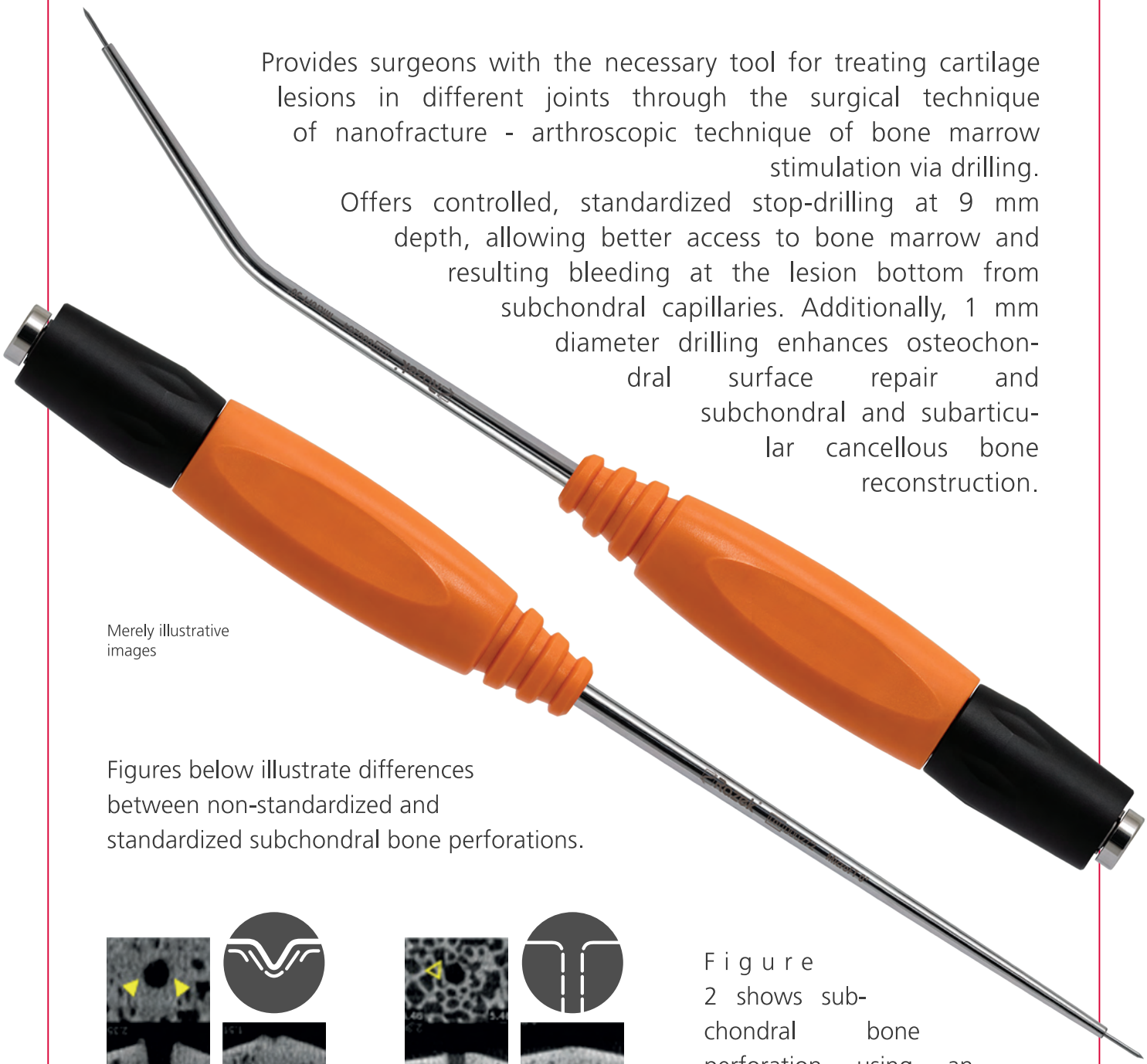
Razek®

Giving value to what really matters

MicroFT

Provides surgeons with the necessary tool for treating cartilage lesions in different joints through the surgical technique of nanofracture - arthroscopic technique of bone marrow stimulation via drilling.

Offers controlled, standardized stop-drilling at 9 mm depth, allowing better access to bone marrow and resulting bleeding at the lesion bottom from subchondral capillaries. Additionally, 1 mm diameter drilling enhances osteochondral surface repair and subchondral and subarticular cancellous bone reconstruction.



Merely illustrative images

Figures below illustrate differences between non-standardized and standardized subchondral bone perforations.

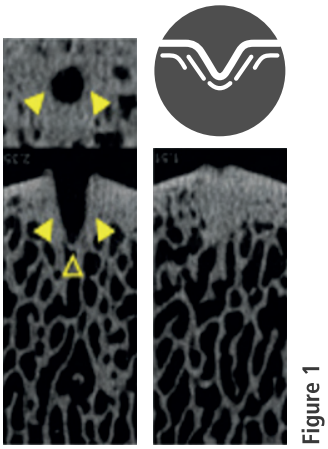


Figure 1

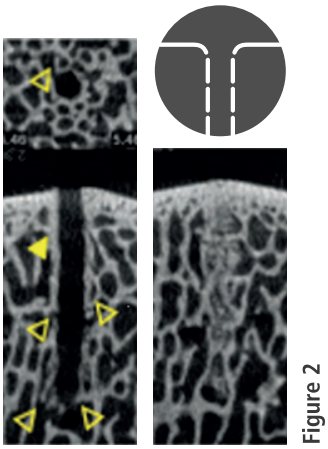
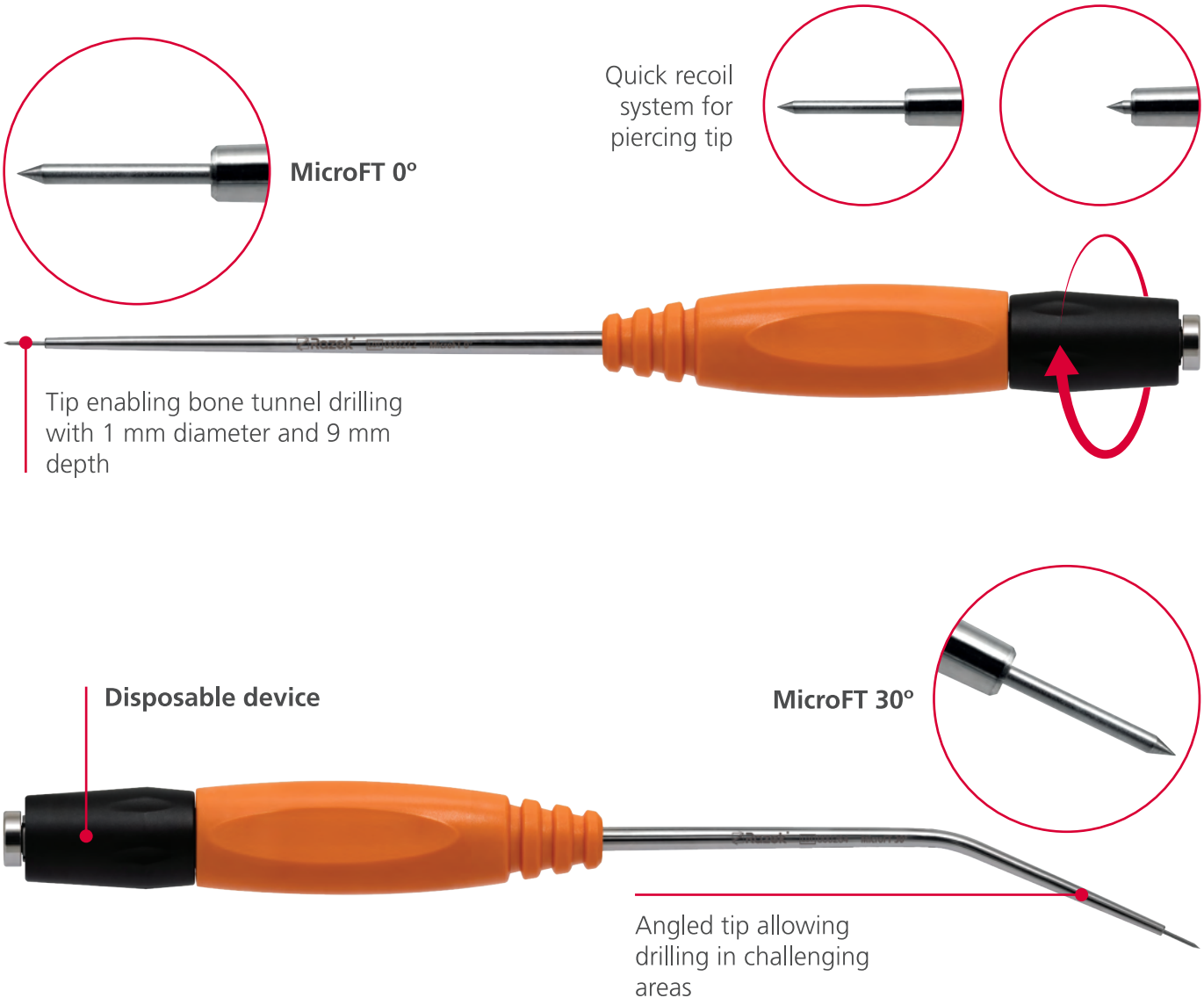


Figure 2

Figure 2 shows subchondral bone perforation using an device that consistently reaches subchondral bone plate through deeper, standardized, and stop-controlled drilling.

Fonte: Axial e imagem microCT sagital. Modelo de bovino adulto. (BENTHIEN, BEHRENS, 2013, p.6)



TECHNICAL SPECIFICATIONS

- Disposable device for nanofracture technique without the need for permanent instruments;
- Drilling with 1 mm diameter and 9 mm depth (with stop);
- Available in 0° and 30° versions;
- Simplified logistics as it does not require prior sterilization;
- Precise and controlled access to bone marrow;
- Versions enable treatment of hard-to-reach cartilage areas;
- Lower risk of cross-infection due to single use;
- Cartilage regeneration by filling existing defects on articular surface;
- Reduction of inflammatory process, avoiding progression to arthrosis.

MODELOS

- **MicroFT 0°** (742580100) - 0° Guide Handle
- **MicroFT 30°** (742580200) - 30° Guide Handle

Suggested Use - MicroFT

Microfractures in Chondral Lesions

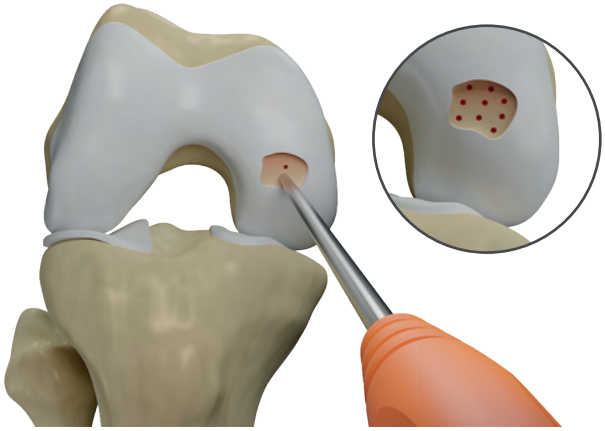
1 | Identify chondral lesion type and extent. Assess if nanofractures are appropriate for revascularization. Regularize lesion edges with shaver and remove loose bodies;

2 | Select appropriate MicroFT model (0° or 30°), attach Piercing Punch to Guide Handle, insert assembly through portal. Hold Guide Handle with one hand and pull and rotate Guide Handle's proximal part clockwise with the other hand to set Piercing Punch for use;

3 | Supporting it on subchondral bone, use a hammer to tap Piercing Punch base to insert cutting tip into underlying bone, performing nanofracture;

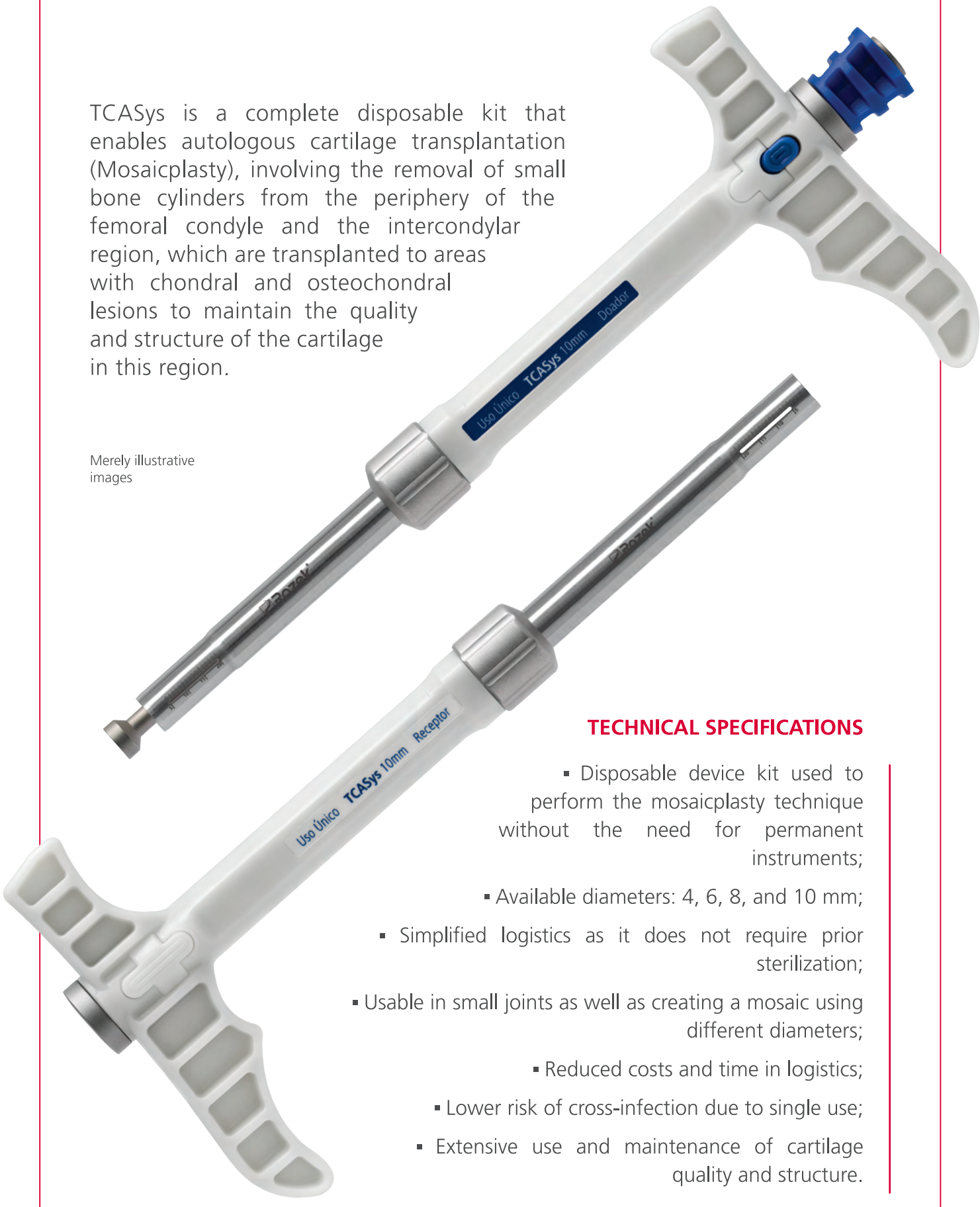
4 | Move MicroFT away from lesion, reset it for use, shift support area, and perform other perforations until obtaining several bleeding nanofracture holes within the lesion.

Note: Number of holes required for nanofracture technique depends on lesion size. An area of 1 to 2 cm damage requires 5 to 10 holes, 9 mm deep, spaced 3 to 4 mm apart.



TCASys

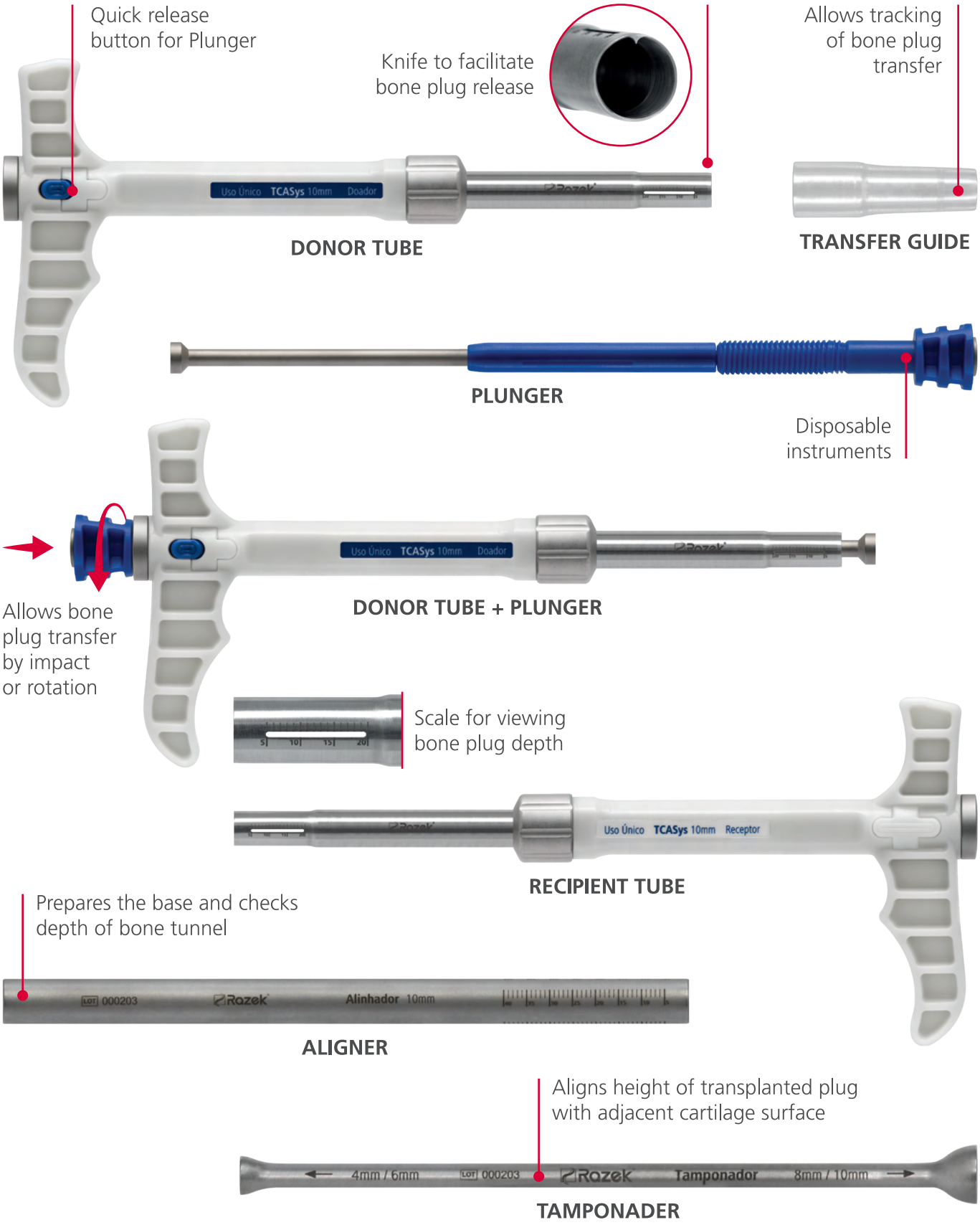
TCASys is a complete disposable kit that enables autologous cartilage transplantation (Mosaicplasty), involving the removal of small bone cylinders from the periphery of the femoral condyle and the intercondylar region, which are transplanted to areas with chondral and osteochondral lesions to maintain the quality and structure of the cartilage in this region.



Merely illustrative images

TECHNICAL SPECIFICATIONS

- Disposable device kit used to perform the mosaicplasty technique without the need for permanent instruments;
- Available diameters: 4, 6, 8, and 10 mm;
- Simplified logistics as it does not require prior sterilization;
- Usable in small joints as well as creating a mosaic using different diameters;
- Reduced costs and time in logistics;
- Lower risk of cross-infection due to single use;
- Extensive use and maintenance of cartilage quality and structure.



MODELOS

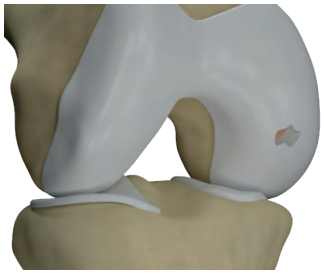
- **TCASys 4** (930320100) - Ø 4 mm for lesions smaller than 4 mm in diameter
- **TCASys 6** (930320200) - Ø 6 mm for lesions smaller than 6 mm in diameter
- **TCASys 8** (930320300) - Ø 8 mm for lesions smaller than 8 mm in diameter
- **TCASys 10** (930320400) - Ø 10 mm for lesions smaller than 10 mm in diameter

Suggested Use - TCASys

Autologous Osteochondral Transplantation as exemplified in Knee Mosaicplasty

1 | After measuring and identifying the lesion, determine the appropriate TCASys diameter. Models come in diameters of 4 mm, 6 mm, 8 mm, and 10 mm;

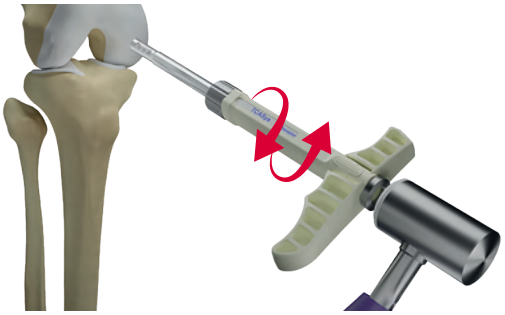
Note: Use the Gauge to ensure lesion diameter and determine required graft quantity.



2 | Insert the Recipient Tube as perpendicularly as possible over the lesion area;

3 | Lightly hammer the top of the Recipient Tube;

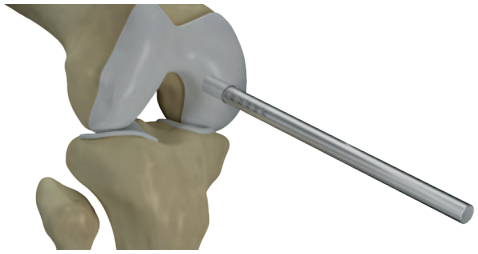
4 | Rotate 360° clockwise and counterclockwise while exerting slight lateral effort to detach graft from lesion area;



5 | Bone cylinder will be contained within;

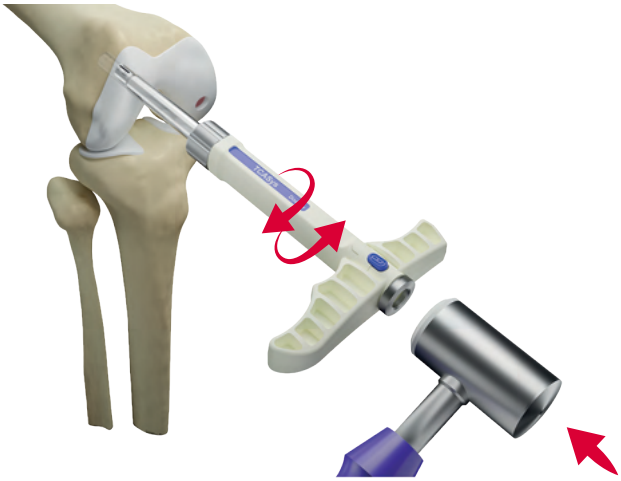
6 | Set aside Recipient Tube and bone cylinder to fill donor site hole;

7 | Use Aligner to align and measure recipient hole depth;



8 | Insert the Donor Tube as perpendicularly as possible over healthy graft area;

9 | Lightly hammer the top of the Donor Tube to desired depth. Perform gentle, rotational, and lateral motions to acquire graft;

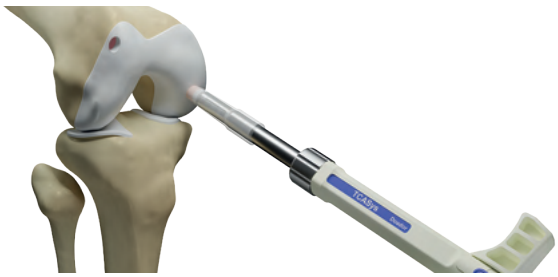


10 | Insert Transfer Guide into Donor Tube tip, place Plunger in Donor Tube;

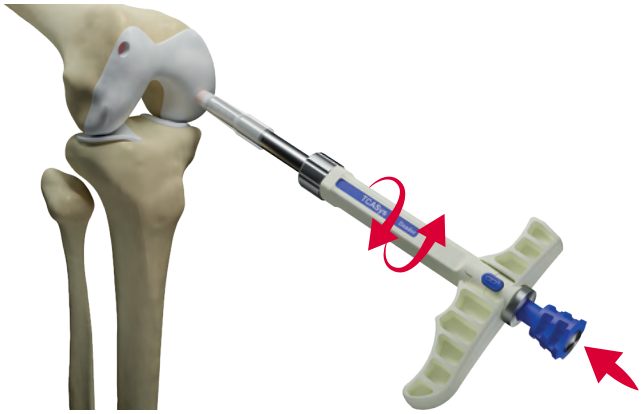
Note: Prior to transferring bone plug to lesion area, MicroFT use is recommended.

11 | Transfer bone cylinder to Transfer Guide by pressing or rotating Plunger;

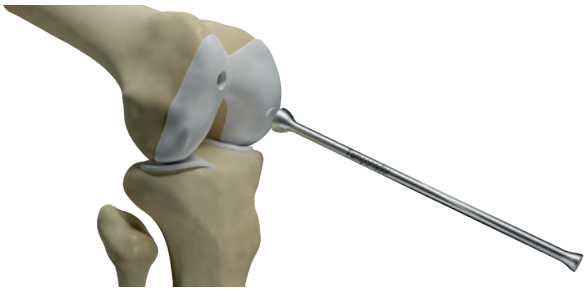
12 | Position Donor Tube with Transfer Guide as perpendicularly as possible to recipient hole;



13 | Begin transfer by pressing or rotating Plunger until cartilage surfaces are level;



14 | After complete donation, remove entire assembly, and finalize graft insertion using Tamponader to prevent irregularities or unevenness;



15 | Rinse joint to remove loose bodies and complete procedure.

Note: Bone cylinders removed from lesion area can be used to fill donor site holes for easier closure.