SuperCable®

Iso-Elastic[™] **Polymer Cerclage System**

Superior Fatigue Strength

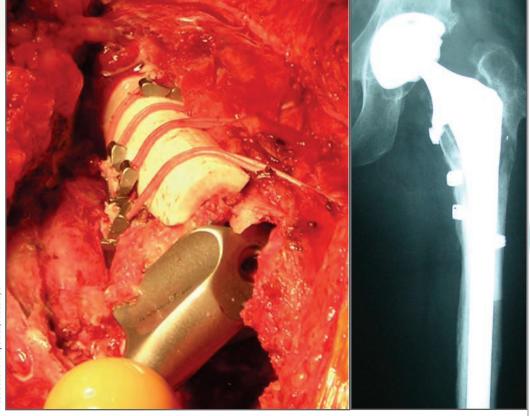
No Metal Particle Generation

Iso-Elastic Compression of Fragments

No Sharps Hazard for Surgeon or Patient

Stronger. Safer. Easier than Metal Cerclage.

A clinically proven¹⁻⁶ polymer cable system providing superior fatigue strength and dynamic compression across healing bone fragments





Quality Care. Clinically Proven.

Photo and radiograph courtesy of Bradford Hack, MD, West Coast Orthopedics, Arcadia, CA

Eliminate a Source of Metal Debris and Sharps Hazard

"Next Generation" Cerclage

This revolutionary polymer cerclage system addresses the limitations of traditional metal cables and wires, which are prone to fretting, fraying and breakage. These metal cable issues can result in loss of fixation, tissue irritation, foreign body migration, increased wear in adjacent joint replacements, and metal toxicity.⁷⁻¹⁴ The sharp ends on implanted metal cables or wires present a hazard for glove tears and sharps injury to the operating surgeon.¹⁵

The **SuperCable** system is efficient and simple compared to metal cable systems. It eliminates the need for a number of ancillary implant components required in other systems, and allows for intra-operative retensioning of cables without the need for provisional locking instruments. These features reduce per-case costs and shelf-space requirements.

The "Safety Cable"

Sharp ends of metal cables can cut a surgeon's gloves or fingers, which can lead to pathogen transmission and infection. **SuperCable's** flexible polymer design reduces the potential for sharps injury.







Versatile

The system is designed to overcome the well-established shortcomings of metal cerclage, and is available with complementary trochanteric grips and cable-plates featuring locking screws with Agilock® Technology, and standard compression screws.



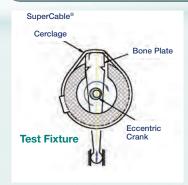




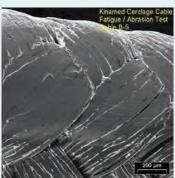




Superior Fatigue Strength







Fatigue Strength Testing: Bottom photo shows cable after one million cycles, loaded at 445 N with direct abrasive contact on a bone plate. The cable exhibits fiber fusion but no fraying or breakage of fibers.¹⁶

Features & Benefits

- Fatigue strength superior to metal cables and wire
 - Leads to reduced complications from breakage.
- Elimination of cable-generated metal particle debris
 - As with other metal-on-metal junctions, the individual filaments in a metal cable bundle can wear and fret under normal cyclic loading.
 - Metal debris has been shown to greatly increase wear in adjacent total joints.
 - Metal cable and wire fragments have been shown to migrate throughout the body.
- No sharp cable ends
 - Reduces patient tissue irritation risk.
 - Reduces the risk of "sharps injury" and patient infection due to puncture of surgeon's gloves.
- "Iso-elasticity"
 - Provides long term dynamic compressive loading across bone fragments.
 - Offers the possibility for better healing and increased construct strength.
- Unique "crimp-less" locking mechanism
 - Cables can be easily re-tightened.
 - Saves OR time.
 - Reduces the number of cables required.
 - Fewer wasted cables.
 - No need for cumbersome provisional locking devices.
- Cables are easy and quick to manipulate within the wound
 - Saves OR time.
- No metal cable contacting metallic implants

1

Citations related to SuperCable and Cerclage

- 1. Sarin, Hack (2005). Initial Clinical Results with an Elastic Cerclage Cable for Fracture Treatment. Transactions of ISTA 18th Ann Mtg. Kyoto, Japan.
- 2. Della Valle et al (2010). Early Experience with a Novel Non-Metallic Cable in Reconstructive Hip Surgery. Clin Orthop Relat Res 468:2382-2386.
- 3. Edwards et al (2011). Utility of Polymer Cerclage Cables in Revision Shoulder Arthroplasty. Orthopedics. April 2011, Vol 34 No. 4.
- 4. Berend, Lombardi et al (2014). Polymer Cable/Grip-Plate System with Locking Screws for Stable Fixation to Promote Healing of Trochanteric Osteotomies or Fractures in Revision Total Hip Arthoplasty. Surg Tech Intl. 25:227-231.
- 5. Rosenwasser & Wilkerson (2014). Surgical Techniques of Olecranon Fractures. J Hand Surg Am. 39(8):1606-14.
- 6. Rosenwasser et al (2015). Technique using Isoelastic Tension Band for Treatment of Olecranon Fractures. Am J. Orthop. 44(12):542-6
- 7. Biddau et al (2006). Migration of a Broken Cerclage Wire from the Patella into the Heart. A Case Report. J Bone Joint Surg 88-A: 2057-2059.
- 8. Hop et al (1997). Contribution of Cable Debris Generation to Accelerated Polyethylene Wear. Clin Orthop 344:20-32.
- 9. Wirth et al (2000). Migration of Broken Cerclage Wire from the Shoulder Girdle into the Heart: A case report. J Shoulder Elbow Surg 6:543-544
- 10. Jacobs et al (2004). Accumulation in Liver and Spleen of Metal Particles Generated at Nonbearing Surfaces in Hip Arthroplasty. J. of Arthroplasty 19:94.
- 11. Urish et al (2013). The challenge of Corrosion on Orthopedic Implants. AAOS Now, April 2013.
- 12. Keegan et al. (2007). Orthopaedic Metals and their Potential Toxicity in the Arthroplasty Patient. J Bone Joint Surg 89-B:567.
- 13. Silverton et al (1996). Complications of a Cable Grip System. J Arthroplasty. 4:400-404.
- 14. Beaule et al (2017). Trochanteric Fixation With a Third-Generation Cable-Plate System: An Independent Experience. J Arthroplasty. 32:2864-2868.
- 15. Stoker (2009). Advances in Internal Bone Fixation: Sharps Safety for Orthopedic Surgeons. Managing Infection Control. 9(2):30-38.
- 16. Sarin, Mattchen, Hack (2004). A Novel Iso-Elastic Cerclage Cable for Treatment of Fractures. Transactions of the ORS: 739.
- 17. Gartsman, Edwards (2008). Shoulder Arthroplasty. Saunders Elsevier, Philadelphia. 6:543-544.

SuperCable [®] Polymer Iso-Elastic™ Cerclage Cables	Catalog No.
Polymer Iso-Elastic™ Cerclage Cable Assembly, 1.5mm (Ti Cable Lock)	35-100-1010
SuperCable [®] Polymer Iso-Elastic™ Cerclage Standard Instruments	
SuperCable Cerclage Tensioning Instrument, w/ ACME Thread	35-800-2020
SuperCable Cerclage Cable Passer, 40 mm	35-800-3000
SuperCable Cerclage Cable Passer, 60 mm	35-800-3100
SuperCable Cerclage Autoclave Case	35-800-4000
SuperCable [®] Polymer Iso-Elastic™ Cerclage <u>Optional</u> Instruments	
SuperCable Cerclage Tensioning Instrument	35-800-2000
SuperCable Cerclage Tensioning Instrument, w/ 60° Angle	35-800-7000
SuperCable Cerclage, Angled Cable Passer, 40 mm	35-800-3200
SuperCable Cerclage, Angled Cable Passer, 60 mm	35-800-3300
SuperCable Cerclage, Cable Passer, 1.5mm (Single-Use, Sterile-Packed)	35-400-1010

See SuperCable Trochanteric Grip and Cable-Plate brochure (B00159) for additional implant and instrument items.



Simple Instrumentation:

Tensioning instrument allows for precise tightening and locking of cables as well as sequential retensioning of previously placed cables.¹⁷



For more information:

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