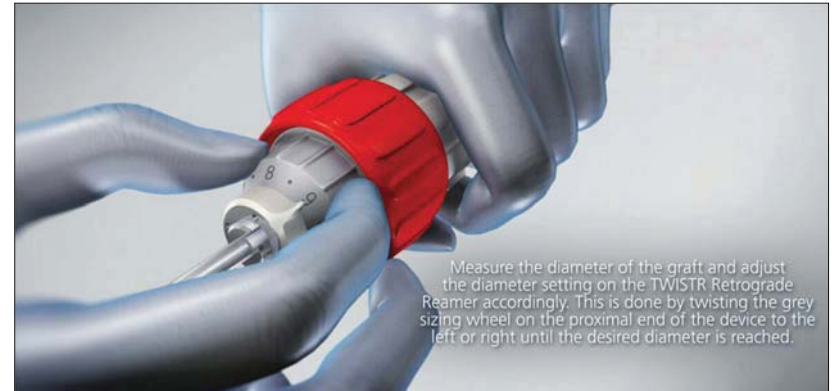


TWISTR™ Retrograde Reamer & Cruciate+ Instruments Surgical Technique



Note, this technique guide on its own is not sufficient to describe proper product use, users should refer to the product Instructions for Use (IFU-112927) for full details

Step 1: Set the TWISTR™ Retrograde Reamer to drill the desired socket / tunnel diameter by twisting the grey sizing wheel.



Step 2: Attach the Guide Carriage to the Femoral Aimer.



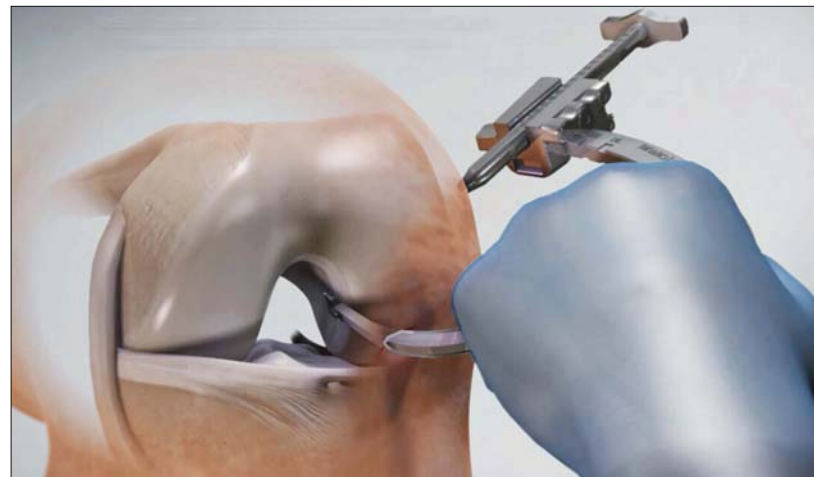
Step 3: Insert the Retrograde Reamer Bullet into the Guide Carriage.



Step 4: Twist the Bullet 90° to secure in the Guide Carriage.
The t-shaped handle will be inline with the Aimer and the depth engravings will face the user when in the locked position.



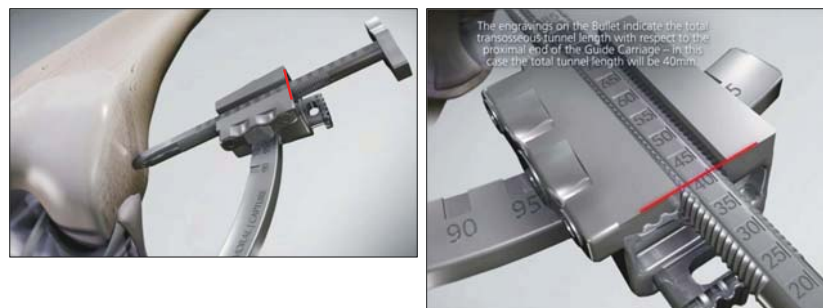
Step 5: Insert the Aimer tip into the knee and place in the desired femoral tunnel location.



Step 6: Make a small skin incision underneath the Bullet tip and use the Bullet Obturator to help insert the Bullet through the surrounding soft tissue until the tip is contacting bone.



Step 7: Determine the total femoral tunnel length by reading the Bullet engravings with respect to the Guide Carriage. For example, the tunnel length will be 40mm in the example below.



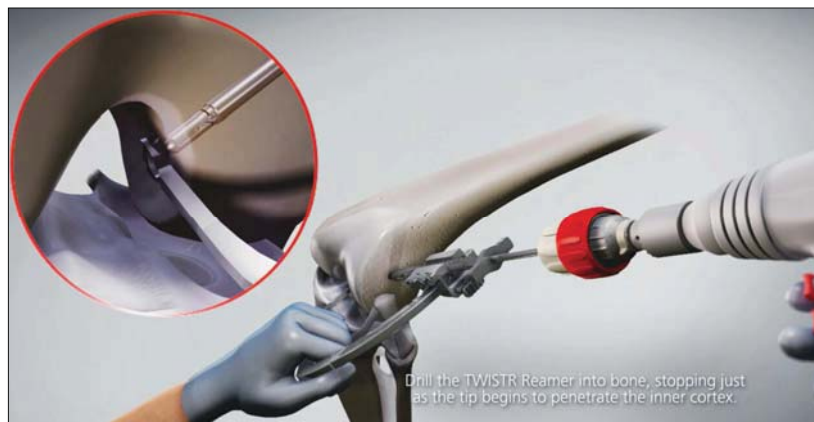
Step 8: Mark the femoral tunnel length on the RIGIDLOOP™ Adjustable Cortical Fixation System Sutures using the suture card.



Step 9: Prepare for outside-in drilling by securing the TWISTR Reamer in a drill and inserting the tip into the Bullet.



Step 10: Drill the device into bone, stopping just as the tip of the reamer exits the femur.



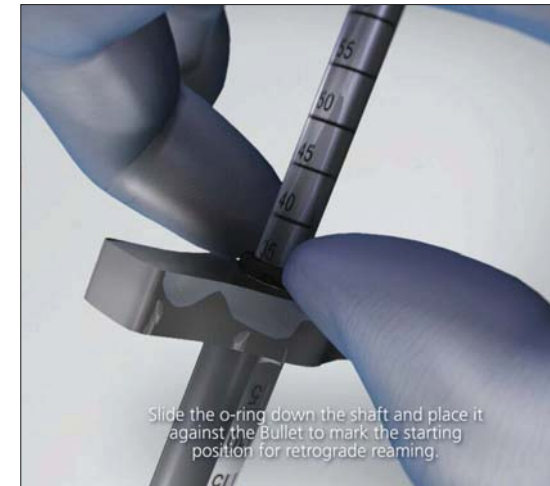
Step 11: Twist the Bullet 90° to release it from the Guide Carriage. Remove the Guide Carriage and Femoral Aimer.



Step 12: Advance the reamer further into the joint until the black laser line is flush with the inner cortex.

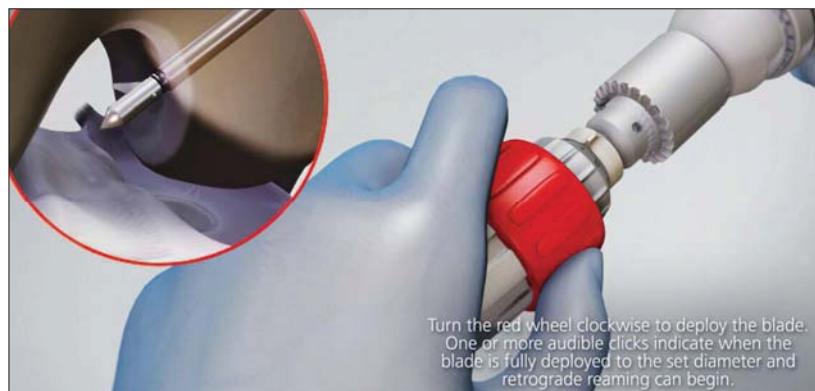


Step 13: Slide the black O-ring down to the Bullet to mark the starting position for retrograde reaming.



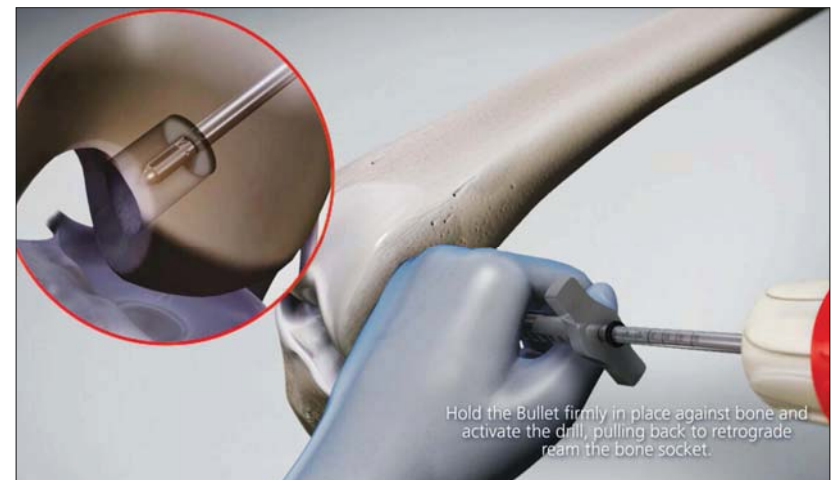
Step 14: Twist the red wheel clockwise to deploy the retrograde reamer blade. Continue turning until one or more audible clicks are heard, this indicates the blade is properly deployed.

Note, it may take several turns of the wheel until the blade begins to swing out / deploy, this is normal.



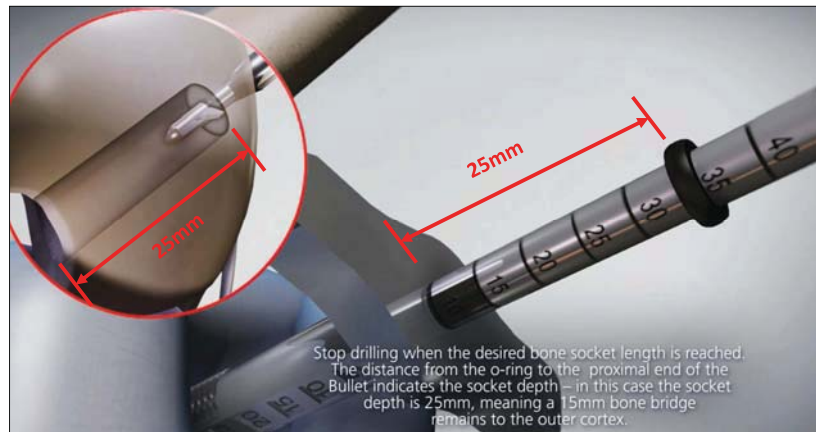
Step 15: Hold the Bullet firmly against bone and activate the drill, pulling backwards to retrograde ream the bone socket / tunnel.

The Bullet must be held in place against the bone surface to correctly measure socket depth.



Step 16: Stop drilling when the desired socket length is reached.

In the image below the socket depth is 25mm (the distance between the O-ring and the Bullet).

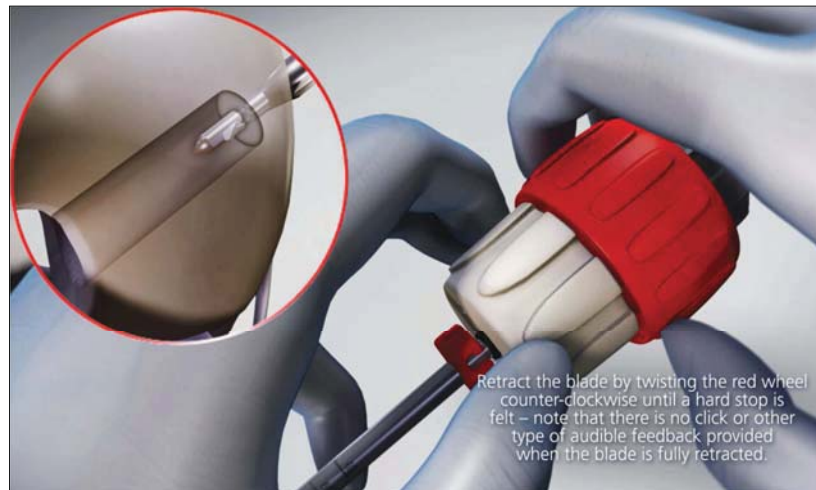


Step 17: Mark the socket depth on the graft using the RIGIDLOOP Adjustable System graft preparation card.



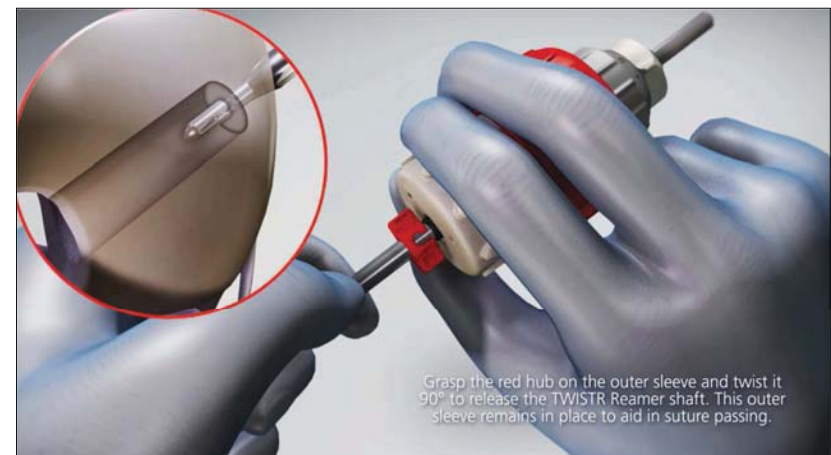
Step 18: Twist the red wheel counter-clockwise to retract the blade.

Note that there will not be any audible clicking during blade retraction, continue to turn the wheel until a hard stop is felt.



Step 19: Release the reamer from the outer sleeve by holding the sleeve shaft or red plastic hub and twisting the white knob 90°, then pulling back.

Note, leave the sleeve in place in the tunnel to assist with suture passing.



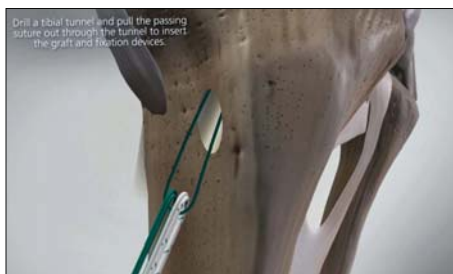
Step 20: Load a passing suture into the forked tip of the Suture Passing Pin and insert the pin into the sleeve. Retrieve the passing suture through an anterior portal



Step 21: Remove the Bullet, Sleeve, and Suture Passing Pin, leaving the passing suture in place.



Step 22: Drill a tibial tunnel and use the passing suture to pull the RIGIDLOOP Adjustable System through the tibial and femoral tunnels.



Step 23: Secure the graft in place on the femoral and tibial sides.

