

TKD CONNECT Woven ribbon cable

The alternative connection with high functionality.



Intro

Woven ribbon technology

The problem and the solution method



The problem and the solution method

Woven ribbon technology

In plant and equipment engineering, the trend is increasingly towards compact cable systems.

Woven ribbon cable technology is used to interweave different elements such as single wires, cables, hoses and/or glass or plastic fibers in parallel next to each other with specific weaving yarns.

**Individual
Resilient**

-
-

**Flexible
Lightweight**

-
-

**Compact
Silent**



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Woven ribbon technology

- All elements are organized in a fixed and compact layout over the entire length of the woven band. Arbitrary composition is excluded and the distances between the elements can be variably designed by weaving in warp threads.
- **Partial lifting** of the woven mesh is quick and easy to realize.
- The insertion and removal of elements can be pre-programmed with dimensional accuracy depending on the pattern density. Due to the geometrically defined layout, there is a high reproducibility of identical parts with identical shape.
- The **physical load** on the woven cable straps is absorbed by the woven composite. The cables are thus nearly free of physical stress.



Possible applications

Woven ribbon technology



Device technology



Cable trolley systems



Machine tools



Stage technology



Industrial robot



Elevator construction

Woven ribbon cable



Advantages of woven ribbon technology

Woven ribbon technology



INDIVIDUAL
STRUCTURE



LITTLE
SPACE
REQUIREMENT
AND LOW
WEIGHT



LONG
LIFETIME



HIGH
MECHANICAL
STRENGTH



HIGH
ALTERNATING
BENDING CYCLES



ALMOST
NOISELESS
UNROLLING

Woven ribbon cable



Manufacturing options

Woven ribbon technology

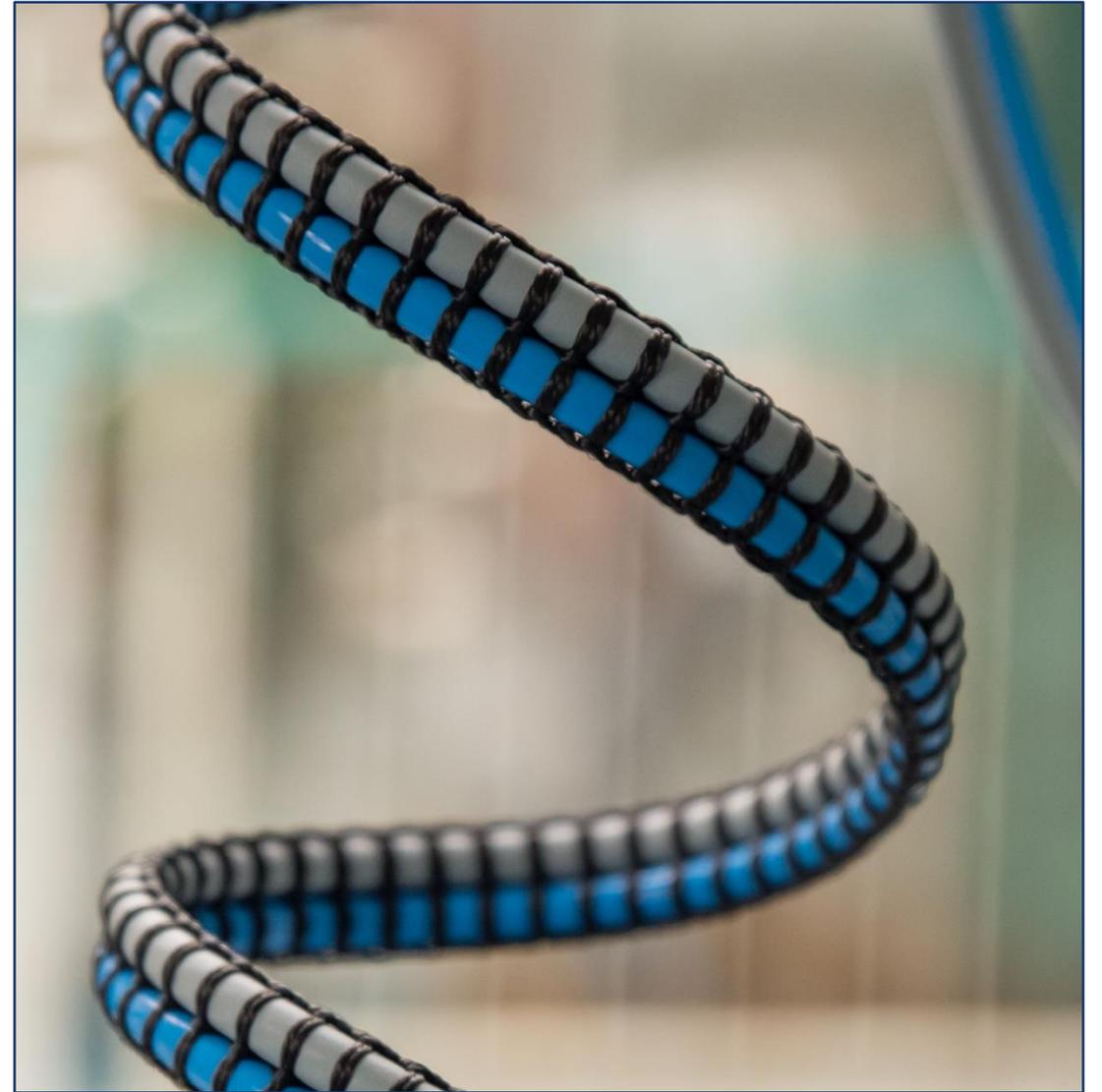
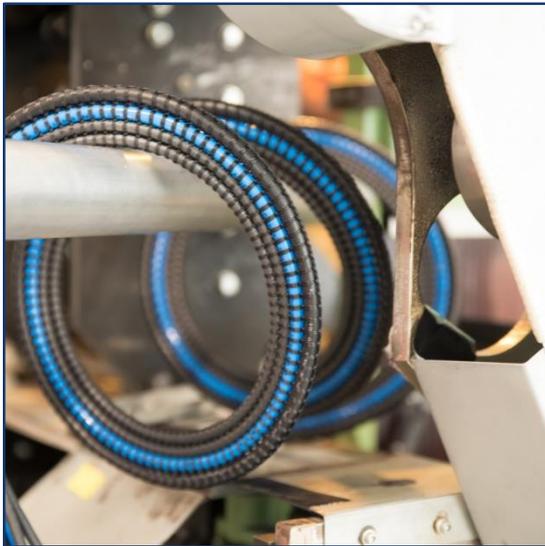
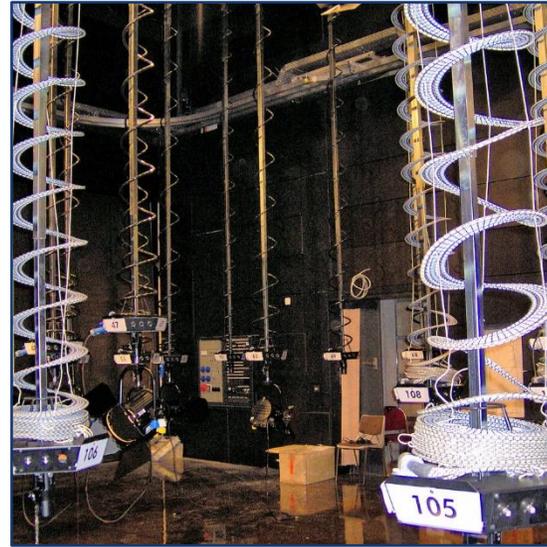
- **Cables up to a diameter of 8mm** are produced on an NC controlled weaving machine the maximum band width is approx. 130 mm
- **Cables up to a diameter of 18mm** are produced on a conventional weaving machine. Here, the band width is approx. 220 mm. Individual ribbons can be joined together to form a woven ribbon up to approx. 900 mm
- **Weaving material:**
The weaving material is selected depending on the application conditions for the woven conductor tape. Yarns and twisted yarns made of polyester (PET), polyamide (PA), Teflon (PTFE), aramid, carbon fiber, glass fiber or PEEK in different weights and strengths are used.





Impressions

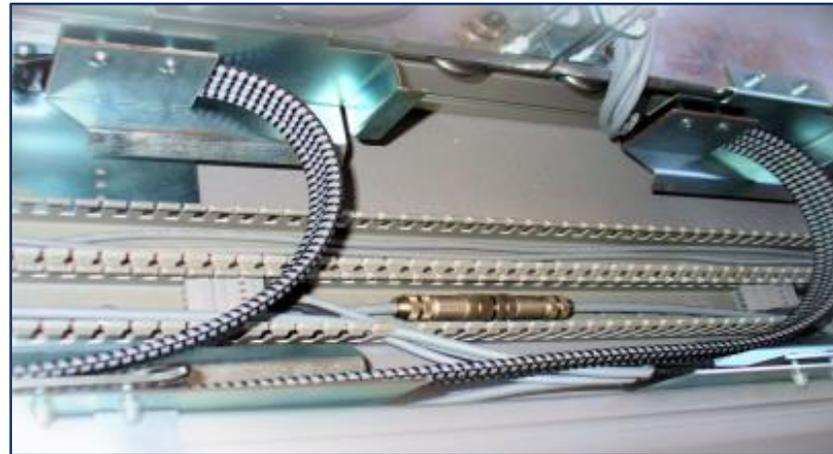
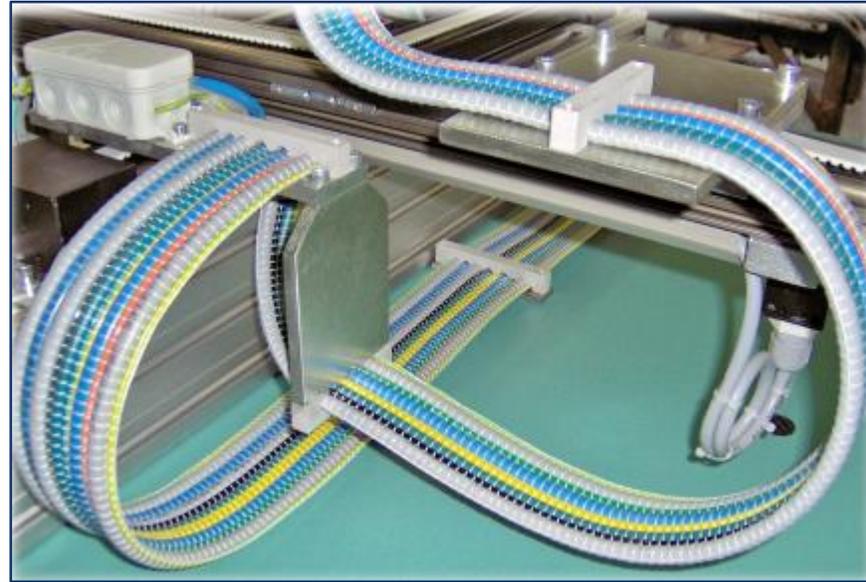
- Spirale cable systems





Impressions

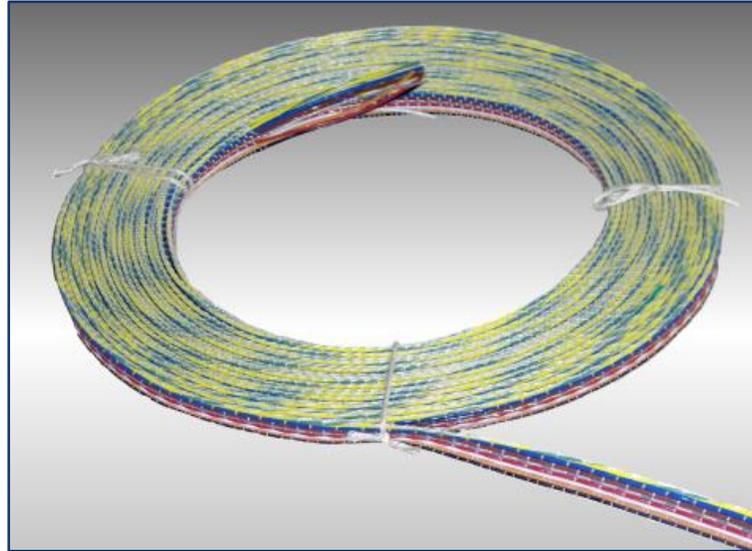
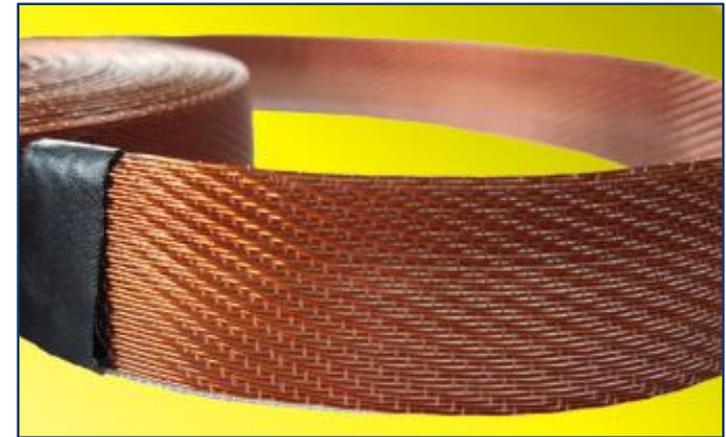
- Connecting cables
- Drag chain cables





Impressions

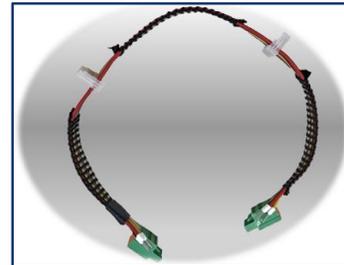
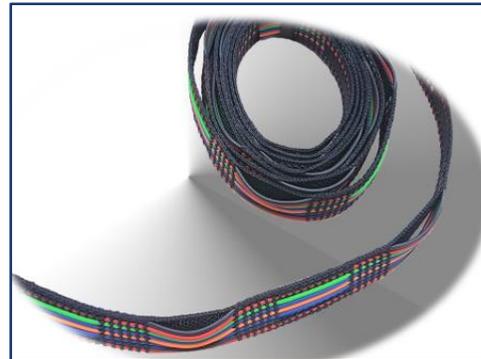
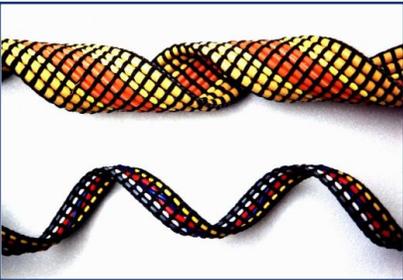
- Connecting cables
- Drag chain cables
- Ground strap
- Assembled cables





Impressions

- Travelling/suspension cables
- Connecting cables
- Flat ribbon cables
- Assembled cables

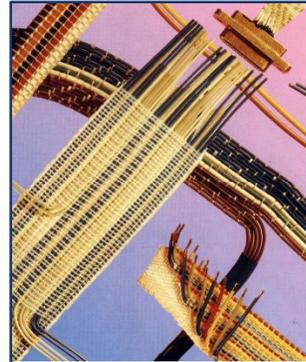
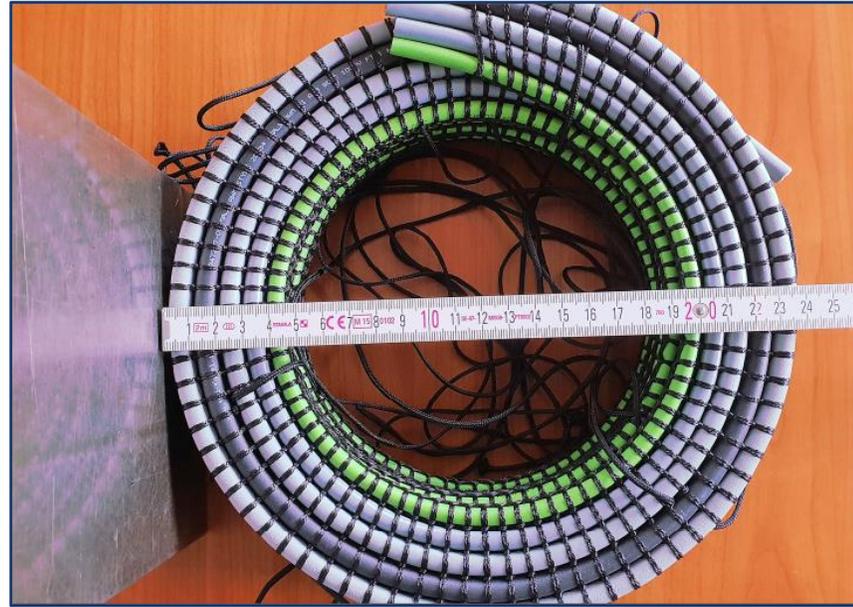
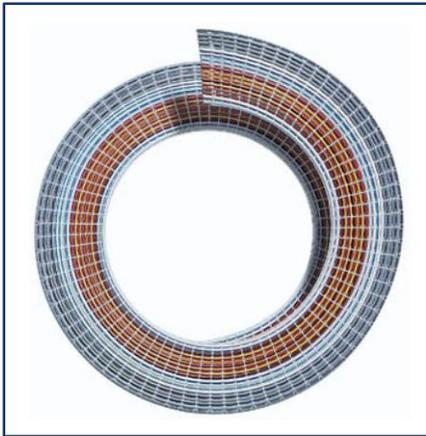
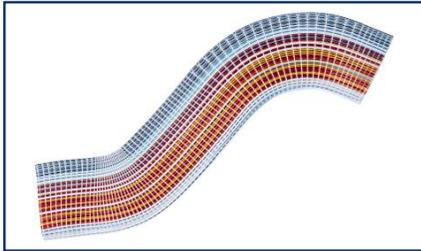


Lengths and widths of the ribbon cables are variable and can be adapted to individual customer specifications



Impressions

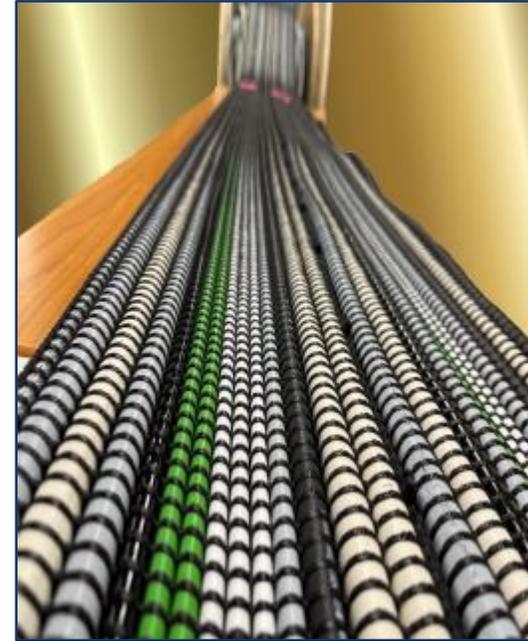
- Spirale cable systems
- Connecting cables
- Flat ribbon cables
- Assembled cables



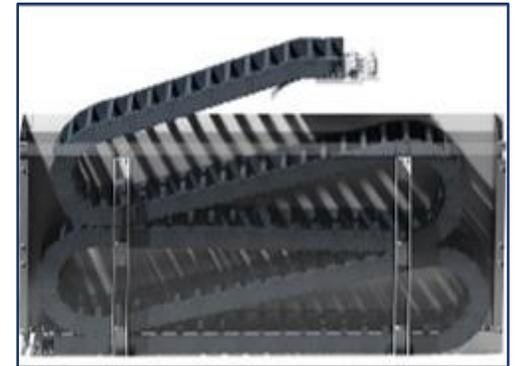
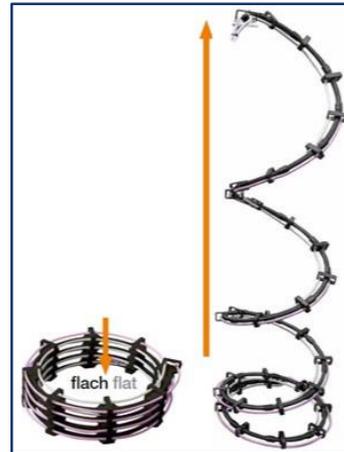


Impressions

- Travelling/suspension cables
- Connecting cables
- Flat ribbon cables
- Drag chain cables



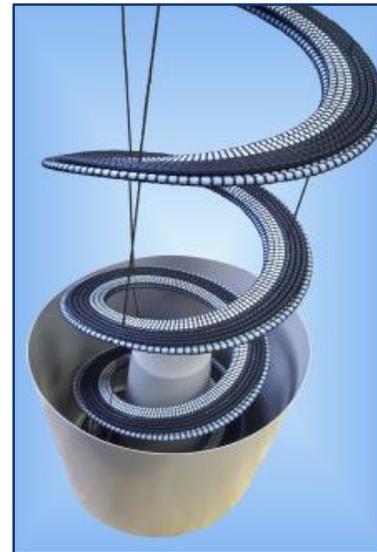
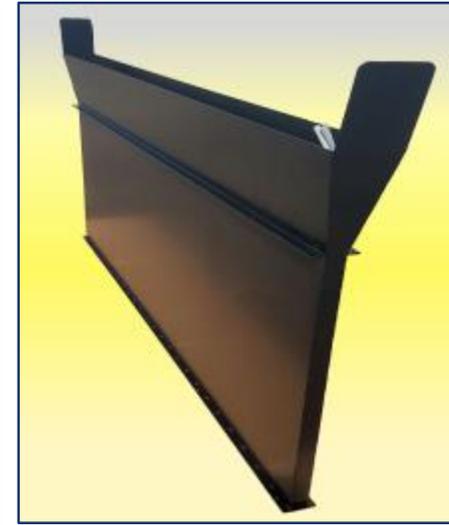
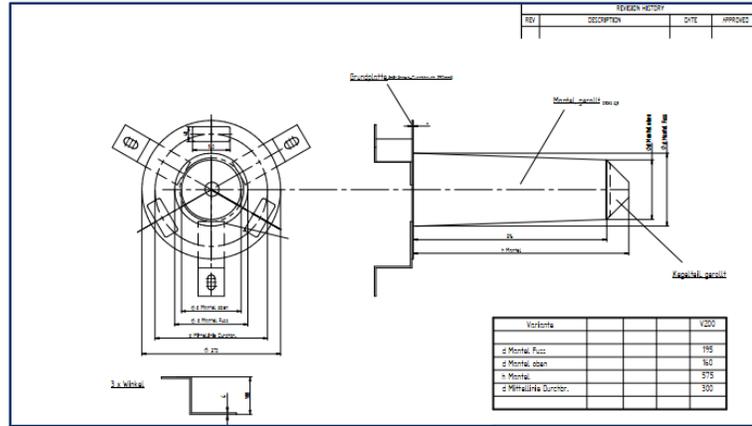
Comparison to conventional systems





Accessories

Accessories such as baskets or clamps are individually adapted to the ribbons and on request available



TKD
Cables in motion



**CABLE
CONNECTIVITY
GROUP**

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