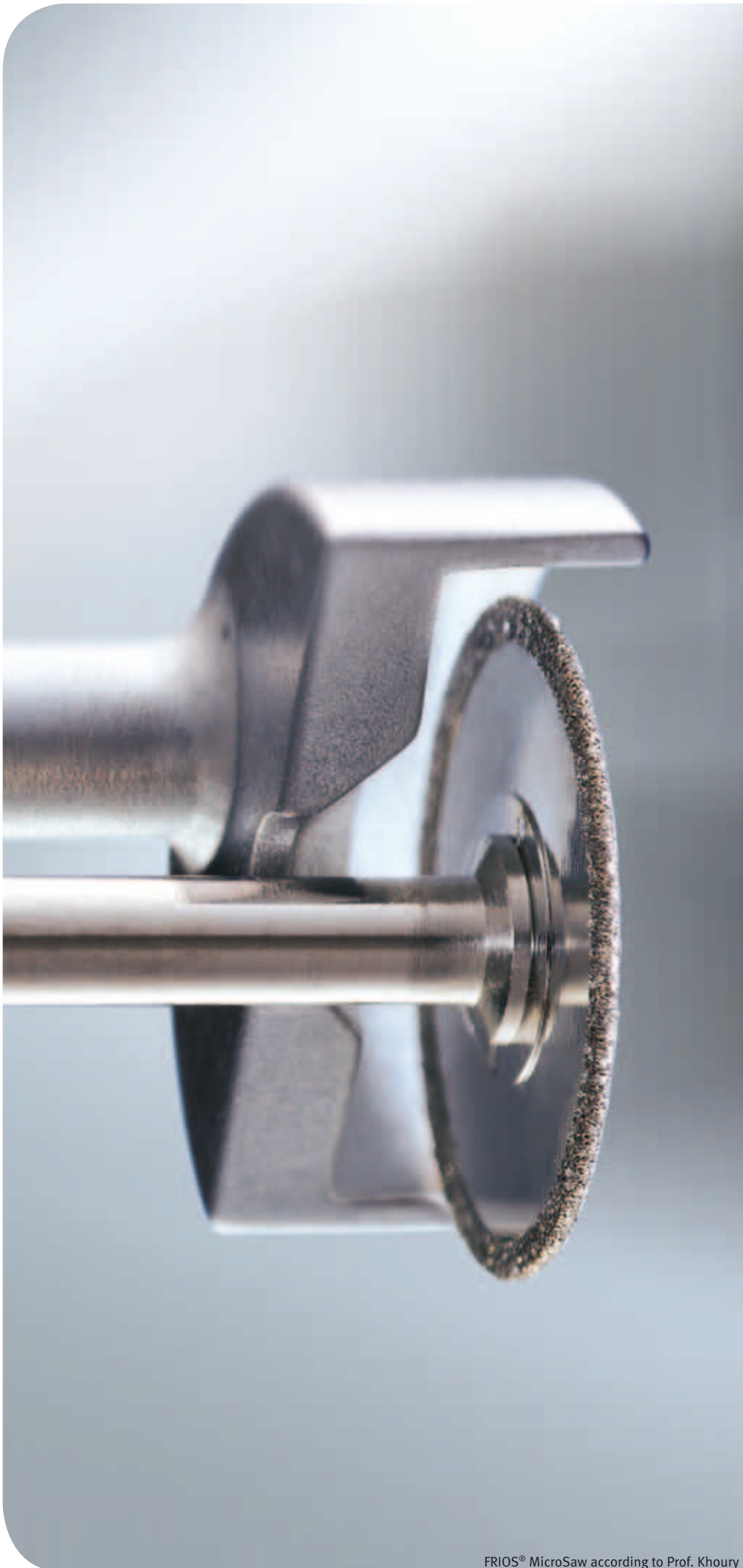


FRIOS[®]

Product Catalog



DENTSPLY
IMPLANTS



FRIOS® – The autogenous way of bone regeneration

A stable foundation is the basis of a successful implant-supported restoration. In many cases, bone must be reconstructed before implant placement. Missing bone not only makes implant placement difficult or even impossible, but also endangers the long-term success.

DENTSPLY Implants makes augmentation easy with the wide range of proven products and instruments of the FRIOS® augmentation system and the bone grafting material FRIOS® Algapore®.

Augmentation with autogenous bone is still considered the gold standard. With the FRIOS® MicroSaw, DENTSPLY Implants provides a set of products especially developed for this technique that has been in clinical use successfully since many years day by day.

The dentosurgical motor FRIOS® Unit S/i, combined with the FRIOS® Handpieces and Contra-angle Handpieces, is your reliable companion for all cases of implant-surgery whereas the FRIOS® MicroSaw supports you optimally in autogenous augmentation procedures.

**FRIOS® –
Discover the difference**

FRIOS®

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Information regarding the materials involved in implants, system components and instruments is given in the form of a reference number after every article: FRIADENT® BoneShield®. Page 19 of this catalog presents an overview of the materials and the composition of the materials used.

The pictures in this catalog are for illustration. The size of the illustrated products may deviate from the original product.

DENTSPLY Implants reserves the right to make any technical changes without prior notice.

FRIOS® | Bone Harvesting

FRIOS® MicroSaw – Sets

FRIOS® MicroSaw according to Prof. Khoury

- For smooth and bone-preserving preparation of bone blocks and access windows
- Precise with only 0.25 mm thin micro saw disc
- Atraumatic with adjustable soft-tissue protector and direct irrigation of the saw blade

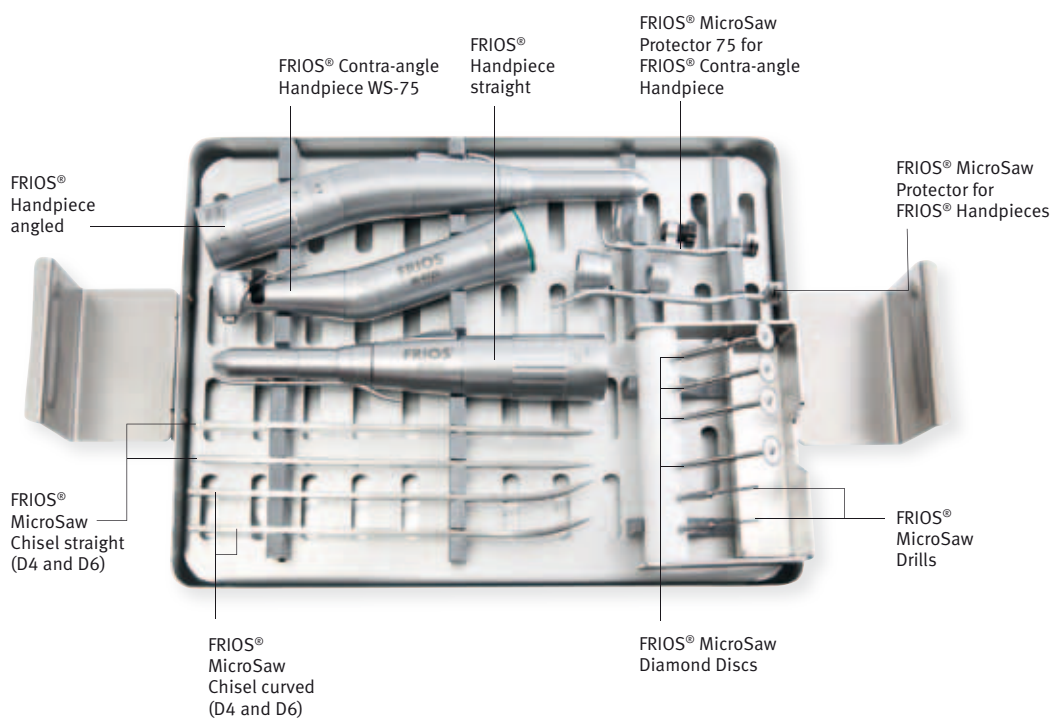
Order no.

Article

90 – 6741	FRIOS® MicroSaw ExpertSet WI-75
90 – 6742	FRIOS® MicroSaw ExpertSet WS-75
90 – 6751	FRIOS® MicroSaw StarterSet WI-75
90 – 6752	FRIOS® MicroSaw StarterSet WS-75

FRIOS® MicroSaw – Sets

Content	FRIOS® MicroSaw ExpertSet WI-75 90 – 6741	FRIOS® MicroSaw ExpertSet WS-75 90 – 6742	FRIOS® MicroSaw StarterSet WI-75 90 – 6751	FRIOS® MicroSaw StarterSet WS-75 90 – 6752
FRIOS® Contra-angle Handpiece WI-75	■		■	
FRIOS® Contra-angle Handpiece WS-75, demountable		■		■
FRIOS® Handpiece, straight	■	■		
FRIOS® Handpiece, angled	■	■		
FRIOS® MicroSaw Protector 75	■	■	■	■
FRIOS® MicroSaw Protector for Handpiece	■	■	■	■
FRIOS® MicroSaw Diamond Discs (4 pieces)	■	■	■	■
FRIOS® MicroSaw Drills (2 pieces)	■	■	■	■
FRIOS® Chisel straight (D4 and D 6)	■	■	■	■
FRIOS® Chisel curved (D4 and D 6)	■	■	■	■



FRIOS® MicroSaw ExpertSet WS-75



FRIOS® | Bone Harvesting





FRIOS® MicroSaw – Single Articles

FRIOS® Hand- and Contra-angle Handpieces:

Order information see page 10

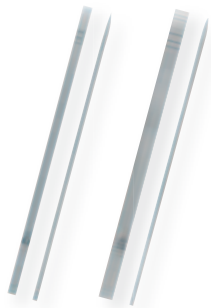
FRIOS® Unit S/i:

Order information see page 10

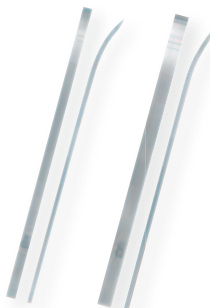
	Order no.	Article
	90 – 6730	<p>FRIOS® MicroSaw Protector for Contra-angle Handpieces:</p> <p>FRIOS® MicroSaw Protector 75 for FRIOS® Contra-angle Handpiece WI-75 (order no. 90 – 6710) FRIOS® Contra-angle Handpiece WS-75, demountable (order no. 90 – 6720) FRIOS® Contra-angle Handpiece WI-75 LED G (order no. 90 – 6810)</p>
	90 – 5031	<p>FRIOS® MicroSaw Protector for Handpieces:</p> <p>FRIOS® MicroSaw Protector for Handpiece angled/straight for FRIOS® Handpiece (order no. 90 – 5030 and 90 – 5050)</p>
	90 – 6860	<p>FRIOS® MicroSaw Protector SI-11 LED for FRIOS® Handpiece SI-11 (order no. 90 – 6850)</p>
	90 – 5041	<p>Suitable for FRIOS® Unit S:</p> <p>FRIOS® MicroSaw Protector for Contra-angle Handpiece 975 Suitable only for FRIOS® Contra-angle Handpiece 975</p>

FRIOS® MicroSaw – Single Articles

Order no.	Article
90 – 5086	FRIOS® MicroSaw Drills and Diamond Discs 6 pieces – 2 drills, 4 discs (for single use)
90 – 5046	FRIOS® MicroSaw Drills⁶ 2 pieces for single use
90 – 5045	FRIOS® MicroSaw Diamond Discs⁶ 4 pieces for single use
	FRIOS® MicroSaw Chisel⁶
90 – 5037	straight (D 4 and D 6)
90 – 5038	curved (D 4 and D 6)



straight (D 4 and D 6),
central and lateral view



curved (D 4 and D 6),
central and lateral view

FRIOS® | Bone Harvesting


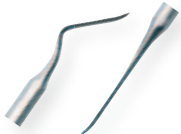
FRIOS® Trephines

FRIOS® Trephines

- Trephines for preparation of autogenous bone cones
- Bone Stud Remover for easy removal of the bone pieces

FRIOS® Trephines, Diameter:

	inner	outer
D 3.1	2.0 mm	3.1 mm
D 3.5	2.4 mm	3.5 mm

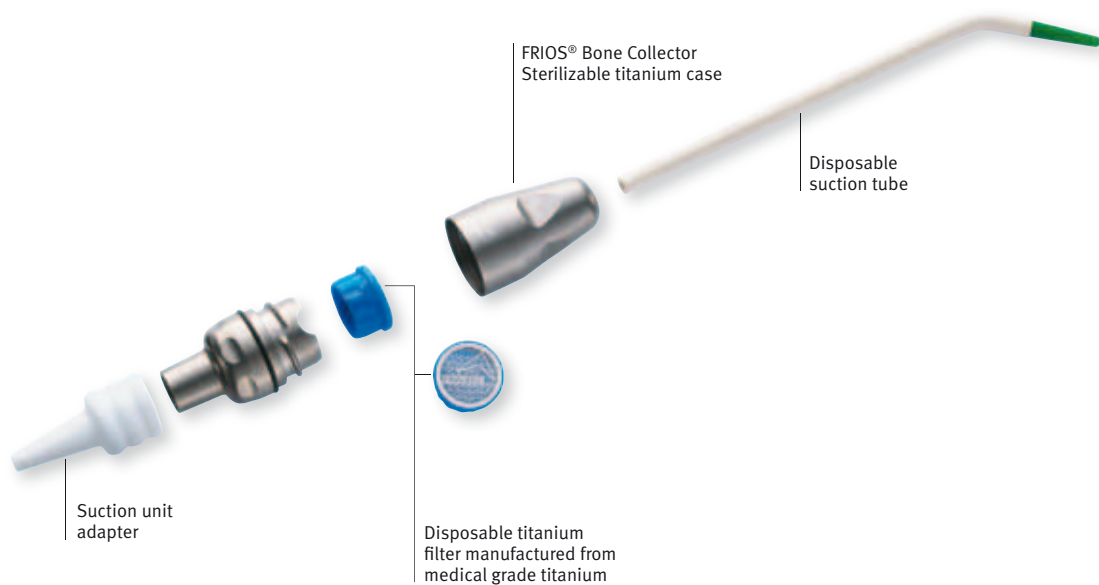
	Order no.	Article
	51 – 4091	FRIOS® Trephine for Bone Removal⁶ D 3.1
	51 – 4092	D 3.5
	51 – 4093	FRIOS® Bone Stud Remover⁶

FRIOS® BoneCollector

Order no.	Article
59 – 9010	FRIOS® BoneCollector Content: FRIOS® BoneCollector FRIOS® BoneCollector Adapter (conical) FRIOS® BoneCollector Titanium -Filter FRIOS® BoneCollector Surgical Aspirator Tip FRIOS® BoneCollector Tray
	FRIOS® BoneCollector Adapter²³ straight conical
59 – 9014 59 – 9013	
	FRIOS® BoneCollector Titanium Filter^{1/22} 1 piece (for single use) 5 pieces (for single use)
59 – 9011 59 – 9015	
59 – 9024	FRIOS® BoneCollector Surgical Aspirator Tip 20 pieces

FRIOS® BoneCollector

- For harvesting vital bone chips during implant site preparation in only one surgical procedure
- Sterilizable titanium case, suction tip and titanium filter are disposable



FRIOS® | Surgical Unit/Instruments

FRIOS® Unit S/i

FRIOS® Unit S/i

- Easy user concept, specially designed for implant surgery
- Powerful surgical motor with utmost running smoothness
- User-oriented program sequence with tapping function directly controlled by pushbutton

Order no.

Article

90 – 6600

90 – 6605

FRIOS® Unit S/i V 220 – 240 AC

FRIOS® Unit S/i V 100 – 130 AC

Scope of delivery: FRIOS® Unit S/i with surgical motor (cable length 1.8 m), stand for motor, stand for irrigation bag, foot control, mains cable, locking pin for motor, set of hose rings (5 pieces), coolant hose

FRIOS® Handpieces and Contra-angle Handpieces

Order no.

Article

90 – 6720

90 – 6710

90 – 6810

FRIOS® Contra-angle Handpiece WS-75
20:1, demountable

FRIOS® Contra-angle Handpiece WI-75
20:1

FRIOS® Contra-angle Handpiece WI-75
LED G

90 – 5030

90 – 5050

90 – 6850

FRIOS® Handpiece Straight 1:1

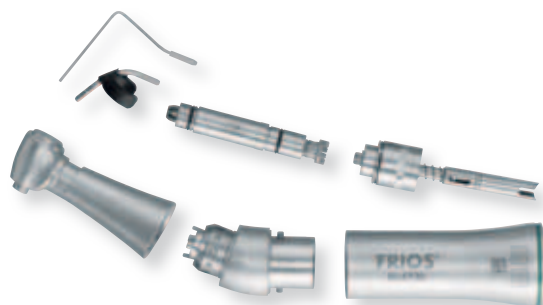
FRIOS® Handpiece Angled 1:1

FRIOS® Handpiece Straight SI-11 LED G

FRIOS® Contra-angle Handpieces

- Patented hexagon clamping system for smooth treatment sequence and less wear of instruments
- Demountable version with 90°-rotatable head for areas that are difficult to access which meets most demanding hygiene requirements
- LED version with neutral white-light with high luminosity and a wider field of illumination than conventional halogen lamps

Note for FRIOS® Unit S users:
Problems of compatibility may occur when using these contra-angle handpieces with the FRIOS® Unit S. Please contact your distributor prior to ordering or initial operation.





FRIOS® | Surgical Unit/Instruments

Accessories



For availability of further spare parts and accessories for FRIOS® Unit S/i, FRIOS® Unit S and FRIOS® Unit E please contact your DENTSPLY Implants distributor.

Order no.	Article
	Suitable for FRIOS® Unit S/i:
90 – 6620	FRIOS® Unit S/i Surgical Motor (cable length 1.8 m)
90 – 6630	FRIOS® Unit S/i Foot Control
	Suitable for FRIOS® Unit S/i and FRIOS® Unit S:
90 – 5042	Internal Irrigation Tube for FRIOS® Contra-angle Handpiece 20:1
90 – 5043	Internal Irrigation Tube, long (for Drill Extension)
	Suitable for all FRIOS® Surgical Units:
90 – 6442	FRIOS® Unit S, FRIOS® Unit E Sterile Cover Foil for Surgical Motor (10 pieces)
90 – 6443	FRIOS® Unit S Set Hose Rings (5 pieces)
	Suitable for FRIOS® Unit S:
90 – 6410	FRIOS® Unit S Surgical Motor (cable length 1.8 m)
90 – 6420	FRIOS® Unit S Foot Control ON/OFF

Coolant Hoses

Order no.	Article
90 – 6446	FRIOS® Unit S/i Coolant Hose (motor cable 2.2 m/5 pieces)
90 – 5005	FRIOS® ISU Coolant Hose universal (5 pieces), also suitable for ASU
90 – 6440	FRIOS® Unit S Coolant Hose (motor cable 1.8 m/5 pieces)
90 – 6441	FRIOS® Unit S Coolant Hose (motor cable 3.5 m/3 pieces)
90 – 6542	FRIOS® Unit E Coolant Hose (motor cable 1.8 m/5 pieces), with Luer-Lock connection for three-way stopcock

FRIOS® Algipore®

Order no.	Article
	FRIOS® Algipore®³¹
31 – 0104	0.3 – 0.5 mm grain size (for filling in defects up to 0.5 cm ³) 1 x 0.5 ml
31 – 0214	0.5 – 1.0 mm grain size (for augmentation of lateral defects up to 1.0 cm ³) 1 x 1.0 ml
31 – 0224	0.5 – 1.0 mm grain size (for augmentation of lateral defects up to 1.0 cm ³) 1 x 2.0 ml
31 – 0312	1.0 – 2.0 mm grain size (for augmentation following sinus graft from 1.0 cm ³) 1 x 1.0 ml
31 – 0324	1.0 – 2.0 mm grain size (for augmentation following sinus graft from 1.0 cm ³) 1 x 2.0 ml

FRIOS® Algipore®

- Purely plant-derived bone regeneration material harvested from ocean algae with close analogy to the hydroxyapatite of human bone
- Enhanced bone formation with inter-connecting pores and rough surface
- Maintains volume due to slow resorption of the material
- Three grain sizes available for indication-specific use



FRIOS® | Bone Fixation

FRIOS® SinusSet

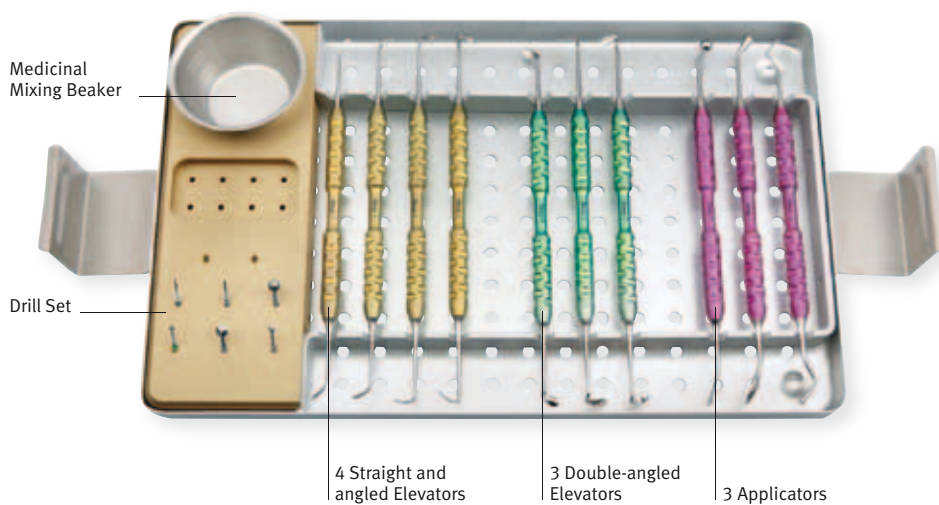
- FRIOS® SinusSet**
- For all preparation steps of the open sinus lift
 - Drill Set for lateral preparation of access window
 - Elevators for mobilization of the sinus mucous membrane
 - Stable mixing beaker and applicators for the application of grafting material

Order no.	Article
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59 – 8000

FRIOS® SinusSet

Content:
 Drill Set,
 10 Applicators,
 Medicinal mixing beaker
 Tray



FRIOS® SinusSet – Single Articles

	Order no.	Article
	59 – 7951	FRIOS® Sinus Instrument No. 1^{4/6} Straight applicator
	59 – 7952	FRIOS® Sinus Instrument No. 2^{4/6} Angled applicator 120°
	59 – 7953	FRIOS® Sinus Instrument No. 3^{4/6} Angled applicator 90°
	59 – 7954	FRIOS® Sinus Instrument No. 4^{4/6} Angled applicator 60°
	59 – 7955	FRIOS® Sinus Instrument No. 5^{4/6} Double-angled applicator 90°/120°
	59 – 7956	FRIOS® Sinus Instrument No. 6^{4/6} Double-angled applicator 90°/90°
	59 – 7957	FRIOS® Sinus Instrument No. 7^{4/6} Double-angled applicator 90°/60°
	59 – 7958	FRIOS® Sinus Instrument No. 8^{4/6} Applicator (ball/spoon)
	59 – 7959	FRIOS® Sinus Instrument No. 9^{4/6} Applicator (spoon/tip)
	59 – 7960	FRIOS® Sinus Instrument No. 10^{4/6} Applicator (cone/cylinder)
	59 – 8003	Drill Set for FRIOS® SinusSet⁶



FRIOS® | Bone Fixation

FRIOS® FixationSet

- FRIOS® FixationSet**
- For precise positioning of FRIOS® membrane tacks
 - Set of seating instruments straight and angled designed for the membrane tacks
 - Drilling and positioning tool for utmost precision
 - Disposable micro drills for pre-drilling in very dense bone

Order no.	Article
59 – 9044	<p>FRIOS® FixationSet</p> <p>Content:</p> <p>8 x 6 FRIOS® Membrane Tacks (sterile, in dispensers)</p> <p>6 Disposable Drills for FRIOS® Membrane Tacks</p> <p>1 FRIOS® Seating Instrument for Membrane Tacks, straight</p> <p>1 FRIOS® Seating Instrument for Membrane Tacks, angled</p> <p>1 Working Part for FRIOS® Seating Instrument for Membrane Tacks, straight</p> <p>1 Working Part for FRIOS® Seating Instrument for Membrane Tacks, angled</p> <p>1 FRIOS® Drilling and Positioning Tool for Membrane Tacks</p> <p>1 Implant Mallet</p> <p>1 FRIOS® Holder for Membrane Tacks</p> <p>1 FRIOS® Surgical Tray for FixationSet</p>



FRIOS® FixationSet – Single Articles

Order no.	Article
59 – 9035	FRIOS® Disposable Drill⁶ for Membrane Tacks (pilot drill)
59 – 9036	FRIOS® Drilling and Positioning Tool⁶ for Membrane Tacks
59 – 9037	FRIOS® Drilling and Positioning Tool⁶ for Membrane Tacks, Working Part⁶
59 – 9034 59 – 9040	FRIOS® Seating Instrument⁶ for Membrane Tacks straight angled
59 – 9039 59 – 9041	FRIOS® Seating Instrument⁶ for Membrane Tacks, Working Part⁶ straight angled
59 – 9042	FRIOS® Universal Handle for Drilling and Positioning Tool and Seating Instrument⁶



FRIOS® Membrane Tacks

Order no.	Article
59 – 9029	FRIOS® Clinic Set Membrane Tacks⁴ (3 x 6 tacks, sterile) with Working Part for FRIOS® Seating Instrument, straight
59 – 9030	FRIOS® Multi-Pack Membrane Tacks⁴ (6 tacks, sterile)



FRIOS® Membrane Tacks

- For perfect fixation of membranes
- Biocompatible, manufactured from titanium alloy and gammasterilized
- For use with all resorbable and non-resorbable membranes
- FRIOS® FixationSet for placement of the tacks

FRIOS® BoneShields

FRIOS® BoneShields

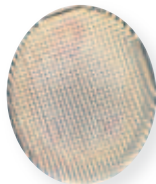
- Membranes made from form-fit medical grade titanium for highest mechanical stability and three-dimensional shape
- Laser perforation for good diffusion of oxygen and migration of defense cells
- Fixation with FRIOS® Membrane Tacks

Order no.	Article
	FRIOS® BoneShield¹ (sterile)
59 – 7010	oval 20/15 mm
59 – 7020	oval 24/20 mm
59 – 7110	triangular 16/14 mm
59 – 7120	triangular 21/17 mm
59 – 7200	implant fixed
59 – 7300	rectangular 33/25 mm

FRIOS®
BoneShield
oval
20/15 mm



FRIOS®
BoneShield
oval
24/20 mm



FRIOS®
BoneShield
triangular
16/14 mm



FRIOS®
BoneShield
triangular
21/17 mm



FRIOS®
BoneShield
implant
fixed



FRIOS®
BoneShield
rectangular
33/25 mm



Pictures in actual size

CD-ROMs for Presentations

Order no.	Article
66 – 3019	FRIOS® Picture CD

FRIOS® | Materials

Metals

Type	Index	Composition
Titanium	1	Ti grade 1
Titanium	2	Ti grade 2
Titanium	3	Ti grade 4
Titanium	4	Ti6Al4V
Stainless steel	6	Surgical steel

Plastics

Type	Index
Polystyrene	22
Polytetrafluoroethylene	23

Ceramics

Type	Index	Composition
Hydroxyapatite	31	Ca ₅ (PO ₄) ₃ OH

About DENTSPLY Implants

DENTSPLY Implants is the union of two successful and innovative dental implant businesses: Astra Tech Dental and DENTSPLY Friadent. DENTSPLY Implants offers a comprehensive line of implants, including ANKYLOS®, ASTRA TECH Implant System™ and XiVE®, digital technologies such as ATLANTIS™ patient-specific CAD/CAM solutions, SIMPLANT® guided surgery, regenerative bone solutions, and professional development programs. DENTSPLY Implants creates value for dental professionals, and allows for predictable and lasting implant treatment outcomes, resulting in enhanced quality of life for patients.

About DENTSPLY International

DENTSPLY International Inc. is a leading manufacturer and distributor of dental and other healthcare products. The Company believes it is the world's largest manufacturer of professional dental products. For over 110 years, DENTSPLY's commitment to innovation and professional collaboration has enhanced its portfolio of branded consumables and small equipment. Headquartered in the United States, the Company has global operations with sales in more than 120 countries.