CABLE-READY
CABLE GRIP SYSTEM

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The Secure Choice

Addressing the Issues

Addressing the key clinical and economic issues of cerclage wiring, the *Cable-Ready*® Cable Grip System† is designed to maximize tension control while minimizing invasion of the wound site. The system is easy to use, combining efficient instrumentation with a simple technique. Its unique features result in a cost competitive system that surpasses the performance of other systems available today.

The *Cable-Ready* Cable Grip System is indicated for general orthopaedic trauma surgery involving:

- Olecranon Fractures
- Patella Fractures
- Femur Fractures
- Humerus Fractures
- Ankle Fractures
- Acromioclavicular Dislocations
- Prophylactic Banding during Total Joint Procedures
- Greater trochanteric reattachment after osteotomy during total hip arthroplasty.

System Improvements

The *Cable-Ready* System has initiated substantial improvements in four targeted areas:

Tension Retention - The *Cable-Ready* System Tensioner and cable crimp mechanisms help minimize tension loss following cable tightening.

Shown top to bottom:

Cable-Ready Cable used with prophylactic banding.

Cable-Ready Cable used with the GTR device.

Cable-Ready Cable used with a Cable Bone Plate.

Cable-Ready Cable used with Cable Pin.

* Various components of the *Cable-Ready* Cable Grip System are covered by one or more of the following: U.S. Patents 5,415,658; 5,536,270; 5,611,801; 5,649,927; 5,693,046.

† Developed in conjunction with Matthew Songer, M.D. Marquette, MI

Simplicity of Procedure **-** The *Cable-Ready* System requires fewer steps to achieve cerclage fixation, and uses implants and instruments that are easier to manipulate at the wound site.

Instrumentation Ergonomics **-** *Cable-Ready* Instruments are easy to handle because they exert the desired force in an efficient, predictable, and consistent manner. Additional trauma is minimized during installation of the implants.

System Reliability **-** Because the lighter, more compact cable can be accurately secured and the instruments are easy to use, the *Cable-Ready* technique can be readily reproduced to provide uniform and consistent tensioning.

Smaller Diameter, Same Strength

The *Cable-Ready* Cable is available in 1.3mm and 1.8mm diameters. The 1.3mm is made from 316L stainless steel, while the 1.8mm is available in 316L stainless steel or cobalt-chrome, making it appropriate for use with standard implant systems.

The system features multi-strand cable which offers greater static tensile strength and increased fatigue life when compared to monofilament wire. This, combined with other properties, allows a reduction in the diameter without sacrificing strength. For example, a *Cable-Ready* 1.8mm Cable is indicated for applications that require competitors' 2.0mm cable. The 1.8mm diameter makes the cable more pliable which allows for better fit around the bone and less-intrusive manipulations at the wound site.

Completing the System

The complete *Cable-Ready* System includes a Cerclage Connector, a bone plate in three sizes, a Short Greater Trochanteric Reattachment Device, a Long Greater Trochanteric Reattachment Device, and a Cable Pin for patella and olecranon fractures. All are designed to incorporate cable into the fixation device.

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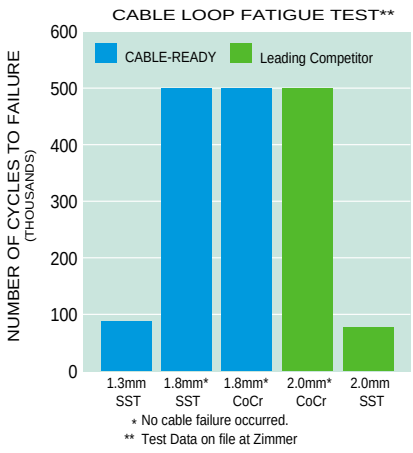
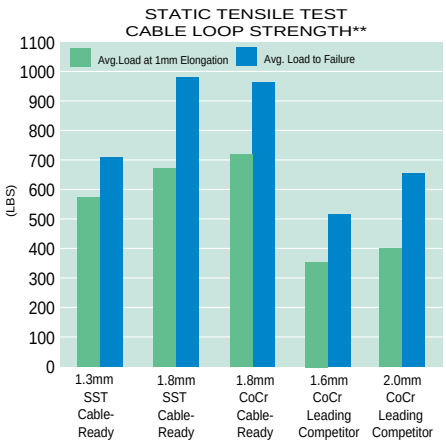
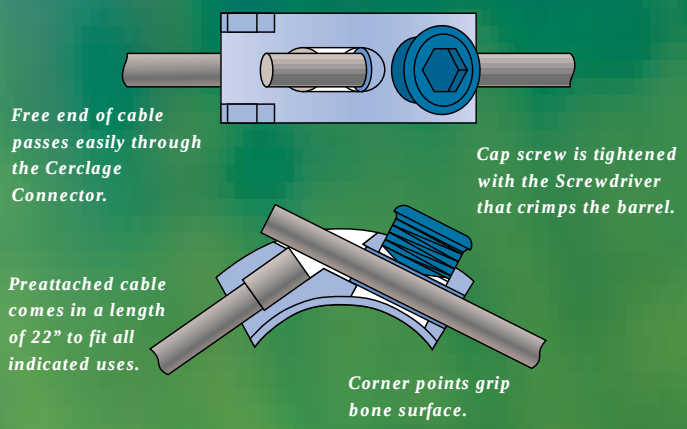




The screw-barrel minimizes tension loss during crimping.

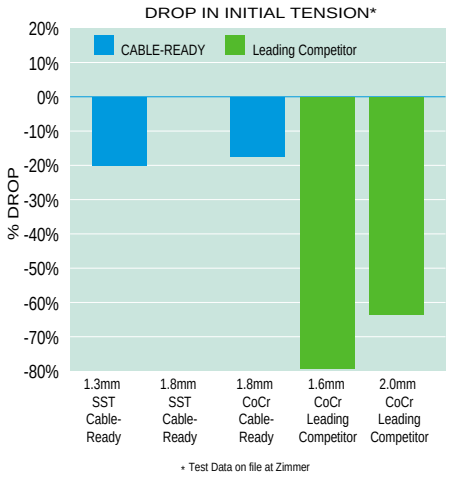


The Tensioner has an innovative design that allows for measurement of cable tension. Each turn of the outer handle increases the tension of the cable loop approximately 10 lbs.

Easy Load and Lock

The *Cable-Ready* Cable and Instruments are designed for easy loading and less invasive locking. After the cable is positioned around the bone through the Cable Passer, it is inserted through the Cerclage Connector. The Tensioner then allows the surgeon to secure the cable with the desired amount of tension. And, unlike other systems, there is minimal tension lost during the process. The Tensioner and Cerclage Connector are designed to help prevent the cable from slipping during the crimping process. The Tensioner holds the cable taut as the screw is turned to crush the sleeve of the Cerclage Connector, effectively crimping the cable so it cannot slip. This screw-barrel crimping method is a vast improvement over other crimping methods.

In addition to the uniqueness of the screw-crimp mechanism, the Cerclage Connector has corner points that grip the bone and help prevent the connector from "walking" on the bone surface.



Larger percentage drop means a greater loss in cable tension after the cable is applied. Cable-Ready is able to retain the greatest amount of tension, due to the smallest drop in initial tension.

The *Cable-Ready* Cable has been designed with features that make it the more secure choice for cerclage wiring. The cables come individually sterile packaged in a length that will accommodate all indicated uses.

Simple Instrumentation

Simple procedures make it easy to achieve consistent results. The *Cable-Ready* tensioning device is designed to provide measurable and reproducible results. The Tensioner, like no other in the industry, enables surgeons to control the amount of tension using a turn of the outer handle. Each complete turn produces approximately 10 additional pounds of tension.

Cable-Ready Instrumentation is streamlined to create an easy solution for cerclage wiring.

- *Cable Pin combines a cancellous lag screw rigidly attached to a cable to reduce patella and olecranon fractures. The technique enables the surgeon to use simultaneous, inter-connected internal and external fixation. Since the cable is attached to the pin, it is less likely to migrate. Similarly, the pin lag screw being attached to the cable, cannot back out.*

  Cable Pin Driver locks into the Cable Pin for easy, accurate insertion and deployment at the fracture site.

- *For more complex fractures or reconstruction, the Long Greater Trochanteric Reattachment Device combines the simplicity of the short GTR Device with the unique design of the Cable-Ready Bone Plate.*

- *Greater Trochanter Reattachment Device cradles the greater trochanter without piercing it. The upper prongs loop around the top of the greater trochanter, while the small fins on the lower side prevent rotation or migration, thereby providing stability.*

- *The Cable-Ready Bone Plate provides a low-profile mechanism that does not require a Cerclage Connector. The plate is uniquely designed to incorporate the cable into the plate. Each cable passes through the plate and is then locked by turning a set screw in the plate. The plate is available with 6, 8, or 10 holes.*

Instrumentation

The *Cable-Ready* System is specifically designed to make O.R. procedures efficient. The key instruments are small and create a more ergonomic design.

Surgical Technique for Cerclage Cable

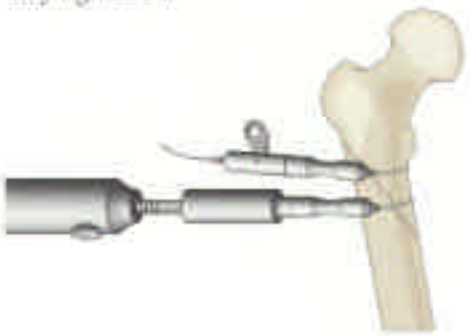
1. Load the Cerclage Connector body into the Tensioner. This expedites the tensioning and crimping process. The slots on the sides of the connector body are keyed into fins inside the tip of the Tensioner.

2. Further tension the cable by turning the large handle portion clockwise until the desired tension is achieved. For good cortical bone, approximately 50 lbs. of tension is needed.

3. Secure the cable by turning the screw clockwise until the head of the cap screw is firmly seated against the connector body. Release tension on the cable by lifting on the lever at the end of the Tensioner.

All instruments are contained in two autoclavable plastic trays.

(Optional) The Tensioner Retaining Device may be used between the tip of the Tensioner and the Tensioner body. This device will hold tension in the cable while the other cables are being tightened. Each cable can be incrementally tightened.



Notes:

1. The value of the Tensioner scale is that it provides an indication of the relative amount of cable loop tension. The actual amount of tension placed on the cable surgically depends upon the clinical situation and requires judgement by the surgeon.

2. Care is required when tensioning to prevent overtightening of the cable. Bone fracture or necrosis can result from cables that are excessively tensioned.

3. When cutting the cable, it is helpful to pull back the loose end to achieve a flush cut to the connector body, which minimizes soft tissue irritation.

For more information, contact your Zimmer
representative or visit us at www.zimmer.com

97-2232-101 15MI Printed in U.S.A.