

Modular. Flexible. Efficient.

HELUCHAIN® SYSTEM & COMPONENTS

Ed. 2.0 // EN



**(Channeling
POWER)** 

HELUKABEL—Who We Are

Globally, we stand for quality, innovation, and reliability in electrical connection technology. As an internationally leading manufacturer and supplier, we offer a comprehensive portfolio of cables, wire, and accessories, as well as plastic, steel, & hybrid drag chains and custom, pre-assembled, and ready-to-use system solutions.

Since our founding in 1978, our family-owned business has garnered broad expertise, in-depth know-how, and a strong market position over the decades through our passion and foresight. Our products and solutions are used in applications in varying industries and key technologies, including mechanical and plant engineering, industrial automation, the oil, gas, & chemical industries, building technology, infrastructure, mobility, and renewable energy.

With 76 locations and around 2,500 employees in 42 countries, we are a reliable partner able to quickly and flexibly react to the needs of our customers who benefit from our extensive assortment of over 33,000 stock parts, a highly modern logistics centre, and our ability to develop custom solutions. We are committed to supplying the highest-quality electrical connection technology globally from a single source.





Content

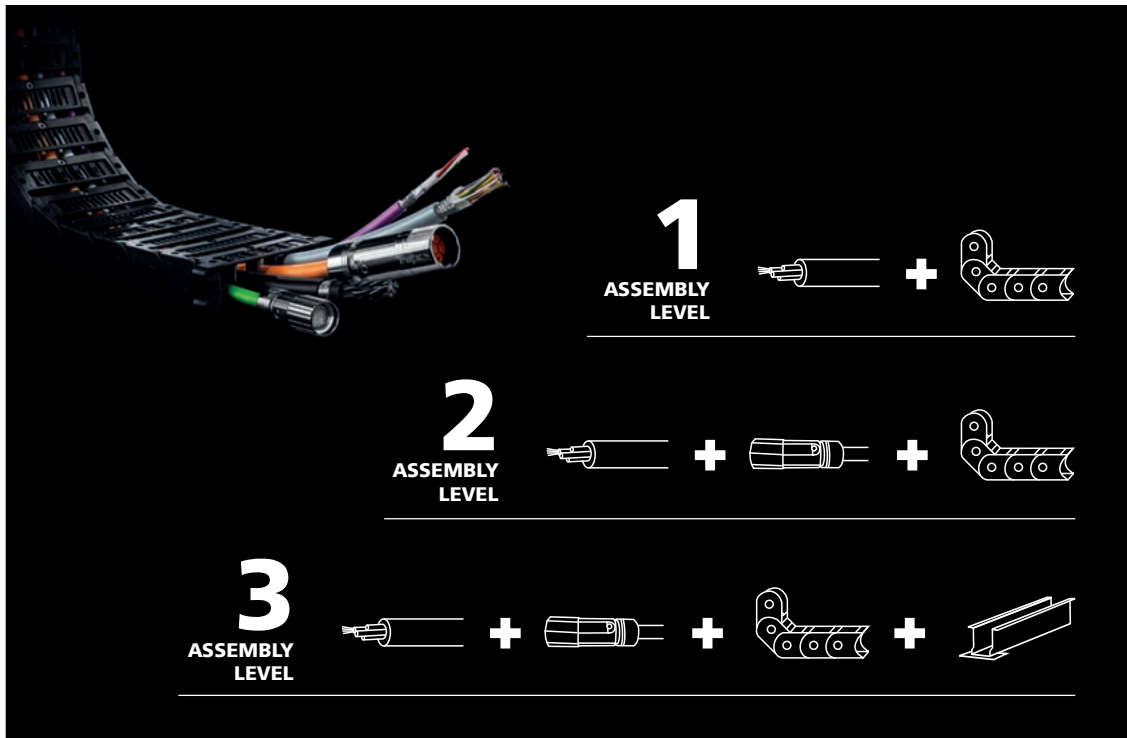
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HELUCHAIN® SYSTEM

MODULAR SYSTEM FOR MORE FLEXIBILITY

HELUCHAIN® SYSTEM is a modular system from HELUKABEL for drag chain applications with linear movements. It combines cables, drag chains, standard-compliant & custom assemblies, as well as accessories into optimally coordinated, complete solutions. From the most basic combination of cable and chain, to a completely integrated and assembled drag chain system with accessories, the clearly structured, three-tier configuration (assembly levels 1-3) makes it possible for the HELUCHAIN® SYSTEM to be precisely tailored to each individual application. For maximal efficiency and reliability, we supply everything from a single source—precisely manufactured, rigorously inspected, and ready for immediate installation.

An overview of our modular system with 3 different Assembly Levels



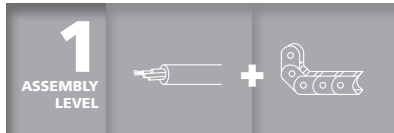
The advantages of our HELUCHAIN® SYSTEM

- Less work: One part number, one delivery, one invoice—saving you time and overhead.
- No individual parts: Complete systems instead of individual pieces keeps your ERP manageable.
- Better reliability: Coordinated components—tested, documented, & installation ready
- Readily available: Global delivery and expert advise.
- Flexible planning: Adjustable to your speed.
- Efficient purchasing: Consolidate volumes for better conditions and fewer processes.

HELUCHAIN® SYSTEM - Assembly Level 1

Included components:

Cables for drag chains—unassembled
Drag chains



Suited for:

- Easy and quick integration in existing machine designs
- Self-assembly and in-house processing
- Reduced planning requirements for projects

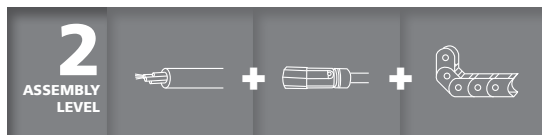
Advantages:

- Standard solution with high compatibility
- Configurable connections
- No extra material or minimum quantity surcharges for cables
- A single contact person for technology and purchasing

HELUCHAIN® SYSTEM - Assembly Level 2

Included components:

Cables for drag chains
Cable assemblies or hydraulic hoses
Drag chains



Suited for:

- Low production depth in machine manufacturing
- Use in series and specialty machines
- Short installation times with documented quality

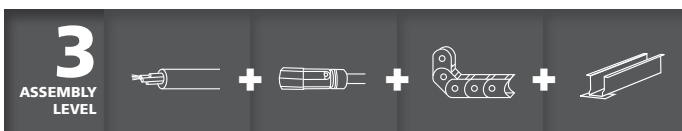
Advantages:

- 100% tested and plug-and-play ready for your application
- Reduced installation times
- Individually tailored assembly solutions

HELUCHAIN® SYSTEM - Assembly Level 3

Included components:

Cables for drag chains
Cable assemblies or hydraulic hoses
Drag chains
Accessories (e.g., troughs, floating supports, support trestles, transport racks)



Suited for:

- Reducing the number of inter-trade contact persons
- Use in series or specialty machine construction
- Systems with the highest efficiency and safety requirements

Advantages:

- System solution for immediate integration
- Ideal for standardised or recurring applications
- Save time and money with simplified installation

HELUKABEL is your single point of contact for custom connection solutions that unite flexibility, quality, and efficiency. We have more than individual components; we have completely integrated systems that combine cables, drag chains, assemblies, and accessories into the perfect package. Our solutions build upon decades of experience with innovation and precision in order to fulfil the most challenging requirements in any application.

We are the only company in the industry that manufactures its cables, drag chains, and assemblies in its own factories. This means that, from individual components to perfectly coordinated complete systems, we can guarantee the highest quality and reliability.

What sets us apart

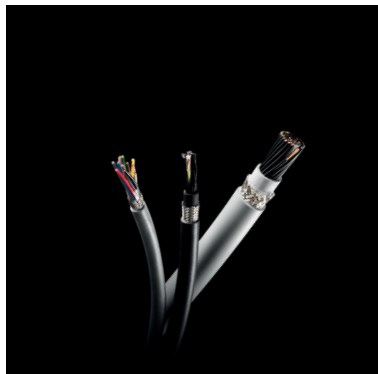
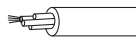
- **All components come from a single source and are perfectly tuned to each other.** HELUKABEL integrates individual components into complete systems for every need. We provide additional options that are both flexible and custom to the customer.
- **Our own factories and testing centres.** Our products and systems are manufactured in our own factories, tested according to strict standards, and provide durable performance, even under extreme conditions.
- **Plug-and-play solutions save you time.** Pre-assembled, optimally tuned systems simplify the installation process and minimise the potential for errors. This speeds up installation and reduces operating costs.
- **Global availability and local experts.** With our modern logistics network, we guarantee short delivery times, and with subsidiaries around the globe, we are always nearby, able to quickly provide personalised support and advice.
- **Industry-spanning solutions.** Our products and solutions are found in industry, tooling machines, cranes, automation, and the packaging and timber industries.
- **Future-oriented, sustainable systems.** Our products and manufacturing processes are environmentally friendly and designed to conserve resources. Our long-lasting, durable solutions support our partners in achieving their sustainability goals, as well.

Our goal is to not just supply connection technology, but to also create solutions for challenges, to simplify processes, and to reduce complexity. To achieve this, our experts will guide you from planning to installation, ensuring your projects run quickly and smoothly, and that every connection works as it should.

Our components for moving applications

HELUCHAIN® PRODUCT PORTFOLIO—EVERYTHING FROM A SINGLE SOURCE

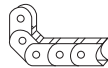
HELUCHAIN® Cables



Mechanical durability in different kinds of cables

- Control cables
- Motor cables
- Servo and hybrid cables
- Data cables
- Encoder and feedback cables
- Bus cables
- Measuring system cables
- Fibre-optic cables

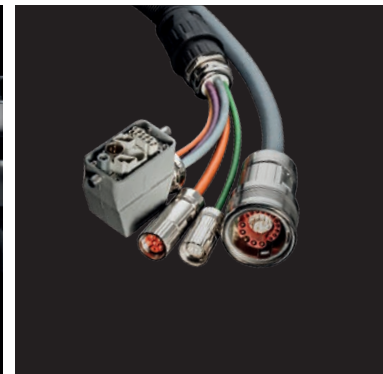
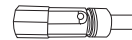
HELUCHAIN® Drag chains



Solutions for all common types of movement in different environments

- Plastic
- Hybrid
- Steel

HELUCHAIN® Assemblies

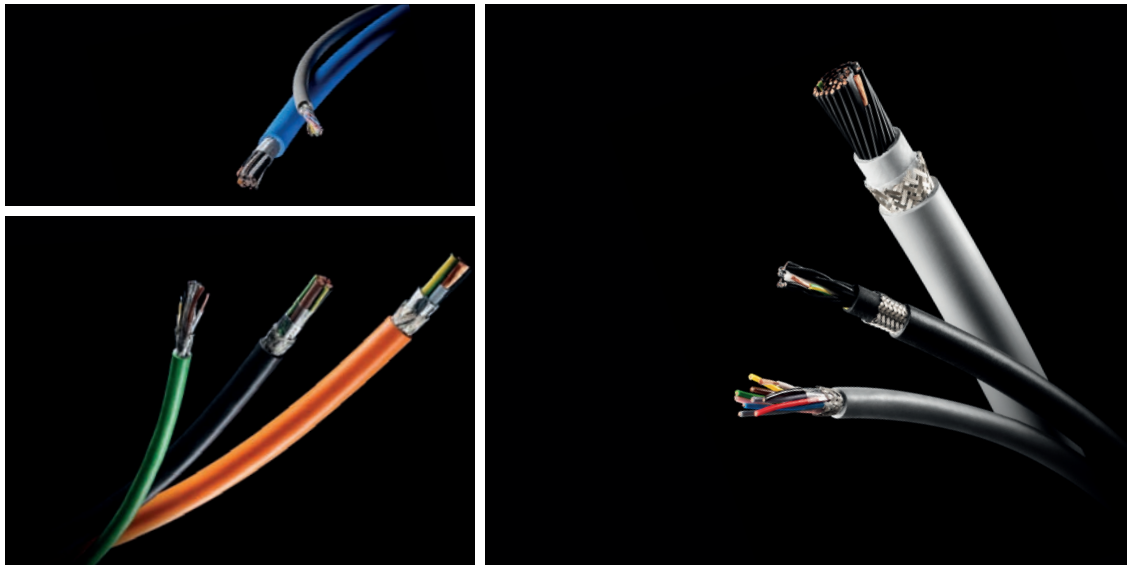
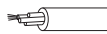


Cables and connectors from a single source; 100% tested for the highest quality

- Assemblies for drive technology
- Assemblies for bus technology
- Custom assemblies

Our cables for moving drag chain applications

HELUCHAIN® Cables



In demanding industrial environments, cables must withstand extreme loads while reliably transmitting energy and data at the same time. Our drag chain cables are specially developed to tackle dynamic applications. Whether in fast-moving tooling machines with tight assembly spaces, or in harbours with long travel distances, every application presents its own requirements for materials, construction, and functionality.

Our cables are the results of decades of experience and a track record of quality. They are manufactured in our own factories according to the most modern technical standards and tested in our own test centres. We offer custom solutions without compromising performance, durability, or affordability. Whether with or without a plug, you'll find the right solution at HELUKABEL.



What sets our cables apart

- **Expansive product portfolio.** High-performance and durable solutions for various travel distances and bending radii.
- **Broad material diversity.** The most cost-effective PVC, PUR, and TPE-sheathed cables for every application.
- **The highest quality.** Specially optimised designs and compounds produced in our own factories and tested in the most modern test centres.
- **Technological competence.** Decades of experience in manufacturing cables combined with a focus on innovation and a high manufacturing depth.
- **International certifications.** Fulfil international standards such as UL/CSA or NFPA79 for global use.
- **Global reach, local availability.** Fast delivery thanks to the most modern logistics systems and global product availability thanks to local warehouse capacities.

Our drag chain cables an overview

PERFECT TRANSMISSION WITH EVERY MOVEMENT

Our drag chain cables from the HELUCHAIN® range are designed specifically for use in demanding drag chain systems. They withstand millions of bending cycles, abrasion, and other loads.

The HELUCHAIN® portfolio includes single-cores, control & motor cables, data & hybrid cables, and fibre-optic cables. You are sure to find the most ideal solution for your connection needs.

HELUCHAIN® CABLES

Data cables



Cable name	Sheath material	Bending factor x Ø	Max. travel distance in m	Core count	Area of cross-section in mm²	UL/CSA
SUPERTRONIC®-PVC	PVC	5	5	2-25	0.14-0.34	
SUPERTRONIC®-C-PVC	PVC	7.5	5	2-25	0.14-0.34	
SUPERTRONIC®-310-PVC	PVC	5	5	2-25	0.14-0.34	x
SUPERTRONIC®-310-C-PVC	PVC	7.5	5	2-25	0.14-0.34	x
TRONIC 320-HF-TP-C-PVC UL/CSA	PVC	7.5	15	2-28	0.14-1	x
SUPERTRONIC®-330-PURö	PUR	5	15	2-25	0.14-0.34	x
SUPERTRONIC®-330-C-PURö	PUR	7.5	15	2-25	0.14-0.34	x
SUPER-PAAR-TRONIC-340-C-PUR	PUR	10	30	2-28	0.25-1	x

Control cables



Cable name	Sheath material	Bending factor x Ø	Max. travel distance in m	Core count	Area of cross-section in mm²	UL/CSA
JZ-HF	PVC	7.5	10	2-65	0.5-16	
JZ-HF-CY	PVC	10	10	2-65	0.5-16	
JZ-602 RC	PVC	7.5	10	3-34	0.5-35	x
JZ-602 RC-CY	PVC	10	10	3-34	0.5-35	x
MULTISPEED® 520-PVC UL/CSA	PVC	6.8	100	2-42	0.5-6	x
MULTISPEED® 520-C-PVC UL/CSA	PVC	6.8	100	2-42	0.5-6	x
PURö-JZ-HF	PUR	7.5	15	2-65	0.5-95	
PURö-JZ-HF-YCP/YDP	PUR	10	15	2-65	0.5-16	
MULTIFLEX 512®-PUR UL/CSA	PUR	5	100	2-65	0.5-16	x
MULTIFLEX 512®-C-PUR UL/CSA	PUR	7.5	100	2-65	0.5-16	x
MULTISPEED® 521-PUR UL/CSA	PUR	6.8	450	2-42	0.5-6	x
MULTISPEED® 521-C-PUR UL/CSA	PUR	6.8	450	2-42	0.5-6	x
MULTISPEED® 522-TPE UL/CSA	TPE	5	450	2-42	0.5-6	x
MULTISPEED® 522-C-TPE UL/CSA	TPE	5	450	2-42	0.5-6	x

Single-core cables



Cable name	Sheath material	Bending factor x Ø	Max. travel distance in m	Core count	Area of cross-section in mm²	UL/CSA
MULTISPEED® PWR 520-PVC UL/CSA	PVC	7.5	100	4-5	10-35	x
MULTISPEED® PWR 520-C-PVC UL/CSA	PVC	7.5	100	4-5	10-35	x
MULTISPEED® PWR 521-PUR UL/CSA	PUR	7.5	450	4-5	10-35	x
MULTISPEED® PWR 521-C-PUR UL/CSA	PUR	7.5	450	4-5	10-35	x
MULTISPEED® PWR 522-TPE UL/CSA	TPE	7.5	450	4-5	10-35	x
MULTISPEED® PWR 522-C-TPE UL/CSA	TPE	7.5	450	4-5	10-35	x

Motor cables



Cable name	Sheath material	Bending factor x Ø	Max. travel distance in m	Core count	Area of cross-section in mm²	UL/CSA
Single 602-RC	PVC	7.5	5	1	10-300	x
Single 602-RC-CY	PVC	7.5	5	1	10-300	x
MULTISPEED® 600-PUR	PUR	5	450	1	6-300	x
MULTISPEED® 600-C-PUR	PUR	5	450	1	6-300	x
KOMPOSPEED® 600	TPE	5	100	1	6-185	
KOMPOSPEED® 600-C	TPE	7.5	100	1	6-240	

Servo and hybrid cables



Cable name	Sheath material	Bending factor x Ø	Max. travel distance in m	Core count	Area of cross-section in mm²	UL/CSA
TOPSERV® 109 PUR	PUR	7.5	30	4	1.5-95	x
TOPSERV® 113 PUR	PUR	7.5	30	6	1.5-50	x
TOPSERV® 121 PUR	PUR	7.5	30	8	1-50	x
TOPSERV® Hybrid PUR	PUR	7.5	30	8	0.5-16	x

Measuring system cables



Cable name	Sheath material	Bending factor x Ø	Max. travel distance in m	Core count	Area of cross-section in mm²	UL/CSA
TOPGEBER® 512 PUR	PUR	10	30	18	0.14-1	x

Bus cables



Cable name	Sheath material	Bending factor x Ø	Max. travel distance in m	Core count	Area of cross-section in mm²	UL/CSA
HELUKAT® 600S Cat 7 PUR UL	PUR	15	50	4x2x	AWG24/7	x
HELUKAT® 500S Cat 6A PUR UL	PUR	10	50	4x2x	AWG26/7	x
PROFINET Typ C Cat 5 PUR UL	PUR	12	50	2x2x	AWG22/7	x
PROFIBUS SK PUR UL	PUR	12.5	50	2	0.65	x
CAN BUS PUR UL	PUR	15	50	2	0.5	x
DeviceNet™ PUR UL	PUR	15	50	4	AWG24 / AWG22	x
AS Interface PUR UL	PUR	10	50	2	2.5	x

Fibre-optic cables

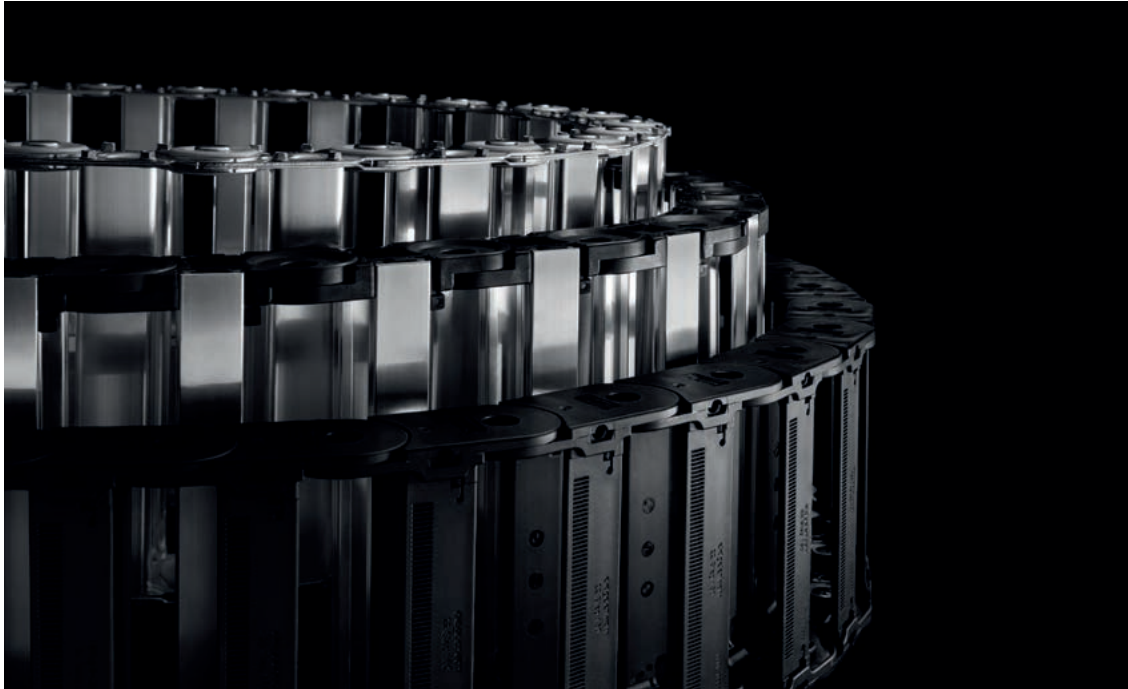
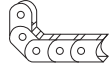


Cable name	Sheath material	Bending factor x Ø	Max. travel distance in m	Core count	Area of cross-section in mm²	UL/CSA
HELUCOM® A-V(ZN)11Y	PUR	15	10	2-8	9 / 50 / 62.5	
HELUCOM® I-V2Y(ZN)11Y	PE	12.5	10	2	980	

Further information is available in the data sheet overview at helukabel.de/heluchain-cables

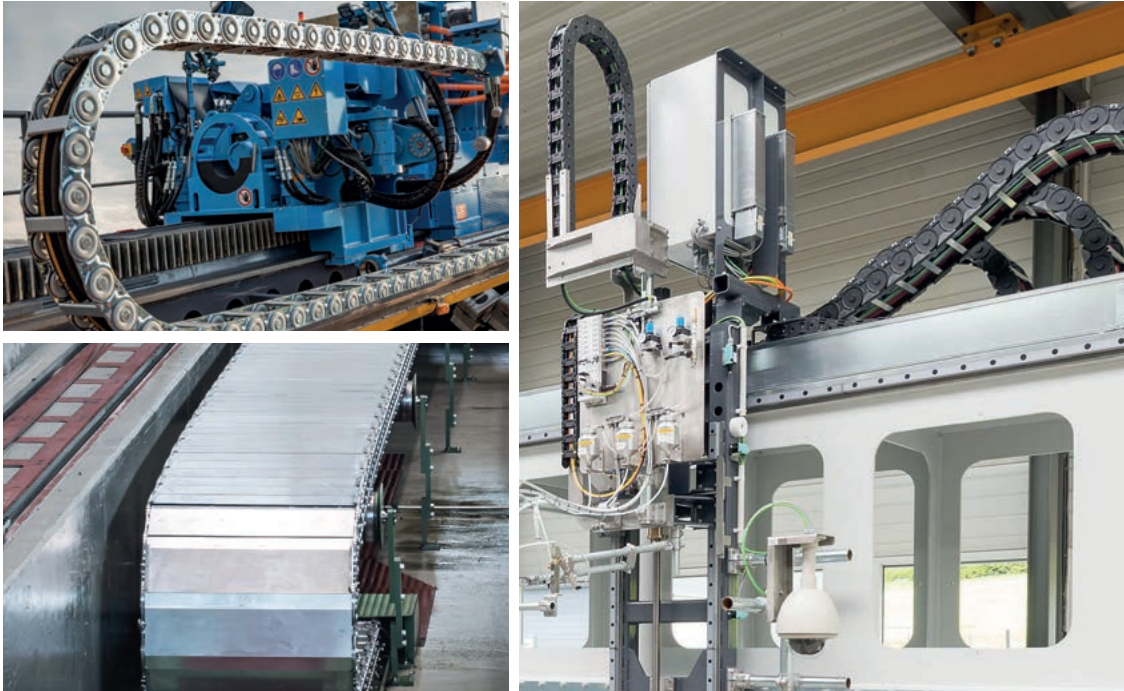
Steering energy in the right direction

HELUCHAIN® Drag Chains



For the past 50 years, we have specialised in the production of custom plastic, hybrid, and steel drag chains for a variety of requirements. Our portfolio includes self-supported chains for short travel distances, gliding chains, as well as rolling designs for larger distances and maximum loads. Special gliding shoes reduce wear, while trough systems provide reliable guidance.

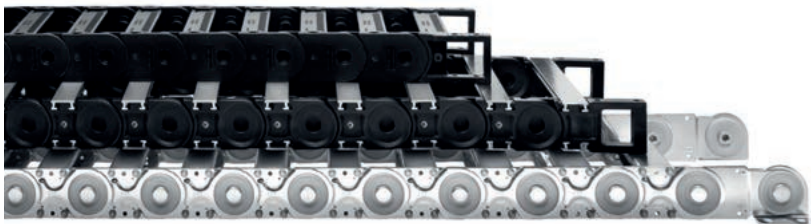
Our mission: To set connections in motion. Our drag chains are designed for flexibility, abrasion-free operation, to perfectly protect cables, and for maximum efficiency in all applications.



What sets our drag chains apart

- **The highest quality and reliability.** Our drag chains are made of high-quality materials, tested according to strict standards, and are durable and reliable under even the most extreme conditions. Thanks to our higher manufacturing depth and modern production capacities, we are able to supply customers with custom solutions ranging from one-off to large-scale productions, always adhering to the highest standards of quality.
- **Custom solutions for demanding applications.** Every application is unique. Our extensive portfolio of plastic, hybrid, and steel drag chains means we have custom options for specific industries and needs.
- **Applications that span industries.** Our drag chains are suited for applications in tooling machines, material handling and hoisting technology, automation and robotics, paper and textile machines, as well as in outdoor crane systems and the offshore industry.
- **Quick delivery times and comprehensive service on location.** With our global logistics network and modern production capacities, we guarantee quick delivery windows, which are ideal for time-sensitive projects. From selection and planning for the ideal solution to final installation and startup, our systems and reliable service are available globally.

Our drag chain portfolio



Plastic

Light and versatile solution for mechanical engineering. These chains are quick to produce, making them affordable.

Hybrid

The combination of robust plastic bars and aluminium stays is particularly suited for large drag chain widths. The chains are available in combination with the Marathon gutter system for long travel distances.

Steel

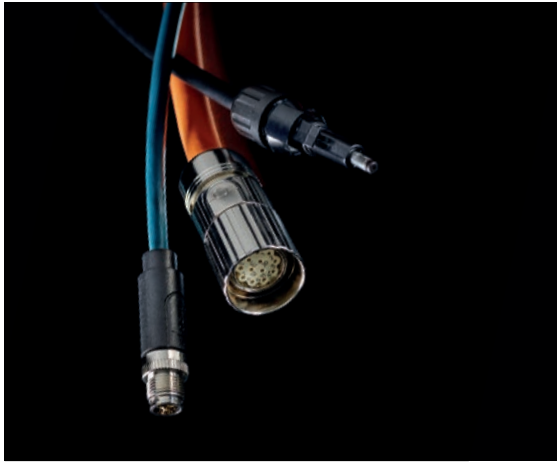
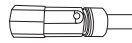
This chain proves its mettle through its mechanical resilience and temperature resistance in harsh environments.

Product name	Material	Application	Advantages
HELUCHAIN® PLASTIC LINK 1-PF	Plastic	• Tooling machines • Woodworking machines	• Positive interlocking bars for increased stability at high torque • Quick and easy installation and removal of bars • Easily adjustable length • Closed design for increased protection against shavings
HELUCHAIN® PLASTIC LINK 2-KL	Plastic	• Handling and conveyor technology • Paper and textile machines	• Easy opening mechanism on both sides • Usable without connection element • Variable inner separations • Dividers can be quickly changed • High torsional rigidity

Product name	Material	Application	Advantages
HELUCHAIN® PLASTIC LINK 4-PK	Plastic	• Robotics, handling technology • Tooling and wood-working machines	• Positive interlocking bars for increased stability at high torque • Quick and easy installation and removal of bars • Easily adjustable length • Optional multi-band solution for increased stability • Mounting bar for larger media tubing
HELUCHAIN® PLASTIC LINK 4-45	Plastic	• General mechanical engineering, intralogistics, material handling, indoor cranes, packaging technology	• Increased lifespan of the filling thanks to smooth contour of chain and inner separations • Bars are quick and easy to open for easy installation • Undercut on side panels provides high stability for long travel distances • Quiet operation thanks to optimised stop system
HELUCHAIN® HYBRID LINK 4-PL	Hybrid	• Tooling machines • Indoor and outdoor crane systems • Material handling	• Form-fitting locking bars for the highest stability • Can be opened on inner and outer radius for quick and easy configuration • Quick and easy installation and removal of bars • Up to 1,000 mm bar lengths without gradation
HELUCHAIN® STEEL LINK 1-SF	Steel	• Tooling and specialised machines with short travel distances and low stroke rates	• Closed steel body with built-in spring-steel strip • Large usable cross sections with small external dimensions • Optimal cable protection • Available with different connection options • Optimal for hot chips, welding beads, and flying sparks
HELUCHAIN® STEEL LINK 4-SL	Steel	• Tooling machines, handling technology, conveyor and hoisting technology, steel mills, boring industry	• Available in steel, stainless steel, and hardened versions • Large, self-supported lengths and high fill weights possible • Many variations of bar separations • Easily adjustable length • Hinge mechanism protected by cover
HELUCHAIN® STEEL LINK 4-GK	Steel	• Rolling mills • Offshore plants • Large tooling machines	• Exceptionally high stability • Large, self-supported lengths up to 18 m with high cable volumes • Variable arrangement of interior • Bar lengths up to 1,200 mm possible • Also available in stainless steel and in custom designs

The right connector for every cable

HELUCHAIN® Assemblies



In modern industry, precise and reliable cable assemblies are indispensable for ensuring smooth and efficient workflows. At HELUKABEL, we offer individual cable assemblies and installation modules that are perfectly tuned for your specific needs. From planning to realisation, we are by your side as a key partner to assist in the smooth and efficient execution of your project.

Our HELUCHAIN® assemblies are manufactured at multiple factories around the globe according to the most current standards. This allows us to ensure short delivery times, flexibility in design according to individual needs, and the proven quality of our products.



What sets our assemblies apart

- **Custom solutions.** Thanks to our extensive portfolio of motor, encoder, and data cables, we are able to offer standard and custom solutions, and even customer-specific labels and packaging.
- **Efficiency through automation.** Highly precise and reproducible designs thanks to the most modern machines, including automatic cutting, stripping and winding.
- **Flexibility & availability.** Automated warehousing enables quick access times and the highest delivery security, which is ideal for time-sensitive projects.
- **High standards for quality.** We perform tests on all assemblies: high-voltage tests, crimp & pull tests, and micrography for maximum safety and traceability. Certified according to DIN ISO 9001:2015 & UL.
- **Sustainability.** Our commitment to sustainability is evidenced by our sustainable production methods, environmentally friendly packaging, and consistent, single-origin waste separation.

Assemblies for drive technology

As a leading international manufacturer and supplier of electrical connection technology, we also specialise in pre-assembled cables for drive technology. Our portfolio includes assemblies for all common drive systems from various OEMs, starting at one metre lengths, with short lead times and in common PVC and PUR qualities.

STANDOUTS FROM OUR STANDARD PORTFOLIO



Assemblies for drive technology

Product name	Item no.	Properties
TOPSERV® CONNECTING SYSTEMS PVC Siemens 5DN06	17004711	According to Siemens standard 6FX5002, PVC sheathed cable with UL/CSA, 100,000 bending cycles, PVC flame retardant
TOPGEBER® CONNECTING SYSTEMS PVC Siemens 2EQ10	17008068	According to Siemens standard 6FX5002, PVC sheathed cable with UL/CSA, 100,000 bending cycles, PVC flame retardant
TOPSERV® Hybrid CONNECTING SYSTEMS PUR Siemens 8QN04	17005185	Acc. to Siemens standard 6FX8002, drag chain cable with UL/CSA, 5 mil. bending cycles, PUR sheath, halogen free
TOPSERV® CONNECTING SYSTEMS PUR Siemens 5DS01	17008067	Acc. to Siemens standard 6FX8002, drag chain cable with UL/CSA, 5 mil. bending cycles, PUR sheath, halogen free
TOPGEBER® CONNECTING SYSTEMS PUR SIEMENS 2DC10	661156	Acc. to Siemens standard 6FX8002, drag chain cable with UL/CSA, 5 mil. bending cycles, PUR sheath, halogen free



Assemblies for bus technology

Product name	Item no.	Properties
Industrial Ethernet HELUKAT® 200 IND SF/UTP	(for further technical data, see part no. 800068)	Cat.5e 4x2xAWG26/7, with PUR sheath for flexible use, with RJ45 plug on both sides
PROFINET C	(for more technical data see part no. 800655)	2x2xAWG22/7, with PUR sheath for drag chains, UL CMX 75°C, with M12, d-coded, straight or angled plug

CUSTOM SOLUTIONS FOR YOUR APPLICATION

If your application requires cables and connectors that are not in our standard selection, we are happy to create custom cable assemblies according to your needs. Our custom solutions include modified cables for high mechanical loads, combinations of components from different manufacturers, or assemblies for extreme temperatures and aggressive environments.

Your advantages:

- The same quality of mass production but in custom products
- UL/CSA certified
- CAD-supported construction
- Individual support on site

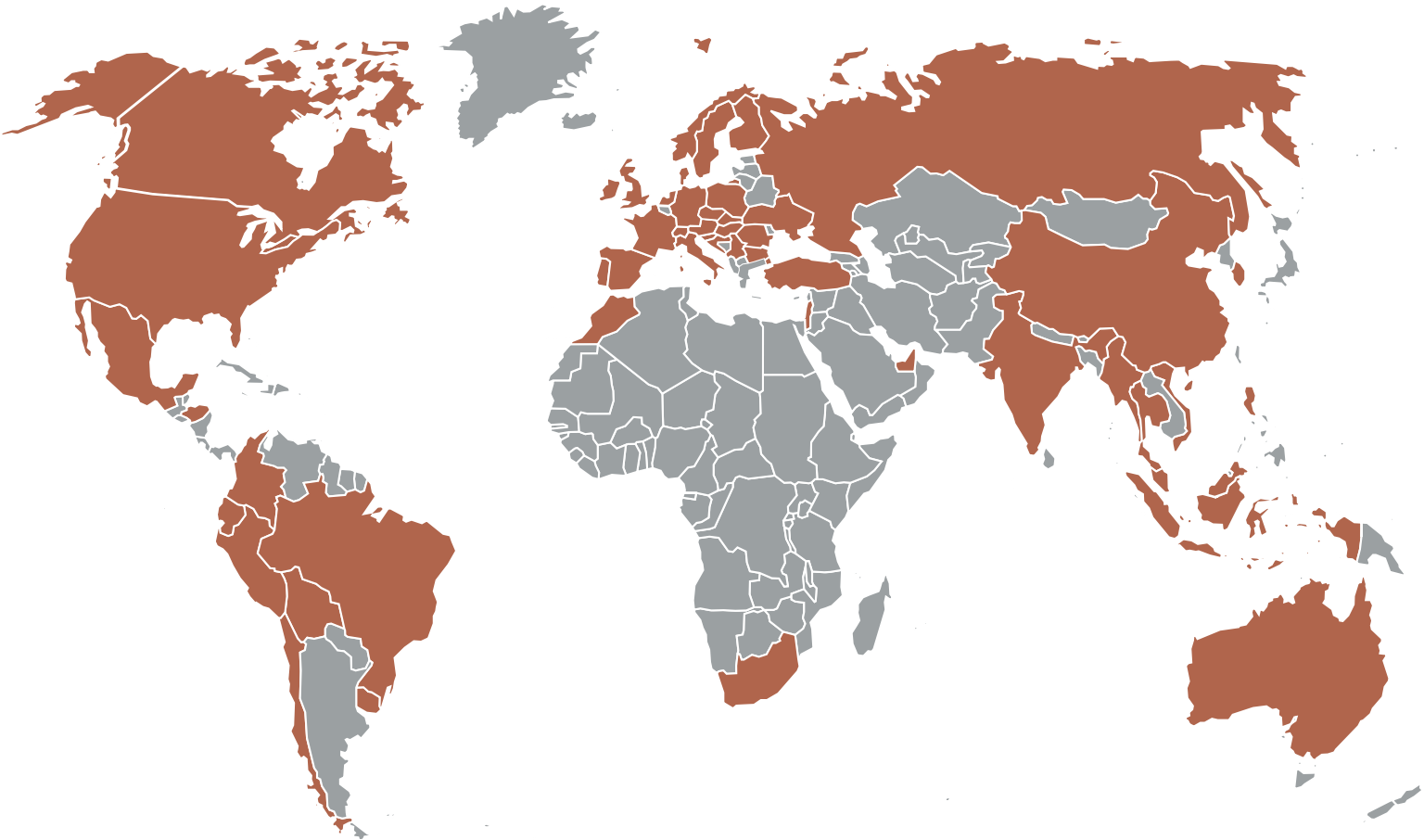
Our services:

- All kinds of drive, field bus, and control cables
- Delivery via plug or terminal box
- Commissioned as a set or individual cables
- Actuator/sensor plugs, heavy connectors or round plugs
- Pneumatics - for expanded systems



Learn more about our comprehensive assemblies for bus technology.

Global availability



Learn more about our global locations.

Contact

Our product experts are available to answer your questions and provide customised solutions:

Your contact for solutions



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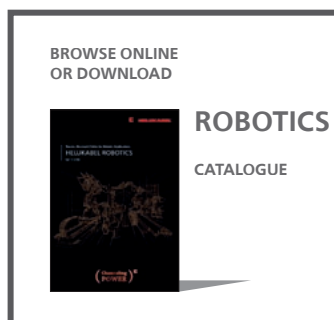
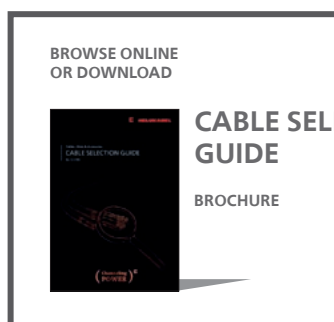


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Glossary

You can find further informational material in our Download Centre:
www.helukabel.de/download-centre



**(Channeling
POWER)** 