



HyperTEN / HyperTEN+

with STS-Stronger Than Steel® Technology

This superlative fiber rope offers users minimal weight combined with highest breaking forces and reduced UHMWPE-typical creep. Produced with STS-Stronger Than Steel® technology. Optionally available with PES (HyperTEN+ Pro-P), UHMWPE (HyperTEN+ Pro-U) cover, or as XBO variant (HyperTEN+ XBO) offering compellingly high bending fatigue strength.

Specifications

- Diameter: 3-34 mm

Core:

- HyperTEN: thermally pre-stretched UHMWPE
- HyperTEN+: thermally pre-stretched Dyneema®
- Each with STS – Stronger Than Steel® technology

Variants:

- HyperTEN / HyperTEN+: without cover
- HyperTEN Pro-P / HyperTEN+ Pro-P: with PES cover
- HyperTEN Pro-U / HyperTEN+ Pro-U: with UHMWPE cover

- ✓ For the lifting of loads, certification to Machinery Directive 2006/42/EC, as amended from time to time, is possible.

Segments



Colors



Core:
dark-gray

HMPE Cover (Pro-U):
red/white

PES Cover (Pro-P):
orange/white

Other colors available on request.

Advantages of HyperTEN

- ✓ $\frac{1}{7}^{\text{th}}$ of the weight of comparable steel wire ropes
- ✓ Extremely high breaking force – higher than that of most commercially available steel wire ropes of the same diameter
- ✓ No corrosion, no contamination with rope grease
- ✓ Reduced injury risk, easy and quick to handle
- ✓ Flexible design
- ✓ Extremely high abrasion resistance due to smooth surface, especially when provided with a cover
- ✓ High bending fatigue strength and extremely long service life
- ✓ The kinetic energy released when the rope is damaged is considerably less than in steel wire ropes
- ✓ Very low initial and working stretch (already eliminated during production)
- ✓ Very smooth running behavior thanks to the extremely compact cross-section which provides high transverse pressure stability

Advantages of HyperTEN+

- ✓ Made from original Dyneema® SK78 fibers
- ✓ Highest possible breaking force – higher than that of most commercially available steel wire ropes of the same diameter
- ✓ Reduced UHMWPE-typical creep
- ✓ Completely abrasion resistant due to very smooth surface, especially when provided with a cover
- ✓ Features highest bending fatigue strength and extremely long lifetime. Compared to the standard fiber, the XBO variant ensures a 300-400 % longer lifetime in terms of bending cycles
- ✓ Very smooth running behavior thanks to the extremely compact cross-section which offers high transverse pressure stability

Technical specifications

Core Ø / Rope Ø without cover mm	Rope Ø with cover mm	Weight HyperTEN / HyperTEN+ g/m	HyperTEN Pro-P / HyperTEN+ Pro-P g/m	HyperTEN Pro-U / HyperTEN+ Pro-U g/m	MBF* kN
3	5	7	15	12	13
4	6	12	22	19	23
5	7	20	47	39	40
6	8	25	53	44	48
7	9	36	69	60	70
8	10	47	84	73	90
9	11	59	100	88	105
10	12	65	105	94	120
11	13	73	114	102	145
12	15	101	171	150	180
14	17	130	217	192	235
15	18	146	237	210	270
16	20	176	293	259	300
18	23	215	381	332	355
20	25	253	454	395	440
22	28	270	507	437	500
24	30	350	629	547	600

* Minimum breaking force spliced

Standard tolerance: $\pm 3\%$, other rope diameters are available upon request.

The values are provided for guidance only. The metric figures shall prevail. Subject to further developments which may lead to changes in technical specifications. Subject to changes and errors.

Scope of use of HyperTEN

Wherever highest breaking forces in combination with lowest weight and minimal stretch are needed (especially to replace identically dimensioned steel wire ropes without any modification of the equipment), for example:

- ✓ Vehicle winches for off-road, maintenance, recovery and military vehicles
 - ✓ Overhead line construction
 - ✓ Motor winches
 - ✓ Mounting ropes
 - ✓ Pulling lines for ropeways
- and many others

Scope of use of HyperTEN+

Industrial applications that require high breaking forces, bending fatigue strength, and minimal elongation in combination with minimal weight such as:

- ✓ Indoor cranes
- ✓ Lifting tackles / slings
- ✓ High-tech winches
- ✓ High-performance ropes for camera systems such as constant-tension winches (tugger winches)
- ✓ Storage and retrieval machines
- ✓ Static applications that allow minimal elongation and no creep