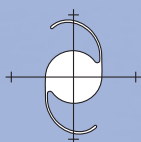


Capsular Locking Ring

according Univ. Prof. Dr. Michael Amon



MORCHER[®]IOL



Type 19D/ One Fits All



Advantages of the Capsular Locking Rings:

- One size fits all concept
- Reduces PCO
- Stable IOL position
- Easier IOL exchange
- Less capsular contraction
- Overlaps in all cases
- Circular expansion of the capsular bag
- Stabilization of the capsular bag
- Reduces the risk of damaging the capsule or zonules during surgery
- Reduces capsular folds and glare
- Supports capsular equator in case of zonular damage

Indications:

- Defective or partly missing zonules
- Zonulolysis
- Pseudoexfoliation
- To stabilize the capsule in cases of severe myopia
- Potentially complicated surgical conditions
- To reduce PCO in standard cases

Contraindications:

- Zonula damage larger than 4 clock hours
- Patients under the age of 1 year
- Chronic uveitis
- Progressive eye diseases (diabetic retinopathy, uncontrolled glaucoma)
- Preoperative complications prior to cataract surgery (vitreous body prolapse, haemorrhage)
- Patients with perforated or damaged capsules
- Microphthalmus

Description

The Capsular Locking Ring is made of PMMA and overlaps at the end as its diameter exceeds the diameter of the capsular bag. Its leading end is formed like a ski, so that it safely runs along the capsule equator during implantation. The trailing end has an eyelet for pulling and pushing the ring, and thereafter it has 4 locks where the leading end fits in. In closed position the diameter of the ring depends on the diameter of the capsule equator and ranges from 10.5 to 9 mm (one size fits all concept). Right after implantation and before capsular shrinkage the ring covers all 360 degrees of the equator and as the bag shrinks after surgery, the ring-ends lock and avoid further capsular contraction.

In the expanded configuration the ring has an asymmetric shape (smaller radius of the leading first part), facilitating implantation. Under compression by the capsular bag the ring becomes a circle-shape.

The cross section of the ring is rectangular with sharp edges, the height is 0.38 mm, the width is 0.12 mm.

The ring will be implanted via Eyejet in a preloaded way.

Potentially this new ring has two main indications for implantation.

It could work as capsular tension ring, because of its high flexibility.

For that purpose it may be used as capsule support in cases of zonular dialysis and other zonulopathies. With the ring the IOL should have a more stable position and the IOL should induce less capsule folds and glare. Capsular contraction should also be reduced.

The Ring could also be used as a capsular distance ring, as the cross section of the ring is rectangular and has a height of 0.38 mm. For that purpose a special implantation technique (sandwich technique for maximizing the distance between anterior and posterior capsule) with implantation of the ring above or below the IOL haptic would make sense. For that purpose the ring should reduce the incidence of PCO's and could facilitate potential IOL exchanges.

The sandwich technique:

The intraocular lens is implanted in a normal fashion. After implantation of the IOL an OVD is injected between the IOL and the anterior capsule, increasing the lens capsule distance for safe ring implantation. The preloaded capsule ring is eased into the injector.

The nozzle of the injector is advanced in front of the IOL and the ring is slowly injected on top of the IOL into the capsular bag. At the completion of the implantation, it comes to the ring overlap, in some cases it might be possible to use a second instrument to free the trailing end from the injector. Release of the trailing end should

be introduced in the same plane as the leading end in order to obtain a correct fit of the locking mechanism of the two ends. By gently pulling the leading end from the equator with a small hook the position of the ring may be controlled. (In the case that the ring may be repositioned in order to bring the two ends into full locking position).

In that position the ring should rest on top of the haptic, enhancing the distance between the anterior and posterior capsule by the height of the haptic (distance: 0.38 mm + height of haptic). The ring may also be implanted under the haptic of the IOL.

Capsule support:

In order to support the capsular bag the ring can be implanted after visco-dissection and before phacoemulsification or at any stage before IOL implantation.

If the ring is implanted before lens removal the ring should be secured by a suture.

In cases with incomplete zonular support special care must be taken with controlled and gentle implantation of the ring.

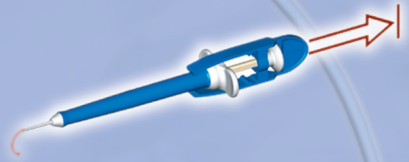
Rotation of the ring should be minimised. Therefore, the leading end should start its rotation close to the incision site. A bimanual technique may be applied to counteract the implantation forces and to direct them to the instruments. If it is noticed that the capsular bag is in danger during implantation, the ring may be easily withdrawn by the injector at any surgical stage.

EYEJET CTR

SINGLE USE PRE-LOADED CAPSULAR TENSION RING



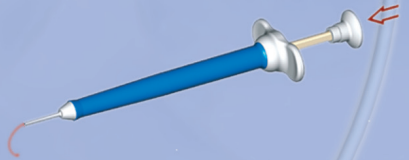
1.Remove from package



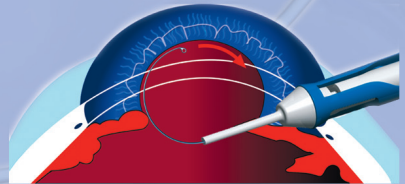
2.Push the clamp backwards



3.Remove the clamp



4.Implantation of the Capsular Ring



For implantation in clockwise direction

Morcher GmbH Kapuzinerweg 12 D-70374 Stuttgart

Tel.: +49 (0)7 11/9 53 20-0 Fax: +49 (0)7 11/9 53 20-80 e-mail: info@morcher.com www.morcher.com

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