

❖ ACL Screws

Graft fixation during anterior cruciate ligament (ACL) reconstruction can be achieved with the use of either bioabsorbable screws or metal screws. Although bioabsorbable screws and metal screws have similar fixation strengths, bioabsorbable screws eliminate the need for removal.



ACL Screw

□ Surgical Steps:

- Tunnel Preparation

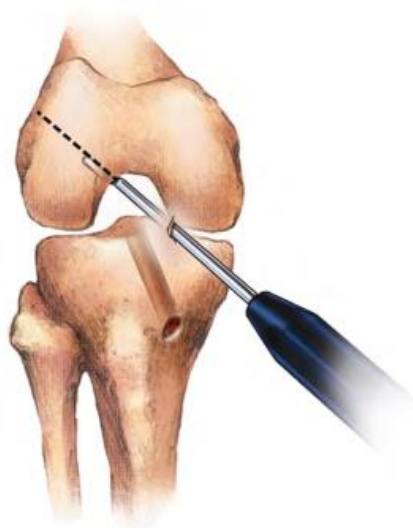
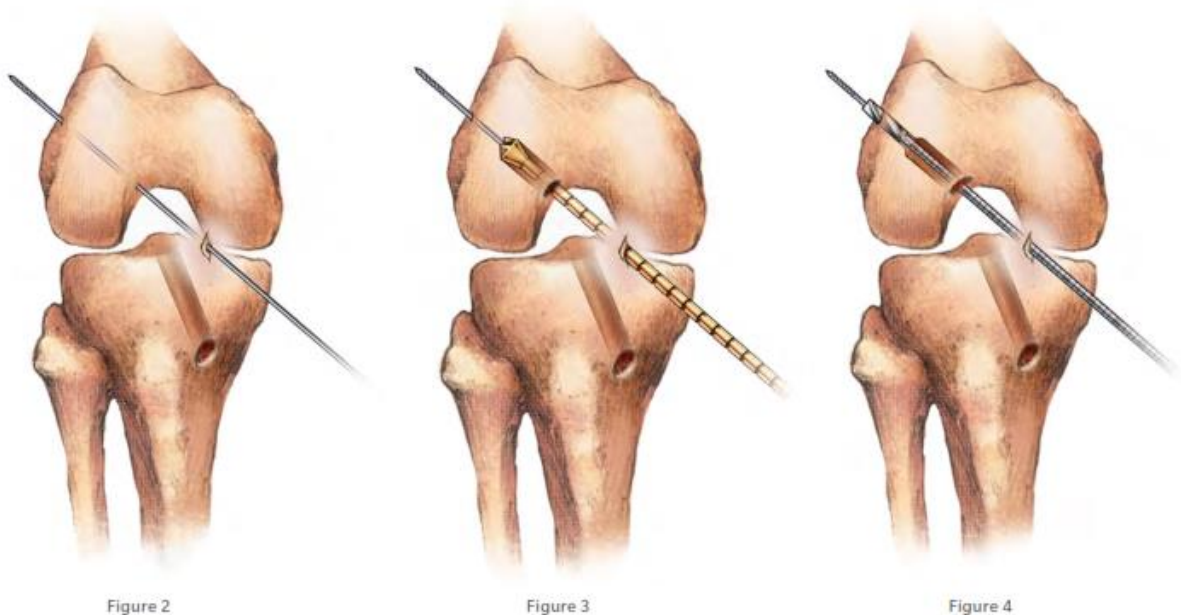


Figure 1

Utilizing a tibial guide that allows for optimal tunnel placement, position the tibial guide appropriately and drill the guide wire. After the graft size has been determined, ream over the guide wire with the corresponding reamer. Position a Femoral Aimer into the over-the-top position through an accessory anteromedial portal (Figure 1).

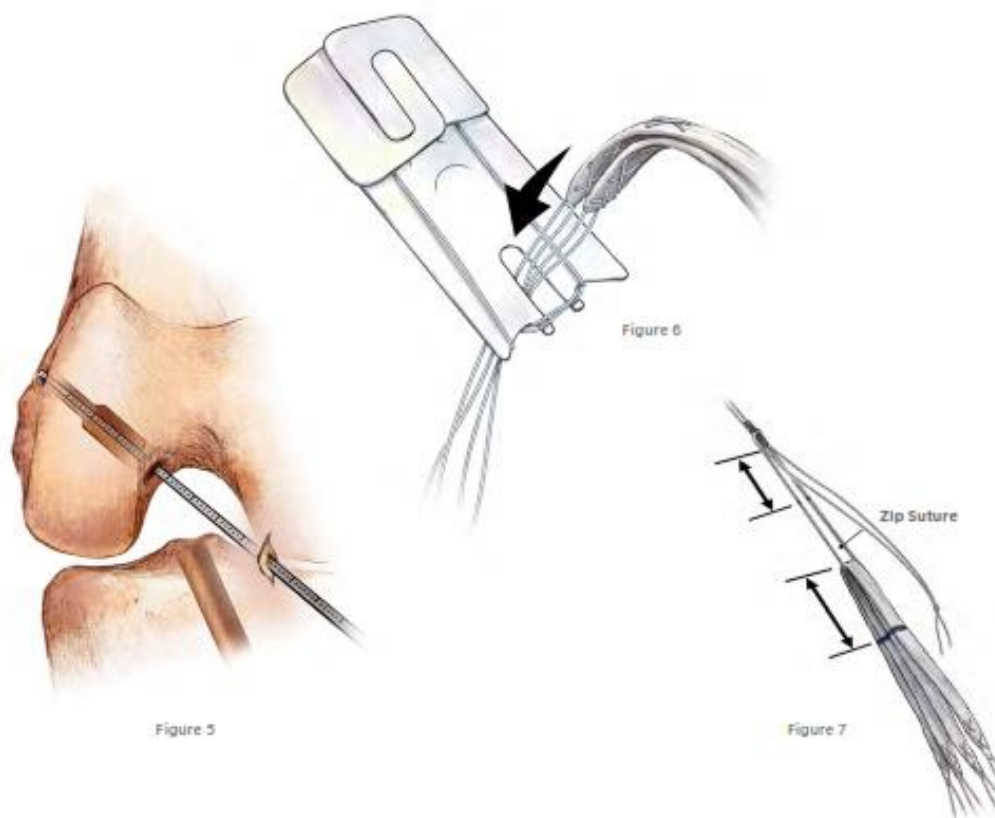


Drill a calibrated guide wire through the Femoral Aimer and the lateral cortex of the femur (Figure 2). Consider placing the scope into the standard medial portal to check that the guide wire is placed in the 9:30 – 10:30 position for a left knee and a 1:30 – 2:30 position for the right knee.

Drill over the previously placed guide wire an endoscopic reamer corresponding to the diameter of the graft diameter and ream to the depth that will allow the desired soft-tissue graft-to-tunnel interface (typically around 25 mm) (Figure 3). Drill over the previously placed guide wire with the 4.5 mm ToggleLoc drill bit through the lateral cortex of the femur (Figure 4). Pass the 4.5 mm drill in and out of the cortex two to three times to facilitate passage of the implant.

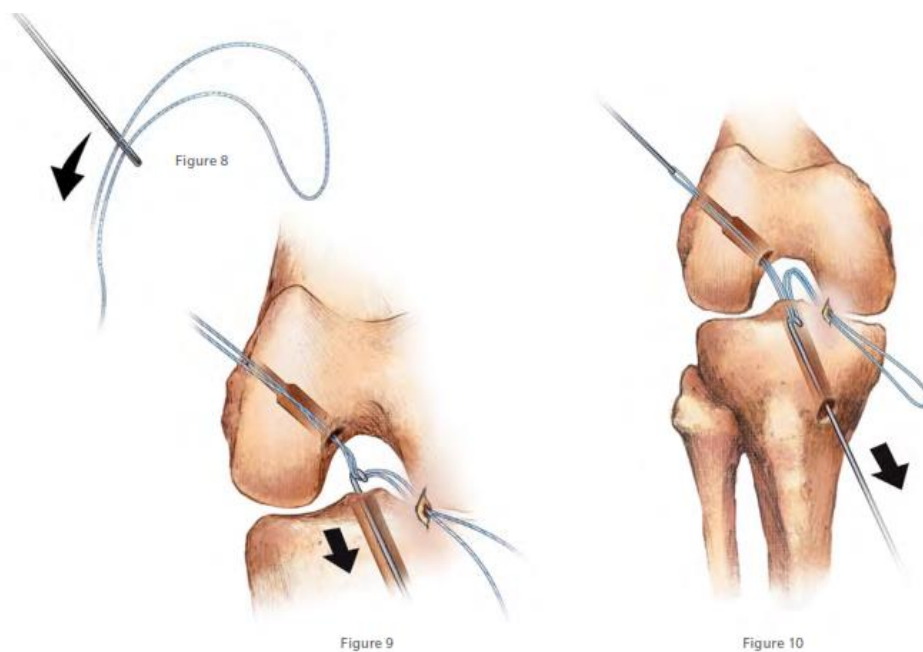
Pass the ToggleLoc depth gauge into the femoral tunnel and measure the tunnel length from the lateral cortex of the femur to the tunnel exit point in the joint space (Figure 5). Pass the soft tissue grafts through both loops of the ToggleLoc Femoral Fixation Device with ZipLoop Technology (Figure 6). The implant should be left in the white cardboard packaging. This will facilitate passing the soft tissue graft through the correct loops. Place the graft through the hole in the package. Balance the soft tissue grafts in the loops of the implant to allow equal amounts of the soft tissue on either side of the loop.

Use the measurement previously obtained with the ToggleLoc depth gauge to mark the loops of the implant to ensure deployment on the lateral cortex. Measure from the distal end of the ToggleLoc device toward the graft and mark the length (Figure 7). Make a second mark on the graft by measuring the depth of the “graft tunnel” (typically 25 mm). This mark will aid in optimal graft positioning later in the procedure.



Thread a strand of relay suture through the eyelet of the graft passing pin so that the suture forms a continuous loop (Figure 8). Pull proximally on the guide wire to pull the relay suture through the skin. Use a suture grasper or crochet hook to retrieve (Figure 9) the relay suture through the tibial tunnel (Figure 10).

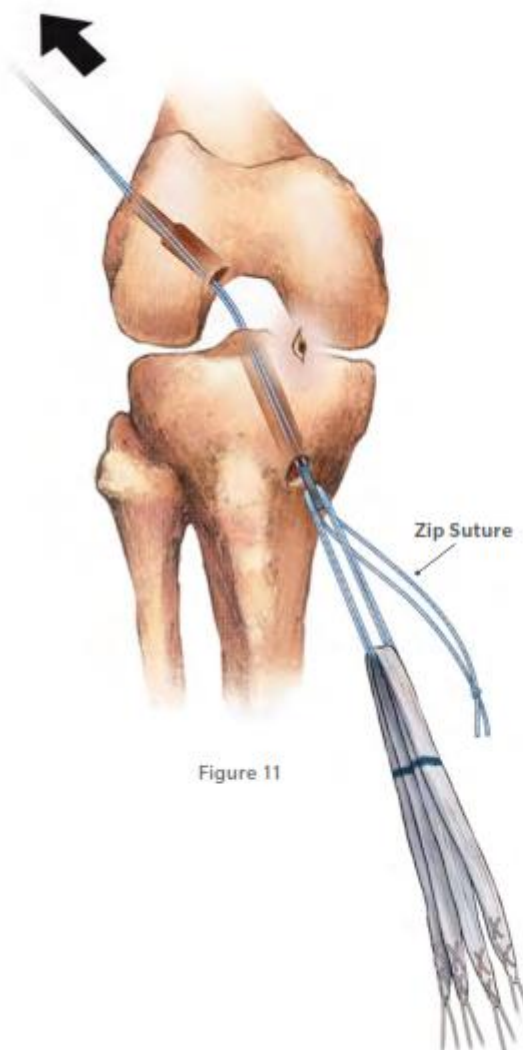
Loop the passing suture of the ToggleLoc Femoral Fixation Device with ZipLoop Technology through the relay loop, which should be exiting the tibial tunnel. Pull proximally on the relay suture to pull the passing suture through the tibial tunnel, joint space and femoral tunnel, exiting through the skin.



- **Step 02: Insert Implant Into Tunnel**

Prior to fixation, ensure that the ToggleLoc Femoral Fixation Device with ZipLoop Technology is oriented laterally, as it will deploy on the femur's lateral cortex. The "zip suture" should be on the anterior side of the soft-tissue graft prior to graft placement within the femoral tunnel (Figure 11).

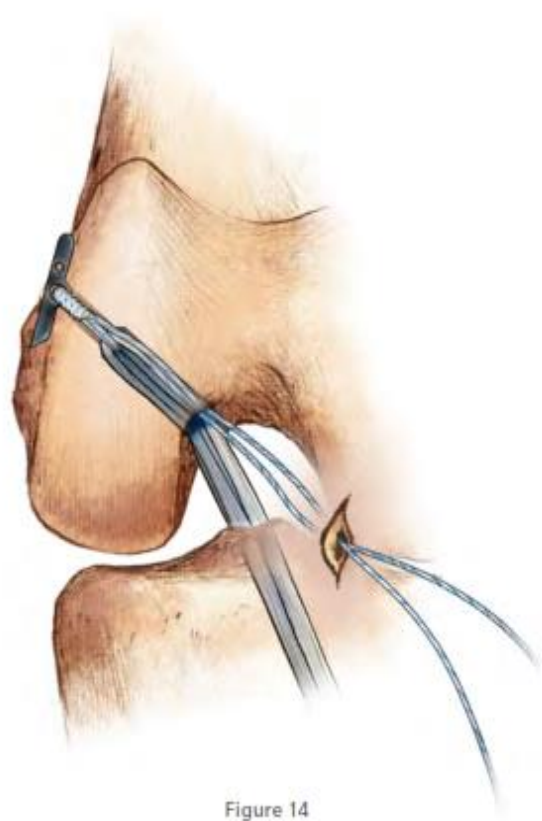
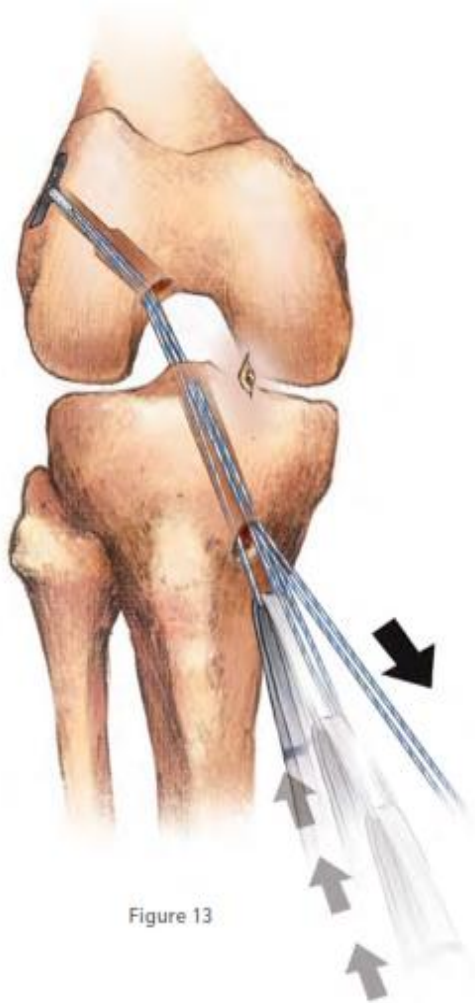
Pull the passing suture proximally until the mark on the loops of the ToggleLoc device reach the entrance of the femoral tunnel. Position the implant just beyond the lateral cortex of the femur (Figure 12). Pull on the distal end of the soft tissue grafts to feel the implant engage on the lateral femoral cortex, achieving femoral fixation.



- **Step 03: Position Graft In Femoral Tunnel**

Ensure the “zip suture” is anterior to the graft. Place the knot of the zip strand into the ziploop puller (Figure 13) and pull distally to draw the graft through the tibial tunnel and into the femoral tunnel. This will shorten the loop of the ToggleLoc Femoral Fixation Device with ZipLoop Technology and accurately position the soft-tissue graft in the femoral tunnel.

Correct placement is indicated when the mark on the graft enters the femoral tunnel. Cut the knot off of the end of the “zip suture” and retrieve the cut suture limbs through the medial portal (Figure 14).

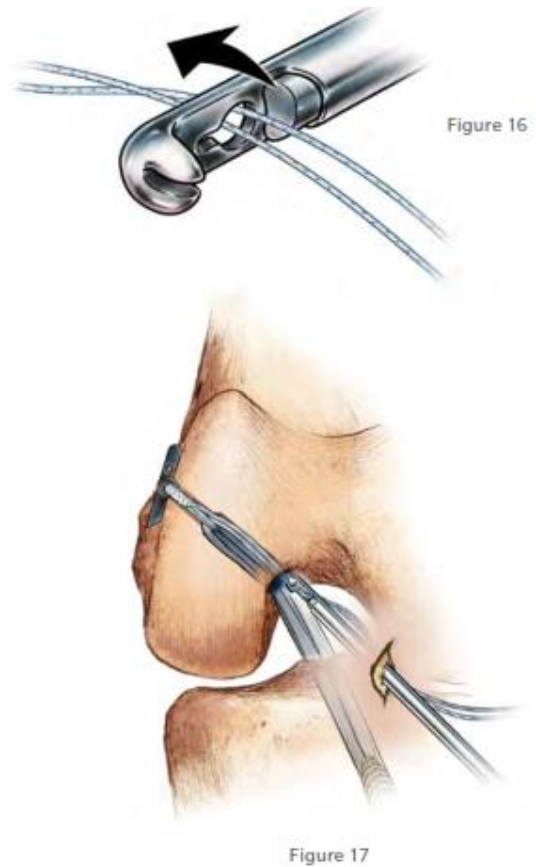
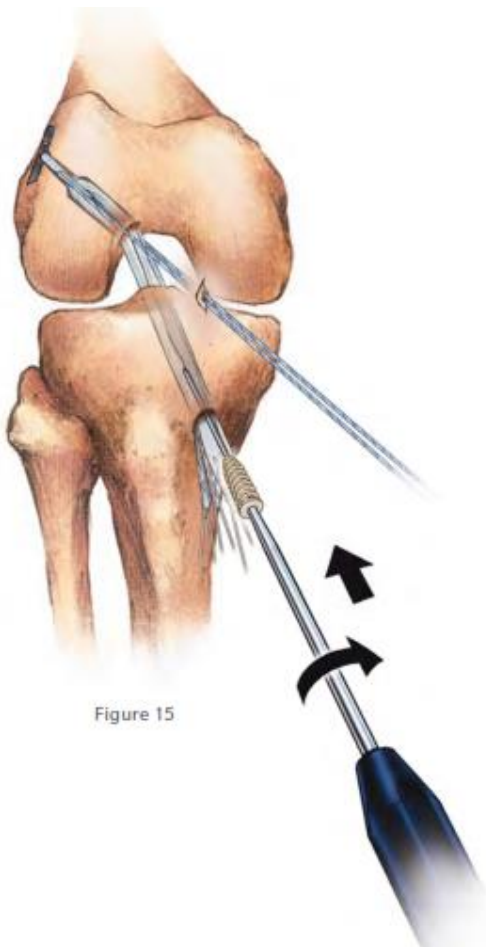


- **Step 04: Tibia Fixation**

Pass a 1.1mm guidewire through the tibial tunnel. Tap the tibial cortex if necessary and insert the desired Interference Screw to achieve tibial fixation (Figure 15). If required, tension the femoral fixation by pulling on both limbs of the zip strand.

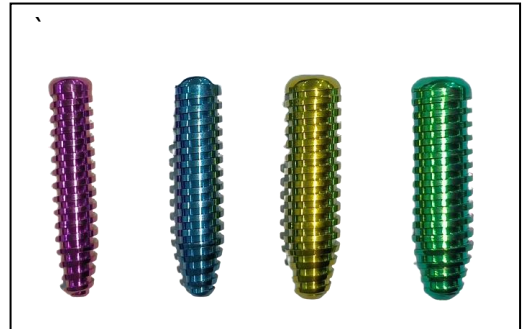
- **Step 05: Sever The Zip Suture**

Pass the limbs of the zip strand through the key shaped hole in the Super MaxCutter™ instrument (Figure 16). Advance the Super MaxCutter device through the medial portal and cut the suture at the entrance of the femoral tunnel in the joint space (Figure 17).



□ Implants**ACL Screw Dia. 07mm**

Titanium	Size
BOI.219.07.20.T	20 mm
BOI.219.07.25.T	25mm
BOI.219.07.30.T	30 mm
BOI.219.07.35.T	35 mm
BOI.219.07.40.T	40 mm

**ACL Screw Dia. 08mm**

Titanium	Size
BOI.219.08.20.T	20 mm
BOI.219.08.25.T	25mm
BOI.219.08.30.T	30 mm
BOI.219.08.35.T	35 mm
BOI.219.08.40.T	40 mm

ACL Screw Dia. 09mm

Titanium	Size
BOI.219.09.20.T	20 mm
BOI.219.09.25.T	25mm
BOI.219.09.30.T	30 mm
BOI.219.09.35.T	35 mm
BOI.219.09.40.T	40 mm

ACL Screw Dia. 10mm

Titanium	Size
BOI.219.10.20.T	20 mm
BOI.219.10.25.T	25mm
BOI.219.10.30.T	30 mm
BOI.219.10.35.T	35 mm
BOI.219.10.40.T	40 mm

ACL Screw Dia. 11mm

Titanium	Size
BOI.219.11.20.T	20 mm
BOI.219.11.25.T	25mm
BOI.219.11.30.T	30 mm
BOI.219.11.35.T	35 mm
BOI.219.11.40.T	40 mm

ACL Screw Dia. 12mm

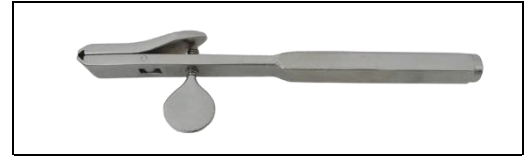
Titanium	Size
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BOI.219.12.25.T	25mm
BOI.219.12.30.T	30 mm
BOI.219.12.35.T	35 mm
BOI.219.12.40.T	40 mm

□ Instruments

- **Code:** BO.0601.01.I
Name: Femoral Aimer 5mm
- **Code:** BO.0601.02.I
Name: Femoral Aimer 7mm
- **Code:** BO.0106.03.I
Name: Tunnel Plug 7-8mm
- **Code:** BO.0106.04.I
Name: Tunnel Plug 8-9mm
- **Code:** BO.0106.05.I
Name: Tunnel Plug 9-10mm
- **Code:** BO.0106.06.I
Name: Tunnel Dilator 7mm
- **Code:** BO.0106.07.I
Name: Tunnel Dilator 8mm
- **Code:** BO.0106.08.I
Name: Tunnel Dilator 9mm



➤ **Code:** BO.0601.09.I
Name: Impactor For Spiked Ligament Staple



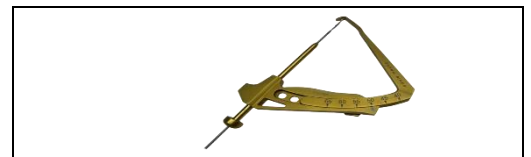
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Name: Arthroscopic Probe



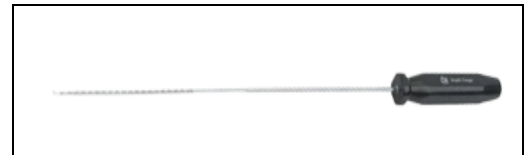
➤ **Code:** BO.0601.11.I
Name: Femoral PCL Elevator



➤ **Code:** BO.0601.05.13.I
Name: ACL Zig



➤ **Code:** BO.0601.14.I
Name: Depth Gauge for ACL/PCL Reconstruction



➤ **Code:** BO.0601.15.I
Name: Graft Passing Drill BIT 2.4mm



➤ **Code:** BO.0601.17.I
Name: Cannulated Tibia Reamer Dia. 6.0mm

➤ **Code:** BO.0601.18.I
Name: Cannulated Tibia Reamer Dia. 7.0mm

➤ **Code:** BO.0601.19.I
Name: Cannulated Tibia Reamer Dia. 8.0mm

➤ **Code:** BO.0601.20.I
Name: Cannulated Tibia Reamer Dia. 9.0mm

➤ **Code:** BO.0601.21.I
Name: Cannulated Tibia Reamer Dia. 10.0mm

➤ **Code:** BO.0601.22.I
Name: Cannulated Tibia Reamer Dia. 11.0mm

➤ **Code:** BO.0601.29.I
Name: Cannulated Endoscopic Reamer Dia 4.5mm



➤ **Code:** BO.0601.23.I
Name: Cannulated Femoral Flowertip Reamer
Dia 6.0mm

➤ **Code:** BO.0601.24.I
Name: Cannulated Femoral Flowertip Reamer
Dia 7.0mm

➤ **Code:** BO.0601.25.I
Name: Cannulated Femoral Flowertip Reamer
Dia 8.0mm

➤ **Code:** BO.0601.26.I
Name: Cannulated Femoral Flowertip Reamer
Dia 9.0mm

➤ **Code:** BO.0601.27.I
Name: Cannulated Femoral Flowertip Reamer
Dia 10.0mm

➤ **Code:** BO.0601.28.I
Name: Cannulated Femoral Flowertip Reamer
Dia 11.0mm

➤ **Code:** BO.0601.30.I
Name: T-Handle for Tunnel Dilators

➤ **Code:** BO.0601.31.I
Name: Cannulated Screw Driver For ACL Screw

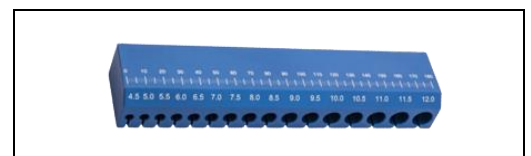
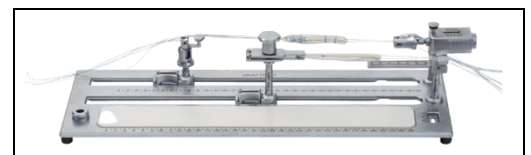
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Name: Microfracture Awl 30°

➤ **Code:** BO.0601.33.I
Name: Microfracture Awl 45°

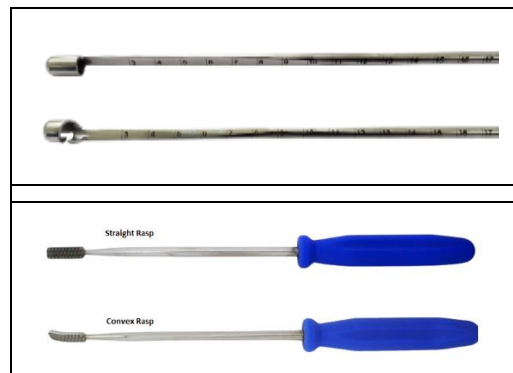
➤ **Code:** BO.0601.34.I
Name: Microfracture Awl 90°

➤ **Code:** BO.0601.35.I
Name: Graft Prep Station

➤ **Code:** BO.0601.36.I
Name: Graft Sizing Block



- **Code:** BO.0601.37.I
Name: Tendon Striper Closed End 6.0mm
- **Code:** BO.0601.38.I
Name: Tendon Striper Open End 7.0mm
- **Code:** BO.0601.39.I
Name: Straight Rasp
- **Code:** BO.0601.39.I
Name: Convex Rasp



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