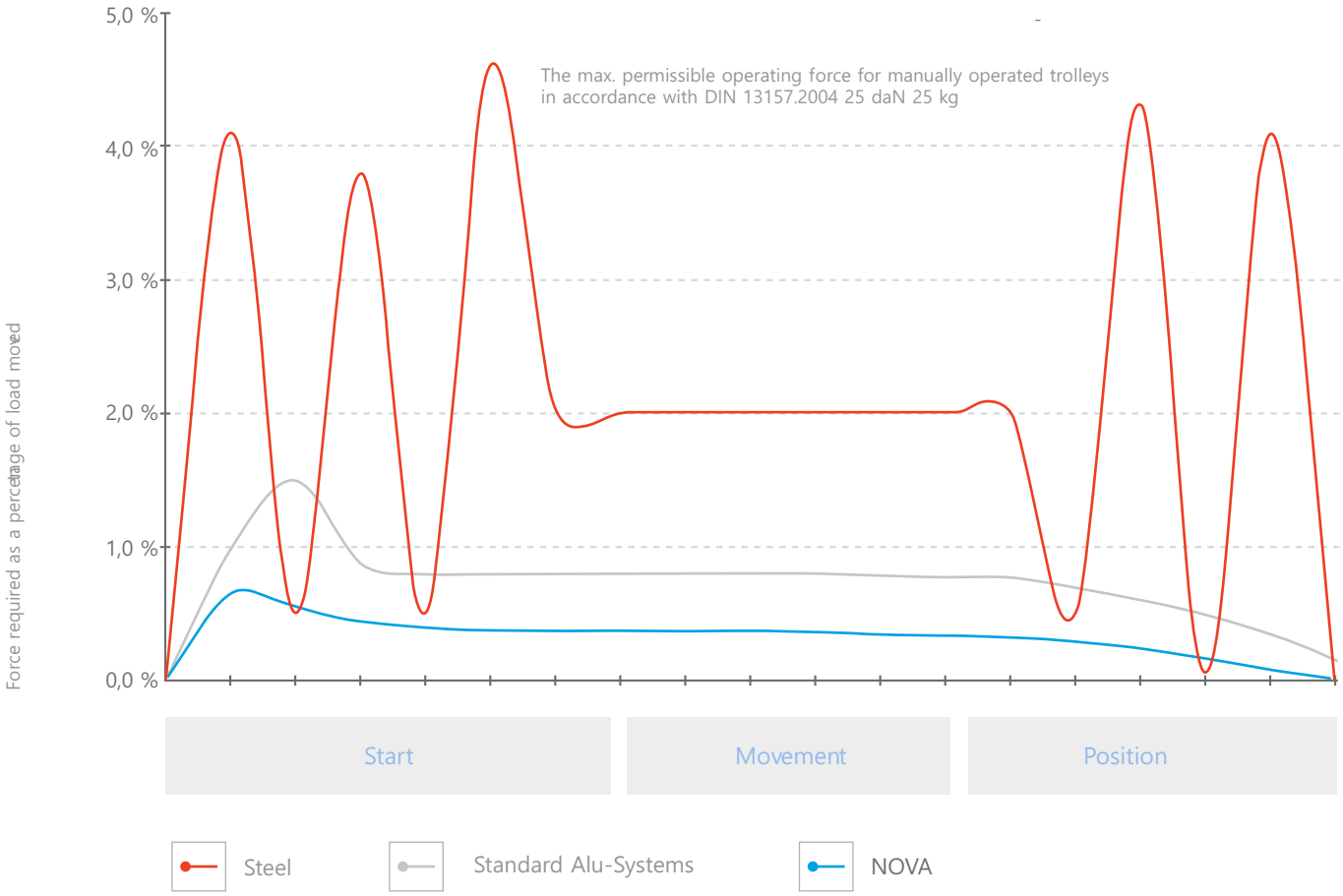
# Perfect Smooth-Running

The smoother a crane system runs, the more pleasant and health preserving it is to work with. This is why NOVA places particular value on optimum crane system running behavior when developing any components.

The result: NOVA systems are demonstrably one of the easiest crane systems to move of those that are available on the market at this point in time.

In comparison to customary suspended runway systems, the operator of an NOVA system requires only one third of the tractive power to move a load. Trolleys in the aluminium proiles also run distinctly more quiet-ly. These are measurable and noticeable ergonomics.

# Force required when working with crane systems

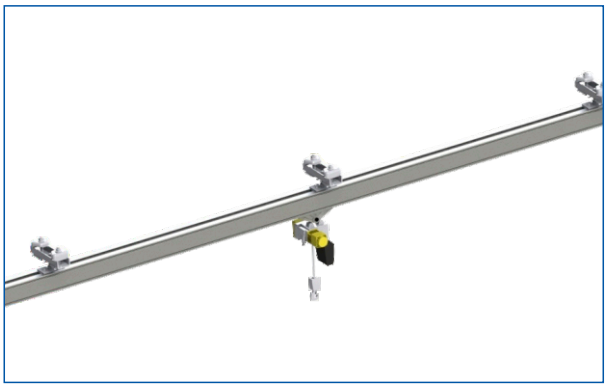



The values for NOVA proiles were determined expeimentally. Other values were taken from diagram publications.

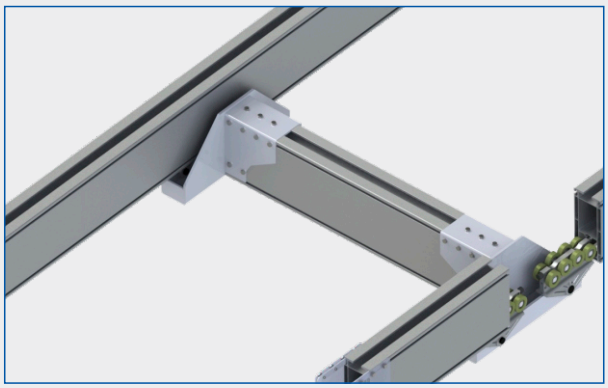
| Load | Start | Movement |
|---|---|---|
| 100 kg | 0,5 – 0,8 kg | 0,2 – 0,4 kg |
| 250 kg | 1,3 – 1,9 kg | 0,5 – 0,8 kg |
| 500 kg | 2,5 – 3,8 kg | 1,0 – 1,9 kg |
| 750 kg | 3,8 – 5,6 kg | 1,5 – 2,9 kg |
| 1000 kg | 5,0 – 7,5 kg | 2,0 – 3,8 kg |

## >> Combined Mode of NOVA Alu-Line System

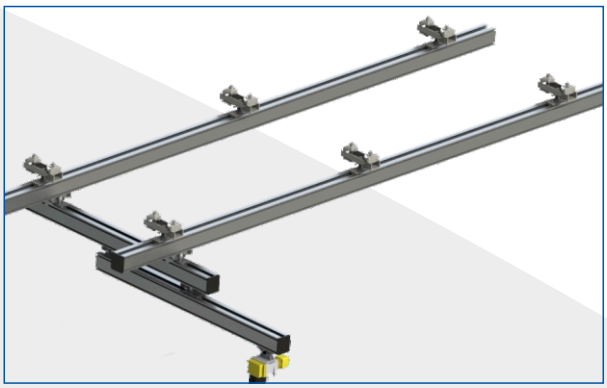
▸ NOVA Single-girder Overhead Crane



▸ NOVA Monorail Crane

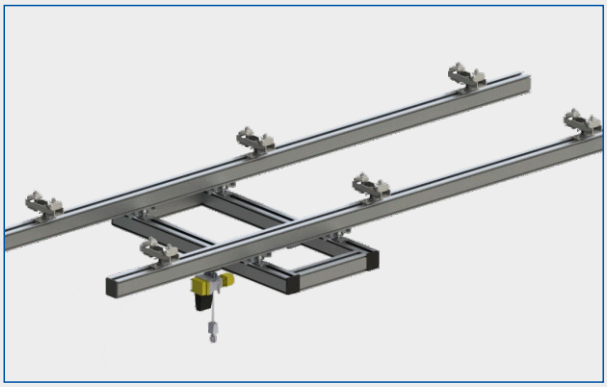


▸ NOVA Single-girder Elevated Crane



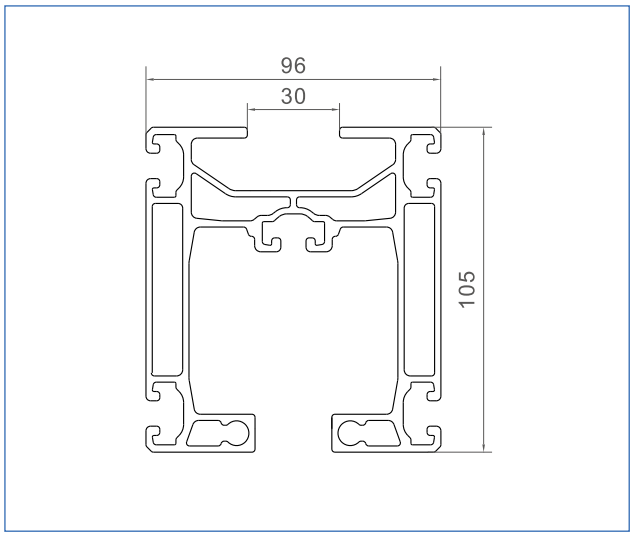
▸ NOVA Single-girder Elevated Telescope Crane

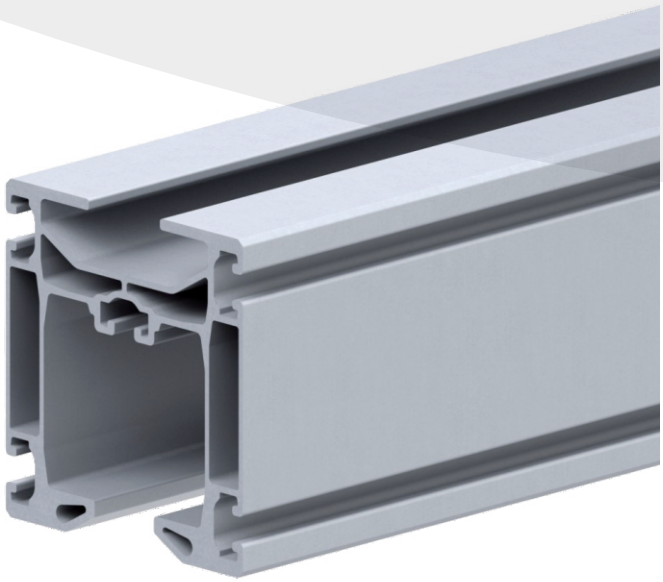
▸ NOVA Double-girder Elevated Crane



▸ NOVA Double-girder Overhead Crane

# Aluminum Rail Profile S (Max.250kg)

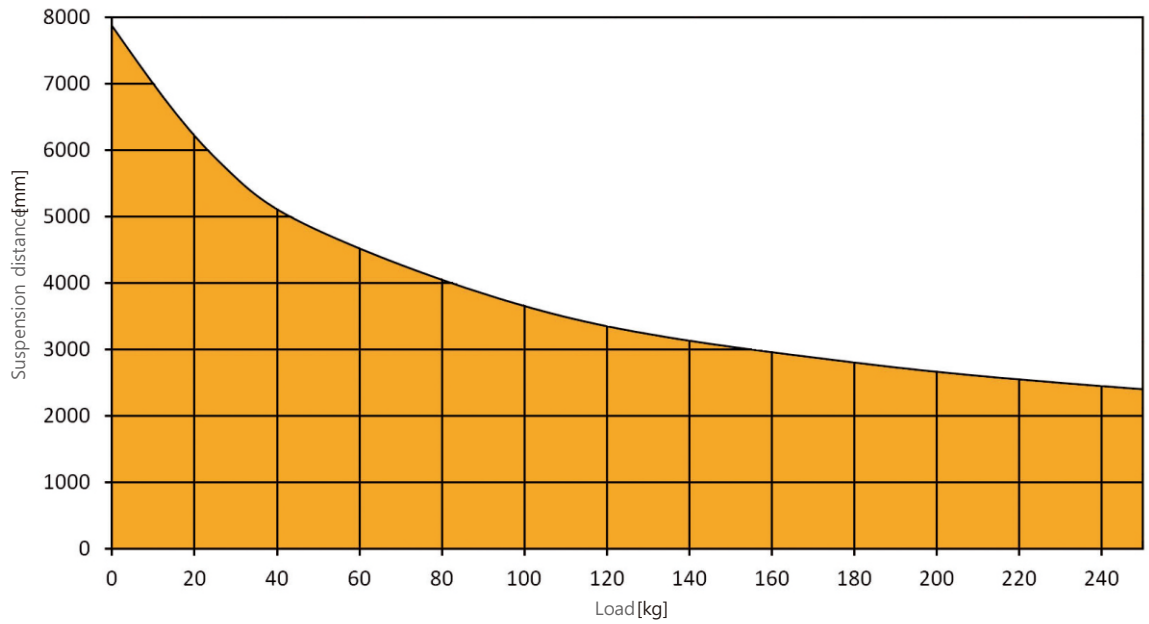


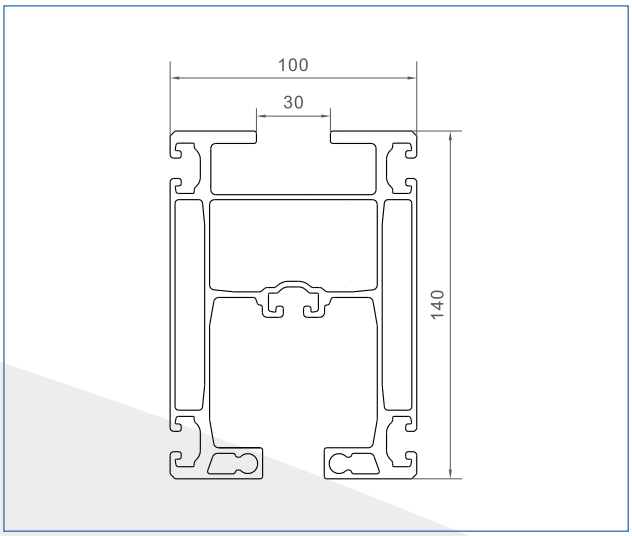
| Feature | Description |
|---|---|
| Material data | Natural aluminium, anodised |
| Weight | ca. 5,5 kg/m |
| Moment of plane area [Iy/Iz] | 235 $cm^4$ / 214 $cm^4$ |
| Moment of resistance [Wy/Wz] | 42 $cm^3$ / 44 $cm^3$ |

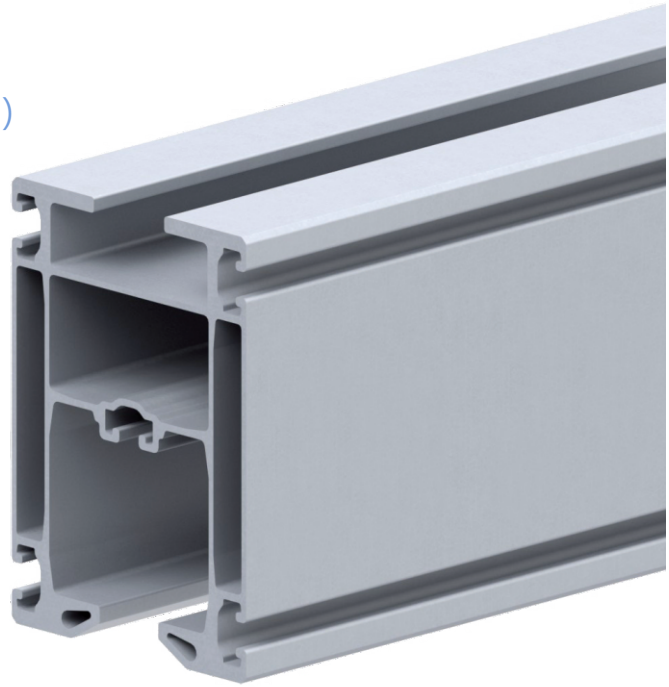
| Crane profile S | Item no. | Weight |
|---|---|---|
| L = 1000 mm | 01401401 | 5,50 kg |
| L = 2000 mm | 01401402 | 11,00 kg |
| L = 3000 mm | 01401403 | 16,50 kg |
| L = 4000 mm | 01401404 | 22,00 kg |
| L = 5000 mm | 01401405 | 27,50 kg |
| L = 6000 mm | 01401406 | 33,00 kg |
| L = 7000 mm | 01401407 | 38,50 kg |
| L = 8000 mm | 01401408 | 44,00 kg |

Load chart NOVA profile S



# Aluminum Rail Profile M (Max.500kg)

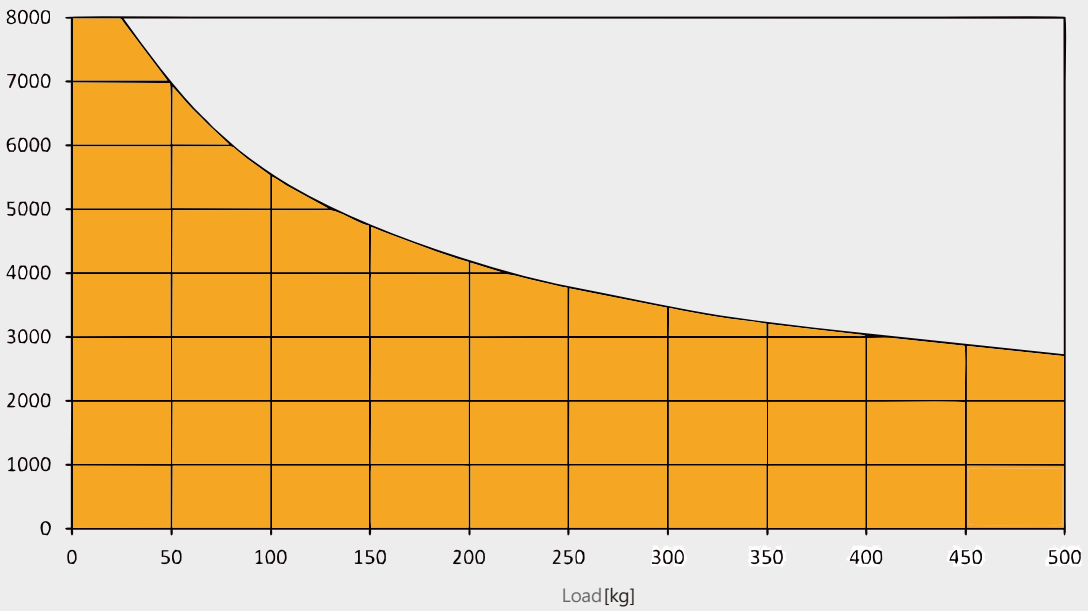


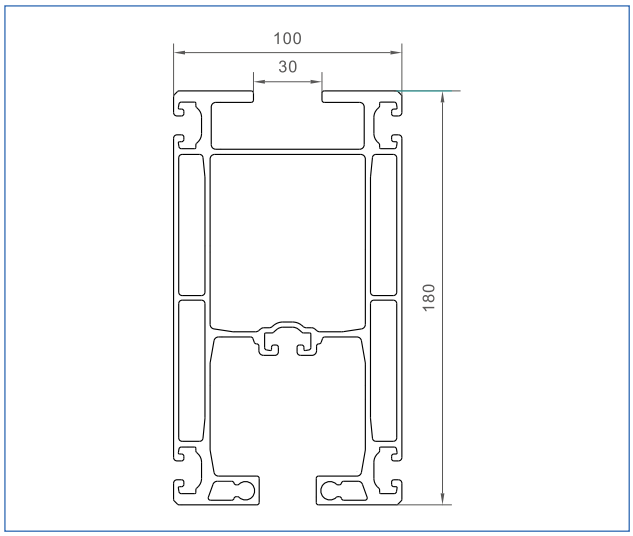
| Feature | Description |
|---|---|
| Material data | Natural aluminium, anodised |
| Weight | ca. 7,2 kg/m |
| Moment of plane area [Iy/Iz] | 605 $cm^4$ / 335 $cm^4$ |
| Moment of resistance [Wy/Wz] | 85 $cm^3$ / 67 $cm^3$ |

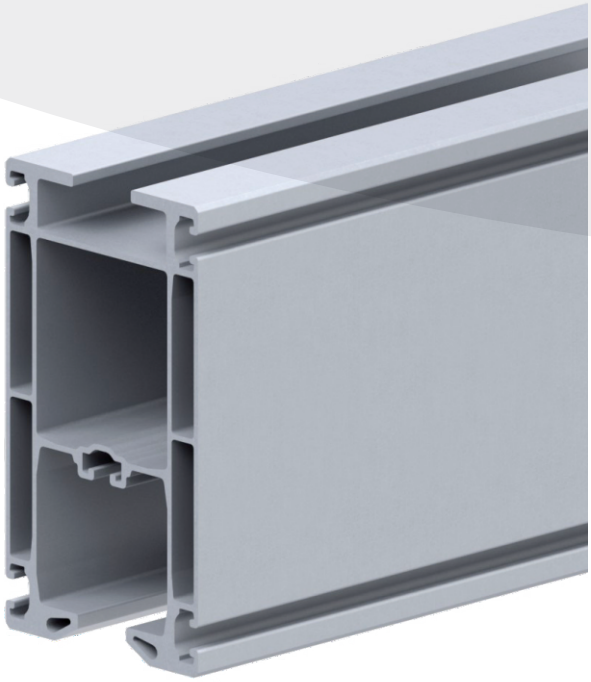
| Crane profile M | Item no. | Weight |
|---|---|---|
| L = 1000 mm | 01402201 | 7,20 kg |
| L = 2000 mm | 01402202 | 14,40 kg |
| L = 3000 mm | 01402203 | 21,60 kg |
| L = 4000 mm | 01402204 | 28,80 kg |
| L = 5000 mm | 01402205 | 36,00 kg |
| L = 6000 mm | 01402206 | 43,20 kg |
| L = 7000 mm | 01402207 | 50,40 kg |
| L = 8000 mm | 01402208 | 59,60 kg |

Load chart NOVA profile M



# Aluminum Rail Profile L (Max.750kg)

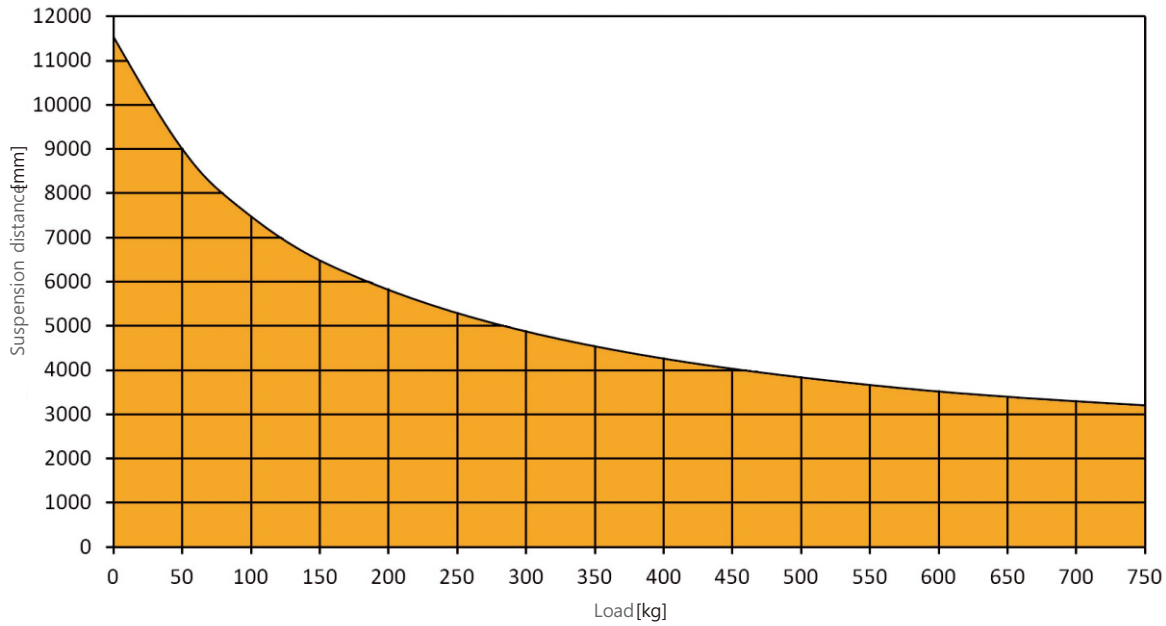


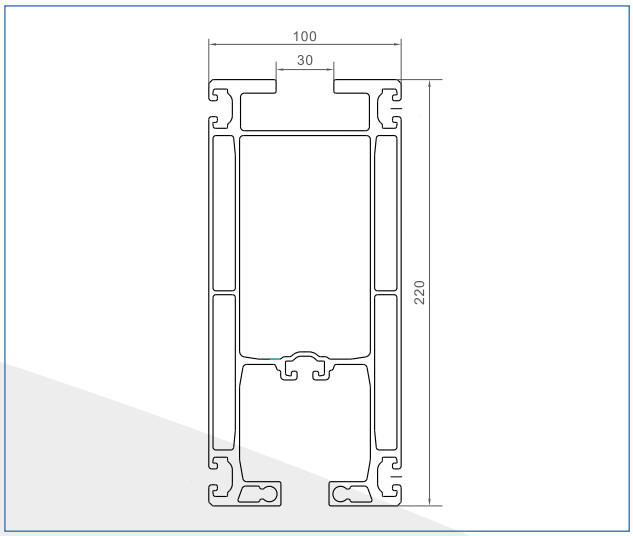
| Feature | Description |
|---|---|
| Material data | Natural aluminium, anodised |
| Weight | ca. 8,8 kg/m |
| Moment of plane area [Iy/Iz] | 1211 $cm^4$/ 437 $cm^4$ |
| Moment of resistance [Wy/Wz] | 133 $cm^3$ / 86 $cm^3$ |

| Crane profile L | Item no. | Weight |
|---|---|---|
| L = 1000 mm | 01403001 | 8,80 kg |
| L = 2000 mm | 01403002 | 17,60 kg |
| L = 3000 mm | 01403003 | 26,40 kg |
| L = 4000 mm | 01403004 | 35,20 kg |
| L = 5000 mm | 01403005 | 44,00 kg |
| L = 6000 mm | 01403006 | 52,80 kg |
| L = 7000 mm | 01403007 | 61,60 kg |
| L = 8000 mm | 01403008 | 70,40 kg |

Load chart NOVA profile L



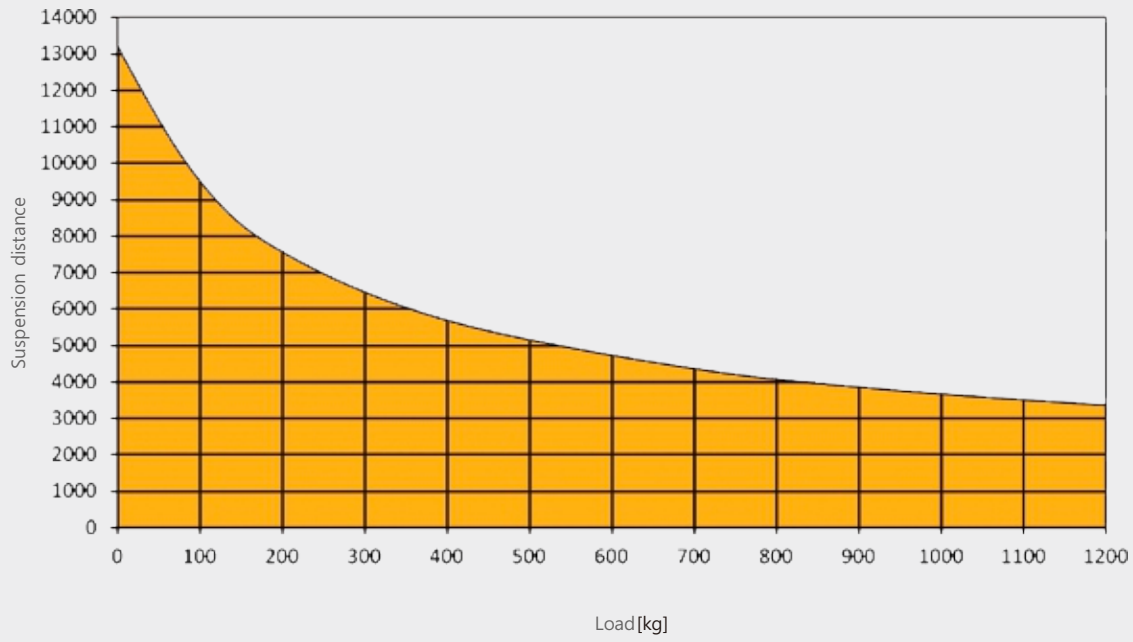
# Aluminum Rail Profile XL (Max.1200kg)




| Feature | Description |
|---|---|
| Material data | Natural aluminium, anodised |
| Weight | ca. 10,2 kg/m |
| Moment of plane area [Iy/Iz] | 2200 $cm^4$/ 523 $cm^4$ |
| Moment of resistance [Wy/Wz] | 197 $cm^3$/ 104$cm^3$ |

| Crane profile XL | Item no. | Weight |
|---|---|---|
| L = 1000 mm | 01403701 | 10,20 kg |
| L = 2000 mm | 01403702 | 20,40 kg |
| L = 3000 mm | 01403703 | 30,60 kg |
| L = 4000 mm | 01403704 | 40,80 kg |
| L = 5000 mm | 01403705 | 51,00 kg |
| L = 6000 mm | 01403706 | 61,20 kg |
| L = 7000 mm | 01403707 | 71,40 kg |
| L = 8000 mm | 01403708 | 81,60 kg |

Load chart NOVA profile XL



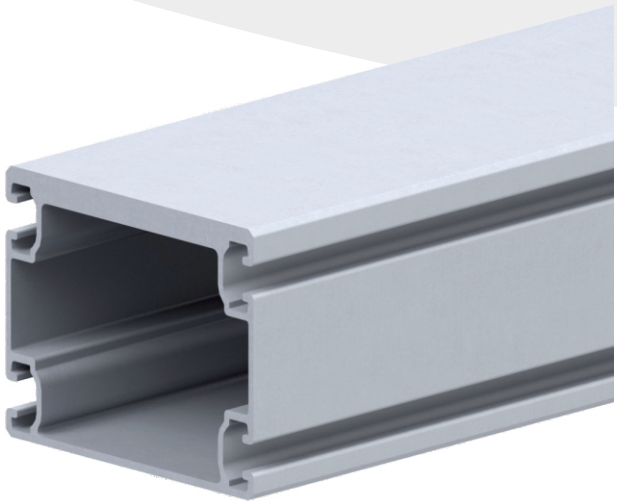
# Reinforcement profile

The reinforcement profile is primarily designed ...

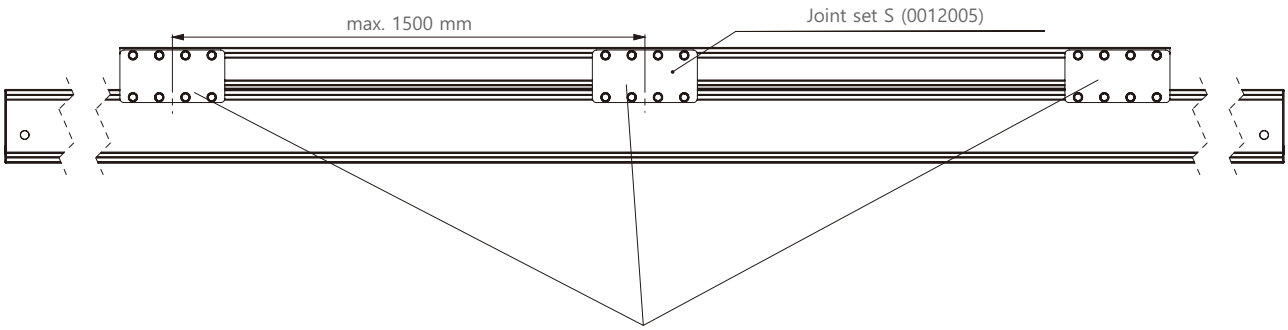
... to reduce deflection
... to increase span widths and suspension spacing

An increase in load is also possible, it cannot be greater than that of the underlying crane profile. (Load data on next page)

Connection of the reinforcement profile to the profile crane is carried out by means of joint connector plates for profile S (014075).



The reinforcement profile can be used in conjunction with the crane profiles M, L and XL. The profiles S is not compatible for this purpose.




The absolute necessary positions of the joint sets are ...

... at the end of the reinforcement profile

... in the center of the reinforcement profile

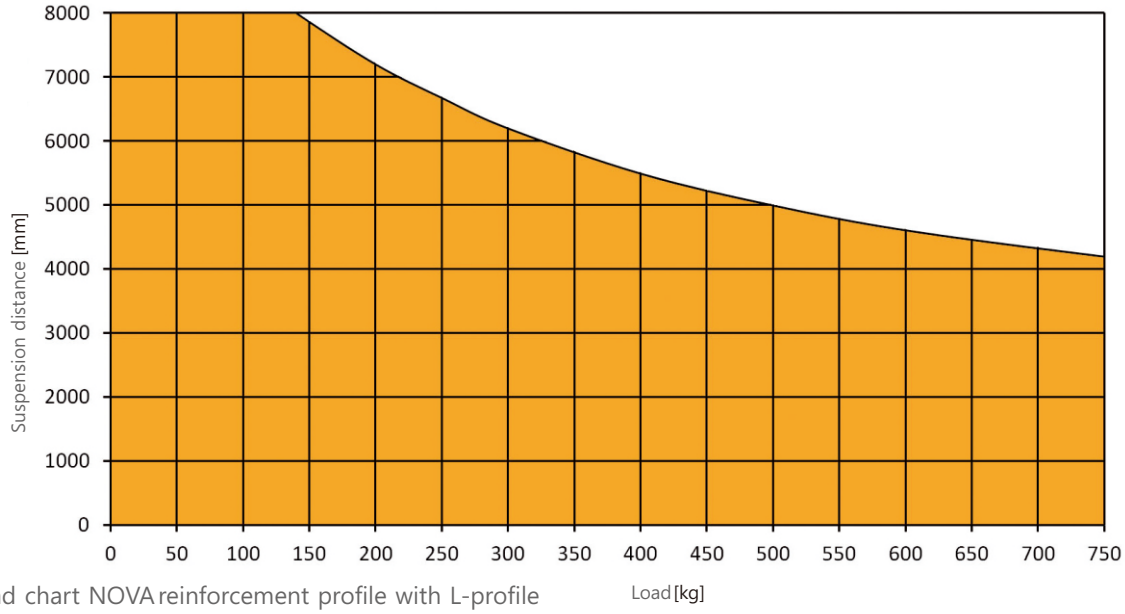
The remaining joints must be divided so that the distance is not greater than 1,500 mm.

| Feature | Description |
|---|---|
| Material data | Natural aluminium, anodised |
| Weight | ca. 4 kg/m |
| Moment of plane area with M profile [ly/lz] | 2141 $cm^4$ / 511 $cm^4$ |
| Moment of plane area with L profile [ly/lz] | 3515 $cm^4$ / 619 $cm^4$ |
| Moment of plane area with XL profile [ly/lz] | 5211 $cm^4$ / 695 $cm^4$ |

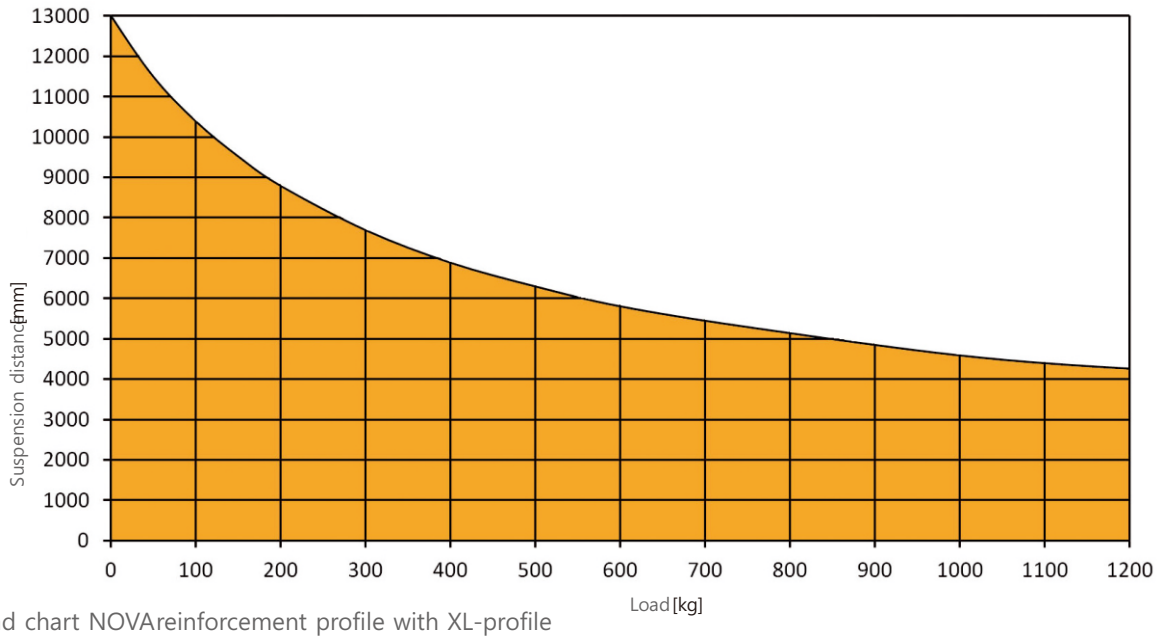
| Reinforcement profile | Item no. | Weight |
|---|---|---|
| L = 1000 mm | 01404501 | 4,00 kg |
| L = 2000 mm | 01404502 | 8,00 kg |
| L = 3000 mm | 01404503 | 12,00 kg |
| L = 4000 mm | 01404504 | 16,00 kg |
| L = 5000 mm | 01404505 | 20,00 kg |
| L = 6000 mm | 01404506 | 24,00 kg |
| L = 7000 mm | 01404507 | 28,00 kg |
| L = 8000 mm | 01404508 | 32,00 kg |

# Reinforcement profile

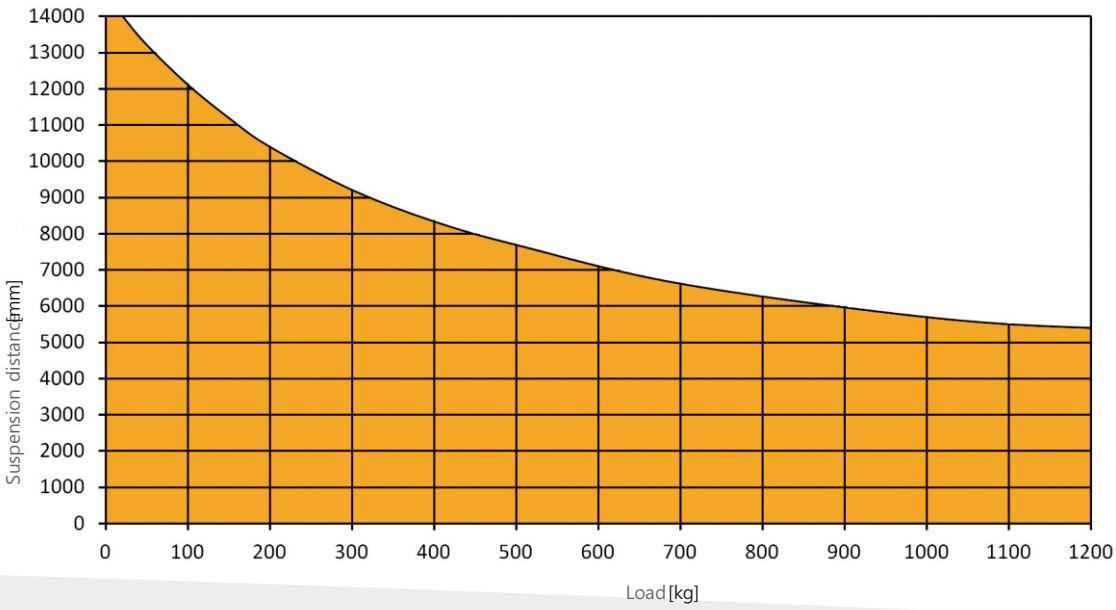
Load chart NOVA reinforcement profile with M-profile




Load chart NOVA reinforcement profile with L-profile

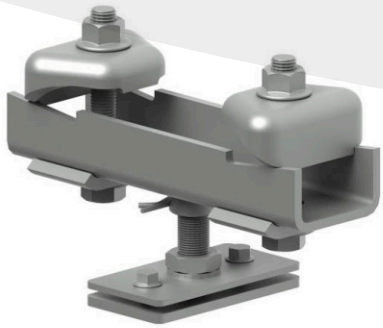



Load chart NOVA reinforcement profile with XL-profile



## Rigid Mountings

- Most NOVA crane systems that rely on precise load position or crane systems that are subject to upward forces, e.g. by manipulators, escalating devices or excessive overhang of the crane beams, are mounted using height adjustable, rigid mounting.
- The 20 mm range of height adjustment gives this type of mounting the ability to compensate for height differences in the steel construction, despite the rigid crane system mounting
- With three different sizes available, the securing of flange widths of between 50mm-310mm is covered



| Feature | Rigid Mounting 50-150 | Rigid Mounting 150-250 | Rigid Mounting 250-310 |
|---|---|---|---|
| Load Capacity | 2000 kg | 2000 kg | 2000 kg |
| Flange Width | 50mm-150mm | 150mm-250mm | 250mm-310mm |
| Height Adjustment | 92mm-112mm | 92mm-112mm | 92mm-112mm |
| Weight | 3.8 kg | 4.3 kg | 4.8 kg |
| Item Code | 01405900 | 01406000 | 01406100 |

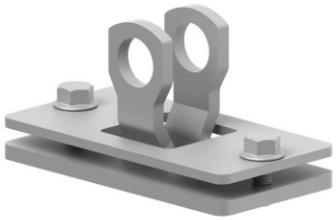
## Pendular Mountings

- Around 90% of all NOVA crane systems are attached to the ceiling construction by pendular mounting
- The type of mounting should always be your number one choice. Rigid variations should only be employed if the crane system is subject to upward forces, e.g. by manipulators, escalating devices or excessive overhang of the crane beams.
- With three different sizes available, the securing of flange widths of between 50mm-310mm is covered

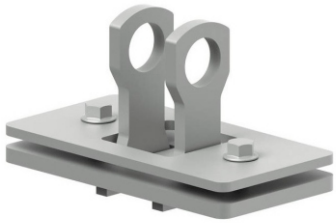
| Feature | Pendular Mounting 50-150 | Pendular Mounting 150-250 | Pendular Mounting 250-310 |
|---|---|---|---|
| Load Capacity | 2000 kg | 2000 kg | 2000 kg |
| Flange Width | 50mm-150mm | 150mm-250mm | 250mm-310mm |
| Height Adjustment | 92mm-132mm | 92mm-132mm | 92mm-132mm |
| Weight | 4,0 kg | 4,5 kg | 5,0 kg |
| Max. Ceiling Incline | 10° | 10° | 10° |
| Item Code | 01405600 | 01405700 | 01405800 |

## Crane Girder Suspension

- Crane girder can be secured to crane runways using the NOVA crane girder suspension.
- This special type of support is flexible but without play and offers the crane and the user sufficient freedom necessary to complete the task as easily as possible. At the same time, the precise integration of all components ensures that the system runs quietly and smoothly, independent of the direction of forces applied to the crane system.
- Downward or upward loads of up to 600kg can be transferred with the crane girder suspension.
- Normal crane girders are fitted using the 90° variant, Telescopic girders can be created using the 0° variant.



014079



014080

| Designation | Item Code | Weight |
|---|---|---|
| Crane Girder Suspension 0° | 01407900 | 0,6 kg |
| Crane Girder Suspension 90° | 01408000 | 0,6 kg |

## Manual Trolleys

Grab Trolley 01406400

Hinge Trolley 01406400

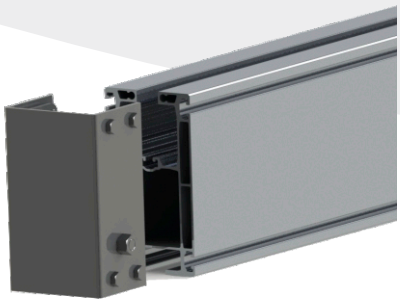
Tandem Grab Trolley 01406600

Tandem Hinge Trolley 01406500

| Designation | Item Code | Max. Load | Weight |
|---|---|---|---|
| Grab Trolley | 01406200 | 600 kg | 1,60 kg |
| Hinge Trolley (Runway) | 01406400 | 600 kg | 1,25 kg |
| Tandem Grab Trolley | 01406600 | 1200 kg | 4,20 kg |
| Tandem Hinge Trolley (Runway) | 01406500 | 1200 kg | 3,50 kg |

## End Cap

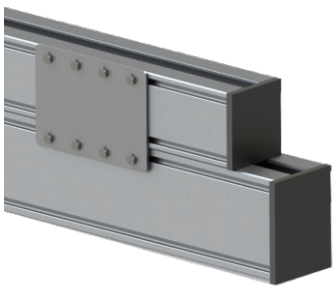
All NOVA crane profiles must be fitted with an end cover to protect against the ingress of contamination.



| Designation | Item Code | Weight | Material |
|---|---|---|---|
| End Cap for S Profile | 01406900 | 0.5 kg | Steel |
| End Cap for M Profile | 01407000 | 0.65 kg | Steel |
| End Cap for L Profile | 01407100 | 0.85 kg | Steel |
| End Cap for XL Profile | 01407200 | 1.03 kg | Steel |

## Joint Set (for crane profile & reinforcement profile)

- The NOVA joint set for profile sizes S, M and large secured in the grooves in the side of the profile ad thus allow crane runways of any length to be constructed.
- The joint set for the XS crane profile is realized by way of the upper opening in the profile.
- Crane bridges can also extended using joint sets. Please ask our consultant for a layout.

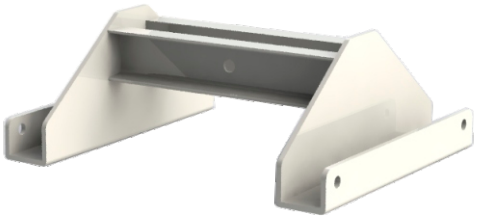


Joint set for reinforce profile 01408500

| Designation | Item Code | Weight |
|---|---|---|
| Joint Set for Profile S | 01407500 | 2.15 kg |
| Joint Set for Profile M | 01407600 | 2.60 kg |
| Joint Set for Profile L | 01407700 | 3.10 kg |
| Joint Set for Profile XL | 01407800 | 3.65 kg |
| Joint Set for Reinforce Profile | 01408500 | 2.60 kg |

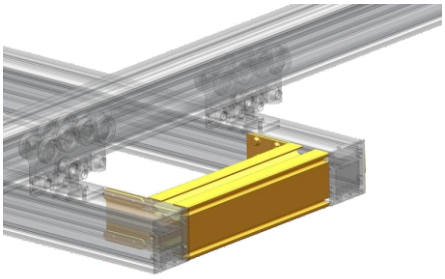
## Trolley Frame

- For hanging one chain hoist in a double-girder bridge, working loads up to 1000kg.
- The trolley frame is attached with aluminum gab trolleys to the respective NOVA crane profile.



| Designation | Item Code | Rail Gauge | Weight |
|---|---|---|---|
| Trolley Frame | 01406800 | 500mm-1500mm | 36,8 kg |

## Spacer of Double Girder



- By using the spacer, both profiles of a double girder are connected in a defined distance.
- With orders of spacer, the gauge (center distance of girders) must be specified!

| Designation | Item Code | Rail Gauge | Weight |
|---|---|---|---|
| Spacer of DG for Profile S | 01408600 | 300-2000mm | 5,6 kg |
| Spacer of DG for Profile M | 01408700 | 300-2000mm | 7,4 kg |
| Spacer of DG for Profile L | 01408800 | 300-2000mm | 9,0kg |
| Spacer of DG for Profile XL | 01408900 | 300-2000mm | 10 kg |

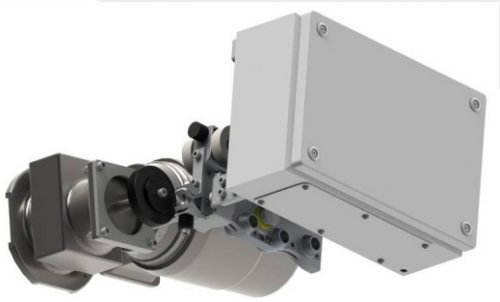
## Spacer of Crane Girders

To keep two girders in certain distance
Available in length 300 to 2000mm

| Designation | Item Code | Rail Gauge | Weight |
|---|---|---|---|
| Spacer of Crane Girders | 01410200 | 300-2000mm | 5,6 kg |

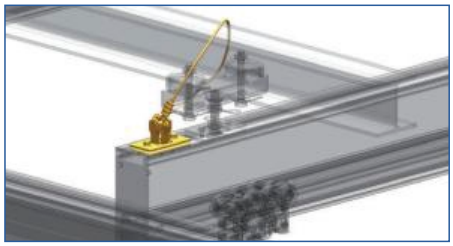
## Electric Trolley (Various Speed)

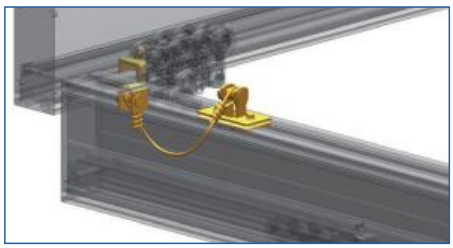
- Industrial traction drive for Nova cranes.
- Cycle time 100%
- Guaranteed smooth running for hand use through friction wheel coupling via magnet coupling optional
- Drive with motor brake optional
- Extremely noiseless
- Able to order in three speed levels, more or request.

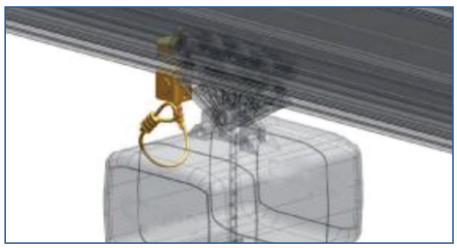


| Designation | Item Code | Traveling Speed | Voltage |
|---|---|---|---|
| Electric Trolley | 014124 | 5-20 m/min | 220-575v/3ph/50Hz |

## Safety Systems







014099

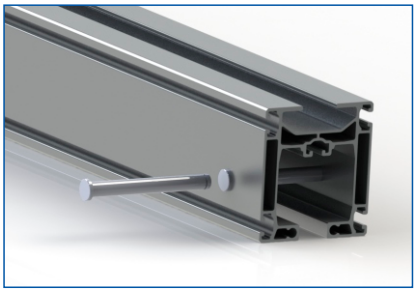
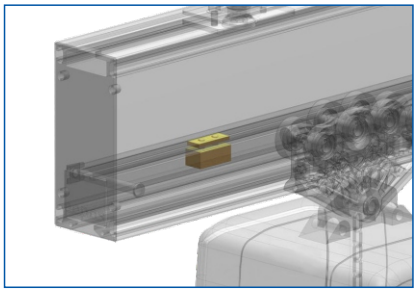
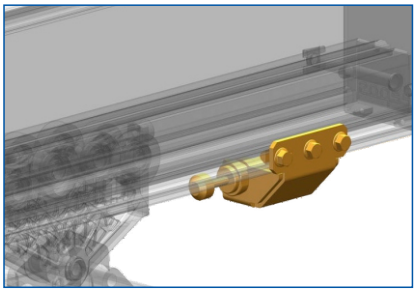
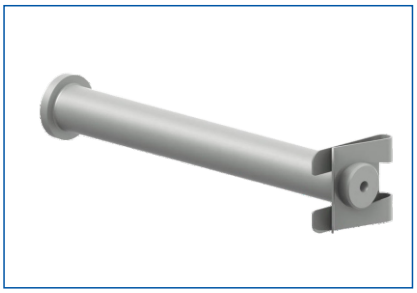
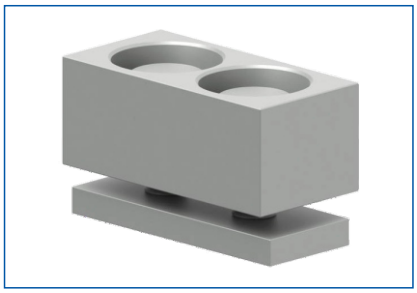
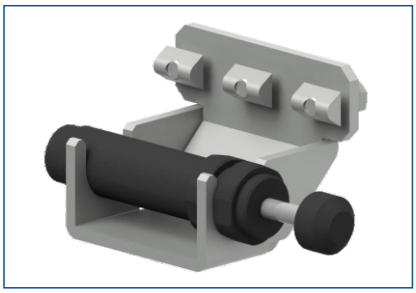
014100

014101

- Safety system for track (Runway): To connect the crane rail and the overlying steel construction.
- Safety system for girder: For a secure connection between track and girder.
- Safety system for hoist: To protect against falling out of the suspended load in the trolley.

| Designation | Item Code | Weight |
|---|---|---|
| Safety System for Track (Runway) | 014099 | 1 kg |
| Safety Systems for Girder | 014100 | 1.5 kg |
| Safety Systems for Hoist | 014101 | 1 kg |

## End Stop

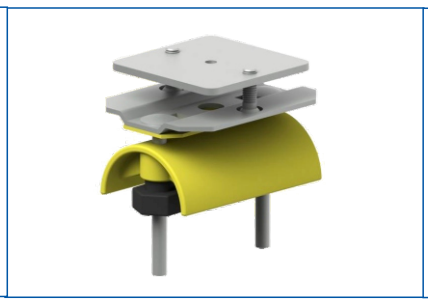
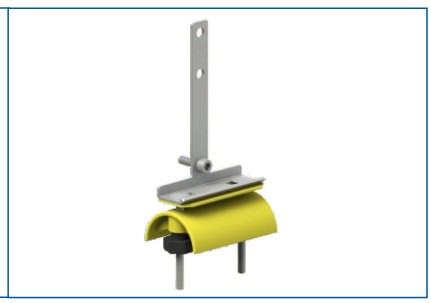







01408200 01408300 01408400

| Designation | Item Code | Weight |
|---|---|---|
| End Stop fixed to Profile S to XL | 01408200 | 0,10 kg |
| End Stop Adjustable | 01408300 | 0,19 kg |
| End Stop Buffered | 01408400 | 0,80 kg |

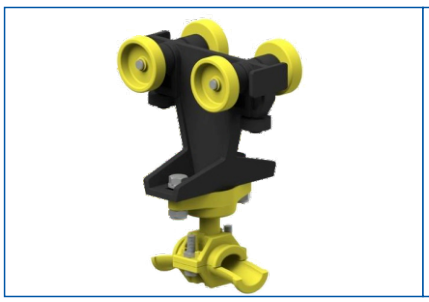
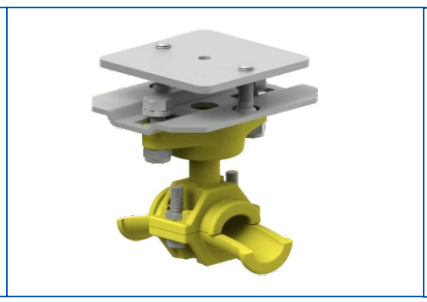
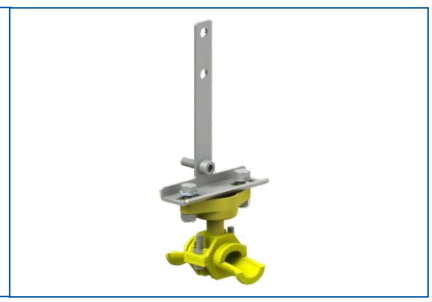
## Cable Trolley

### For Flat Cable

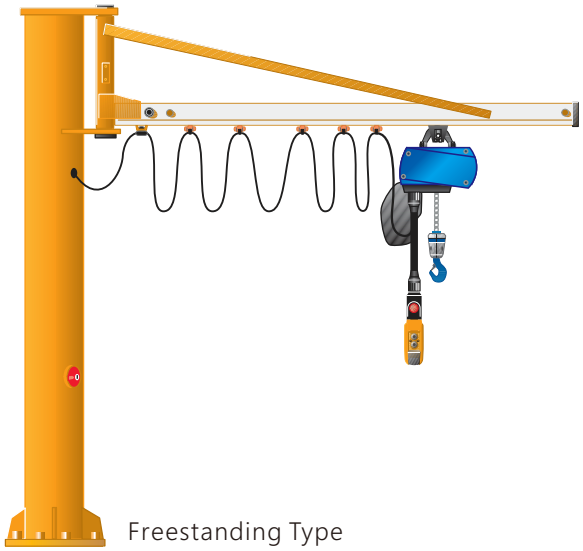
01410300 01410700 01411100

### For Round Cable (Dia. 26-36mm)

01410600 01411000 01411400

# Aluminum Jib Crane



Freestanding Type

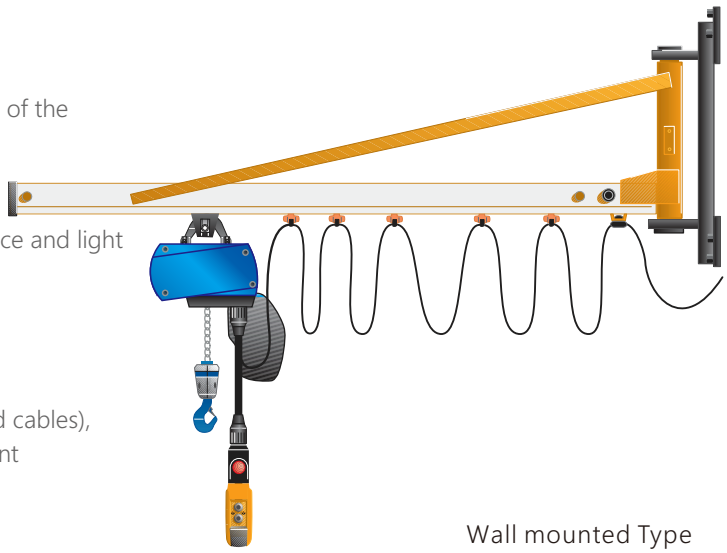
## Features

- Innovative acceptance of proile for optimal force of the proiles and low delection
- Absolutly smooth rotating
- 4 diferent proiles for an optimal price performance and light turning
- Standard NOVA chain hoists or requested brand
- Easy and quick installation
- Main switch integrated in column
- Including electrical equipment (cable trolleys and cables), main switches, gab trolley for lifting equipment and installation material for columns

| S.W.L. \ Jib length | 3m | 4m | 5m | 6m |
|---|---|---|---|---|
| 80 kg | ✓ | ✓ | ✓ | ✓ |
| 125 kg | ✓ | ✓ | ✓ | ✓ |
| 250 kg | ✓ | ✓ | ✓ | ✓ |
| 500 kg | ✓ | ✓ | ✓ | ✓ |
| 750 kg | ✓ | ✓ | ✓ | |
| 1,000 kg | ✓ | ✓ | | |

## Features

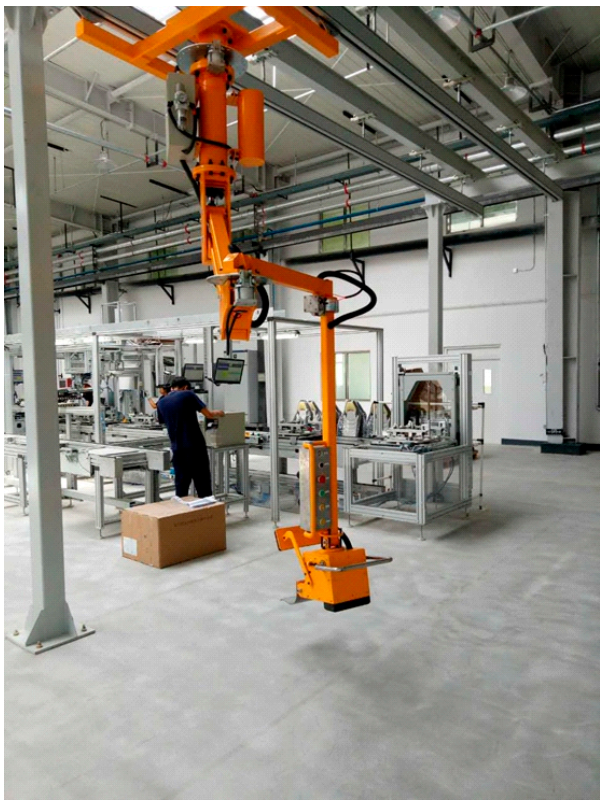
- Innovative acceptance of proile for optimal force of the proiles and low delection
- Absolutly smooth rotating
- 4 diferent proiles for an optimal price performance and light turning
- standard NOVA chain hoist or requested brand.
- Easy and quick installation
- Including electrical equipment (cable trolleys and cables), main switches and gab trolley for lifting equipment



Wall mounted Type

| S.W.L. \ Jib length | 3m | 4m | 5m | 6m |
|---|---|---|---|---|
| 80 kg | ✓ | ✓ | ✓ | ✓ |
| 125 kg | ✓ | ✓ | ✓ | ✓ |
| 250 kg | ✓ | ✓ | ✓ | ✓ |
| 500 kg | ✓ | ✓ | ✓ | ✓ |
| 750 kg | ✓ | ✓ | ✓ | |
| 1,000 kg | ✓ | ✓ | | |

# Our Reference

**Note:**

ENGLISH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