



Customized Solutions

Yxoss CBR® fully-protect

marketed by

Geistlich

the regeneration
experts

The Yxoss CBR®
to fully protect
your complex
augmentations



How the design idea was conceived

Interview with Dr. Marco Ronda, co-developer of Yxoss CBR® fully-protect

What sparked the idea for Yxoss CBR® fully-protect?

As a clinician, I recognized the challenges involved in treating complex bony defects and the limitations that occasionally occur using Titanium-reinforced dense PTFE membranes in these cases. They might not receive adequate stabilization during major vertical augmentation, leading to a poor space-making effect. Additionally, certain defects may not be adequately conformed to by them, sometimes leaving dangerous edges, and their occlusivity impairs graft vascularization, which affects the maturation of the bone.

All in all, I observed the need for volumetric stability and improved bone quality in complex cases. This led me to conceive the design idea for Yxoss CBR® fully-protect, aiming to address these specific challenges and provide a solution that meets the clinical needs in GBR procedures.

How did the collaboration with ReOss and Geistlich shape the development?

I am grateful to Geistlich and ReOss for bringing the design idea to life. They listened to my clinical thoughts, believed in them, and worked closely with me to develop the Yxoss CBR® fully-protect. Together, we maintained the original idea and implemented it with new small details, resulting in a fantastic device that meets the needs I envisioned.

What are the key benefits of Yxoss CBR® fully-protect?

Being custom-made, the scaffold reduces surgery time due to precise fit and fixation with self-tapping screws. It provides the required space-making effect, ensuring volumetric stability and successful regeneration in complex cases. Its "smart" barrier function prevents connective tissue ingrowth while allowing fluid passage for optimal bone maturation. The micro-perforated surface facilitates easy removal and prevents tissue ingrowth.

Clinical need	> Complex bone augmentation to reconstruct severe bony defects i.e., horizontal and/or vertical
Challenges with Ti-reinforced dense PTFE membranes	> Limited vertical bone gain > Insufficient defect conformation > Sometimes leave dangerous edges > Occlusivity affects bone maturation > Technically difficult and challenging to teach
Solution: Yxoss CBR® fully-protect	> Customized fit reduces surgery time > Stabilizes large bone volumes > 'Smart' barrier function > Ensures well-structured, vascularized regenerated bone > Facilitates easy removal

The microstructure of Yxoss CBR® fully-protect shields the augmentation site from soft tissue competition while enabling blood perfusion which is essential for **optimal bone regeneration in structure and quality.**

Dr. Marco Ronda

How does Yxoss CBR® fully-protect impact GBR and clinical education?

From my point of view, Yxoss CBR® fully-protect revolutionizes traditional bone regeneration by enabling prosthetically guided regeneration (PGR): virtual implant placement, around which we can recreate the ideal virtual bone volume, allows through laser printing technology to produce the custom-made device. While Yxoss CBR® fully-protect greatly simplifies GBR procedures, it does not replace the need for proper skills in flap passivation. Proper training is essential!

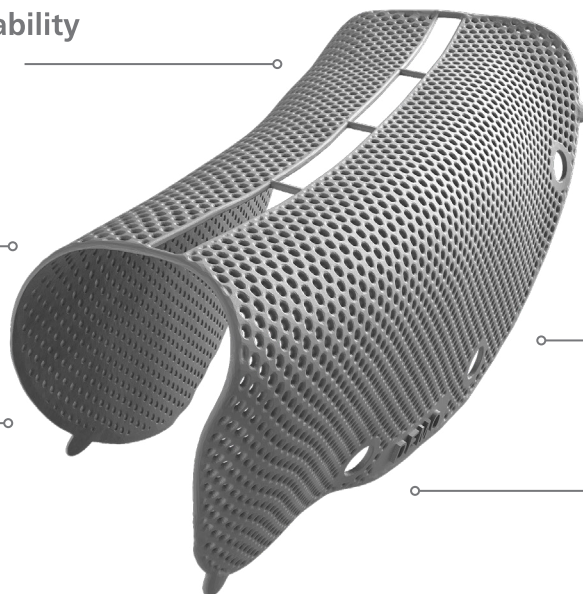


Features of Yxoss CBR[®] fully-protect

Titanium for reliable stability and space maintenance

Precise patient-specific 3-D printing

Less surgery time due to perfect fit without shape adaptation



Fully microstructured surface protects from tissue ingrowth

Calculation of augmentation volume (optional)

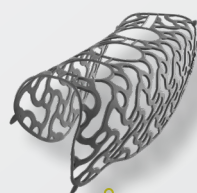
Integrated implant positioning (optional)

"I have been using the new Yxoss with a dense structure for the last 2 years and I can state that they are **very effective and predictable devices** for horizontal and vertical ridge augmentation. When associated with 70% of autogenous bone chips and 30% of DBBM their efficacy is **comparable with the one of traditional PTFE non-resorbable membranes, but much easier and faster to be installed.**"

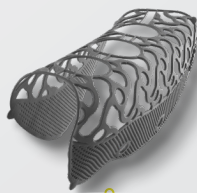
Prof. Massimo Simion



Head-to-head comparison as assessed by Dr. Seiler and Dr. Ronda



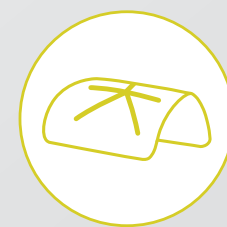
Yxoss CBR[®] classic



Yxoss CBR[®] protect



Yxoss CBR[®] fully-protect



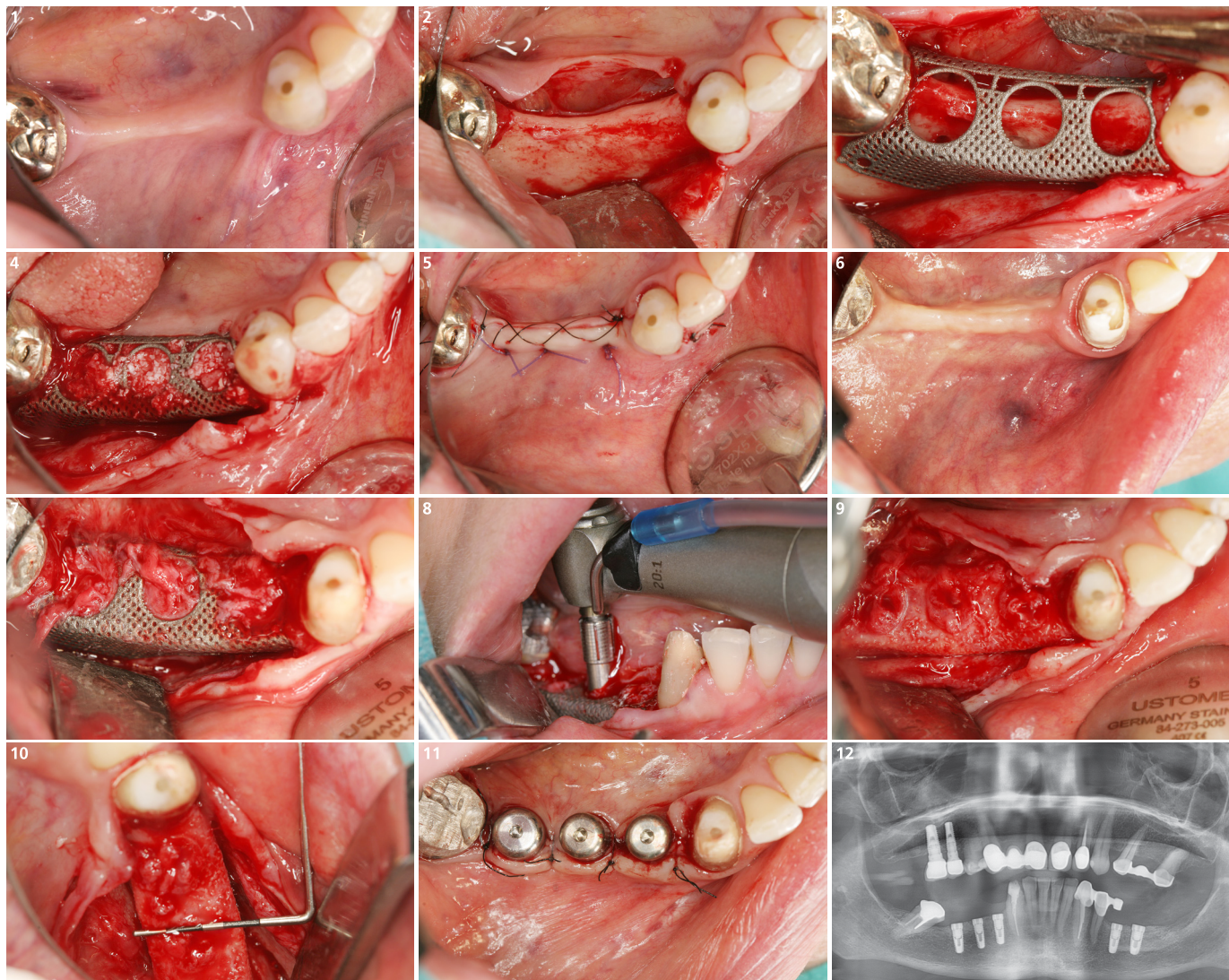
Reinforced PTFE membrane

Properties	Uniformly open	Occlusal part: open Apical area: micropores	Micropores across complete scaffold	No micropores
Bone maturation	✓ ✓ ✓	✓ ✓ ✓	✓ ✓	✓
Soft tissue quality	✓	✓	✓ ✓	✓ ✓
Removal	✓	✓ ✓	✓ ✓ ✓	✓ ✓

Horizontal/Vertical defect (3 teeth gap) – Mandible



Surgery and concept by
Dr. Marcus Seiler, MSc MSc
(Filderstadt, Germany)



- 1 Initial clinical and radiological situation of the vertical and horizontal defect.
- 2 A crestal incision reveals the combined vertical and horizontal bone defect.
- 3 Yxoss CBR® fully-protect is used to augment the defect. The microstructured surface protects against soft tissue ingrowth.
- 4 The titanium lattice is then filled with a 50:50 mixture of autologous bone and Geistlich Bio-Oss® and is inserted. Before closing the flap, it is covered with Geistlich Bio-Gide®.
- 5 With deep absorbable mattress sutures and single button sutures, the mucoperiosteal flap is sutured in two layers without tension over Yxoss CBR® fully-protect.
- 6 Clinical situation seven months after augmentation.
- 7 Upon reopening no soft tissue ingrowth into the microstructure which allowed easy removal. Note there is no separation between soft tissue and bone in the area of planned openings for implant placement.
- 8 The pilot drilling can be performed through the pre-planned backward holes.
- 9 Subsequently, the Yxoss CBR® fully-protect was removed. The result is a harmonious bone contour with good bone quality.
- 10 With the Yxoss CBR® fully-protect, a horizontal bone width of approx. 10 mm could be achieved.
- 11 Due to the good quality of the regenerated bone, transgingival healing is possible.
- 12 Radiological findings four months after healing of the implant.

How to order

The intuitive online ordering platform MyReOss (www.reoss.us/myreoss) allows you to upload imaging files and to easily monitor all steps of the entire process at any time in your personal account. Moreover, MyReOss offers full transparency concerning pricing and proposals for the amount of regenerative biomaterials needed to augment the defect-specific volume.



Yxoss CBR® fully-protect

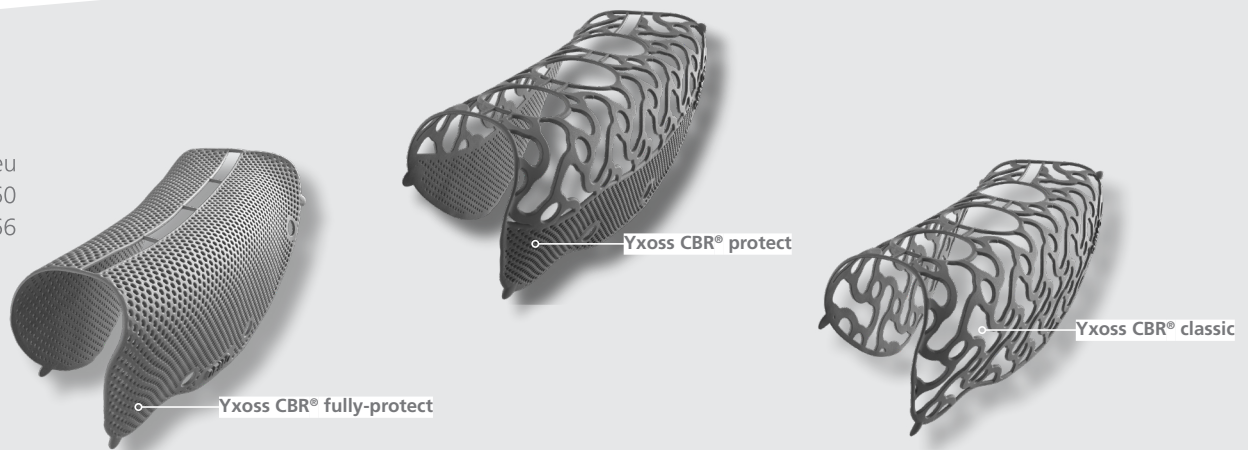


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Everything you need for complex bone regeneration in one partner

At Geistlich, we understand that today's clinical situations require a broad array of product options.

That's why we've expanded our offerings to include quality products which complement the use of the Geistlich regenerative portfolio.

Geistlich Bio-Oss®



vallos® / vallos-f®



Biologic Growth Factor GEM 21S®



Bone Harvesting Instruments



Geistlich Bio-Gide®



Geistlich Fibro-Gide®



Geistlich Mucograft®



For general questions about product and ordering process, please contact your local Geistlich Biomaterials representative:

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E-mail: yxoss@geistlich-na.com
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For specific questions about your order status, case planning, 3-D design, and your customer account, please contact ReOss LLC:

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