



Estd. 1910

Esoofali Esmailji Karachiwalla & Co.

43/45 Narayan Rao Koli Marg (Bhandari St.), PO Box 13062. Mandvi. Mumbai 400003. INDIA.

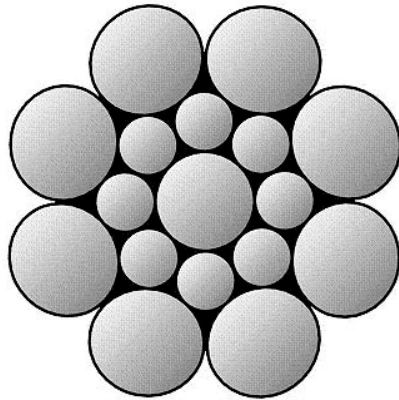
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Email: sales@eekarachiwala.com Web: www.eekarachiwala.com

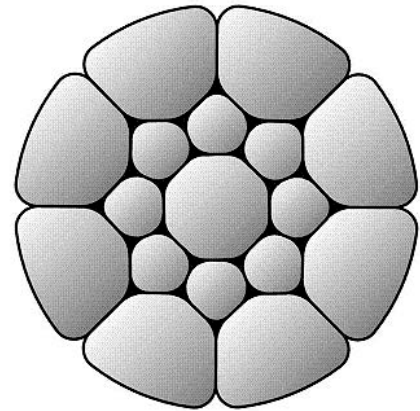


Compacted Wire Rope

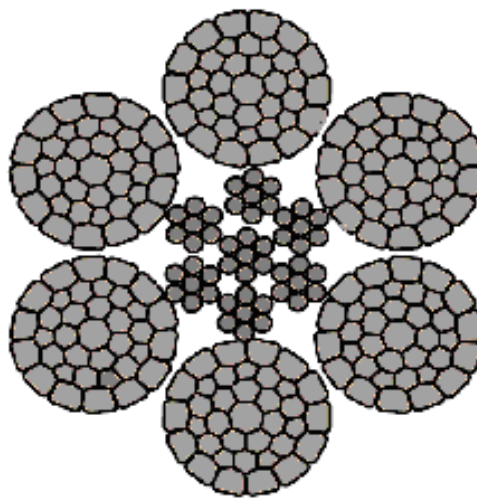
COMPACTED WIRE ROPE is produced through a compaction process in which the individual strands of round wires are passed through specially made Die Rollers. During compaction process, the outer diameter of the strand is reduced and steel moves into the empty spaces between the Wires within the strand. The contact between the individual wires and the strands, improves. The forming process produces a very smooth exterior surface.



Conventional Strand



Compacted Strand



Cross Sectional Area



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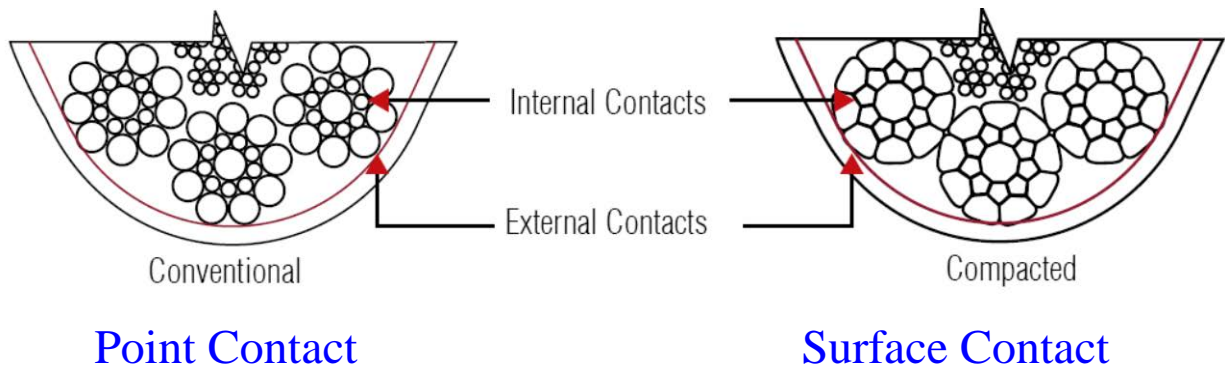


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Compacted Wire Rope

Advantages of Compacted Wire Rope

Higher Abrasion Resistance



- The smooth surface of **Compacted Rope** offers a wider bearing surface to the sheave or drum groove.
- Because of larger outer Wires and the smaller exposed area they are more resistant to abrasion & corrosion.
- Inter wire contact and contact between adjacent laps of Rope on the winch drum is also improved.



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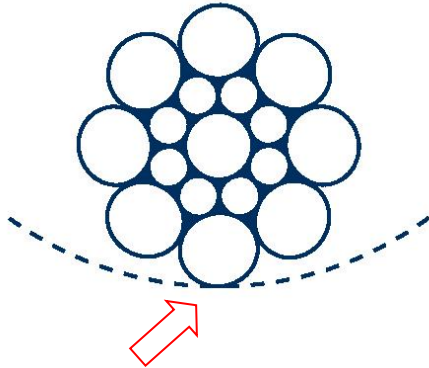
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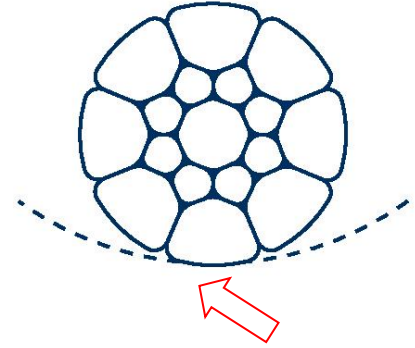


Compacted Wire Rope

Longer Bending Fatigue



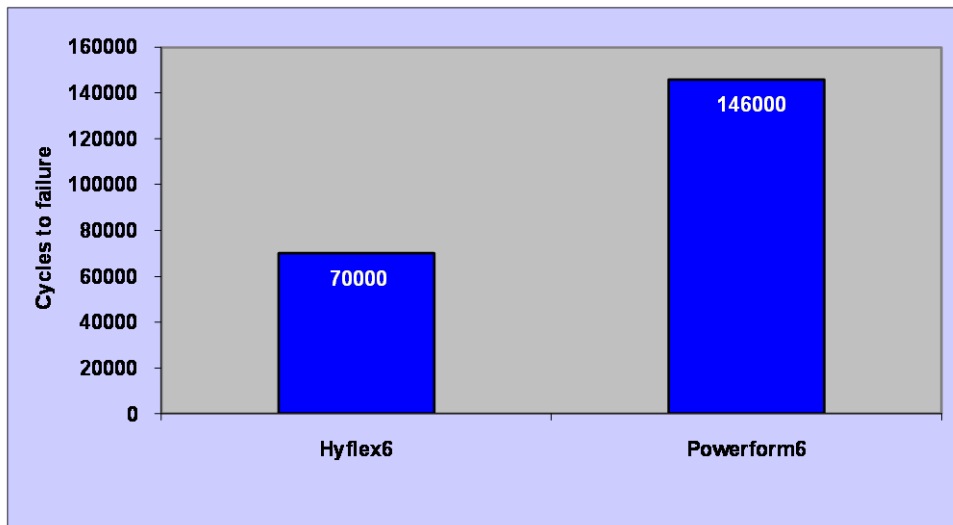
Bad contact conditions for Conventional Outer strands



Good contact conditions for **Compacted** Outer strands

- ✓ **Point Contact** = **Lower bearing ability**
- ✓ **Smooth Contact points** = **Higher bearing ability**

Laboratory fatigue testing indicates that it is possible to achieve up to two times normal Rope life when comparing a **Compacted Rope** with a conventional rope of equivalent construction.



Rope Dia : 20mm
Construction : 6x36



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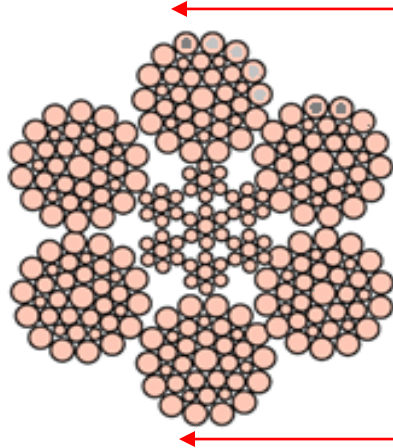
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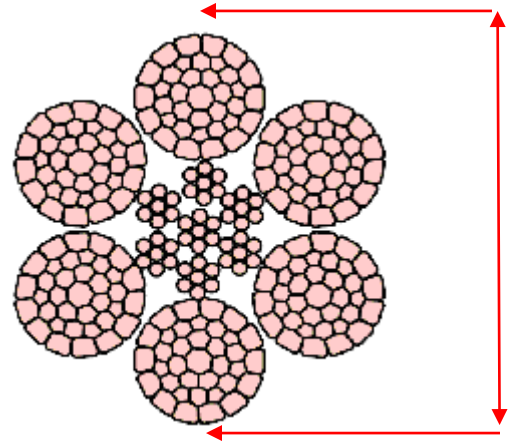


Higher Breaking Strength

High Breaking Load Per Unit Area

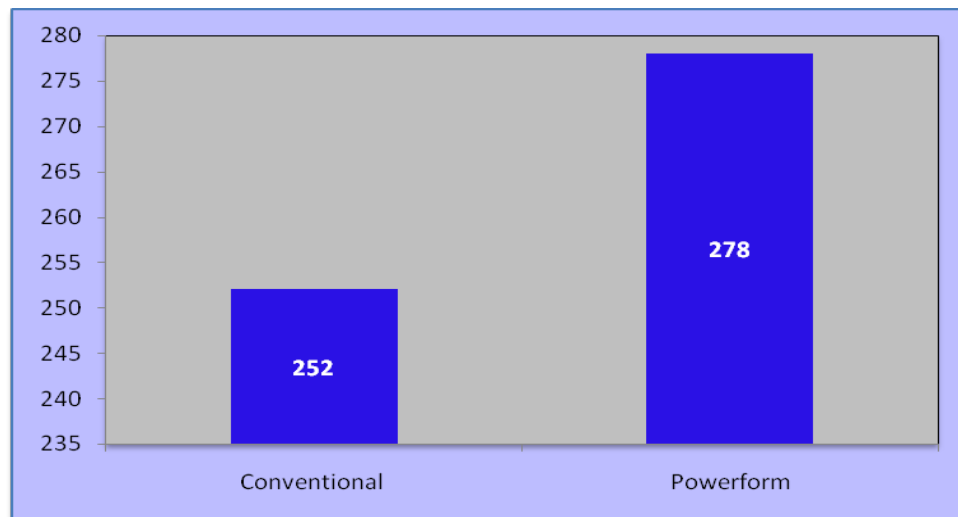


Conventional



Compacted

- ✓ High Metallic area
- ✓ Lower specific stress on the Rope
- ✓ Increase safety



20mm, 6x36 Conventional, Tensile:1770N/mm²
Versus
20mm, 6x36, **Compacted**, Tensile:1770N/mm²

Compacted Wire Rope



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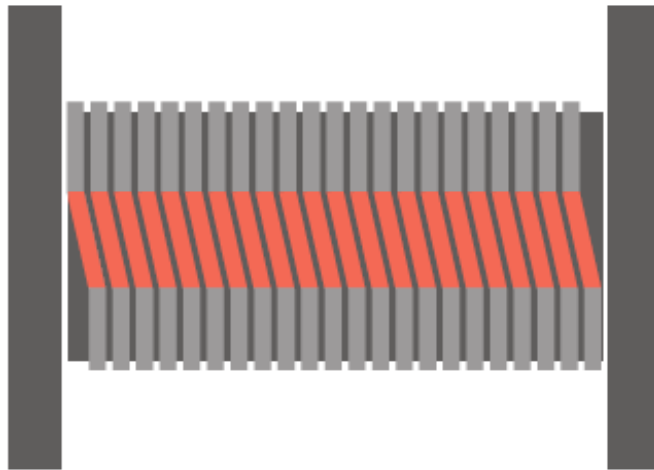
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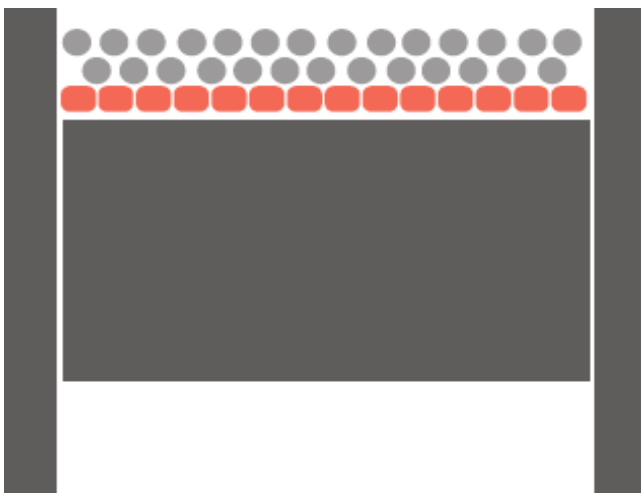


Compacted Wire Rope

Higher Resistance to Crushing



At Cross over points due to high steel fill factor



At lower layers in multi-layer operation due to solid cross section of compacted ropes.



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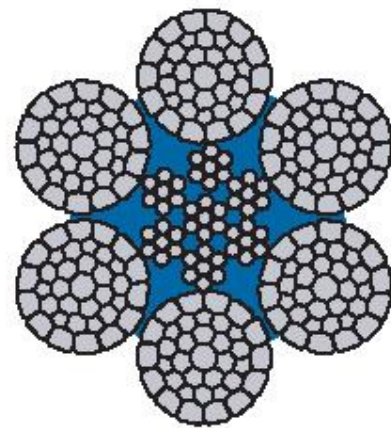
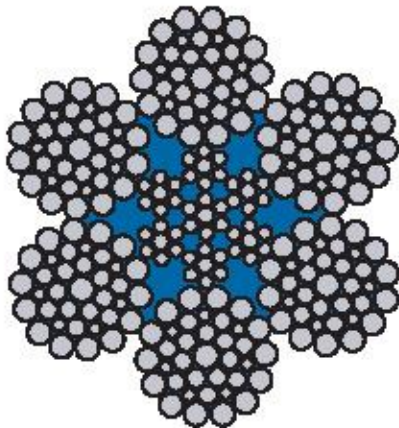
Compacted Wire Rope

Reduced Wear on Sheaves / Drum



The smooth surface of **Compacted Rope** offer reduced abrasive wear on sheaves

Higher Flexibility



- ✓ The smooth surface of **Compacted Strands** prevents indentations and allows easier relative motion of the element.
- ✓ Improves running properties due to lower friction losses.
- ✓ Easy handling during installation
- ✓ Excellent spooling on the drum



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Compacted Wire Rope

Low Elongation

- ✓ **Compacted** Wire Rope - The more metallic cross sectional area provides a higher modulus of elasticity.
- ✓ The **Compacted Rope** structure allows minimal permanent elongation in the working range.

A Value Added Product

- ✓ **Reduce down time due to fewer rope changes**
- ✓ **Reduce costs for rope changes.**
- ✓ **Optimum Price / Performance ratio.**

The Brand name of Usha Martin's Compacted Rope is **Powerform®**