

KABELSCHLEPP

A member of the TSUBAKI GROUP



PRODUCT PORTFOLIO
CABLE & HOSE CARRIER SYSTEMS

Only with energy can you get things moving.

KABELSCHLEPP is a long standing global player in the field of cable and hose carrier systems. The story of our success began in 1954 with the invention of the steel cable carrier.

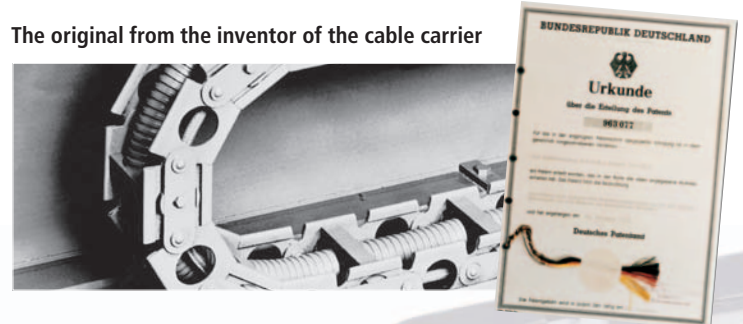
A world market has since grown out of our idea and we have continued to set the standard in the market with our innovative solutions.

Our cable carrier systems can be found in use worldwide, ranging from standard applications like machine tools, cranes, car-wash systems and medical and laboratory technologies, to more complex applications such as industrial robots, offshore oil rigs and even aerospace.

Alongside a comprehensive selection of standard solutions, which are immediately available ex-stock from our warehouse, we can also offer customized solutions developed specifically to meet your individual needs.

Always the right cable carrier – made of steel or plastic – available in standard widths or customized to the exact mm to fit any application. As a total solution provider, KABELSCHLEPP can also supply fully harnessed systems with cables and connectors pre-installed.

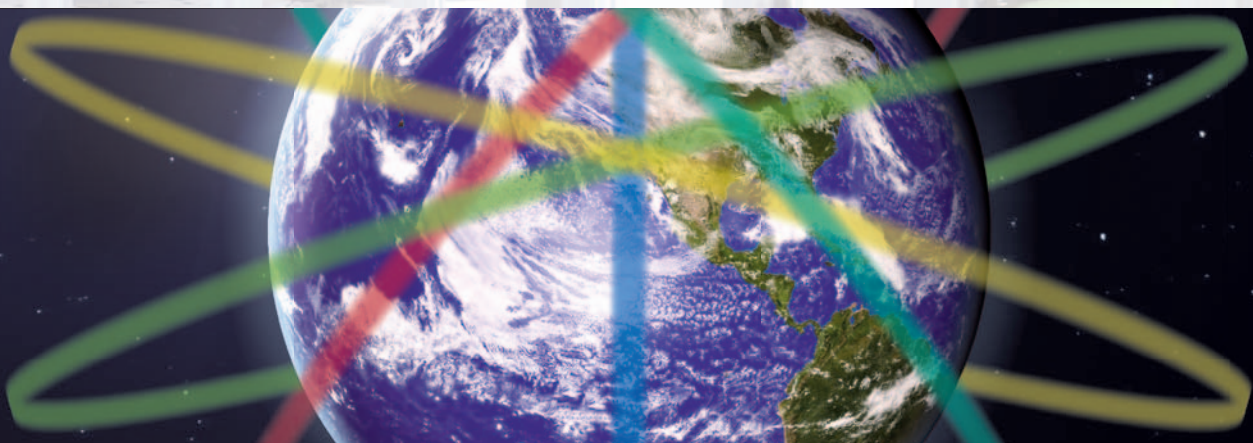
The original from the inventor of the cable carrier



KABELSCHLEPP + TSUBAKI = MORE

KABELSCHLEPP is now integrated into the Tsubaki Group and made responsible for managing the worldwide cable carrier systems business. For more than 40 years, both companies have been close cooperative partners.

With this integration, we will leverage our successful business relationship in one strategic enterprise.



MORE Product Solutions

An expanded product portfolio of TSUBAKI products and KABELSCHLEPP cable carrier systems.

MORE Innovations

A combined global R&D with even more resources ensures a quicker response to our customer's needs.

MORE Regional Service

A combined TSUBAKI and KABELSCHLEPP sales force provides added local support. KABELSCHLEPP products are also now available through the TSUBAKI network of distributors.

MORE Global Support

A unified global sales and support network extends to over 70 countries around the world, providing service and support when and where you need it most.

MORE Value

Together we will continue to prove our reputation as one of the industry's „Best Value“ supplier in the industry.

The material choice depends on your application

Every application presents different demands of the cable carrier system. To deliver a system that is perfectly fit to the application, KABELSCHLEPP produces cable carrier systems in different materials. According to the application, either full-plastic, hybrid (sideband made of plastic and stays made of aluminium) or steel/stainless steel cable carriers can be installed.



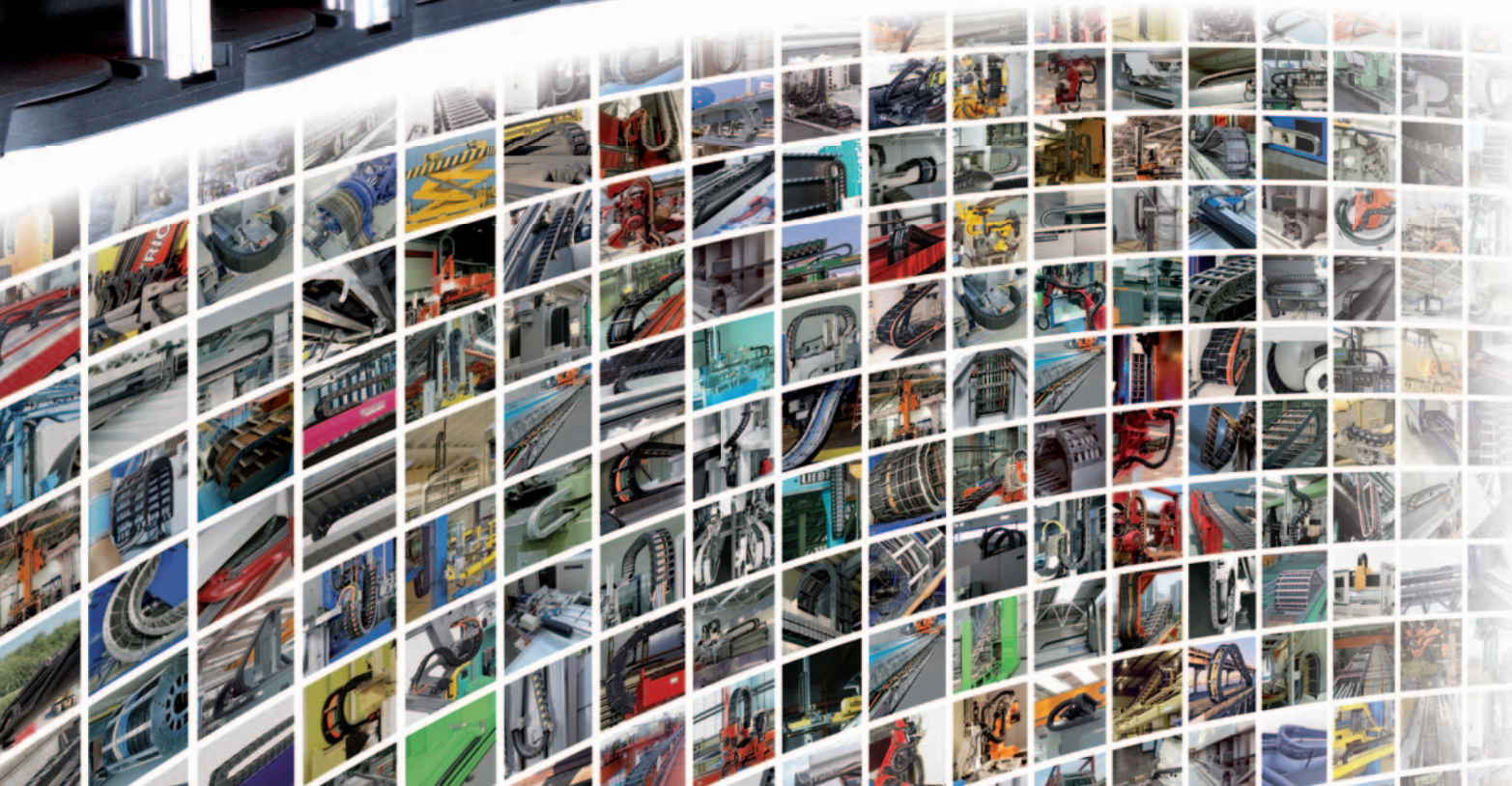
Quality Management

KABELSCHLEPP has implemented a Quality Management System in accordance with several standards like EN ISO 9001. Selected products are tested and certified by renowned third-party institutions.





KABELSCHLEPP – a leading solution provider



STANDARD applications



Solid plastic cable and hose carrier systems with fixed chain widths

Reliable cable and hose carrier systems with simple designs for standard applications. Due to its vast range of various carrier types and designs, KABELSCHLEPP can offer reliable and cost-efficient solutions such as extremely compact designs, types with non-opening or opening crossbars for fast and easy cable installation, as well as tube style options for superior protection from chips and other debris.

Features:

- Cost-efficient solutions for standard applications
- Carrier types/designs with non-opening or opening crossbars
- Many types/designs are available from stock worldwide
- Fast cable installation by simply drawing the cables into the carrier cavity
- Ideal for short travel lengths and high travel speeds

ADVANCED applications

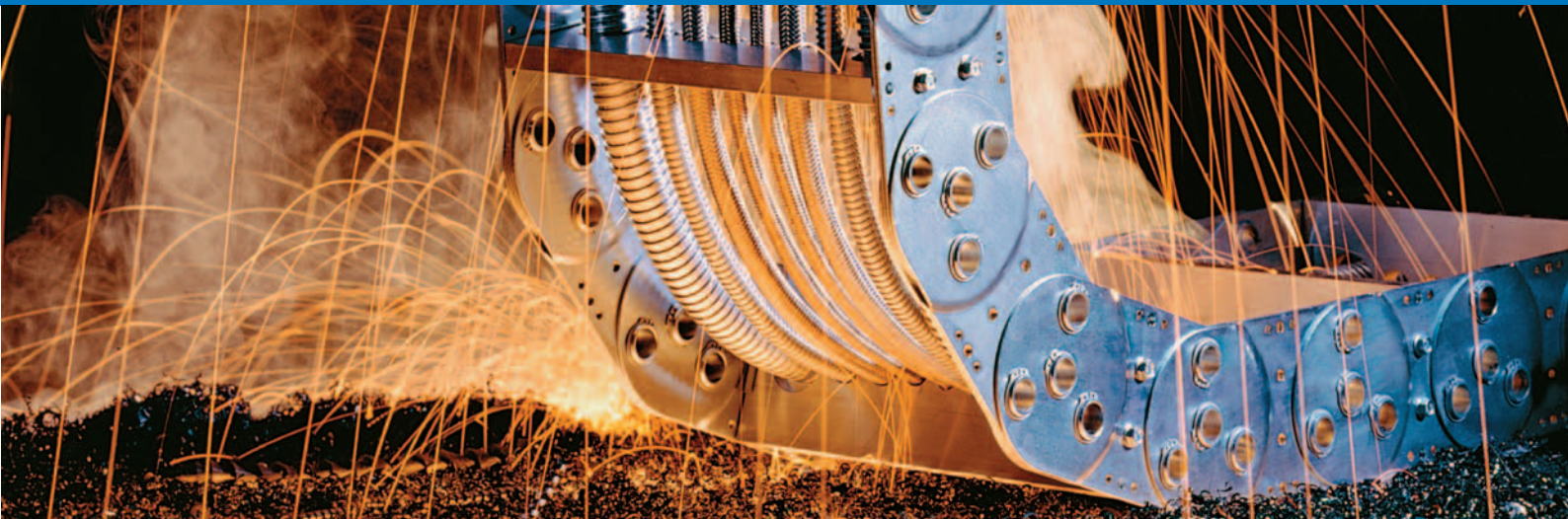


Cable and hose carrier systems with variable chain widths

Various design options are available for advanced applications. With more than 50,000 design options, ranging from easy-to-open/snap-open or bolted-on frame stay systems to cavity extender systems guiding large vacuum hoses to enclosed tube frame stay systems that provide superior protection from dirt and debris, KABELSCHLEPP offers the ideal solution to fit any application. As an example, cable carriers with linkless design can operate at extreme speeds. Numerous frame stay options allow even the most complex cable configurations to be safely and efficiently partitioned within the carrier cavity.

Features:

- Aluminum frame stays available in 1 mm width increments
- Plastic frame stays customizable in 4, 8 or 16 mm width increments (dependant on series)
- Easy and quick opening to the inside or outside radius
- Light, heavy-duty or linkless carrier series
- An ideal solution for challenging applications



Steel/stainless steel cable carrier systems – solutions for extreme applications

Lubricant-free cable and hose carrier systems made of steel or stainless steel for applications in extreme environments. Steel and stainless steel carrier systems are the carrier of choice for operation in extreme heat or the harshest environments. KABELSCHLEPP offers various carrier types and designs ranging from compact style to super-sized carriers. Customized cavity partitioning as well as aluminum cover systems provide optimum cable protection even under heavy mechanical loads/stress.

Features:

- Robust design for heavy mechanical loads
- Allow for large additional loads and long unsupported travel lengths
- Ideal for applications in extreme and harsh environments
- Heat-resistant

3D applications



Cable and hose carrier systems for 3D movements

ROBOTRAX – cable and hose carrier system for robotic applications – is safe and gentle on the cables. Downtimes are reduced to a minimum. The open-style design allows for fast and easy installation and inspection of cables and hoses once installed. The ROBOTRAX series offers a vast assortment of accessories to perfectly fit the carrier system to the individual application. Solutions include accessories for impact protection, shock and vibration dampening, and heat sleeves for optimum cable protection.

Features:

- Ideal for 3D multi-axis motion
- Allows installation for swiveling and rotating movements
 - Same system can be used in robot base and arm
 - Can be equipped with a guide channel system, offering a universal solution for articulating arm robotic applications
- Optimum protection for the longevity of cables and/or hoses
 - Minimum bend radius of cables and hoses is maintained
 - Cables and/or hoses can be properly partitioned into three separate compartments

STANDARD applications

Solid plastic cable carriers with fixed chain widths

- Economically priced solutions for standard applications
- Types with fixed or openable crossbars
- Many types available immediately ex-stock worldwide
- Fast and easy cable installation
- Ideal for short travel paths and high travel speeds



Sub-division



Simple

Height



4,6 – 44
mm

Width



6 – 250
mm

Load



up to 10
kg/m

Travel path



up to 150
m

Travel speed



up to 10
m/s

Acceleration

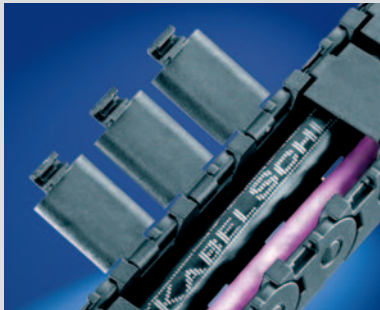


up to 50
m/s²

! The assigned values are average values. Depending on the specific application, the maximum values may differ significantly. For detailed information please contact our specialists. We are happy to assist you!

MONO

Cable carriers with simple design for standard applications



- Simple single piece chain links design with either non-opening or hinged opening crossbars
- Simple and quick assembly
- Compact design for operation in tight spaces
- Mounting brackets with integrated strain relief

More Information:

kabelschlepp.de/mono

EasyTrax

Extremely quick cable installation



- Very fast cable installation by simply drawing the cables into the carrier
- Very high cavity utilization due to innovative forward flexing crossbar design
- Reinforced sideband for added strength
- Extensive long unsupported lengths
- Very quiet – integrated noise dampening system
- Allows for high travel speeds

More Information:

kabelschlepp.de/easytrax

UNIFLEX Advanced

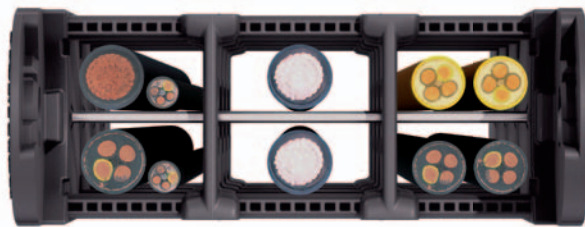
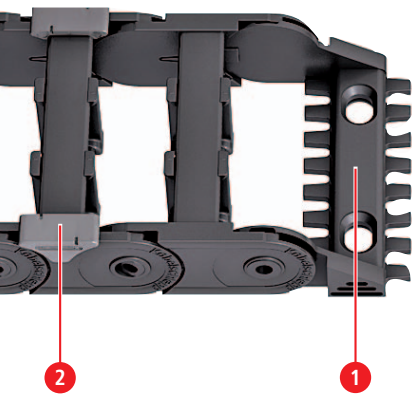
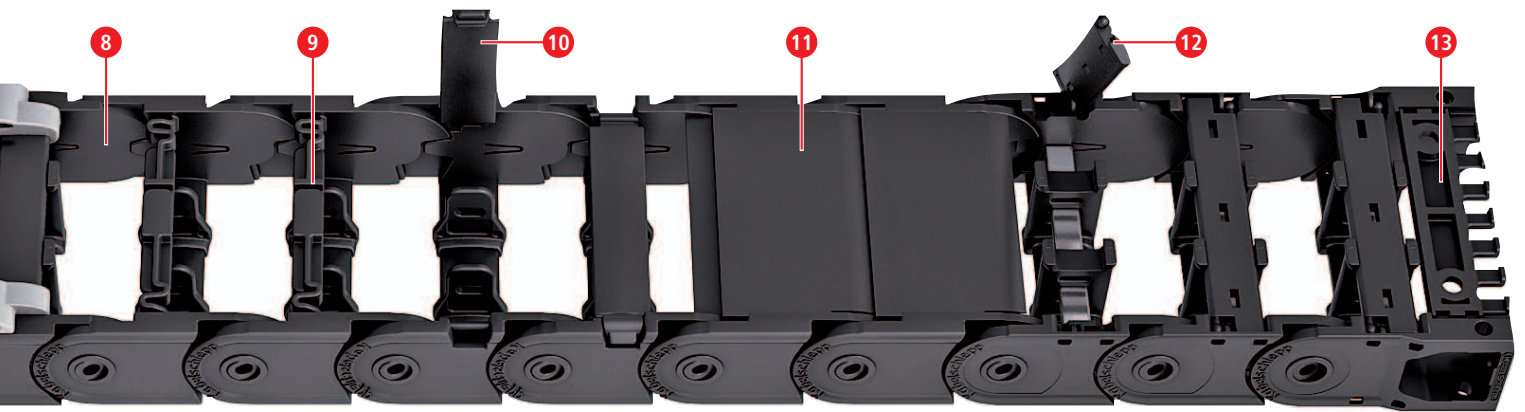
Light, quiet all-rounder for wide range of applications



- Noise-optimized for quiet operation
- Designs with inward or outward opening or non-opening crossbars available
- Crossbars fast and easy to open due to ball joint hinge mechanism
- Dividers movable or fixed in place
- Long unsupported lengths
- Various cavity partitioning options for the cables

More Information:

kabelschlepp.de/uniflex-advanced



Example of cross section

- 1 Mounting brackets with integrated strain relief
- 2 Replaceable glide shoes for extending system life
- 3 Robust, double stroke system for long unsupported lengths
- 4 Types with non-opening, single-part chain link design
- 5 Chain links made of plastic
- 6 Vertical and horizontal partitioning options separate and organize cables
- 7 Outer noise dampening elements
- 8 Inside space is gentle on the cables – no interfering edges
- 9 Very fast and easy cable installation by simply pressing in of the cables
- 10 Types with openable stays – for easy cable installation
- 11 Optional designs covered on one side or on both sides with plastic cover system
- 12 Types with detachable crossbars
- 13 Universal mounting brackets (UMB) with integrated strain relief comb

UNIFLEX TUBES

Tubes with fixed chain widths



- Easy to open
- Robust, double stroke system for long unsupported lengths
- Particularly high torsional rigidity
- Mounting brackets with integrated strain relief
- Economically priced standard types

More Information:
kabelschlepp.de/uniflex-tubes

CoverTrax

Extreme cable protection in harsh environmental conditions



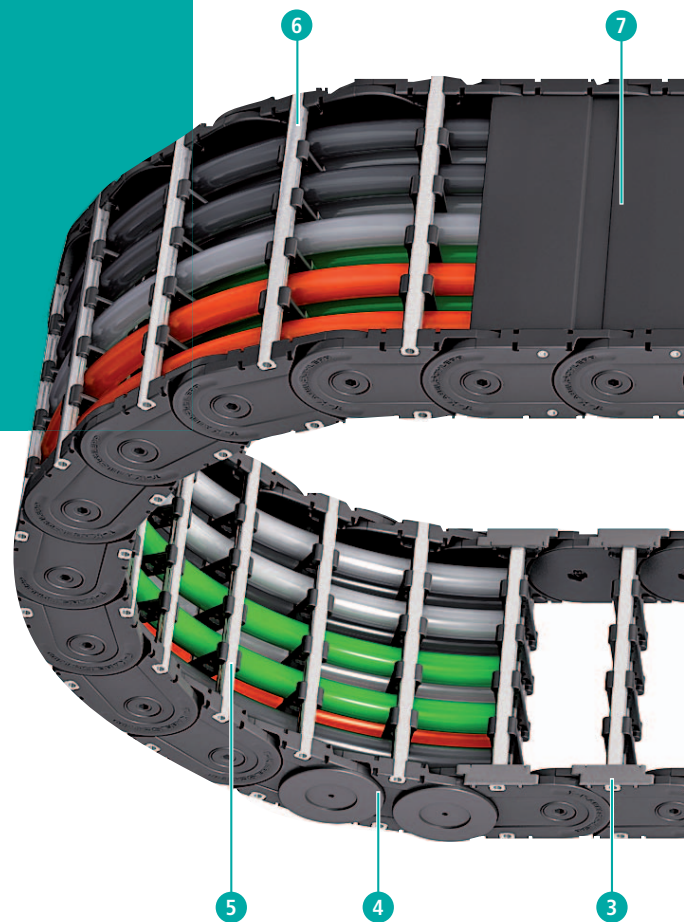
- Superior cable protection
- Quick cable installation – design options with inward or outward opening crossbars
- Very quiet due to integrated noise-dampening system
- Large unsupported lengths
- High-quality visually appealing design
- Ideal for unsupported and long-travel gliding arrangements

More Information:
kabelschlepp.de/covertrax

ADVANCED applications

Cable carriers with variable chain widths

- Aluminum frame stays available in custom widths to the exact millimeter
- Plastic frame stays available in 4, 8, 16 mm width increments
- Quick and easy opening to the inside or outside radius
- Available in light, heavy-duty or linkless series
- An ideal solution for every application



Sub-division



Complex

Height



19 – 108 mm

Width



25 – 1000 mm

Load



up to 65 kg/m

Travel path



up to 350 m

Travel speed



up to 40 m/s

Acceleration

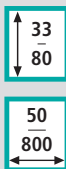


up to 300 m/s²

The assigned values are average values. Depending on the specific application, the maximum values may differ significantly. **For detailed information please contact our specialists. We are happy to assist you!**

MASTER Series / MASTER TUBES

Quiet and weight-optimized cable carriers

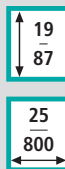


- Light design with weight-optimized sideband construction
- Excellent ratio of inside to outside height
- Customized bend radii are available
- Plastic covers available

More Information:
kabelschlepp.de/master

M Series / MT Series

Versatile cable carrier with extensive accessories and frame stay variants

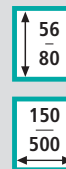


- The robust and versatile all-rounder
- Various separation options
- Large selection of frame stay systems
- Ideal for fast, gliding applications: Replaceable glide shoes made of highly wear-resistant special plastic material
- Plastic or aluminum covers available

More Information:
kabelschlepp.de/m-series

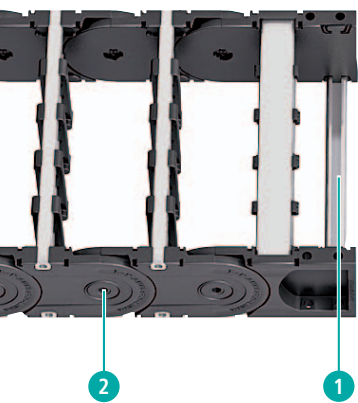
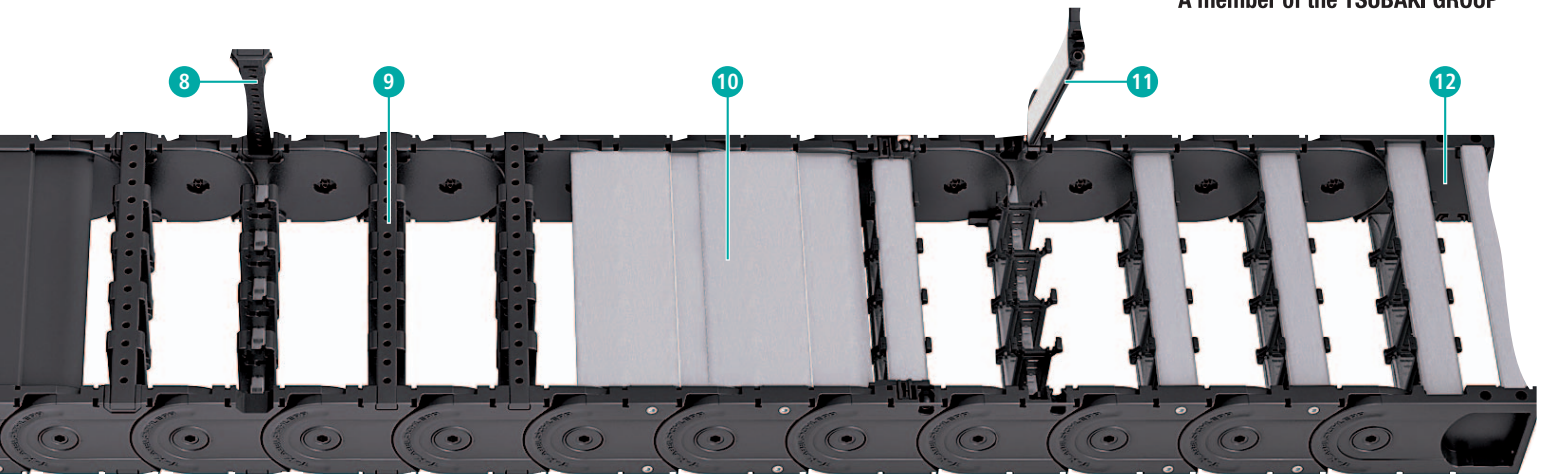
TKP Series / TKC Series

Easy to assemble, stable cable carrier with variable dimensions

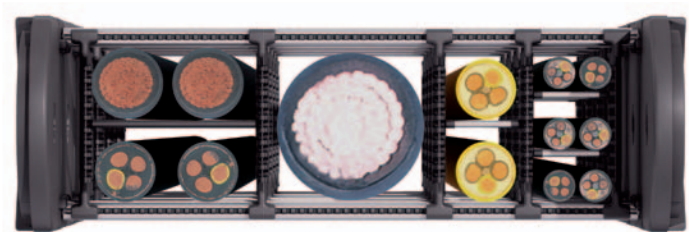


- Robust design, also suitable for heavy additional loads
- Plastic covers and plastic crossbars
- Replaceable glide shoes made of special plastic material with very low friction-coefficient for gliding applications
- Various separation options

More Information:
kabelschlepp.de/tkp-series



WIDTH INCREMENTS
 1 mm
 Aluminium frame stays available in custom widths to the exact millimeter.



Example of cross section

- 1 C-Profile strain relief elements
- 2 Minimized hinge wear due to the "life extending 2 disc principle"
- 3 Replaceable glide shoes
- 4 Extremely robust due to heavy-duty link plate/sideband design
- 5 Vast selection of cavity partitioning options
- 6 Aluminum frame stays available in 1 mm width increments
- 7 Plastic covers available in 8 or 16 mm width increments
- 8 Crossbars can be quickly opened on the inside or outside radius for easy cable installation
- 9 Plastic crossbars available in 4, 8 or 16 mm width increments
- 10 Aluminum covers available in 1 mm width increments
- 11 Aluminum frame stays with ball joint hinge mechanism
- 12 Universal mounting brackets (UMB)

XL Series / XLT Series

Cable carrier with large inside height

108
 200
 1000



- Large dimensions for cables with large cable diameter
- For unsupported and gliding applications
- Replaceable glide shoes made of highly wear-resistant special plastic material extend system life in long-travel, gliding applications
- Aluminum covers available

More Information:
kabelschlepp.de/xl-series

QUANTUM

Light, quiet, low-vibration for high speeds and accelerations

28
 72
 28
 600



- Suitable for clean room environments
- Allows for high acceleration and high travel speeds
- Long service life – no link pins to wear out
- Flexible design for 3D movement: can accept lateral as well as twisting movements of ± 30 degrees
- Linkless design: sidebands made of extruded material

More Information:
kabelschlepp.de/quantum

TKR Series

Extremely quiet and low-vibration for highly dynamic applications

22
 52
 20
 150



- Extremely quiet and low-vibration operation
- Long service life
- Ideal for highly dynamic applications
- High lateral stability
- Suitable for clean room environments
- Modular design allows easy lengthening and shorting of system length

More Information:
kabelschlepp.de/tkr

EXTREME applications

Steel cable carriers – a solution for extreme applications

- Robust design for heavy mechanical loads
- All steel cable carriers are lubricant-free
- Allow for large additional loads and long unsupported travel lengths
- Ideal for applications in extreme and harshest environments
- Heat-resistant



Sub-division



Complex

Height



24 – 370
mm

Width



26 – 1500
mm

Load



up to 600
kg/m

Travel path



up to 25
m

Travel speed



up to 10
m/s

Acceleration



up to 20
m/s²

The assigned values are average values. Depending on the specific application, the maximum values may differ significantly. **For detailed information please contact our specialists. We are happy to assist you!**

LS/LSX Series

Cost-effective, light-weight steel chains



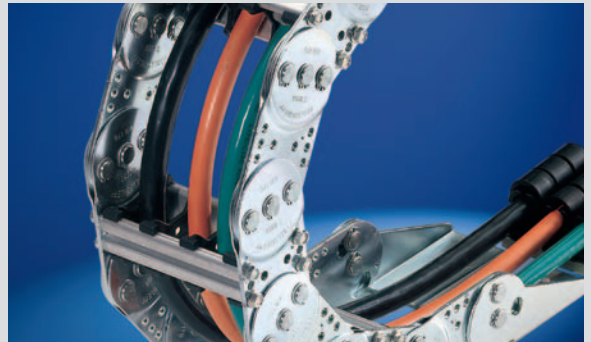
- Improved dynamic characteristics due to weight-optimized design
- Long unsupported lengths for small to medium additional loads
- Cover with steel band for optimum cable protection available on request

More Information:

kabelschlepp.de/ls-lsx

S/SX Series

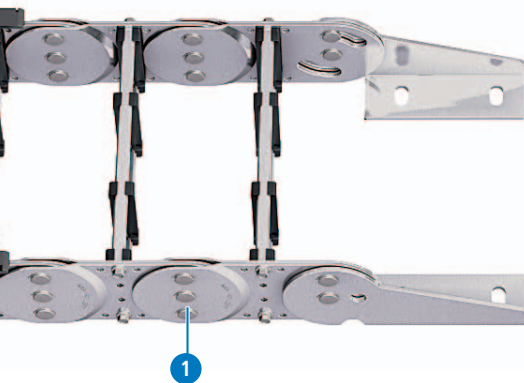
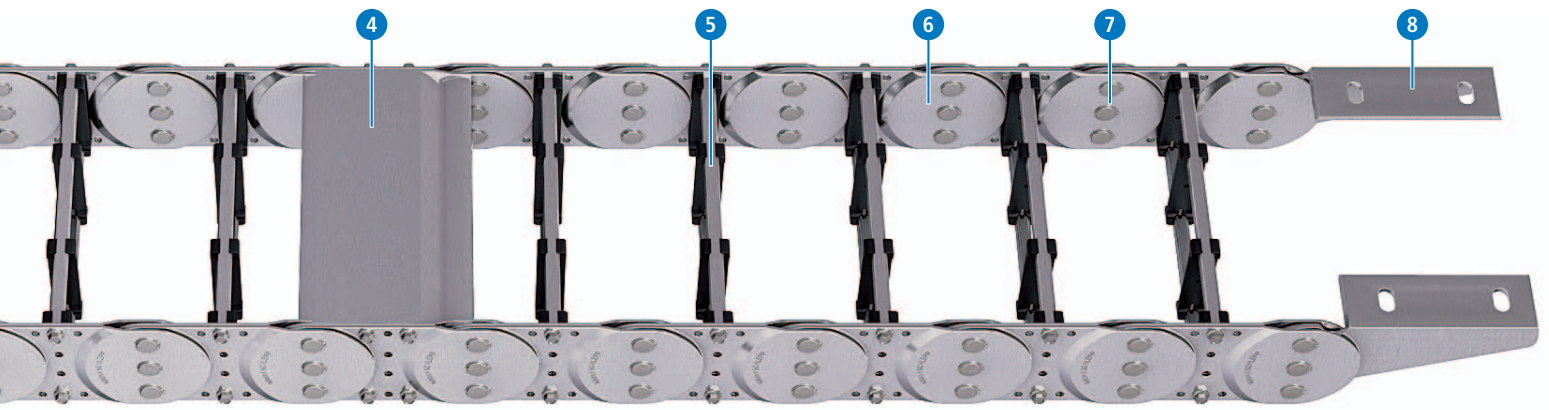
Extremely robust and heavy-duty steel chains



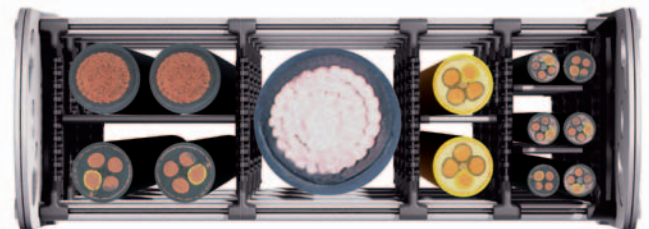
- Extremely robust and heavy-duty steel chains for large mechanical loads and harsh environmental conditions
- Very long unsupported lengths even for heavy additional loads
- Various types in different dimensions available
- Aluminum cover available for maximum protection of the cables

More Information:

kabelschlepp.de/s-sx



WIDTH INCREMENTS
 1 mm
 Aluminium frame stays available in custom widths to the exact millimeter.



Example of cross section

- 1 Link design with special bolts for a long service life
- 2 Various cable separation options
- 3 Dividers made of plastic or steel
- 4 Aluminum cover available in custom 1 mm width increments
- 5 Various frame stay options available customizable in 1 mm width increments
- 6 Extremely robust sidebands galvanized or made of stainless steel
- 7 All steel cable carriers are lubricant-free
- 8 Variety of mounting bracket options available

STAINLESS STEEL
RUST-FREE

STEEL GALVANIZED

CONDUFLEX

Enclosed tube style



- Enclosed tube design
- Optional protective guards for added hot chip protection
- Should the carrier incur incidental damage, sections can easily be replaced
- Carrier length can be easily modified at a later date
- TÜV type approved in accordance with 2 PFG 1036/10.97

More Information:
kabelschlepp.de/conduflex

MOBIFLEX

Enclosed cable carrier with flexible metal helical tube



- Enclosed tube design
- Ideal in hot metal chip environments
- Unsupported lengths are achieved through inserted, pre-tensioned steel band

More Information:
kabelschlepp.de/mobiflex

3D applications

Cable carriers for 3D movements

- Ideal for 3D multi-axis motion
- Allows installation on robots for swiveling and rotating movements:
 - Same system can be used in robot base and robot arm locations
 - Available guide channel system offers a universal solution for articulating arm robotic applications
- Optimum protection for the longevity of cables and/or hoses:
 - Maintains minimum bend radius of cables and/or hoses
 - Cables and/or hoses can be properly partitioned into three separate compartments



Sub-division



Several

Height



10 – 31
mm

Width



27 – 64
mm

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ROBOTRAX Accessories

Impact protection



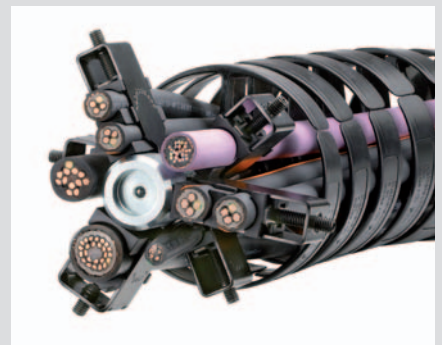
When a robot is in motion, ROBOTRAX may come in hard contact with parts of the robot. To soften the impact, use link protection parts. These parts are made of elastomer plastic and can easily be installed to every link using a cable tie.

Tension chucking device



Makes setting the steel wire to the required tension quick and easy and can be re-adjusted at any time.

LineFix saddly-type clamps for strain relief



For secure and gentle cable installation. Multilayer strain relief with double and triple clamps available. Multiple systems can also be mounted one behind the other.

More Information:

kabelschlepp.de/robotrax



- 1 Steel wire for transmission of extremely large tensile forces
- 2 Protective covers or heat shields made of various materials are available for a diverse range of environmental conditions

- 3 Quick-opening mounting brackets easily attach any link of the ROBOTRAX system to any mounting point on the robot
- 4 Fast cable installation by simply pressing the cables into the carrier system's cavity partitions: no threading through is required

- 5 Special plastic material for long service life

Active pull back mechanism



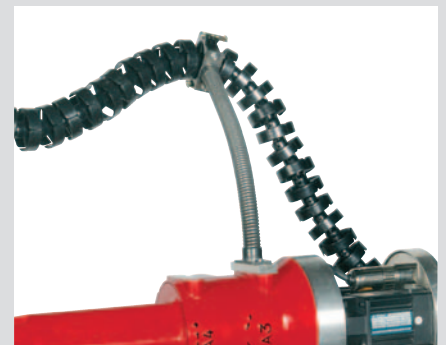
Rapid, repetitive movements of relatively long cable carrier systems in large operating envelopes, constantly hitting the robot arm, are to blame for reducing the service life of the carrier and installed cables. This can lead to a failure of the overall robotic system with expensive downtime and production outages – system failure must be prevented.

Quick-opening bracket on a swivel base



The swivel base option allows the mounting bracket to swivel at the attachment points to accommodate more complex robot movements.

Quick-opening bracket on a flexible spring extension



The flexible spring extension allows ROBOTRAX brackets to be mounted away from the machine and the ability to flex in all directions for three dimensional movement.

Hi-flex cables – perfect for use in cable carriers

Durable, reliable, cost-effective

The KABELSCHLEPP cable family of continuous-flex cables has been specially developed for optimal use in dynamic cable and hose carriers. KABELSCHLEPP cables are distinguished by their high reliability and performance at low costs,

as well as their long service life, even in outdoor applications such as port crane applications that require long travel lengths and high travel speeds placing high demands on power and control cables.

PVC control cables



Cost-effective control cables for standard and challenging applications.

PUR power cables



High-quality, robust motor cables for even the most challenging applications.

PUR control cables



High-quality control cables for even the most challenging applications.

PUR data cables



Super-flexible, continuous bending, hi-flex and robust cables with inner jacket.

PUR BUS/Koax/LWL cables



Super-flexible, continuous bending, hi-flex and robust cables.

PUR system cables



High-quality combi-cables for challenging system applications.

PVC power cables



High-quality, robust motor cables for challenging applications.

TOTALTRAX Complete Systems

Cut costs with TOTALTRAX complete cable carrier systems

Use our know-how. Working closely with you, our experienced system specialists can provide pre-sale support, including planning and design services through post sales service and support. Only one contact person for the complete system. All components match each other perfectly, including your cable carriers, electrical cables, hydraulic and pneumatic hoses as well as connectors. You'll receive the complete system in one delivery, with guarantee certificate if desired – in short: TOTALTRAX. Reduce your storage costs for cable and hose carriers, cables and connectors with TOTALTRAX. We supply all components Just-In-Time to your production facility or directly to the installation site.

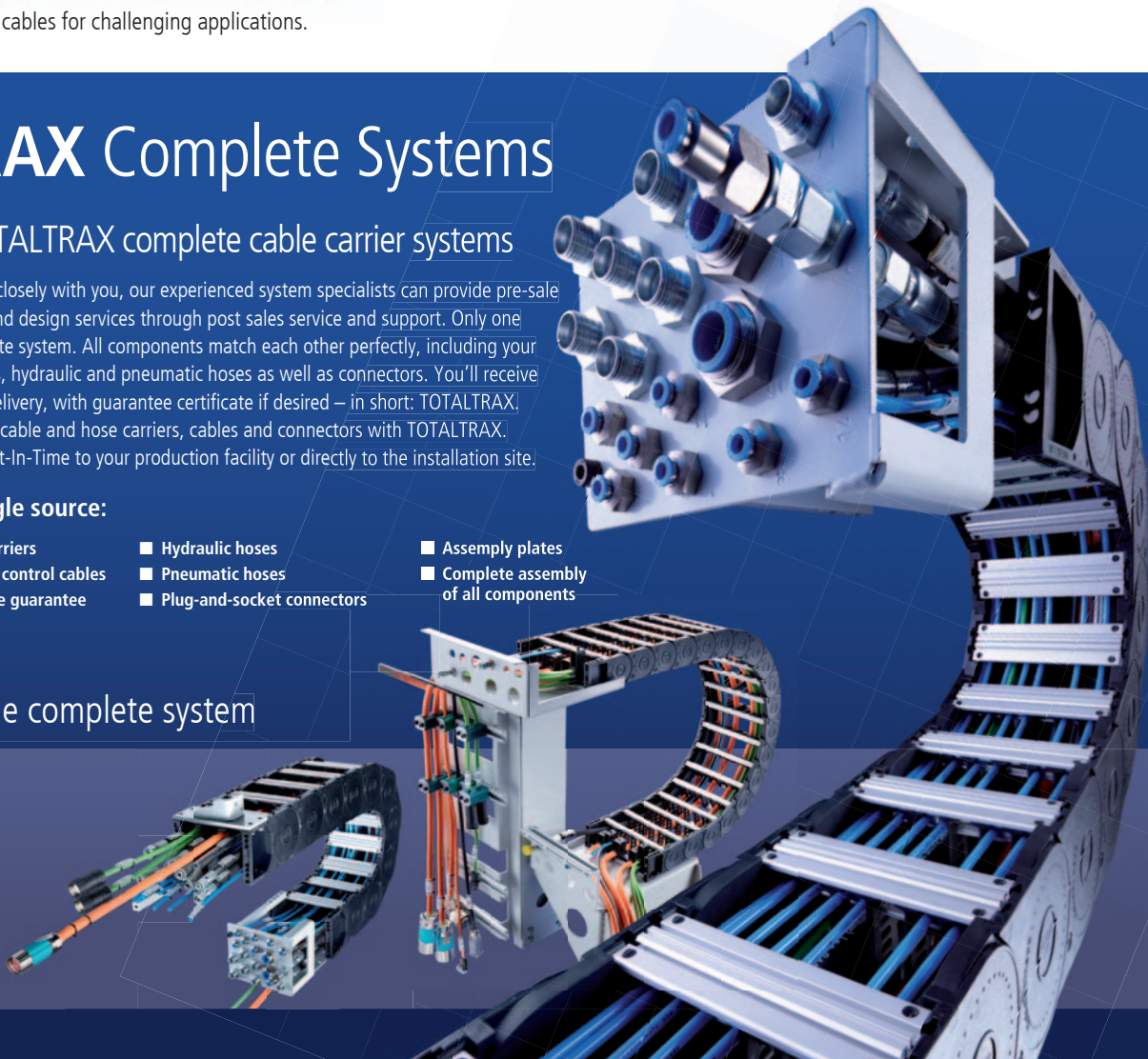
Everything from a single source:

- Consulting
- Planning
- Design
- Cable carriers
- Power & control cables
- Complete guarantee
- Hydraulic hoses
- Pneumatic hoses
- Plug-and-socket connectors
- Assembly plates
- Complete assembly of all components

TOTALTRAX – from design to the complete system

- One contact person
- + One order
- + One delivery
- + Guaranteed quality

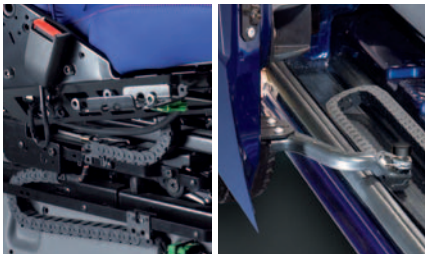
= **TOTALTRAX
Complete System**



Customized solutions for a wide range of industries

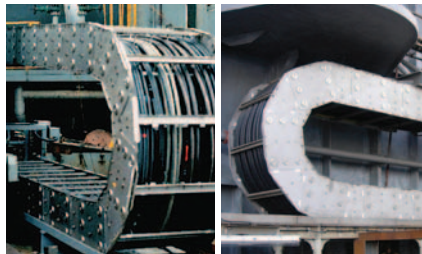
KABELSCHLEPP develops customized solutions for a variety of industries. The range of applications extends for example from automotive cable carrier systems for sliding doors built in vans, offshore applications with extreme harsh environmental conditions, on up to crane applications with extreme travel paths. Decades of application experience with thousands of product combinations result again and again in new tailor-made and user oriented solutions for our customers.

Automotive



Solutions for protecting circuits, e.g.: sliding doors, seats or retractable hardsops

Offshore



Extremely robust cable carriers made of steel for harshest environmental conditions

Cranes



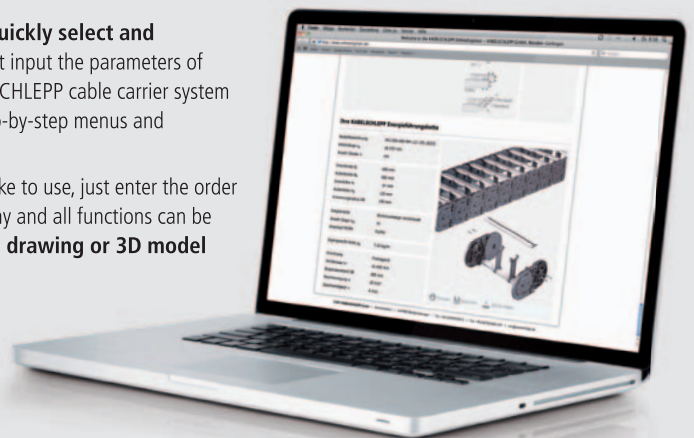
Rail Cable Carrier (RCC) or guide channels – for extremely long travel runs

... and many more branches – please contact our specialists!

Online configuration tool for cable carrier systems

Using KABELSCHLEPP **OnlineEngineer**, in just a few clicks of the mouse you can **quickly select and configure** the optimal KABELSCHLEPP cable carrier system for your application. Just input the parameters of your application and the OnlineEngineer will **automatically calculate** the KABELSCHLEPP cable carrier system with the **optimal price/performance** ratio! Alternatively, you can follow easy step-by-step menus and individually design your desired cable carrier system.

Finally, if you already know which KABELSCHLEPP cable carrier systems you would like to use, just enter the order specifications and you will receive all applicable information by mouse click. Since any and all functions can be combined, the specification data needs to be entered only once. A corresponding **2D drawing or 3D model** of your carrier can be immediately downloaded.



OnlineEngineer.de

KABELSCHLEPP
Cable Carrier Configurator



Save time with our 2D & 3D drawing library available online

Our 2D and 3D CAD drawings simplify the job for your design engineers. You can find the data for our cable carriers in the **CADENAS** component libraries. KABELSCHLEPP provides free drawing libraries. Once selected CAD data can be saved or exported in a wide range of formats for import into your CAD system. Can't find what you are looking for, please contact us.



KABELSCHLEPP

A member of the TSUBAKI GROUP

IDEAS AROUND THE MACHINE

CABLE CARRIER SYSTEMS

Cable carriers made of steel or plastic
QUANTUM cable and hose carrier system
PROTUM cable and hose carrier system
ROBOTRAX cable and hose carrier system



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HI-FLEX CABLES

Continuous bending hi-flex cables for cable carriers
TOTALTRAX complete systems
Pre-assembled cables



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