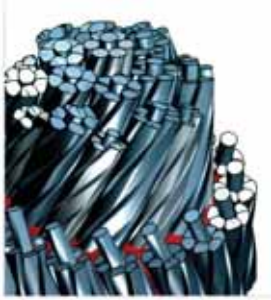


01 Computer Aided Design



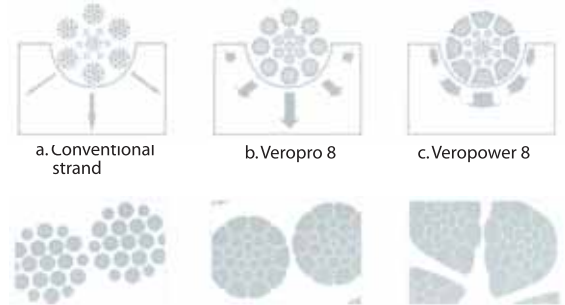
- State of the Art wire rope design
- Prototype development
- Wire and strand alignments
- Compaction and rotary swaging
- Plastic filling
- Filling grades
- Gap optimization
- 2D cross sections
- Realistic 3D views
- Stress calculations

02 Compacted And Rotary Swaged Strands

Almost all Verope products are made out of compacted strands. The strands are properly roller-compacted during the production process to improve the contact conditions between both the strands and the individual wires.

Benefits of Verope compacted strands

- Smooth surface
- Linear contact between individual wires
- Better contact between the rope surface and sheaves
- Much higher breaking load with higher metallic area
- Good constructional stability for multilayer spooling systems
- Far more resistant to abrasion and corrosion
- Reduced drum crushion



03 Torque Factor

Verotop and Verotop P are rotation resistant ropes with a steel core closed in the opposite direction to the outer strands. When a load is applied, the core has the tendency to twist in one direction while the outer strands tend to rotate in the opposite direction.

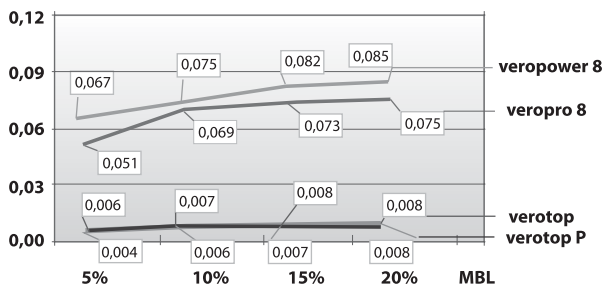
The created moments in the core versus the created moments in the outer strands add to zero over a wide load spectrum.

of MBL	Top	Top P	Pro 8	Power 8
5%	0,006	0,004	0,051	0,067
10%	0,007	0,006	0,069	0,075
15%	0,007	0,008	0,073	0,082
20%	0,008	0,008	0,075	0,085

The torque factor of Verotop -Special wire rope



where:
 C : Torque factor
 T : Torque moment (kgf.m)
 W : Rope tension (kgf)
 d : Rope diameter (mm)

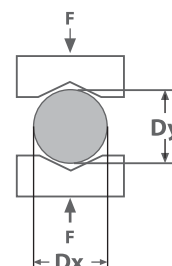
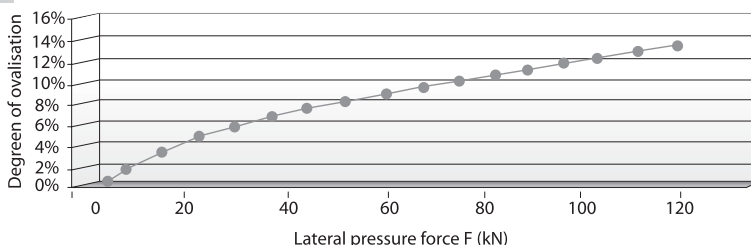


The torque factor of conventional wire ropes

Construction of rope	Torque factor
4-strand rope	0,02
6-strand rope, steel core	0,084-0,092
8-strand rope, steel core	0,065-0,086
19x7	0,055
35x7	0,02

$$C = T / (W \cdot d)$$

04 Lateral Pressure Stability



$$Og = [(Dy / Dx) - 1] \times 100\%$$