Crane construction kit
max. payload 3000 kg
Factory length up to 8 m
modular expandable
light and solid
easy to assemble
proven technique
Delivery ex stock
Planning and construction
Multifunction rail with additional runways

Positioning stoppers internal & external
Safety bolts for travel limitation
Energy supply electrical
Energy supply pneumatic
Trolleys
Locking plates
Suspensions
Brakes
Safety ropes
Crane trolleys

Smooth-Running Aluminium Rail System
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A strong partner for the assembly

ROLLYX Smooth-Running Rail System

The ROLLYX aluminium rail system was developed as modular construction kit for the creation of track railways and X/Y light crane installations with optimal running properties and a payload range up to 3000 kg. By means of this kit overhead cranes can be construed in a simple and fast way. Thus, the spectrum ranges from a straight line between two workplaces of just a few meters of conveyance, over an area-wide transport with an easy and convenient guidance by hand, up to installations for automated operation. The ROLLYX rail system can be easily adapted to individual conceptional requirements. It is based on hard-anodised multi-chamber precision aluminium profile of up to five-time stability gradation. Special trolleys equipped with ball-bearing plastic rollers and side guide rollers stand for a tilt-free running performance with smallest rolling resistance and outstanding ease of motion. The system is complemented by a variety of accessories, such as universal suspensions, rail connection and end sets as well as different energy feedings.
Profiles

**SR 100**
Standard rail up to 500 kg
4.6 kg/m

**SR 150**
Standard rail up to 1000 kg
7.8 kg/m

**SR 200**
Standard rail up to 1000 kg
10.0 kg/m

**SR 250**
Heavy-duty rail up to 3000 kg
16.8 kg/m

**SR 175M**
Multifunction rail up to 1000 kg
11.3 kg/m

ROLLOX rails are made of extruded multi-chamber precision aluminium of up to five-time stability gradation. Despite a low dead weight, highest bending strength and torsional stiffness is achieved due to the multi-chamber profile technique. The aluminium rails are natural-coloured hard-anodised and can be supplied up to 8 m length. Colour coatings and special lengths are available on request.

**Functional elements of the profiles**

- Channels for fitted bolts – rail joiners
- Fastening groove for suspension
- T-slot for attachment parts
- Cable channels for air and vacuum feed
- T-slot for attachment parts
- Channels for fitted bolts – rail joiners
- Running track for trolleys
- SR 175M
  - Additional running track for:
    - Energy trolley
    - Tool trolley
    - Screwdriving technology
    - Spring balancer
    - Clip-on conductor line
The rail connection is a combined fitted bolt - screw joint, made of steel and aluminium.

Fitted bolts help that running surfaces of rail ends, which shall be joined together, are accurately positioned relative to one another. With regard to the axial connection the screw jointing cares for a firm hold of the faces.

**Profile locking plates**

Each end of a rail track should be closed with a locking plate. Within the range of ROLLYX rail system this plate is made of aluminium and is secured with four screw dowel joints. The locking plate may not be used for travel limitation. A safety bolt should always be installed in front of the locking plate.

**Stopping elements**

Positioning stoppers can be freely positioned over the entire rail length and thereby allow pre-positioning of a load.

The internal positioning stopper is installed into the rail from the bottom in order to position the trolleys.

The external positioning stopper can be underrode with energy feeding trolleys and is therefore suitable for power feeding which is laid inside the rail.

Due to various combination possibilities e.g. twin stops and strongly absorbing stops can be set up.
Trolleys

Buffer elements (as required)
- Rubber buffer
- Shock absorber

Pair of rollers

Side guide rollers

Aluminium base body

Pair of support rollers

Buffer elements (as required)
- Rubber buffer
- Shock absorber

Ball-bearing plastic rollers

Side guide rollers

Suspension bolts for cranes and trolley frames

ROLLYX trolleys are equipped with ball bearing plastic rollers. Side guide rollers prevent tilting of trolleys in the rail. An additional pair of support rollers is installed for applications which require additional support against raising up of rollers from the running surface.

Functional elements of the trolleys

In the process of standard applications rubber buffers absorb the occasional bumping between trolley and stoppers for travel limitation. For applications involving a more frequent bumping against the stoppers, the use of hydraulic shock absorbers is recommended. Both kinds of absorbers are screwed into the threaded holes of the trolleys.

Crane bridge suspensions

For the construction of single or double support crane bridge suspensions. They are screwed into the carrier groove of the rail and then hooked into the trolleys.

Railway X-axis

Ball joint

Crane bridge Y-axis

Application example ROLLYX X/Y-System
Ceiling suspensions

With regard to suspension of ROLLYX rails from ceiling constructions different variants are available. Besides the varied rail length selection, height adjustment can always be realised as well.

Crane bridge stiffeners

The connecting crossbar for double girder bridges causes a stiffening of the parallel running rail tracks, and is required from 3 m bridge span.

Crane trolleys

Different versions of crane trolleys are provided. Depending on installation height, kind of application and payload, profile and rail gauge must be selected to match.

Crane trolleys for manipulators

consists of:  - Trolley frame  either cranked or not  - 4 Trolleys  - 4 Suspensions
Crane trolley for chain hoists with double rail

- Trolley frame either cranked or not
- 4 Trolleys
- 4 Suspensions

Crane trolley for chain hoists and rope balancer with single rail

- Cross-beam
- 2 Trolleys
- 3 Suspensions

Energy feeding components

Pneumatic energy feeding inside of the runway
- Energy trolley
- Air hose: DN10
  - DN20
- Connectors: ½" or ¾"

Electric energy feeding inside of the runway
- Energy trolley
- Power cable: 4 x 1.5 mm²
  - 5 x 1.5 mm²
- Connectors: 400V 50Hz 16A
Alternative energy feeding in C-rail
- parallel to runway
- for pneumatics and electrics

Alternative energy feedings with energy chain
- parallel to runway
- for pneumatics and electrics

Switching elements
Various application possibilities also require different circuits. Our technicians and constructing engineers develop just the right solution for each performance requirement.

Crane way position switch
The crane way selector switch (position switch) is available either in electrical or pneumatical version. They are used for pre-positioning, shutdown of traction drive or conveyor-belt switch-off.

Our program an enrichment for you!
Stop control trolleys

Stop control trolleys cause an automatic stop of the trolleys in start-up position.

Pneumatic stop control trolley Y-axis

A particular control is used for this trolley. Overrunning and rocking of the trolley during positioning process is advantageously prevented thereby, and thus it is functionally beneficial for the use of rope balancers and chain hoists.

Pneumatic stop control trolley for X-axis

The stop control trolley is attached to the existing trolley.

Brakes

Brakes are used in order to stop the trolleys and to set them into a parking position. They can be used in X and Y-direction.

Standard brake

Brake for SR175M

Brake for PICO-MAT
Friction drives

When ROLLYX rail systems with excellent smooth-running properties are concerned, friction drives only offer an additional advantage for loads from 500 kg upwards. These travel drives are available in electric and pneumatic version. In addition a drive alignment subassembly can be provided. It works continuously and engages the approach of the friction drive automatically, while on the other hand, it automatically opens the drive-way for positioning when disabled.

Special characteristics of these drives are:

- Stepless cross travel speeds
- Rather noiseless travelling
- Low energy consumption
- Use with 100% duty cycle

Snap-in lockings

Pneumatic snap-in lockings allow positioning of trolleys. They are used for the pre-positioning at operator’s workplace.
Railway variants

The ROLLYX rail system offers countless combinations, which offer a solution for rather any kind of application. We distinguish between X- systems and X/Y-systems.

Single rail runway with trolley

For applications, travelling in X-direction only, a single rail runway can be used. In this way practical work with tool-trolleys, chain hoist, screwdriving technology, manipulators (YXO-MAT and PICO-MAT) is enabled up to payloads of 3000 kg.

Double rail runway with single support crane bridge and trolley

This appliance already is an X/Y-system and suitable to travel both directions.
Double rail runway with double support crane bridge and crane trolley

Applications which include a crane trolley allow a balanced weight distribution of the payload onto the double bridge and therefore they are suitable for movable loads up to 3000 kg. Consequently practical work with chain hoist, VIGO-MAT and TELO-MAT is possible.

Triple rail runway with double support crane bridge and crane trolley

Triple rail runways come into question, when the length of run of the crane bridge exceeds 8 m, or when suspension distance would be too long to bear the load weight.
Lifting devices

More than 30 years development work made our handling devices become reliable tools in different branches of the industry. Whether a single device or the equipment of a complete assembly line is concerned – Intelligent ergonomics directly from Strödter!

Chain hoist

- Electric chain hoist
  400V 3ph 50Hz
- Industrial quality
- max. payload 3000 kg
- variable lifting height
- 1- or 2-strand load chain
- Handhold control
  resp. „ERGOonomic“-control

Rope balancer

The rope balancer PICO-MAT TWIN is a hand-operated double rope manipulator with pneumatic balance control. With this device you can lift, turn, pivot or transport loads up to 100 kg.

For a simple and stepless handling the loads are pneumatically set in a weightless condition (in balance). The twin rope system offers stability against twisting, which is a major advantage over traditional single rope devices and single-strand chain hoists.
**Jib-arm balancer**

- max. payload 300 kg
- Lifting height 200 – 1300 mm
- fast work up to 1 m/s
- effortless and ergonomic
- allows work in standing posture
- no more bending and stretching
- energy-saving and low-noise
- 100% duty cycle
- cost-efficient

**Telescopic lifting axis**

TELO-MAT is a telescopic manipulator with a ball-bearing, torque-stable guidance. Loads up to 1500 kg for flexible and sensitive handlings are lifted stepplessly and are moved inside a smooth-running rail system by means of the lifting axis. The TELO-MAT lifts, rotates, pivots or transports loads without pendular movements. Depending on kind of application the lifting axis is equipped with a pneumatical, hydraulic or electrical drive. In combination with the ROLLYX rail system the TELO-MAT is employed for large-scale work areas.
**Buckling-arm rope balancer**

- max. payload 110 kg
- variable lifting height
- low risk of twisting due to double rope technique
- sensitive and stepless positioning
- endless rotary joint with 2 - 6 pneumatic connections
- energy-saving and low-noise
- Pneumatic-drive with 100% duty cycle

**Buckling-arm manipulator**

VIGO-MAT is a hand-guided buckling arm manipulator with weight compensation. Loads up to 500 kg are put in a state of suspension for an easy and stepless handling. The device is available as floor-mounted or hanging version.

The buckling arm principle allows a pendular-free, accurate and easy handling. The load handling device may jut out and thus provide access to overbuilt areas.

VIGO-MAT is a weight-optimised device and therefore requires only minimal physical effort during operation. Ergonomic operation elements allow stress-free working.
Safety ropes

Strödter provides all suspensions with anti-fall safety ropes.

Light-crane systems

With the crane installation product line we have bundled interesting all-in-one systems and thus offer you high quality crane units.

Jib crane

Light, lighter, lightest. The jib crane stands for low deadweight because of the aluminium jib boom, in practice this means low inertia material handling. In combination with a chain hoist or rope balancer you will be able to increase ergonomics and productivity. The max. payload comes up to 3000 kg.
Portal steelworks

Easy-to-operate light crane systems belong to a meaningful equipment of a workstation. Also in this area the vantages of the ROLLYX rail systems are of practical use and for this they allow a smooth-running travelling of load at all levels.

Ceiling suspension

Due to the low deadweight of the ROLLYX aluminium rail systems large-size workplaces can be installed in an easy, fast and reasonably priced manner by suspension of rails from existing supporting beams of the hall. The max. payload comes up to 3000 kg.

2-Portals Steelwork

Our basic system (steelwork construction with smooth-running rails) consists of a 2-portals steelwork, an X/Y rail system and a chain hoist of industrial quality. The max. payload comes up to 3000 kg.

3-Portals Steelwork

As a light crane system the 3-portals steelwork is suitable for the realisation of large working areas. Construed as modular system it allows fast installation of taylor-made workplaces. The max. payload comes up to 3000 kg.

Easier work with smooth-running crane systems as all-in construction kit!
Storage and retrieval machine

With this floor-independent fork-lift device you will stack almost up to the ceiling. It may be either used in combination with a steel portal or be mounted on hall construction. The max. payload comes up to 1000 kg.

Various standard tools are available for our storage and retrieval machine.
Element for economic installation of assembly lines

- Complete energy supply with rail runway for:
  - Manipulators
  - Tool trolleys
  - Screw technology
- Cable channels
- Air duct 4"
- Light strip
- Emergency stop
- Q-Stop

- low planning expense
- easy and quick installation
- low purchase costs
- perfect functionality

All-in-one Multifunction Module
We get loads floating on air!

Chain hoist
max. 3000 kg

ZYBA-MAT
max. 350 kg

PICO-MAT
max. 120 kg

YXO-MAT
max. 300 kg

Articulating jib crane
max. 500 kg

Jib crane
max. 1500 kg

Buckling-arm rope balancer max. 110 kg

Buckling-arm rope balancer max. 110 kg

2-Portals Steelwork
max. 3000 kg

3-Portals Steelwork
max. 3000 kg

SUBA-MAT
max. 1000 kg

TELO-MAT
max. 1500 kg

Ceiling suspension
max. 3000 kg

Storage and retrieval machine max. 1000 kg

VIGO-MAT
max. 500 kg

VIGO-MAT
max. 500 kg

Light-Crane & Handling Technology
Sales Program

Gripper Technics
Automotive Industry

Gripper Technics
General Industry

Light-Crane &
Handling Technology

Brochures

VIGO-MAT
Typ VP

TELO-MAT
Typ FP

PICO-MAT
Typ ET-TWIN

VIGO-MAT
Brochure

TELO-MAT
Brochure

PICO-MAT
Brochure

Buckling-arm rope
balancer Brochure

Catalogues

ROLLYX Planning and
Project Engineering

Light-Crane Systems

Please ask for
our information!

Catalogue- &
Brochure Survey
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Conductor line power rails
Crane bridge suspensions
Buffer elements
Stiffening girders
Crane way switches
Rail joints
Double trolleys
Friction drives
Travel units