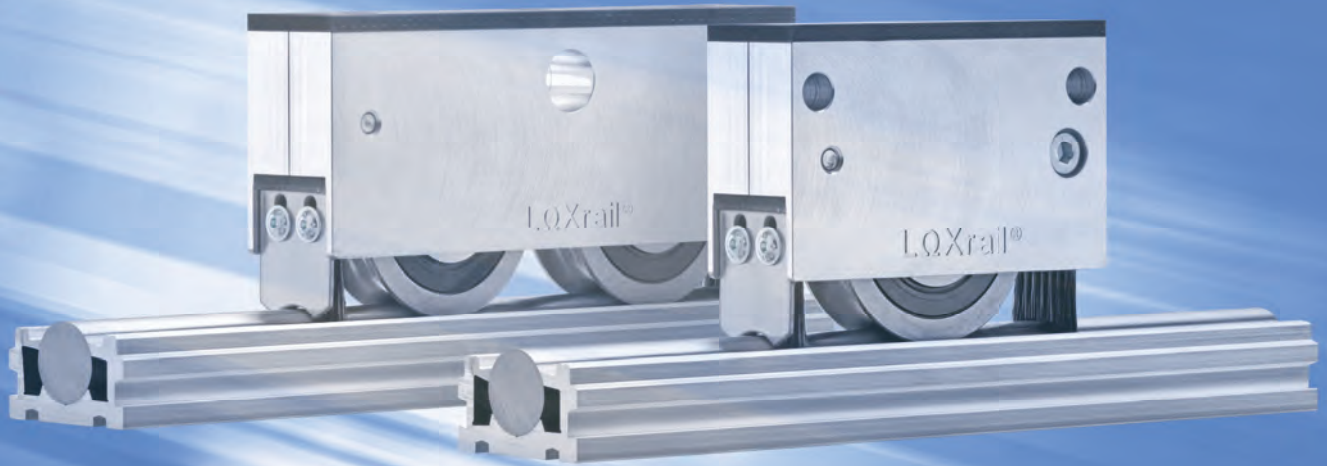


# LOS YCO



Clever designed and the right  
solution for every requirement

## LQXrail®-system

## Bank on high quality and increased yield with reduced costs!

Many small and medium, but also some large machine tool companies are still using common methods of process control with "Standalone Island" or "Nest" manufacturing. Our goal is to provide alternative means to improve the efficiency and throughput by using simple and new synchronized flow assembly concepts. Beside shortened lead-in times you will benefit from a reduction in "Working Capital" and increased "Cash flow". Our portfolio will be supplemented by layout concepts and detailed design of all necessary production equipment (logistic and material handling) down to program and "turn-key" management.

## LOXrail®-Systems

LOS YCO banks on its specially developed Round-bar Track-System. LOXrail® – the perfect rail guide for an easy and safe handling of your machines and work pieces for medium and heavy loads.

## Material Logistics

LOS YCO supplies the material handling equipment to feed or unload the line, provides tailor made workstations and takes care of safety and noise protection enclosures. LOS YCO also plans, designs, produces and assembles complex customs specific solutions.

## Lean-Manufacturing-Concepts

LOS YCO follows its motto "One Source Lean-Manufacturing-Systems" and feels itself as part of the team and supports with it's experience and its products to implement the different projects in an integrated approach; cost effective and efficient.

## We are the specialists for one source logistical concepts using lean manufacturing methods

The team of LOS YCO has over 30 years of experience in providing advice, implementing and operating in the special field of production logistics. Our close cooperation with universities sets into harmony the most recent scientific conclusions with the requirements of the manufacturing industry. In cooperation with partners out of universities and the industry we develop with our high level of consulting capability in cooperation with your team the path to the "perfect plant"; keeping in mind the motto "better 80% now, than 100% in five years' time".

## HEAVY LOADS BUT EASY MOVE

The innovative evolution of the Round-bar Track - **LOS YCO** also provides the adequate solution to transport large and heavy products. Where specific requirements are essential, **LOS YCO** banks on its specially developed Round-bar Track-System. Recessed in the plants flooring the rail perfectly fits in the plant layout and guarantees with the variety of system concepts a great deal of flexibility.

**LOS YCO** offers for the LOXrail®-System multiple components. Wheel casters, drive units and accessories are completing the program and offering our clients the option to use the system for their machinery where transport carts are not required.

- Multiple track layouts by means of rail crossovers and turnstiles for a flexible transport throughout your plant
- Standardized dollies transport heavy goods in your production (avoiding overhead cranes)
- Transport carts and skids individually designed to suit your machine in a flow line
- Heavy load rail guided vehicles for goods to be moved without crane
- Manual move by the workers or with the support of "Push and Drag Movers"; electrically or pneumatically driven
- The "big bolts" are moved by means of electrical "on-board" drive units (battery, cable-drums or touchless inductive); or the complete line by means of a push rod system



## Index

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page 10-11	LOXrail® 40 wheel sets + accessories

# LOXrail®-system 25

## Your advantages

- Low rolling resistance allows movement of heavy loads by hand
- Marginal wear and interchangeable running surface if required
- Flush to floor installation causes no trip hazard
- Trouble-free crossing with hand trucks and forklifts or walkable surface for workers
- Nearly no impurity due to closed smooth surface
- Suitable wheel sets allow a tailor made design of the system

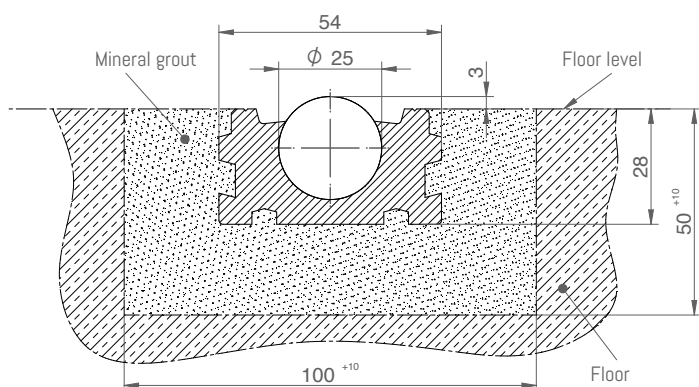


## LOXrail® 25

### Rail system

ID No. 480200

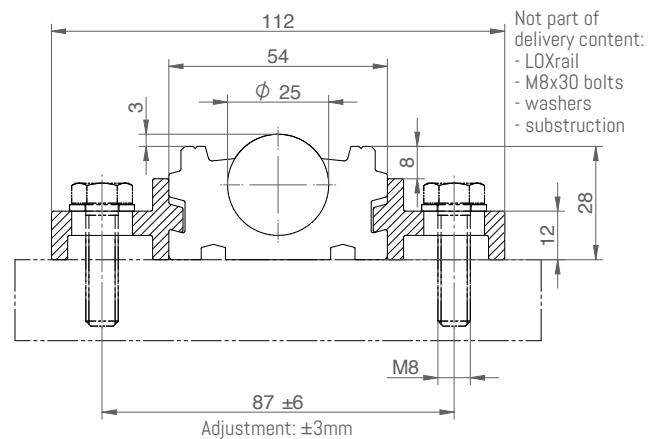
- Aluminum base profile
- Aluminum clamping profile
- Hardened round bar made of CF53 (optional stainless steel)
- Standard length of rail section; 3000mm



### Fixing clamp

ID No. 480202

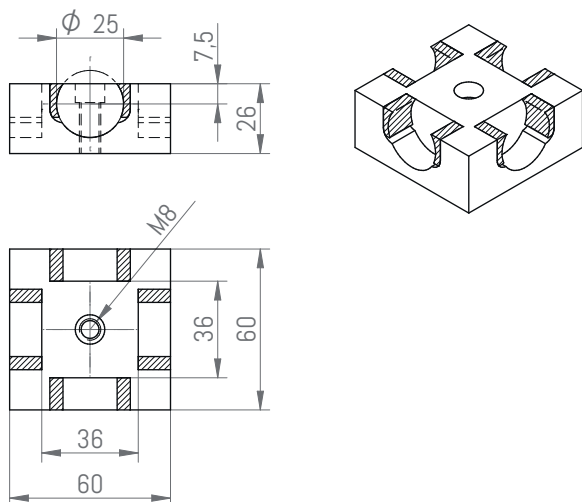
- Fastening element for mounting of LOXrail® to steel work structures
- Lateral adjustability for alignment of the track width
- Fixing clamps are set at each side of the rail in 300mm intervals



## Crossover section

ID No. 480210

- LOXrail® X-elements to implement rail crossings
- Hardened surface (approx. 60-66 HRC)
- Incl. clamping plate for assembly in combination with the LOXrail®
- Incl. cover caps to seal the gaps beside the round bars



## Rail end stop

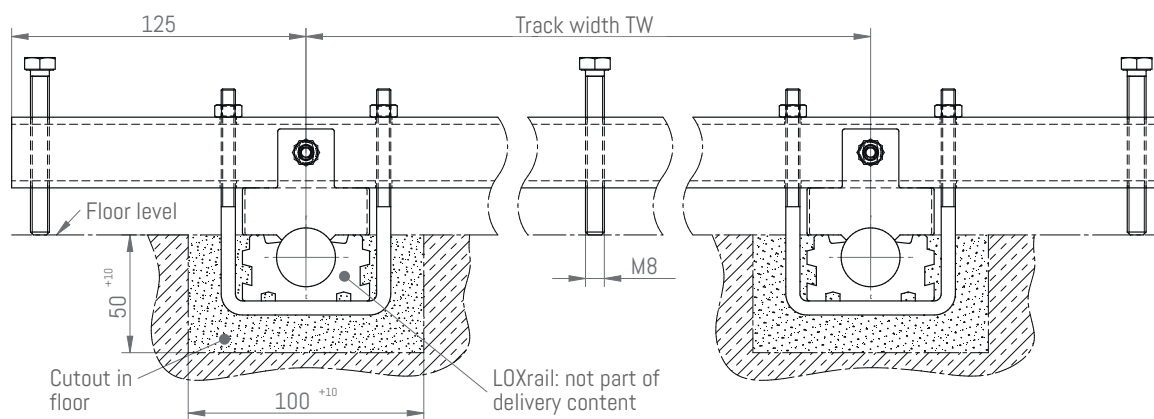
ID No. 480204

- End stop for LOXrail® systems size 25
- Placed at the end of the rails
- Hinders the carrier leaving the tracks



## Installation jig

- For precise installation of the LOXrail® in width and height
- Levelling bolts for alignment of the rail systems height
- Manufactured for your individual track width
- Delivered completely assembled with attached U-bolts



# Wheel sets for LOXrail® 25

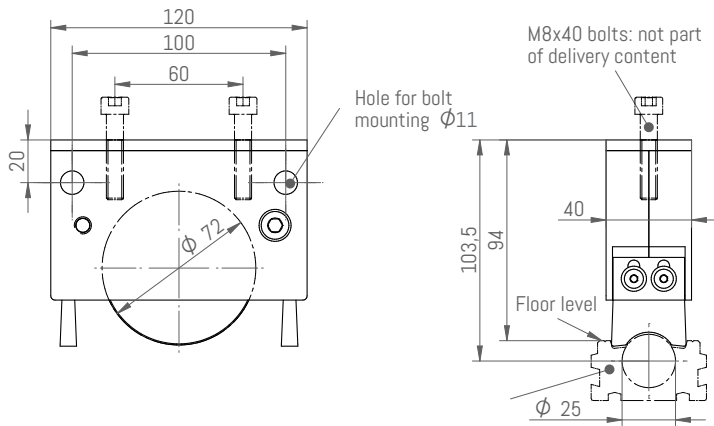
## Wheel sets without mounting frame

- Special profile rollers for LOXrail® 25
- Two pc. of brushes wipers to clean the rail
- Defined connecting interfaces enable a precise assembly
- Rubber plate for damping of impacts during the loading of the carrier

### LOXrail® wheel set 25-1

ID No. 481200

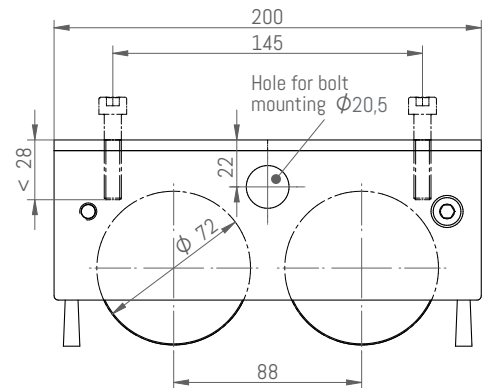
- Compact wheel set with single roller in aluminum housing
- Scope of application:
  - Small to middle sized loads without rail crossings
  - Straight line applications and simple transport systems



### LOXrail® wheel set 25-2

ID No. 481201

- Wheel set with double roller in aluminum housing
- Scope of application:
  - Middle sized loads and/or applications with rail crossings



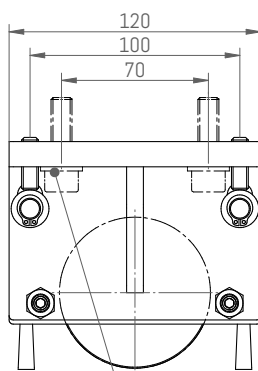
## Wheel set with mounting frame

### LOXrail® wheel set 25-1 MR

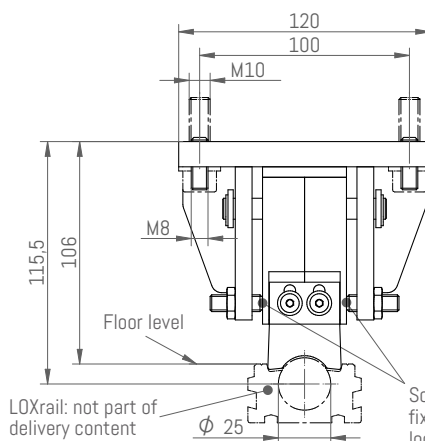
ID No. 481204

Wheel sets with a mounting frame are used for easy adaption to your existing machine design with defined hole pattern. The defined and proper assembly of the wheelsets inside the mounting frame allows the implementation of fixed and loose bearings without consideration this at the adjacent design.

- rigid welded steel frame to mount the wheel set to existing structure with defined hole pattern
- easy installation of the preassembled module to exiting structure
- adjustment screws to realize a fixed and loose bearing

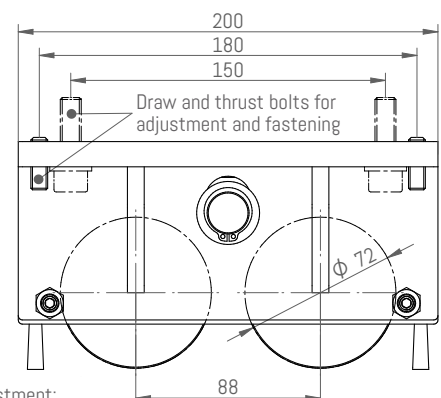


M10x35 and washers: not part of delivery content



LOXrail: not part of delivery content

Screws for adjustment:  
fixed bearing = 0 (delivery condition)  
loose bearing = 1

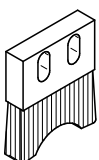


Draw and thrust bolts for adjustment and fastening

## Accessories

### Brush wiper

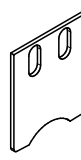
ID No. 481020



- Brush wiper for light and dry dirt on the LOXrail®
- Brush material: polyamide
- Adjustable by oval holes

### Hard Scraper

ID No. 481029



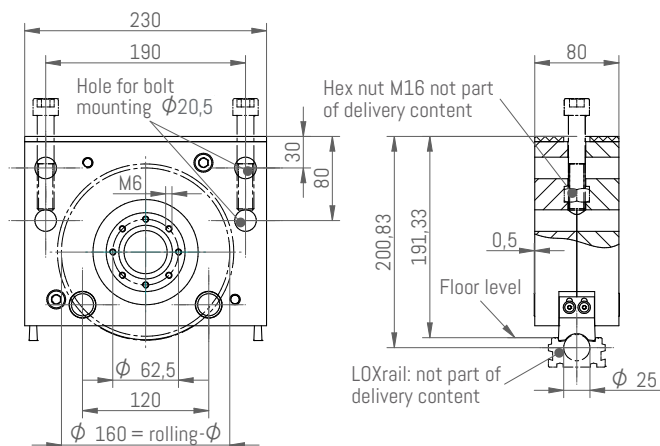
- Used in case of heavier dirt
- Protection of the wheels against screws, riveting bolt remains or welding beads
- Adjustable by oval holes

## Wheel sets for drive applications

### LOXrail® single wheel set 25-1 AT

ID No. 481208

- Wheel set for simple drive solutions with a gear motor
- Drive wheel diameter 160mm in rigid aluminum housing
- Adaption of cardan shafts with an adapter flange

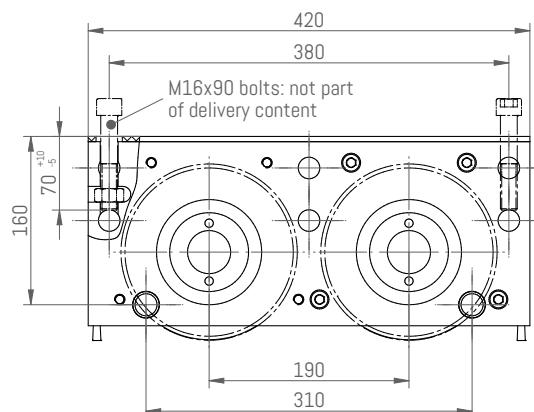


Adapters are available separately. For information regarding the connection to your drive please contact us.

### LOXrail® double wheel set 25-2 AT

ID No. 481209

- Wheel set for drive applications with rail crossings and high payload
- Two drive wheels diameter 160mm in rigid aluminum housing
- Adaption of cardan shafts with an adapter flange



## Technical data

### LOXrail® wheel sets 25

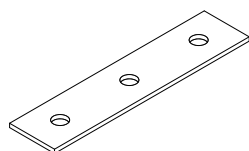
	wheel set 25-1	wheel set 25-1 MR	wheel set 25-2	wheel set 25-2 MR	wheel set 25-1 AT	wheel set 25-2 AT
ID No.	481200	481204	481201	481205	481208	481209
Max. payload on LOXrail® (in kN)	164	164	32,8	32,8	25	50
Max. payload of wheel flange* (in kN)	7	7	14	14	25	50
Max. allowed lateral force** (in %)	30	30	30	30	20	20
Weight (in kg)	1,15	44	2	7,3	11,1	20,7

The max payload mentioned is without any safety factor. In case of a stainless steel rail system and wheels, the max payload reduces by about 20%.

\* max payload in case the rollers are running on the outer diameter flange (e.g. in case of track crossings or use of the rollers on flat steel)

\*\* max force in % of the real vertical load on the roller. Exceeding the side load causes danger of derailling. The surrounding structure has to be rigid enough to absorb these forces.

## Rubber plates



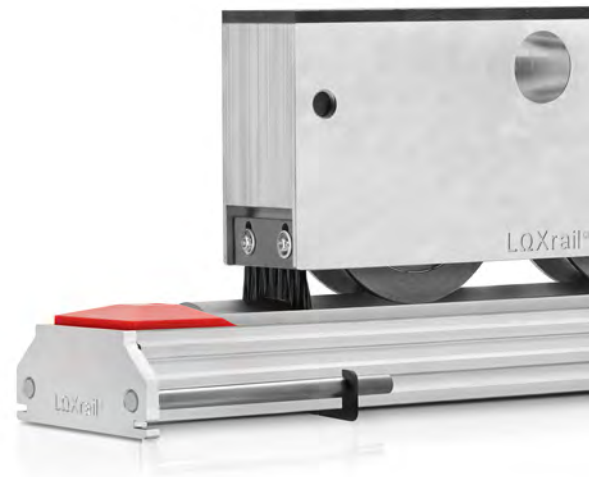
- For damping and compensation of tolerances
- Rubber material with webbed inlay
- Available as spare part with the following ID No.

ID No.	Description	For wheel set
481025	LOXrail® compensation plate 25	LOXrail® wheel set 25-1
481026	LOXrail® compensation plate 25-2	LOXrail® wheel set 25-2
481035	LOXrail® compensation plate 25 AT	LOXrail® wheel set 25-1 AT
481036	LOXrail® compensation plate 25-2 AT	LOXrail® wheel set 25-2 AT

# LOXrail®-system 40

## Your advantages

- Low rolling resistance allows movement of heavy loads by hand
- Marginal wear and interchangeable running surface if required
- Flush to floor installation causes no trip hazard
- Trouble-free crossing with hand trucks and forklifts or walkable surface for workers
- Nearly no impurity due to closed smooth surface
- Suitable wheel sets allow a tailor made design of the system

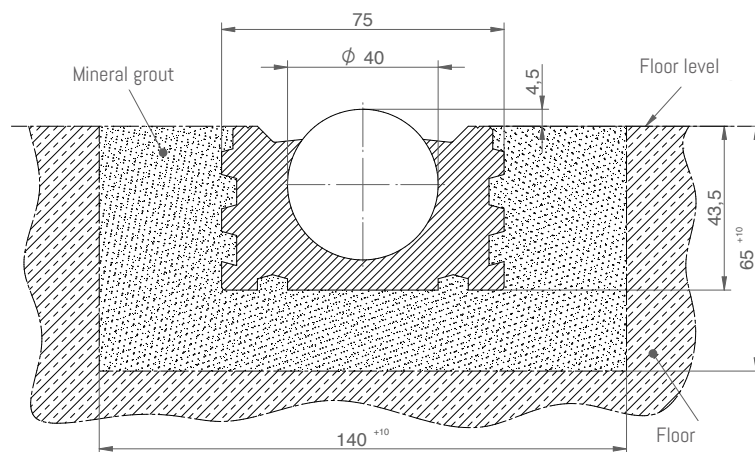


## LOXrail® 40

### Rail system

ID No. 480201

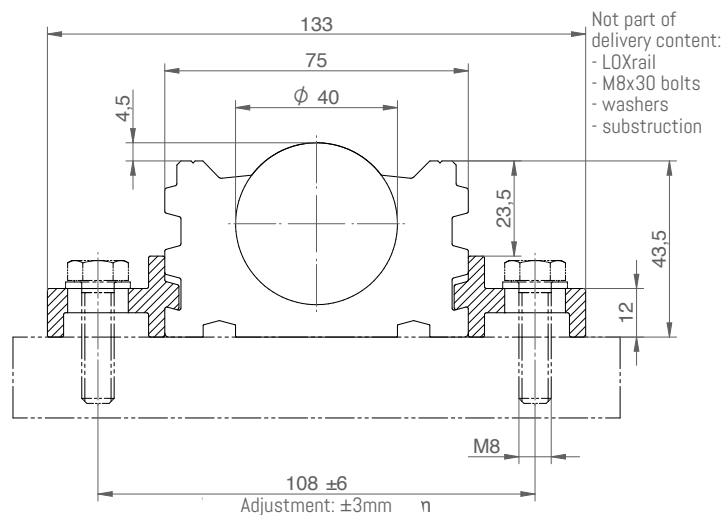
- Aluminum base profile
- Aluminum clamping profile
- Hardened round bar made of CF53 (optional stainless steel)
- Standard length of rail section; 3000mm



### Fixing clamp

ID No. 480202

- Fastening element for mounting of LOXrail® to steel work structures
- Lateral adjustability for alignment of the track width
- Fixing clamps are set at each side of the rail in 300mm intervals

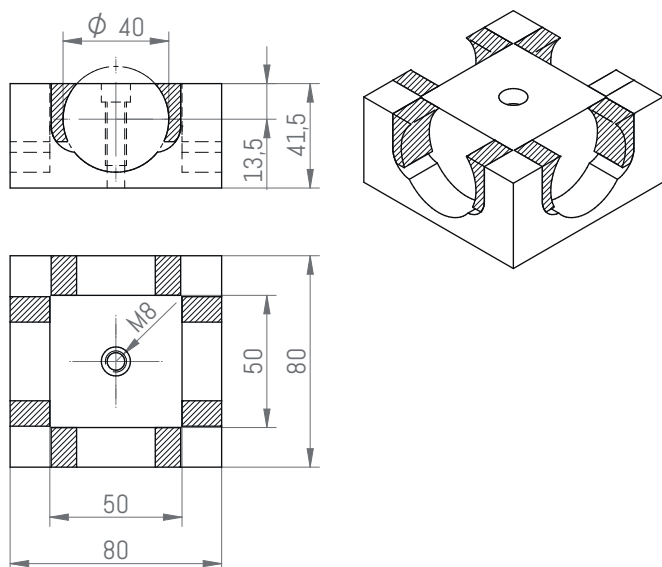




## Crossover section

ID No. 480211

- LOXrail® X-elements to implement rail crossings
- Hardened surface (approx. 60-66 HRC)
- Incl. clamping plate for assembly in combination with the LOXrail®
- Incl. cover caps to seal the gaps beside the round bars



## Rail end stop

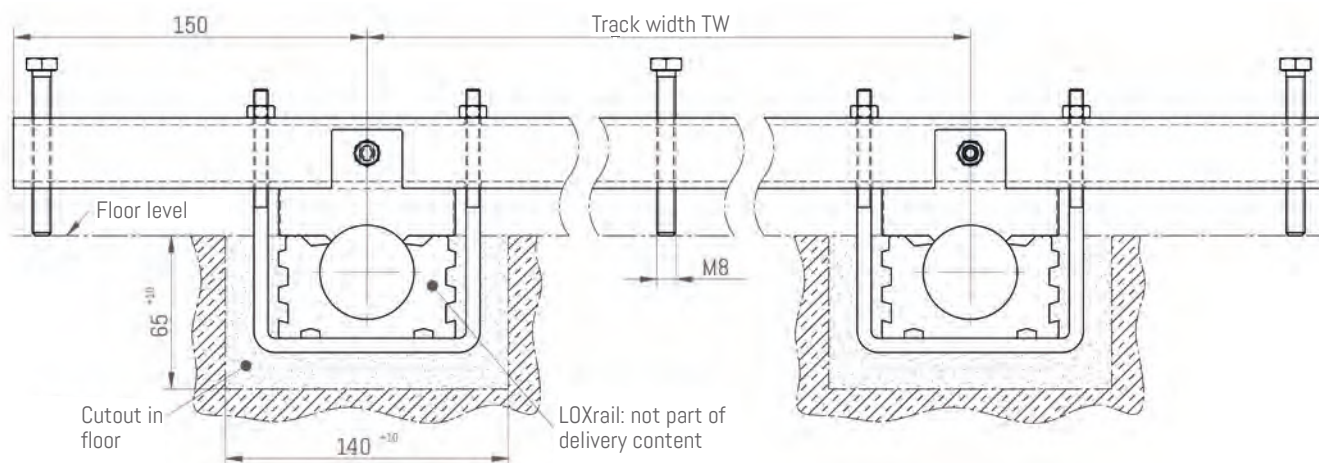
ID No. 480205

- End stop for LOXrail® systems size 40
- Placed at the end of the rails
- Hinders the carrier leaving the tracks



## Installation jig

- For precise installation of the LOXrail® in width and height
- Levelling bolts for alignment of the rail systems height
- Manufactured for your individual track width
- Delivered completely assembled with attached U-bolts



# Wheel sets for LOXrail® 40

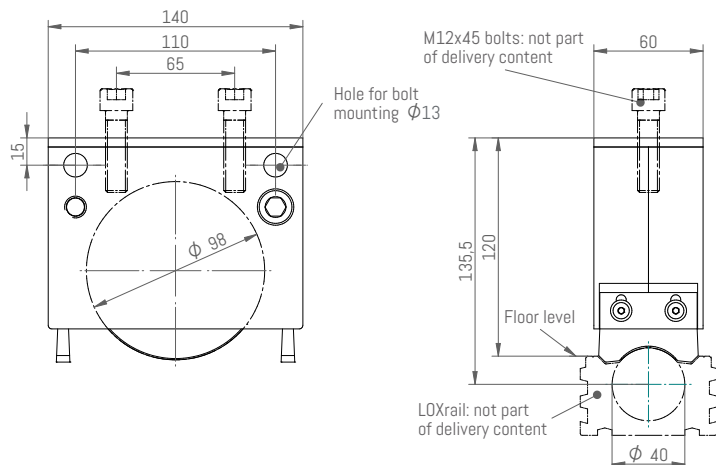
## Wheel sets without mounting frame

- Special profile rollers for LOXrail® 40
- Two pc. of brushes wipers to clean the rail
- Defined connecting interfaces enable a precise assembly
- Rubber plate for damping of impacts during the loading of the carrier

### LOXrail® wheel set 40-1

ID No. 481202

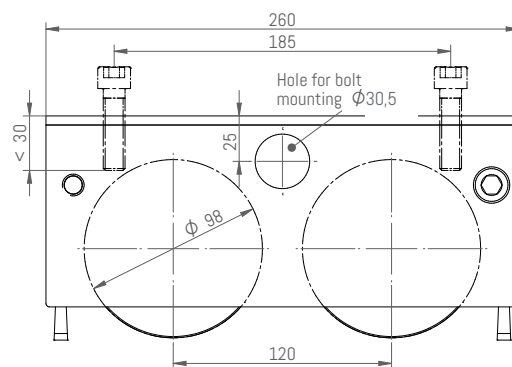
- Compact wheel set with single roller in aluminum casing
- Scope of application:
  - Middle sized loads without rail crossings
  - Straight line applications and simple transport systems



### LOXrail® wheel set 40-2

ID No. 481203

- Wheel set with double roller in aluminum casing
- Scope of application:
  - Middle to large sized loads and/or applications with rail crossings



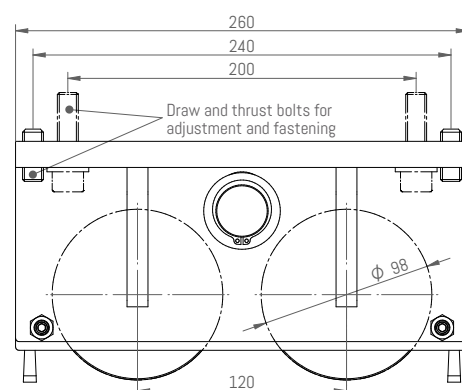
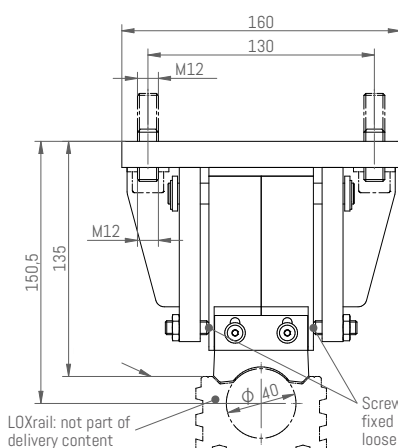
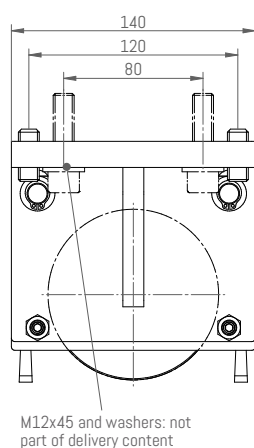
## Wheel set with mounting frame

### LOXrail® wheel set 40-1 MR

ID No. 481206

Wheel sets with a mounting frame are used for easy adaption to your existing machine design with defined hole pattern. The defined and proper assembly of the wheelsets inside the mounting frame allows the implementation of fixed and loose bearings without consideration this at the adjacent design.

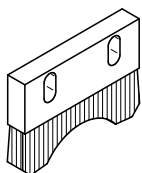
- rigid welded steel frame to mount the wheel set to existing structure with defined hole pattern
- easy installation of the preassembled module to existing structure
- adjustment screws to realize a fixed and loose bearing



## Accessories

### Brush wiper

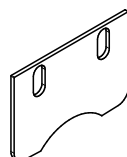
ID No. 481021



- Brush wiper for light and dry dirt on the LOXrail®
- Brush material: polyamide
- Adjustable by oval holes

### Hard Scraper

ID No. 481030



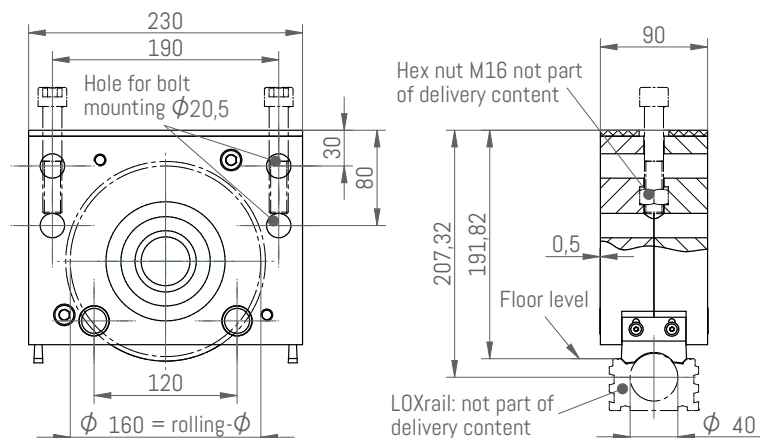
- Used in case of heavier dirt
- Protection of the wheels against screws, riveting bolt remains or welding beads
- Adjustable by oval holes

## Wheel sets for drive applications

### LOXrail® single wheel set 40-1 AT

ID No. 481210

- Wheel set for simple drive solutions with a gear motor
- Drive wheel diameter 160mm in rigid aluminum case
- Adaption of cardan shafts with an adapter flange

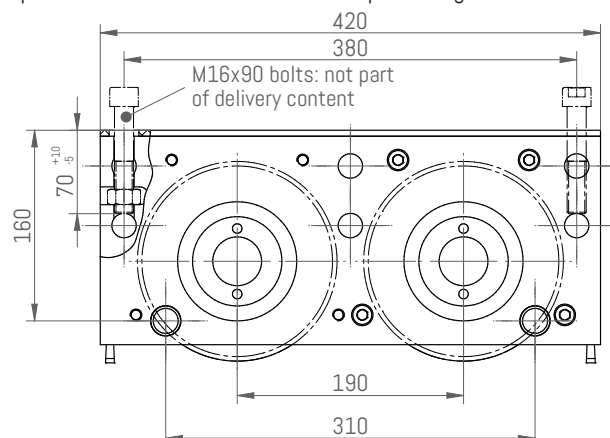


Adapters are available separately. For information regarding the connection to your drive please contact us.

### LOXrail® double wheel set 40-2 AT

ID No. 481215

- Wheel set for drive applications with rail crossings and high payload
- Two drive wheels diameter 160mm in rigid aluminum case
- Adaption of cardan shafts with an adapter flange



## Technical data

### LOXrail® wheel sets 40

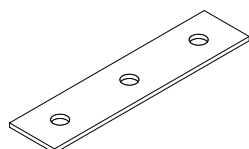
	wheel set 40-1	wheel set 40-1 MR	wheel set 40-2	wheel set 40-2 MR	wheel set 40-1 AT	wheel set 40-2 AT
ID No.	481202	481206	481203	481207	481210	481215
Max. payload on LOXrail® (in kN)	29	29	58	58	50	100
Max. payload of wheel flange* (in kN)	16,5	16,5	33	33	50	100
Max. allowed lateral force** (in %)	30	30	30	30	20	20
Weight (in kg)	2,8	8,8	5,3	16,3	13,2	24,9

The max payload mentioned is without any safety factor. In case of a stainless steel rail system and wheels, the max payload reduces by about 20%.

\* max payload in case the rollers are running on the outer diameter flange (e.g. in case of track crossings or use of the rollers on flat steel)

\*\* max force in % of the real vertical load on the roller. Exceeding the side load causes danger of derailing. The surrounding structure has to be rigid enough to absorb these forces.

## Rubber plates



- For damping and compensation of tolerances
- Rubber material with webbed inlay
- Available as spare part with the following ID No.

ID No.	Description	For wheel set
481027	LOXrail® compensation plate 40	LOXrail® wheel set 40-1
481028	LOXrail® compensation plate 40-2	LOXrail® wheel set 40-2
481037	LOXrail® compensation plate 40 AT	LOXrail® wheel set 40-1 AT
481038	LOXrail® compensation plate 40-2 AT	LOXrail® wheel set 40-2 AT

# LOSYCO

Lean-Manufacturing-Systems



Entire transport systems and flow production on rails

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