



**CROSS-LINKING**  
uncompromised



# CF X-LINKER®

corneal cross-linking system

## THE COMPLETE SOLUTION for your cross-linking practice

Thanks to the field experience and the collaboration with medical professionals, the new CF X-LINKER generation comes with new and improved features, allowing for a smooth and complete workflow in daily practice, with the maximum flexibility.



## CUSTOM FAST corneal cross-linking

CF X-LINKER is the only device capable of performing Custom Fast CXL (cf CXL), the exclusive customized protocol developed by SERVImed.

### customized

based on patient's corneal parameters, thanks to the proprietary mathematical model

### safe

Completely non invasive, EPI-ON treatment

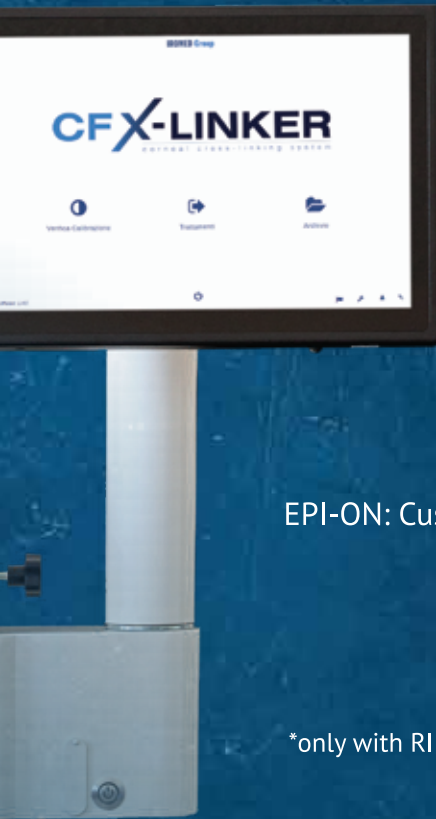
### innovative

Use of Vitamin E TPGS – enhanced riboflavin formulations for improved results

### certified

published papers and studies with 7-year follow-up

# NEW features



## EXPANDED treatment range

- Dresden EPI-OFF
- Iontophoresis
- EPI-ON: Custom Fast Corneal Cross-linking (cf CXL)\*
- CXL for infectious keratitis
- User treatment presets
- Continuous and pulsed mode

\*only with RIBOCROSS te<sup>®</sup> and RIBOFAST ophthalmic solutions.



## OPTIMIZED experience

- Open system, compatible with every riboflavin on the market
- 10" touchscreen display
- Easy to use interface
- Improved Hardware and CPU for higher performances
- Proprietary software with mathematical model for customization
- Integrated camera for real time view of the procedure



## SMARTER workflow

- Compile, save and print every treatment report
- Treatment database for an easy review
- Plan and save your treatments in advance
- Remote assistance



# TECHNICAL specifications



## UV EMISSION

### parameters

- UV power: 1-30 mW/cm<sup>2</sup>
- UV emission: continuous or pulsed
- Beam diameter: 3-12 mm
- Selectable treatments:
  - Dresden EPI-OFF
  - Custom Fast CXL EPI-ON
  - Iontophoresis
  - Keratitis CXL
  - Customizable user presets
  - Demo mode

## TREATMENT

### indications

- Keratoconus
- Corneal Ectasias
- Post PRK/LASIK/RK ectasias
- Pellucid Marginal Degeneration
- Infectious Keratitis

## ADDITIONAL

### features

- 10" touchscreen display
- Easy to use interface
- Integrated camera for live procedure view
- Treatment report
- Treatment database to access past procedures
- USB port for report saving

# PATENTED FORMULATIONS for every CXL protocol

SERVimed developed patented riboflavin formulations, CE certified and compatible with every UV device and protocol on the market. RIBOCROSS te® and RIBOFAST are the only solutions in the world to use Vitamin E TPGS as penetration enhancer, providing effective results in both EPI-OFF and EPI-ON procedures.

## RIBOCROSS te®

Ophthalmic Solution with Vitamin E TPGS and 10% Dextran



- CE Medical Device
- Patented
- Corneal penetration enhancer
- Maximum effectiveness in both EPI-ON and EPI-OFF
- Can be used with every protocol and UV device on the market
- Can be used in CUSTOM FAST CXL protocol

## RIBOFAST

Dextran free Ophthalmic Solution with Vitamin E TPGS



- CE Medical Device
- Patented
- Corneal penetration enhancer
- Maximum effectiveness in both EPI-ON and EPI-OFF
- Can be used with every protocol and UV device on the market
- Can be used in CUSTOM FAST CXL protocol



**RIBOFLAVIN**

			
<b>Product</b>	<b>CFX-LINKER®</b>	<b>RIBOCROSS te®</b>	<b>RIBOFAST</b>
<b>Description</b>	Corneal Cross-linking System	Ophthalmic solution for Corneal Cross-linking	Dextran free ophthalmic solution for Corneal Cross-linking
<b>Code</b>	OFMUVACCLMG2010	ITD001	ITD003
<b>Certificates</b>	CE 1936	CE 0373 EP n° 2 459 186 B1 USP n° 9192594 B2	CE 0373 EP n° 2 459 186 B1 USP n° 9192594 B2

## Bibliography

- 1) "Evaluation of the penetration through human cornea of riboflavin 0.1% in solution with other molecules after trans-epithelial application" 1st EuCornea Congress, June 17-19 2010, Venice, Italy.
- 2) "Thickness and ultra-structural changes in keratoconus-affected human corneas after transepithelial cross-linking" American Academy of Ophthalmology Annual meeting, October 2010, Chicago (P0073).
- 3) "A new riboflavin solution for trans-epithelial cross-linking: a study of corneal pharmacokinetic" American Academy of Ophthalmology Annual meeting, October 2010, Chicago (P0073).
- 4) Effects of UV-A rays on the corneal epithelial surface after topical application of riboflavin solutions: an electron microscope study" American Academy of Ophthalmology Annual meeting, October 2010, Chicago (P0073).
- 5) "Enhancement of corneal permeation of riboflavin-5'-phosphate through vitamin E TPGS: A promising approach in corneal trans-epithelial cross linking treatment". Inter J Pharm 440 (2013) 148– 153.
- 6) "A Mathematical Model of Corneal UV-A Absorption After Soaking With a Riboflavin Solution During Trans-epithelial Cross-linking". 1st joint International Congress Refractive Online & SICSSO National Congress, July 7-9, 2011, Grosseto, Italy (Best paper, podium presentation).
- 7) "UV-A rays absorption in human corneas before and after trans-epithelial riboflavin application: an experimental study" 2nd Joint International Congress Refractive Online & SICSSO National Congress, June 28-30, 2012, Rome, Italy (Podium presentation).
- 8) "Trans-epithelial cross-linking with riboflavin solution: one-year clinical results" 1st joint International Congress Refractive Online & SICSSO National Congress, July 7-9, 2011, Grosseto, Italy (Podium presentation).
- 9) "Trans-epithelial cross-linking with riboflavin solution: two-year clinical results" 2nd joint International Congress Refractive Online & SICSSO, Rome 2012 (podium presentation).
- 10) "Transepithelial Corneal Cross-Linking With Vitamin E-Enhanced Riboflavin Solution and Abbreviated, Low-Dose UV-A: 24-Month Clinical Outcomes" Cornea 2016;35:145–150.
- 11) "Corneal Cross-Linking: Evaluating the Potential for a Lower Power, Shorter Duration Treatment" Cornea 2016;35:659–662.
- 12) "Customized Corneal Cross-linking - A Mathematical Model" Cornea 2017;36:600–604.
- 13) "Corneal Cross-Linking - The Science Beyond the Myths and Misconceptions" Cornea. 2019 Jun;38(6):780-790.
- 14) "Topography and Pachymetry Guided, Rapid Epi-on Corneal Cross-Linking for Keratoconus: 7-year Study Results" Cornea 2020;39:56–62.

## MANUFACTURER:



### IROMED GROUP S.r.l.

Via Tempio del Cielo 3/5, 00144 Rome (Italy)  
Tel: +39 06 92595490 Fax: +39 06 89360010  
Email: info@iromedgroup.com  
www.iromedgroup.com

## DISTRIBUTED BY:



### SERVimed Industrial S.p.A.

Via Tempio del Cielo 3/5, 00144 Rome (Italy)  
Tel: +39 06 92595490 Fax: +39 06 89360010  
Email: info@servimedindustrial.com  
www.servimed-industrial.com