REX Cement Stop™

The use of cement stops helps to restrict cement flow into the distal femoral shaft. This increases the pressure build up, resulting in better cement penetration of the trabecular bone. There are different types of cement stops available on the market today. Traditionally these cement stops are based on a press fit principle. They come in both resorbable and non-resorbable options.

The REX Cement Stop™ differentiates from other existing cement stops by using a highly flexible gelatine bushing that adapts to any irregularities of the intramedullary canal. The gelatine bushing is centred by a PMMA locking device and expands under axial compression. Using the insertion instrument the REX Cement Stop™ is placed at the desired depth where it is then expanded to fully seal the intramedullary canal. Because the REX Cement Stop™ can be expanded, it can be placed below the isthmus. This is sometimes desired in revision cases for example.

Section view of a bone with an expanded REX Cement Stop.

Section view of a bone with bone cement and a REX Cement Stop with resolved gelatine.

Advanced benefits

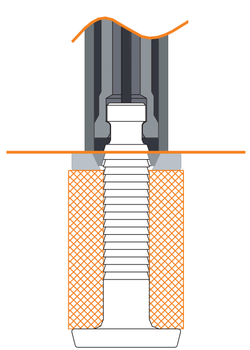
- Highly biocompatible
- Biodegradable within two weeks
- PMMA locking device bonds to the PMMA bone cement mantle, assuring easy removal during revision
- Provides a complete seal of the intramedullary canal, the REX Cement Stop™ expands and adapts to the irregular shape of the canal
- Controlled insertion of the REX Cement Stop™ into the femoral canal. The REX Cement Stop™ can be placed at the desired depth, even below the isthmus
- Easy surgical technique
- Comes in 5 different sizes, suitable for intramedullary canals of Ø 9 mm up to Ø 19 mm
- Reduced risk of fat embolism associated with the displacement of fat and bone marrow during plug placement
- Over 10 years of in-vivo and in-vitro experience
- Provides resistance to high pressures, during bone cement pressurization cement stops are subjected to pressures up to 10 bar or more
- Clinically shown to yield no leakage and minimal migration

REX CEMENT STOP™	EXPANSION RANGE
Ø 9.0 mm	Ø 9.0 - 10.0 mm
Ø 10.0 mm	Ø 10.0 - 11.5 mm
Ø 11.5 mm	Ø 11.5 - 13.5 mm
Ø 13.5 mm	Ø 13.5 - 16.0 mm
Ø 16.0 mm	Ø 16.0 - 19.0 mm

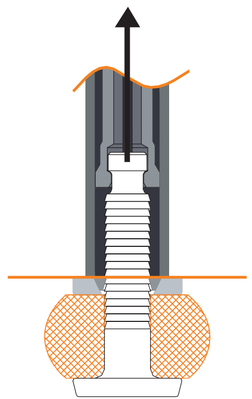
Design and use

The REX Cement Stop™ comprises a highly flexible gelatine bushing, centered around a PMMA locking device and a serrated center pin. The gelatine bushing expands under axial compression exerted by the insertion instrument after insertion in the intramedullary canal. By rotating the knob at the back of the hand piece, the washer and locking ring are pushed over the teeth of the serrated center pin. The serrated pin is pulled into the tube of the insertion instrument, and the flexible bushing is compressed between the washers and is expanded sideways.

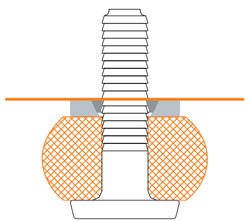
The top of the REX cement Stop™ has a built-in safety mechanism to prevent the pressure on surrounding bone from becoming too high. As the plug is expanded, the pressure on the intramedullary canal walls will rise as will the resistance felt in the knob of the insertion instrument. Once sufficient pressure has been built, indicating that the plug is securely seated against the intramedullary wall, the coupling head of the REX Cement Stop™ will snap off within the insertion instrument. This will stop the further expansion of the cement stop. The coupling head will remain inside the insertion instrument until intentionally removed, away from the wound site.



Initial shape of the REX Cement Stop™ with (part of) the Outer tube and Inner rod.



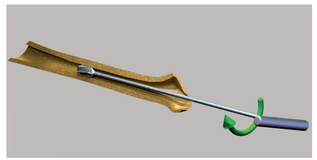
Expanded REX Cement Stop™ with (part of) the Outer tube and Inner rod. The Outer tube does not change its position.



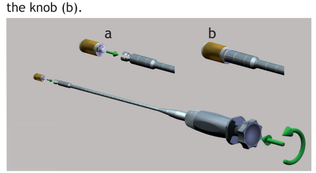
Sufficient expansion is reached when the coupling head snaps off. The coupling head will remain inside the insertion instrument.

Surgical technique

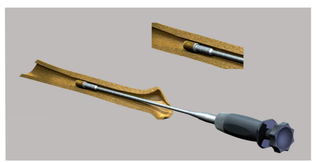
STEP 1
Ream the intramedullary canal with increasing reamer diameters until the desired depth and diameter are reached. The desired depth is reached if the 0 marking on the reamer is located 1 cm distally from the tip of the prosthetic stem and/or stem centralizer [fig 1].



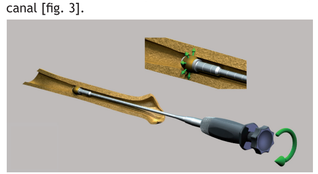
STEP 2
Open the collet chuck of the REX Inner rod by counter clockwise rotating the knob of the REX Insertion instrument in the direction "Release" and keep this position. Place the REX Cement Stop™ into the collet chuck (a) and release the knob (b).



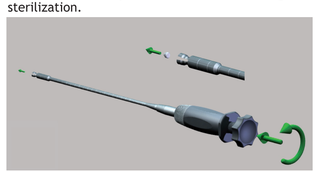
STEP 3
Insert the instrument with the REX Cement Stop™ into the intramedullary canal to the desired depth using the markings on the instrument to determine the insertion depth [fig. 2]. Insertion of the REX Cement Stop™ must proceed smoothly.



STEP 4
At the desired depth expand the REX Cement Stop™ by clockwise rotating the knob in the direction "Expand". Sufficient expansion is reached when the coupling head snaps off. The REX Cement Stop™ is fixated at the chosen depth inside the intramedullary canal [fig. 3].



STEP 5
Remove the instrument from the intramedullary canal. Away from the wound site rotate the knob counter clockwise in the direction "Release" untill the coupling head of the REX Cement Stop™ can be removed. Disassemble the instrument according to the disassembly instructions for cleaning and sterilization.



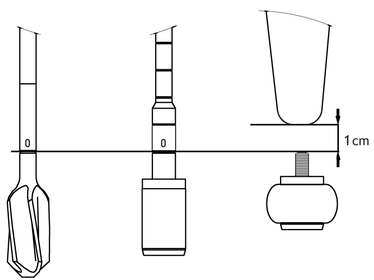


Fig. 1 Fig. 2 Fig. 3

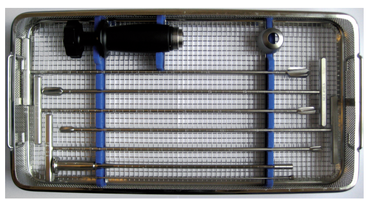
Ordering information

REX CEMENT STOP™

Ø 9.0 mm	REX-0709-9
Ø 10.0 mm	REX-0709-10
Ø 11.5 mm	REX-0709-11.5
Ø 13.5 mm	REX-0709-13.5
Ø 16.0 mm	REX-0709-16

REX INSTRUMENTATION SET

REX Reamer Ø9.0 mm	REX-0208-08
REX Reamer Ø10.0 mm	REX-0208-09
REX Reamer Ø11.5 mm	REX-0208-10
REX Reamer Ø13.5 mm	REX-0208-11
REX Reamer Ø16.0 mm	REX-0208-12
REX Handpiece	REX-0601-03-A
REX Screw nut	REX-0601-03-B
REX Inner Rod	REX-0601-03-C
REX Outer Tube	REX-0601-03-D
REX Sterilization Tray	REX-0802-02



REX Sterilization Tray including the REX Insertion instrument and the REX Reamers.

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