PRODUCT PORTFOLIO

Cable Carrier Systems
TRAXLINE® Cables for motion
TOTALTRAX® Complete Systems
Solid nylon cable carriers with standard chain widths

**STANDARD APPLICATIONS**

- **Technical features:**
  - Economically priced solutions for standard applications
  - Series and types with fixed or openable brackets
  - Various types and designs directly available from stock
  - Simple cable installation
  - Simple cable installation by just pressing the cables into the carrier
  - Ideal for short travel lengths and high travel speeds

**Inner widths**
- 6 – 250 mm

**Inner height**
- 4.6 – 45 mm

**Pitch**
- 10 – 66.5 mm

**Additional load**
- up to 15 kg/m

**Travel length**
- unsupported up to 7 m

**Travel speed**
- up to 25 m/s

**Acceleration**
- up to 200 m/s²

Example of inner distribution
Our basic program includes different product types with simple design and predefined chain widths. All product types combine robustness and reliability with an excellent price-performance ratio. Cables can be quickly and easily installed into these carriers. Covered and fully enclosed product types guarantee optimum protection of cables and hoses against chips and other coarse dirt.

1. End connector with integrated strain relief
2. Replaceable glide shoes for longer life
3. Robust, double stroke system for longer self-supporting lengths
4. Non-opening links available
5. Chain links made of nylon
6. Vertical and horizontal separation for the cables
7. Outer noise dampening elements
8. Smooth internal edges to insure maximum cable life
9. Fast and easy cable installation by simply pressing in the cables
10. Swiveling brackets for quick cable installation available
11. Optional lids available in nylon that can be opened from inside or outside radius
12. Integrated noise dampening
13. Completely detachable brackets/covers available
14. Universal mounting bracket (UMB) with integrated strain relief
MONO series
Cable carrier with simple design for standard applications

Technical features:
- Cost-effective cable carrier
- Simple and quick assembly
- Almost all types available immediately from stock all around the world
- Long service life
- High torsional rigidity
- Easy to install
- Long self-supporting length for its size class

Inner heights: 10 – 15 mm
Inner widths: 6 – 40 mm
Pitch: 13 – 20 mm
Additional load: up to 1.3 kg/m
Travel length unsupported: up to 2 m
Travel length gliding: up to 70 m
Travel speed: up to 10 m/s
Acceleration: up to 50 m/s²

QuickTrax series
Compact and cost-effective cable carrier in two-component “2K” technology

Technical features:
- Extremely fast and easy cable installation thanks to film hinge crossbars
- Extremely low noise due to integrated noise damping
- Long self-supporting length
- Sturdy two-component design provides solid cable carrier body with film hinge lid
- Sturdy chain design
- High torsional rigidity

Inner height: 20 mm
Inner widths: 15 – 50 mm
Pitch: 32 mm
Additional load: up to 3 kg/m
Travel length unsupported: up to 3 m
Travel length gliding: up to 80 m
Travel speed: up to 10 m/s
Acceleration: up to 50 m/s²
UNIFLEX Advanced series
Designed with integrated noise dampening for use in a wide range of applications

Technical features:
- Universal connection options
- Many possibilities for internal subdivision
- Long self-supporting length
- High torsional rigidity
- Low noise emissions
- Simple and fast cable installation
- Numerous custom material types for custom applications available

TKP35 series
Robust cable track for a multitude of applications

Technical features:
- Robust design with rigid stroke system
- Long self-supporting length
- Low noise operation due to internal damping system
- Weight-optimized cable carrier geometry
- Adjustable inner dividers
- Quick and easy to open
- Optional strain relief can be completely integrated into the connecting element
EasyTrax series
Extremely fast cable installation thanks to flexible crossbars

Technical features:
- Simple and fast cable installation thanks to flexible lid design
- Extremely low noise due to integrated noise damping
- Very high fill level due to the crossbar pivoting to the side
- Sturdy two-component design provides solid cable carrier body with flexible film hinge lid
- High torsional rigidity
- Sturdy chain design
- Extensive unsupported length

PROTUM series
Small, light cable carrier for unsupported applications

Technical features:
- Quiet operation through short pitch
- Low-vibration operation
- Gentle on the cables as almost no polygon effect
- Cost savings through simple cable installation
- Easy adaptation of cable carrier length
- Ideal for short travel lengths and high travel speeds
TKZP series
Small light weight cable carrier

Technical features:
- Easy installation of cables and hoses due to folding structure
- Flexible design allows for lateral movement
- Easy adjustment of the profile length
- Compact external dimensions for very restricted installation areas
- Low noise operation due to short pitch and extruded profile

Inner heights
- 13 mm

Inner widths
- 10 – 15 mm

Pitch
- 10 mm

Additional load
- up to 0.1 kg/m

Travel length unsupported
- up to 1 m

Travel speed
- up to 1.66 m/s

Acceleration
- up to 5 m/s²

TKA series
Enclosed cable carrier – IP54 certified*

Technical features:
- Excellent cable protection
- Chip/dirt resistant due to smooth surfaces
- Simple and fast installation is possible
- Easy-to-open cover with simultaneously high retention force on the chain link during operation
- Long self-supporting length
- Low noise emissions
- Easy assembly

Inner heights
- 20.5 – 45 mm

Inner widths
- 15 – 250 mm

Pitch
- 30.5 – 55.5 mm

Additional load
- up to 10 kg/m

Travel length unsupported
- up to 6.5 m

Travel length gliding
- up to 150 m

Travel speed
- up to 9 m/s

Acceleration
- up to 45 m/s²

* Refers to type TKA55 with B, 50 – 175. More information about certification can be found at: kabelschlepp.de/tka-ip54
Cable and hose carrier systems with variable chain widths

**ADVANCED APPLICATIONS**

- **Sub-division**: complex
- **Inner heights**: 19 – 108 mm
- **Inner widths**: 20 – 1000 mm
- **Pitch**: 15 – 165 mm

**Technical features:**
- Aluminum stays in 1 mm width sections
- Plastic stays in 4, 8, 16 mm width increments (depending on type)
- Quick and easy opening to the inside or outside radius
- Light, extremely robust or linkless series
- The right solution for demanding applications

**Inner widths**
- 20 – 1000 mm

**Pitch**
- 15 – 165 mm

**Additional load**
- up to 65 kg/m

**Travel length unsupported**
- up to 9.9 m

**Travel speed**
- up to 40 m/s

**Acceleration**
- up to 300 m/s²

**Example of inner distribution**
Would you like something extra? These types of products offer more variability in chain width and more separation options within the cable carrier compared to our standard program. Thus, a safe and efficient divisioning is possible even for the most complex cable configurations. Hoses and cables with large diameters can also be easily accommodated and guided. Enclosed systems provide optimum protection.

1. C-rail for strain relief elements
2. Minimized hinge wear owing to the “life extending 2 disc principle”
3. Replaceable glide shoes
4. Extremely robust due to strong side plate construction
5. Large choice of ways of separating the cables
6. Aluminum stays available in 1 mm width sections
7. Plastic cover available in 8 or 16 mm width sections
8. Integratable strain relief (strain relief comb without illustration)
9. Can be opened quickly on the inside or the outside for cable installation
10. Plastic stays available in 4, 8 or 16 mm width sections
11. Aluminum cover available in 1 mm width sections
12. Aluminum stays with ball-joint mechanism
13. Universal end connectors (UMB)

Aluminum stays and covers available in custom widths to the exact millimeter.
K series
Cost-effective, robust cable carrier – also suitable for heavy loads

Technical features:
- Enclosed stroke system that is protected from the effects of dirt and contamination
- Durable sidebands with robust link plate design
- Can be opened on the inside and outside radius
- Integrated glide base

Master / Master-Tubes series
Quiet and weight-optimized cable carrier

Technical features:
- For cables with large cable diameter
- Good ratio between inner and outer width dimensions
- Low chain weight
- Aluminium cover system available
M / M-Tubes series
Variable cable carrier with extensive accessories and crossbar variants

Technical features:
- Dirt-resistant encapsulated stroke system
- Durable sidebands with robust link plate design
- Easy assembly of sidebands
- Long service life due to minimized hinge wear owing to the "life extending 2 disc principle"
- Can be opened on the inside and the outside radius for installation of cables and hoses

TKP91 / TKC91 series
Durable and easy to assemble cable carrier

Technical features:
- Many separation options for the cables
- Replacable glide shoe for extended service life in gliding applications
- Extremely robust due to stable plate construction
- Can be opened on inside and outside radius
- Enclosed lids available
XL / XL-Tube series
Cable carrier with large inside height

Technical features:
- For cables with large diameter
- For unsupported and gliding applications
- Replacable glide shoe for extended service life in gliding application
- Aluminium enclosed lids available
- Low intrinsic weight

B, increments
1 mm

Inner heights
105 – 108 mm

Inner widths
200 – 1000 mm

Pitch
165 mm

Additional load
up to 65 kg/m

Travel length unsupported
up to 9.5 m

Travel length gliding
up to 350 m

Travel speed
up to 4 m/s

Acceleration
up to 25 m/s²

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

Technical features:
- Very long service life: 25 million cycles = unsurpassed service life
- Extremely quiet, 31 db (A)*
- Low level of particulate generation during operation
- Suitable for clean rooms
- Practically no polygon effect
- Ideal for highly dynamic applications
- *depending on design

Bi increments
1 mm

Inner heights
28 – 72 mm

Inner widths
28 – 600 mm

Pitch
15 – 30 mm

Additional load
up to 12 kg/m

Travel length unsupported
up to 6.5 m

Travel length gliding
up to 200 m

Travel speed
up to 40 m/s

Acceleration
up to 300 m/s²

Additional load
up to 12 kg/m

Travel length unsupported
up to 6.5 m

Travel length gliding
up to 200 m

Travel speed
up to 40 m/s

Acceleration
up to 300 m/s²
TKR series
Extremely quiet and low-vibration for highly dynamic applications

Technical features:
- Long service life
- Ideal for highly dynamic applications
- High lateral stability
- Suitable for clean rooms (class 1)
- Extremely quiet and low-vibration
- Practically no polygon effect

Inner heights
- 22 – 52 mm

Inner widths
- 20 – 200 mm

Pitch
- 15 – 28 mm

Travel length unsupported
- up to 5 m

Travel speed
- up to 5 m/s

Acceleration
- up to 200 m/s²

Additional load
- up to 10 kg/m

CoverTrax series
For harsh environmental conditions

Inner heights
- 22 – 52 mm

Inner widths
- 20 – 200 mm

Pitch
- 15 – 28 mm

Travel length unsupported
- up to 5 m

Travel speed
- up to 5 m/s

Acceleration
- up to 200 m/s²

Additional load
- up to 10 kg/m

CONDUFLEX series
Enclosed cable carrier

Inner heights
- 25 – 72 mm

Inner widths
- 45 – 162 mm

Pitch
- 20 – 30 mm

Additional load
- up to 20 kg/m

See more:
Steel cable carrier systems

EXTREME APPLICATIONS

Technical features:

- Robust design for heavy mechanical loads
- High additional loads and long self-supporting lengths possible
- Heat-resistant

### Chain widths
- 26 – 1800 mm

### Pitch
- 105 – 550 mm

### Inner heights
- 24 – 578 mm

### Travel length unsupported
- up to 25 m

### Travel speed
- up to 10 m/s

### Acceleration
- up to 20 m/s²

### Additional load
- up to 800 kg/m

Example of inner distribution
Special applications require the use of special cable carrier systems. Our cable carriers of steel and stainless steel are first choice when it comes to extreme heat or other extremely harsh conditions such as those prevailing in the mining, smelting or oil & gas industry. Customized separation options offer perfect protection for cables and hoses even under high mechanical loads.

1. Joint design with hardened bolt for a long service life
2. Various cable separation options
3. Dividers made of plastic or steel
4. Aluminum lids available in 1 mm width sections
5. Variety of crossbar options available to allow for complete customization
6. Very robust side bands, available galvanized or in stainless steel
7. All steel cable carrier are lubrication-free
8. End connectors in various connection variants
LS / LSX series
Cost-effective steel chain in lightweight design

**Technical features:**
- One-piece link plate constructions
- Sidebands made from hardened steel or stainless steel
- Good corrosion resistance
- Duo band solution available

**LSX series**
- Chain widths: 100 – 600 mm
- Pitch: 105 mm
- Additional load: up to 30 kg/m
- Inner heights: 48 – 58 mm
- Travel speed: up to 5 m/s
- Acceleration: up to 10 m/s²
- Travel length unsupported: up to 10 m

**Bi increments**
- 1 mm

S / SX series & S / SX-Tubes
Extremely robust and strong steel cable carrier

**Technical features:**
- Extremely robust, sturdy cable carriers for heavy mechanical loads and rough environmental conditions
- Side bands made of steel or stainless steel
- Very sturdy link plates, each consisting of two individual plate
- Very extensive self-supporting lengths
- Explosion protection class EX II 2 GD according to ATEX RL

**S / SX series**
- Chain widths: 70 – 1800 mm
- Pitch: 65 – 550 mm
- Additional load: up to 800 kg/m
- Inner heights: 26 – 578 mm
- Travel speed: up to 2.5 m/s
- Acceleration: up to 5 m/s²
- Travel length unsupported: up to 25 m
S / SX 9000 series
Custom cable track designs

TSUBAKI KABELSCHLEPP develops and manufactures steel cable carrier for a variety of applications from steelworks to offshore drilling platforms. We meet the required quality and industry standards and produce special size cable carrier in different materials to customer specification.

Technical features:
- Customized solutions
- Maintenance-free systems
- Designed to the application
- Resistant against temperature, corrosion, chemicals and UV light
- Additional load of more than 1000 kg/m
- Exlosion protection class EX II 2 GD according to ATEX RL

Chain widths
from 350 mm

MOBIFLEX series
Enclosed cable carrier with flexible metal helical tube

Inner heights
24 – 167 mm

Inner widths
26 – 170 mm

Additional load
up to 8 kg/m

Travel speed
up to 10 m/s

Acceleration
up to 20 m/s²

Travel length unsupported
up to 5 m

Technical features:
- Tightly sealed design
- Ideal for operating in hot chip environment
- Optimum protection for cables and hoses
Cable and hose carrier systems for 3D movements

3D APPLICATIONS

**Technical features:**
- Perfect for maximum free moving space in 3D applications
- Swiveling and rotational movements on robots in three dimensions, e.g. areas of robot application from the floor to the robot head
- With channel system, it is a universal solution for rotary applications
- Extension of life for cables in 3D applications
  - through defined minimum bend radius
  - through separating and guiding the cables
- Particularly suitable for high pull forces and fast acceleration

**Sizes**
- Ø 40 – 100 mm

**Sub-division**
- several
Multidimensional rotating and swiveling movements require a cable carrier that reliably follows all movements while securely leading and protecting all cables and hoses. ROBOTRAX combines these special properties and therefore is especially suitable for applications in robotics and automation. The open design of this product allows quick cable installation and easy inspection of cables and hoses for damage once installed. Additional accessories are available for further optimizing the cable carrier to customer requirement.

1. Integrated steel wire for transmission of extremely high pull forces and accelerations
2. Protective cover or heat shield made of different materials available for different environmental conditions
3. Quick opening bracket reduces installation time
4. Simple inspection of cables in the field of vision
5. Special nylon for long service life
6. Bumper guard protects the cable carrier and inserted cables
7. Defined minimum bend radius
8. Active pull back mechanism PBU (PULL-BACK UNIT)
ROBOTRAX
Chain links

The basic structure of ROBOTRAX consists of nylon links. These have ball and socket style snap-together connectors on both sides. The individual links can thus be snapped together to form a cable carrier. Internal bend radius stoppers ensure that the minimum bend radius is maintained in all directions. Radial link rotation movement is also possible.

Technical features:
- For three-dimensional movements
- Special nylon for long service life
- Fast cable installation by simple pressing in of the cables – no threading through is necessary
- The cables are cleanly isolated in three separate chambers

 Sizes
ø 40 – 100 mm

Inner widths
27 – 64 mm

Inner heights
10 – 31 mm

Pitch
21.5 – 40 mm

LineFix
Saddle-type clamps for strain relief

Safety grip and gentle cable fixing. Multilayer cable fixing with 2- and 3-fold clamps is possible. Multiple systems can be mounted one behind the other.

Technical features:
- Continuous strain relief
- Extra stable design
- Solid fit due to innovative foot construction

Sizes
ø 40 – 100 mm

Inner heights
10 – 31 mm

Pitch
21.5 – 40 mm
BUMPER GUARD
Impact protection

The Bumper Guard prevents the cable carrier during fast movements and in large work spaces from hard impacts, excessive abrasion and premature wear. Downtime is minimized, since in case of damage only the Bumper Guard needs to be replaced and not the whole cable carrier.

Technical features:
- Extended life time of the cable carrier
- Protection of robot and cable carrier (impact protection)
- Limited bend radius for cable protection
- Reduced down time due to easy exchange

CHUCKING DEVICE

Provides quick and easy set of the steel wire to the required tension that can be readjusted at any time.

Technical features:
- Movement of the cable carrier can be adjusted through tension of the steel wire
- Adjustable at any time
Active pull back mechanism
Pull-Back-Unit (PBU)

The active pull-back mechanism PULL-BACK UNIT additionally ensures extended service life and reduced downtime. This device keeps the carrier at tension and prevents ROBOTRAX from snagging on the robot, thus protecting the installed cables.

Technical features:
- Innovative pull-back mechanism without spring
- Compact design
- Robust metal construction
- Housing can be opened for easy access

Suitable for sizes
Ø 40 – 100 mm

3D APPLICATIONS

Quick-opening bracket

ROBOTRAX® is fixed and guided with quick-opening brackets that are fixed with two screws. The quick-opening brackets grab the whole single chain link and thus the fixation points can be selected individually.

Technical features:
- Easy to fix on the robot
- Tool-less installation of the carrier by insertion
- Swivelling version available
- Also available as guide support

Suitable for sizes
Ø 40 – 100 mm
Flexible Brackets

If the bracket is mounted on a helical spring, it can move elastically in all directions and support the cable carrier while moving.

Technical features:
- Can be displaced in 3 dimensions
- Guiding of excess lengths by tracking
- Simple to attach to robot through foot construction

Suitable for sizes Ø 40 – 100 mm
NO CABLE CARRIER
WITHOUT A TRAXLINE® CABLE

TRAXLINE® Product Portfolio
The TRAXLINE® program is continuously extended and optimized to meet the increasing requirement of cable carrier applications. A unique combination of cable features is available in a clearly structured range of types.

- Highest quality standards
- Cost-efficient, flexible, very durable
- Correspond with all current norms and regulations
- 2D applications (self-supported and gliding)
- 3D applications (cable carrier for robots, rotating)
- For any condition from cleanroom applications to adverse environment

Service & Support:
- Competent, goal-oriented system consultation and worldwide on-site service
- Fast delivery with over 500 types of cables in-stock
- No minimum order amount
- No cutting costs

TRAXLINE® Center
Configure the cables for your cable carrier and find all technical data of our TRAXLINE® cables in the TRAXLINE® Info Center.
Data cable
- Data exchange between moving consumer and stationary end (control cabinet)
- Different quality classes available
- Jacket material: PUR, TPE shield respectively double shield optional
- Used in carriers with small bend radius

BUS-/FOC-/KOAX-cable
- Data exchange between moving consumer and stationary end (control cabinet)
- Different quality classes available
- Jacket material: PUR, TPE shield respectively double shield optional
- Used in carriers with small bend radius

Control cable CONTROL 200, 400, 700, 1000
- Connection for controlling between moving consumer and control cabinet
- Four different quality classes available
- Jacket material: PVC, PUR, TPE; shield optional
- 2 to 49 wires

Motor cable POWER 400, 700, 1000, 4 to 7 wires
- Connection for power supply between moving consumer and control cabinet
- In three different quality classes available
- Jacket material: PVC, PUR, TPE; shield optional
- Cross section from 1,5 mm² to 150 mm²

Motor cable POWER ONE 700, 1000, 1 wire
- For applications in harsh conditions
- Secure transmission of large amounts of energy
- For long travel applications
- Cross section from 0,25 mm² to 700 mm²

Medium voltage cable Heavy Duty, 1 wire
- For applications in harsh conditions
- Secure transmission of large amounts of energy
- For long travel applications
- Cross section from 0,25 mm² to 700 mm²
TOTALTRAX®: These are customized complete systems for individual demands and almost all fields of application. Benefit from our experience of thousands of implemented systems, because we do not only provide components but also ready-to-use plug & play solutions. Our product range covers from cable carriers with cables already inserted – so called harnessed cable carrier - up to complex systems. These are jointly developed between our specialists and your experts in a close development cooperation and system partnership. All components used are perfectly matched, thus ensuring high quality and durability. Additional services such as competent advice from our experts during concept phase and professional project support as well as an aftersales service complete the comprehensive range of TOTALTRAX® Services.

Further advantages you benefit from:

- Complete delivery from a single source
- Only one contact for the entire system incl. all components
- Reduction of purchasing costs by focusing on just one supplier
- Reduces effort for incoming goods inspection
- Quick installation through ready-to-install modules
- Just-in-Time delivery directly into your production
- Reduced storage costs
- Delivery on special installation and transport racks on request
- System warranty
EFFICIENT DESIGN
ACCURATE AND FAST

Shorten your design time, accelerate your design processes, do concept development with original data from the manufacturer. We continuously invest in the online supply of product-related information to make your work easier. Thereby you can access the latest product and CAD data during the design phase. Currently, we provide comprehensive, technical information in three different, partly interlinked online tools.

For even more convenience the data portals OnlineEngineer and CADENAS is interlinked. This allows you to easily download the respective CAD model without leaving the OnlineEngineer once you have completed your product configuration. Vice versa, data from OnlineEngineer can be retrieved while working in CADENAS.

online-engineer.de
Cable Carrier Configurator

Our web-based platform OnlineEngineer that is available throughout the world supports you with multiple functions for selecting and configuring the right product for your application. Here, all relevant technical and commercial information about all individual products from the ranges of cable carriers, cables and accessories is centrally pooled and clearly displayed. By entering different parameters it facilitates to select the appropriate products.

Electrical Engineering with ePLAN
EPLAN Data Portal is an integrated, web-based data platform delivering the most recent device data from market-leading component manufacturers for direct use in the EPLAN planning software. For those using the global project planning software EPLAN Electric P8, we offer technical and commercial information of our TRAXLINE® cables in the EPLAN Data Portal for download.

CADENAS 3D CAD CATALOGUE
Cudenas is an international platform for providing 3D models in various CAD formats. Numerous renowned companies from machinery and plant engineering as well as from other industries are represented. Currently, we provide CAD models for our entire product portfolio in all common CAD formats. Moreover, the database contains the corresponding models for guide channels and support trays. We continuously update the scope offered.
**CABLE CARRIER SYSTEMS**
Cable Carrier Systems
Cable carriers made of steel and plastic
QUANTUM cable and hose carrier system
PROTUM cable and hose carrier system
ROBOTRAX cable and hose carrier system

**TRAXLINE® – CABLES FOR MOTION**
Continuous bending hi-flex cables for cable carriers
TOTALTRAX® complete turn-key carrier systems
Pre-assembled cables

**GUIDEWAY PROTECTION SYSTEMS**
Telescopic covers
Link apron covers
Way wipers
Conical spring covers
Bellows
Protective devices

**CONVEYOR SYSTEMS**
Hinged belt conveyors
Scraper conveyors
Belt conveyors