

Redefine
biodegradation!



***BioactIF* OSTEOTRANS**

Bioactive and Bioresorbable
Interference Screws

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Alongside the proven **OK Series**, Richard Wolf now supplies the new **BK version** of its **BioactIF OSTEOTRANS** Interference Screws to meet the diverse requirements of reconstructive cruciate ligament surgery for bioactive and bioresorbable interference screws.

BK Series

- Aggressive distal thread
- Conical distal shape
- Expanded range of sizes



The more aggressive distal shape of the thread in the new universal **BK Series** features particularly effective cutting characteristics and optimum tightening properties.

The expanded range of sizes now meets all the requirements for tibial and femoral fixation in the reconstruction of anterior and posterior cruciate ligaments by supplying an implant with optimum length and diameter.

Furthermore, the 6 mm version can also be used for other ligament grafts, e.g. the MPFL reconstruction.

OK Series

- Thread designed to protect the graft
- Ideal for BT and BTB grafts



The **OK Series** is ideal for the fixation of BT and BTB grafts in primary care and for revisions.

We recommend using a thread cutter due to the blunt shape of the thread designed to protect the graft.

Redefine biodegradation!

Breakdown and resorption process

OSTEOTRANS is a composite material which is comprised of poly-L-lactide (PLLA) and unsintered hydroxylapatite (uHA). A special property of this material is its osteoconductive effect in bones. This enables the surrounding trabecular structures to grow into the surface of the implant within a very short space of time (osteobinding) (Fig. 1).

The special manufacturing process used to produce **OSTEOTRANS** facilitates an entirely homogeneous distribution of the uHA particles in the material. This is particularly

relevant for the continuous buffering of the lactic acid produced during the breakdown of the PLLA component because this prevents inflammatory reactions in the bone and tissue and a consequent encapsulation of the implant.

The mechanical properties of the material are comparable with the surrounding bone. This is a key enabler for activating osteoblasts through biomechanical processes and for stimulating comprehensive new bone growth in the area of the implant.

Diagnostic quality control is provided by good X-ray visualization of **OSTEOTRANS** implants.

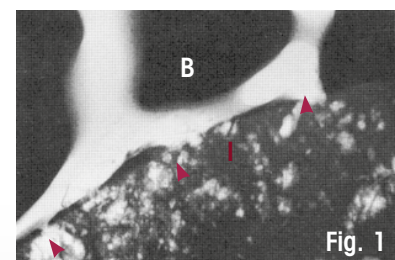
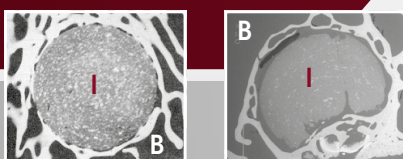


Fig. 1

Bioactivity

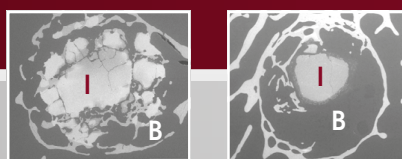
Osteoconductivity & bone binding



- Physiological environment created through buffering of the pH value of the lactic acid produced with uHA particles
 - ▶ No encapsulation
 - ▶ Growth of the bone into the surface of the implant

Biological breakdown & bioresorption

Hydrolysis (PLLA) & osteoclasts (HA)



- Homogeneous breakdown of the PLLA particles due to the semi-crystalline structure
- Osteoclastic breakdown of the uHA particles

Formation of new bone




- Mechanical properties of the implant are similar to the surrounding bone
 - ▶ Transfer of force
 - ▶ Load
 - ▶ Bone growth

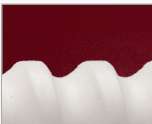
B = Bone

I = Implant

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Bioactive and Bioresorbable Interference Screws

 Bioact<i>IF</i> OSTEOTRANS "BK" interference screws*				Accessories		Guide wire Pack of 3, flexible, TL 350 mm		
Thread ø	Length	Drill hole	Type	Screwdriver	Thread cutter			
6 mm	20 mm	1.7 mm	BK0620	891800020	is not required	ø 1.2 mm 891202012		
7 mm	20 mm		BK0720	891800030				ø 1.2 mm 891202012 or ø 1.5 mm 891202015
	25 mm		BK0725					
	30 mm		BK0730					
8 mm	20 mm		BK0820					
	25 mm		BK0825					
	30 mm		BK0830					
9 mm	20 mm		BK0920					
	25 mm		BK0925					
	30 mm		BK0930					
10 mm	25 mm		BK1025					
	30 mm		BK1030					

 Bioact<i>IF</i> OSTEOTRANS "OK" Interference Screws*				Accessories		Guide wire Pack of 3, flexible, TL 350 mm
Thread ø	Length	Drill hole	Type	Screwdriver	Thread cutter	
7 mm	25 mm	2.2 mm	OK0725A	891800030		ø 1.2 mm 891202012 or ø 1.5 mm 891202015
	30 mm		OK0730A			
8 mm	25 mm		OK0825			
	30 mm		OK0830			
9 mm	25 mm		OK0925			
	30 mm		OK0930			



Scan the code and find out more about the use of **Bioact*IF* OSTEOTRANS** Interference Screws in ACL reconstruction.



*Manufacturer: TAKIRON CO., LTD., Japan