

Efficiency and Flexibility

Why are CASAR Special Wire Ropes so flexible?

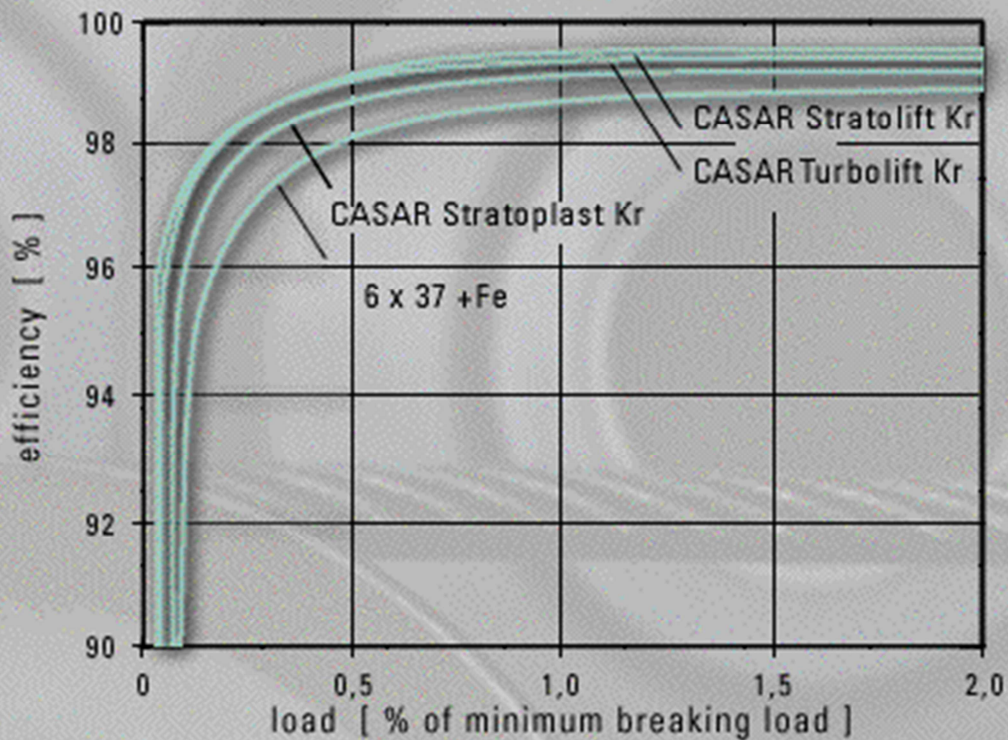
Modern machines demand flexible wire ropes.

CASAR Special Wire Ropes are designed to provide maximum flexibility. The high flexibility is achieved by a combination of different technologies.

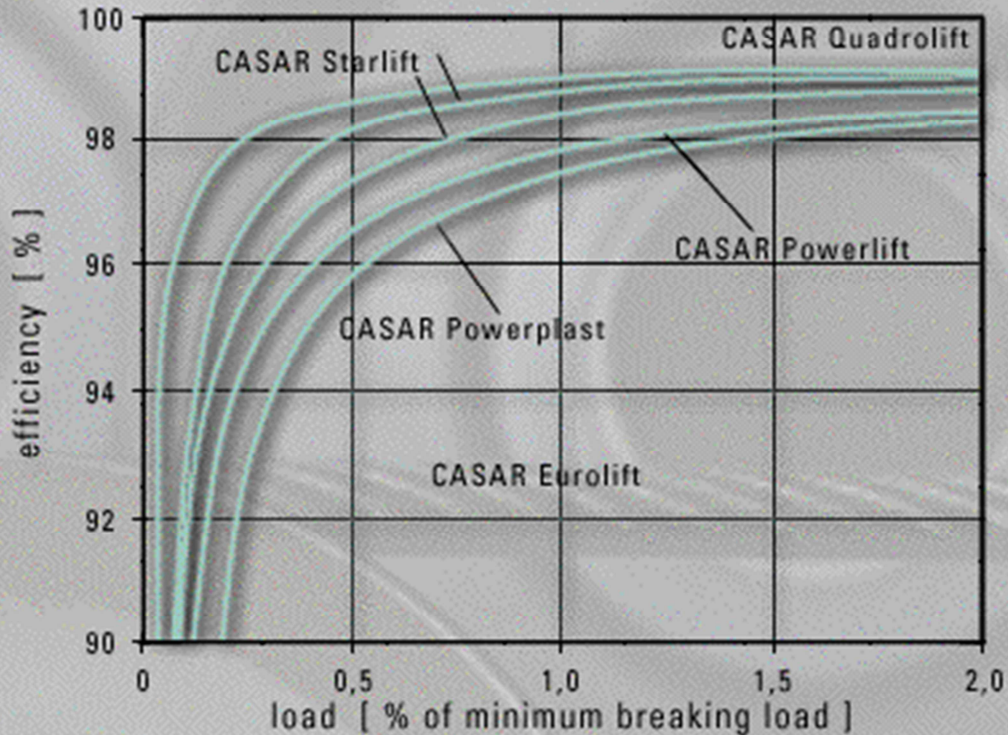
- A larger number of wires and strands allows easier bending.
- Intensive lubrication in all stages of production reduces the internal friction.
- The smooth surfaces of the compacted strands prevent indentations and allow easier relative motion of the elements.
- Cold-resistant lubricants and cold-elastic plastics guarantee good flexibility at low temperatures.

The high flexibility of CASAR Special Wire Ropes offers the user the following advantages:

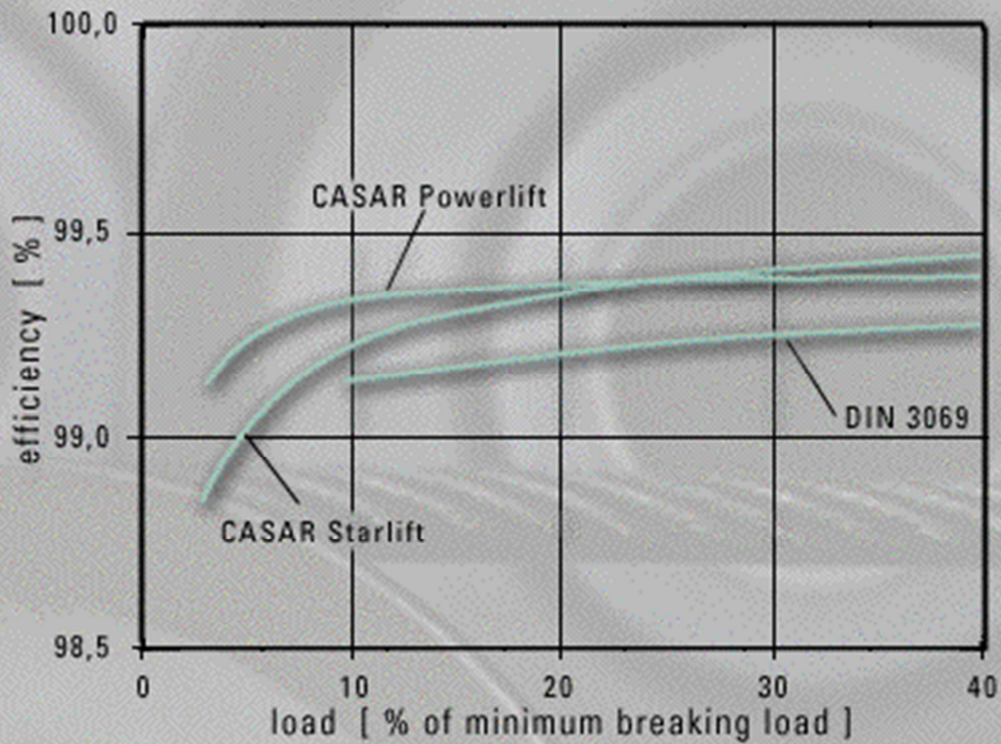
- Improved running properties due to lower friction losses.
- Reduction of motor capacity.
- Easy handling during installation.
- Excellent spooling on the drum.



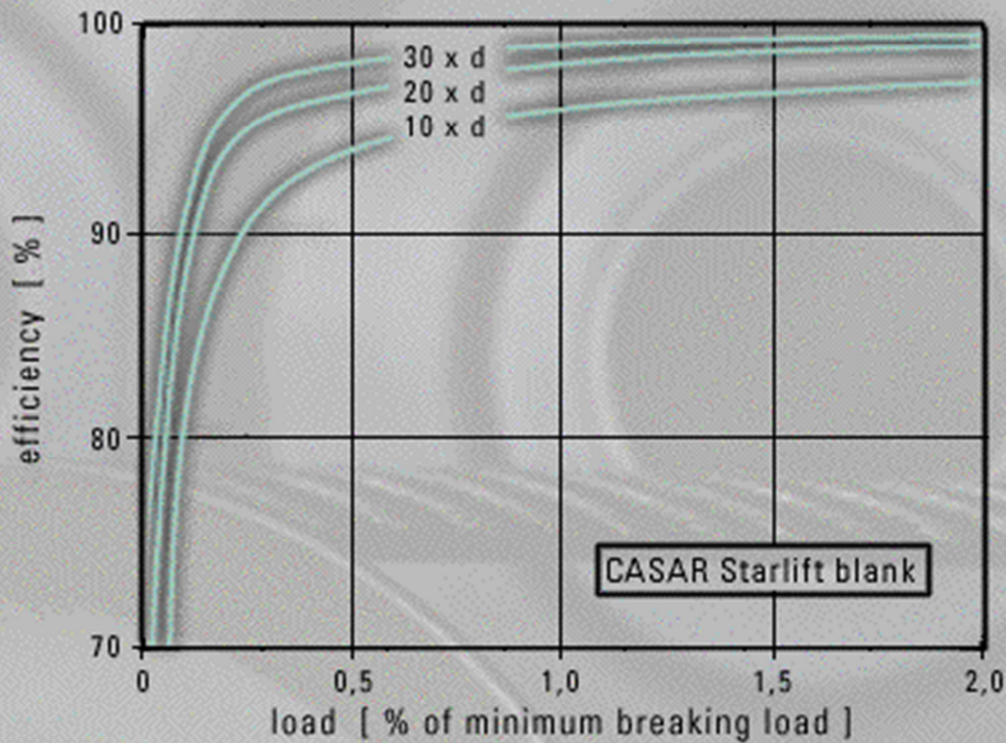
Efficiency 1: Efficiencies of rotation-resistant steel wire ropes on sheaves with roller bearings for low loads. CASAR Special Wire Ropes show higher efficiencies than conventional steel wire ropes. $D/d = 20$



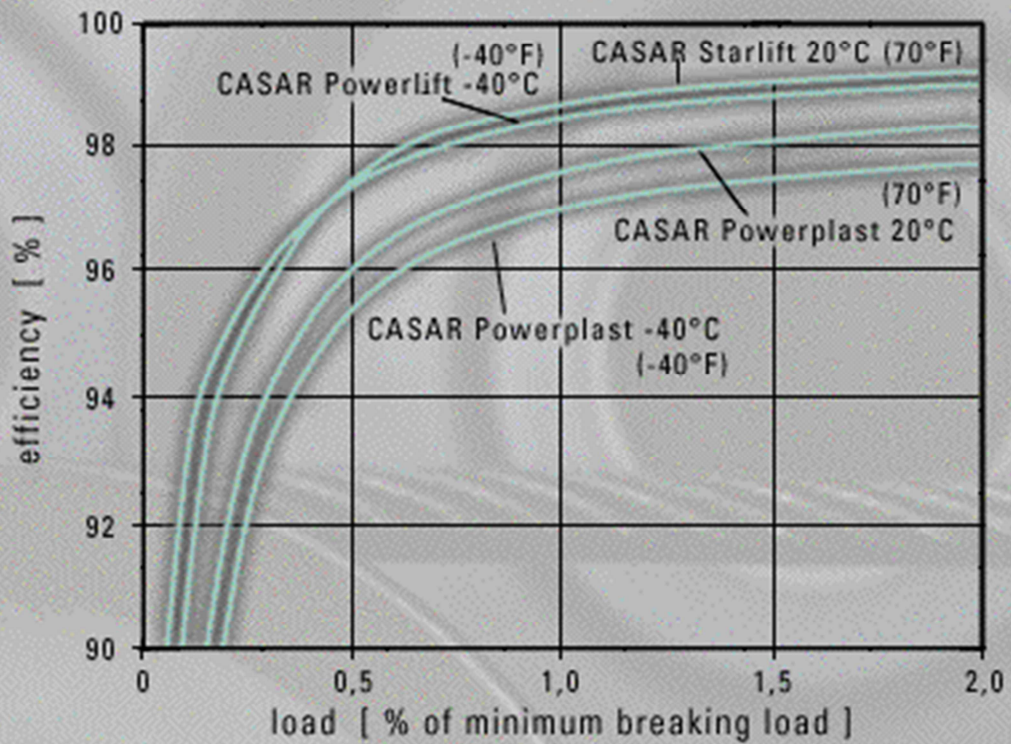
Efficiency 2: Efficiencies of rotation-resistant steel wire ropes on sheaves with roller bearings for low loads. Most rotation-resistant wire ropes show lower efficiencies than non rotation-resistant wire ropes.



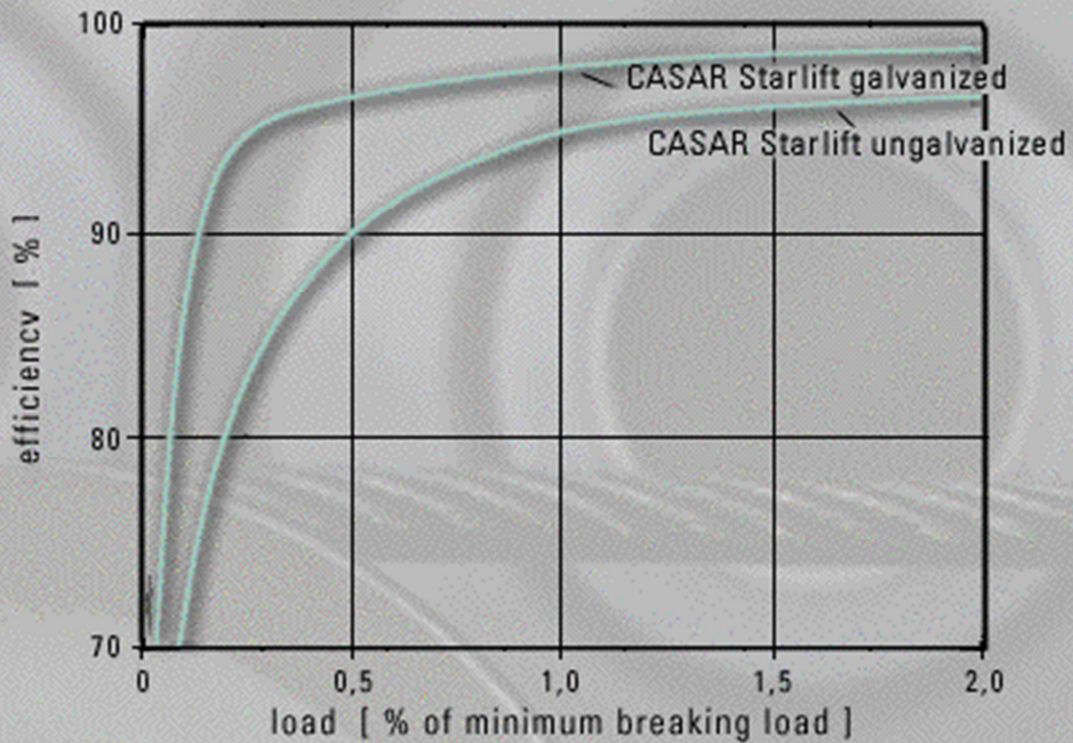
Efficiency 3: Efficiencies of rotation-resistant steel wire ropes on sheaves with roller bearings for high loads. CASAR Special Wire Ropes show higher efficiencies than conventional steel wire ropes. $D/d = 20$



Efficiency 4: Efficiency of a steel wire rope on sheaves with roller bearings against load for different sheave diameters. The efficiency decreases considerably with decreasing sheave diameter.



Efficiency 5: Efficiencies of steel wire ropes on sheaves with roller bearings against load for different temperatures. The influence of low temperatures is minimized by the use of special lubricants and plastics. $D/d = 20$



Efficiency 6: Efficiencies of galvanized and ungalvanized steel wire ropes on sheaves with roller bearings for low loads. Galvanized ropes show lower efficiencies. $D/d = 20$