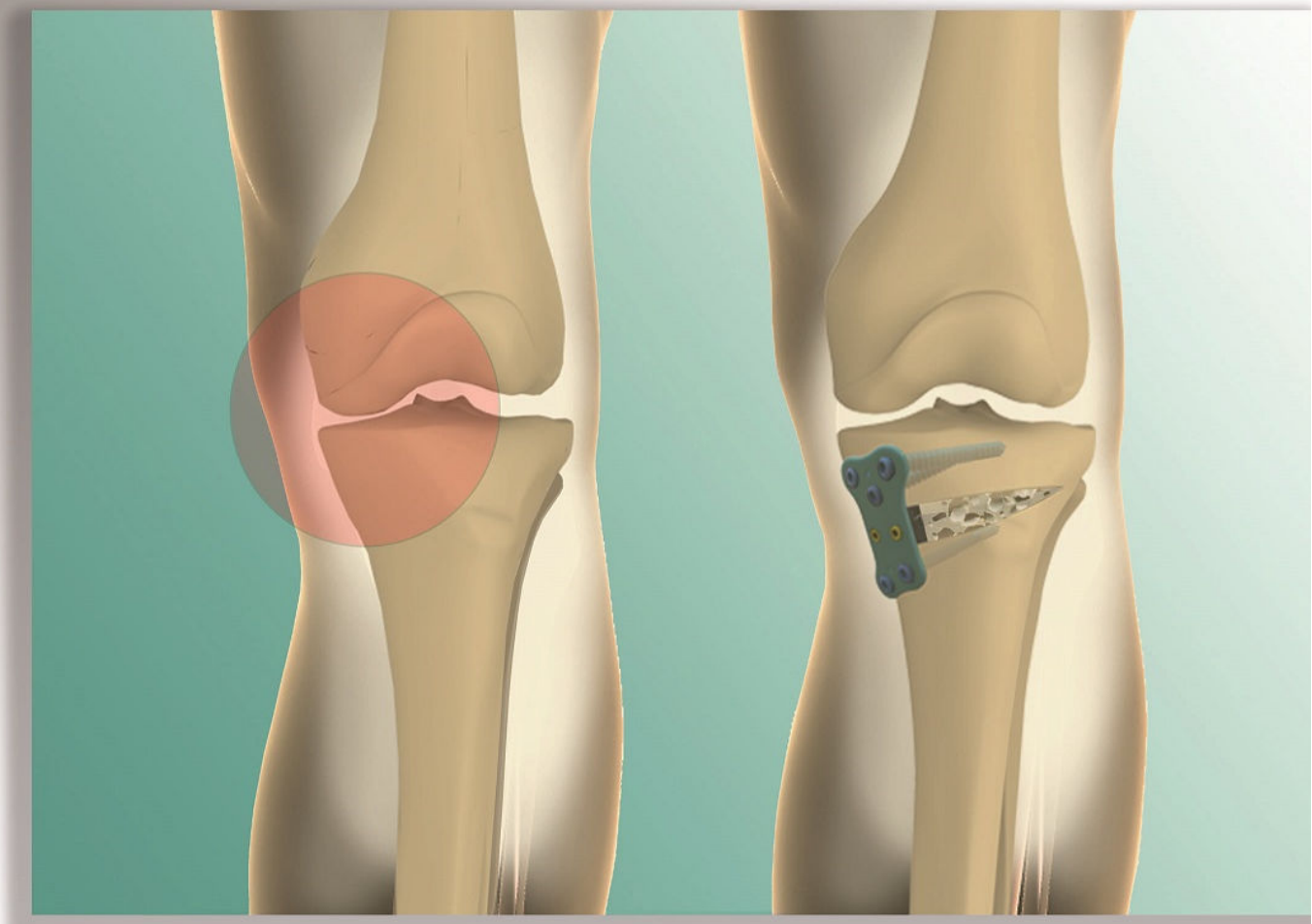
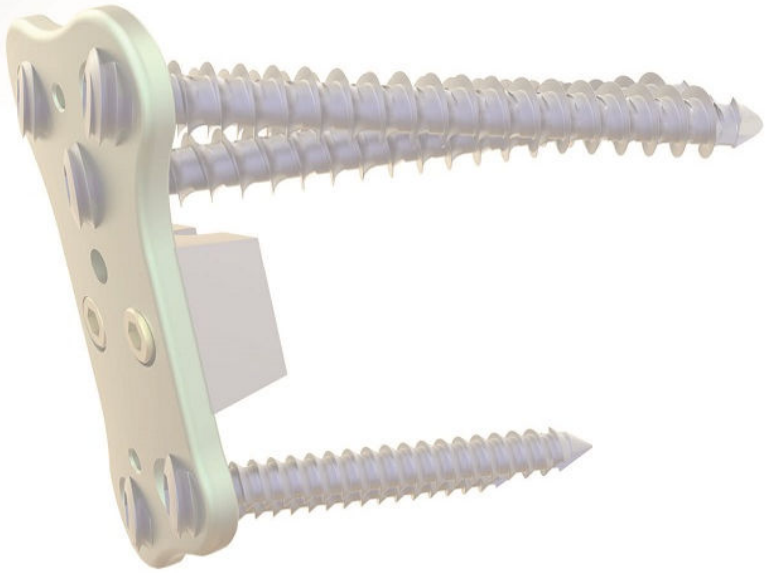
OWO PLATE

HIGH TIBIAL OPEN WEDGE OSTEOTOMY PLATE





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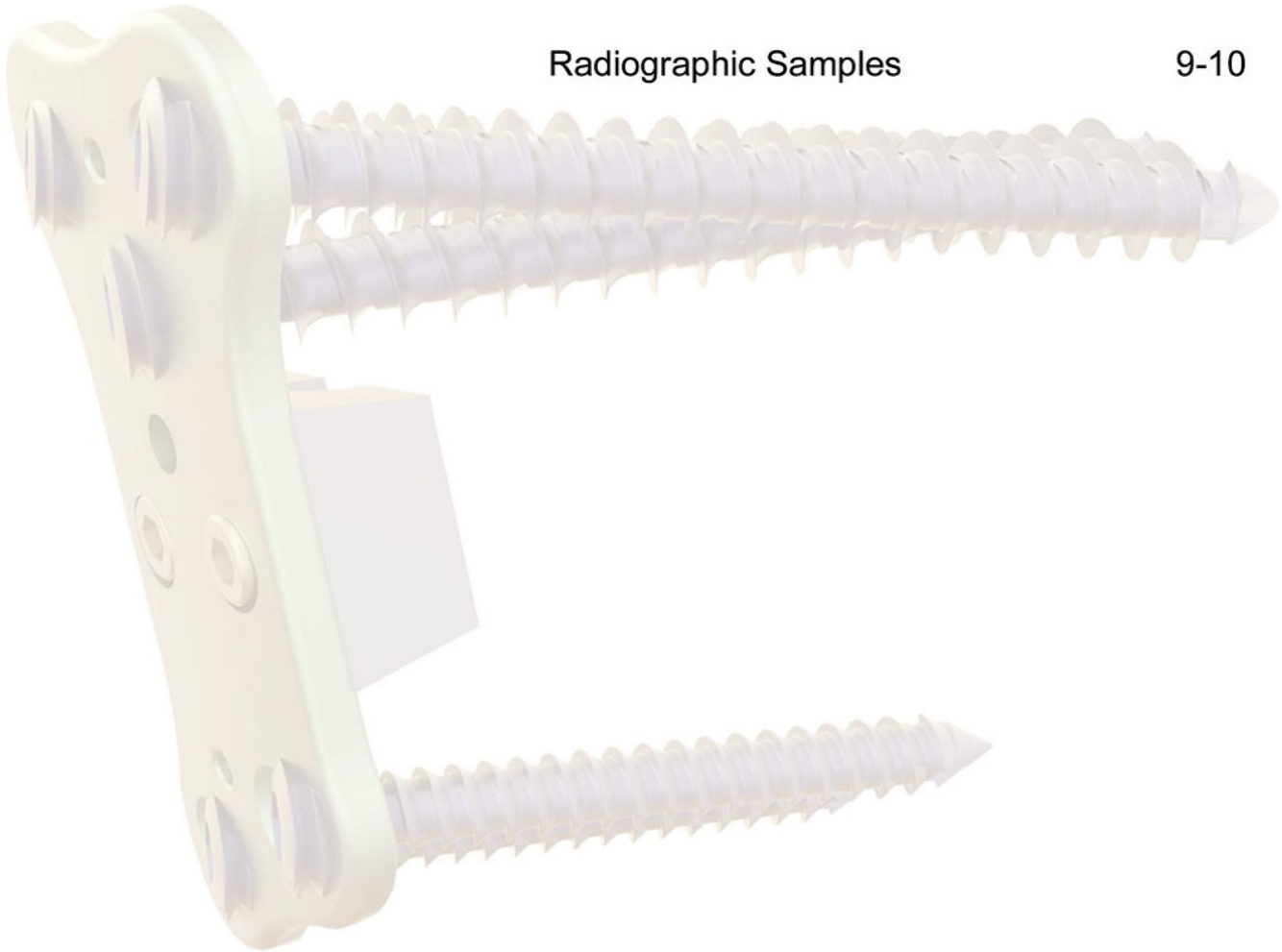
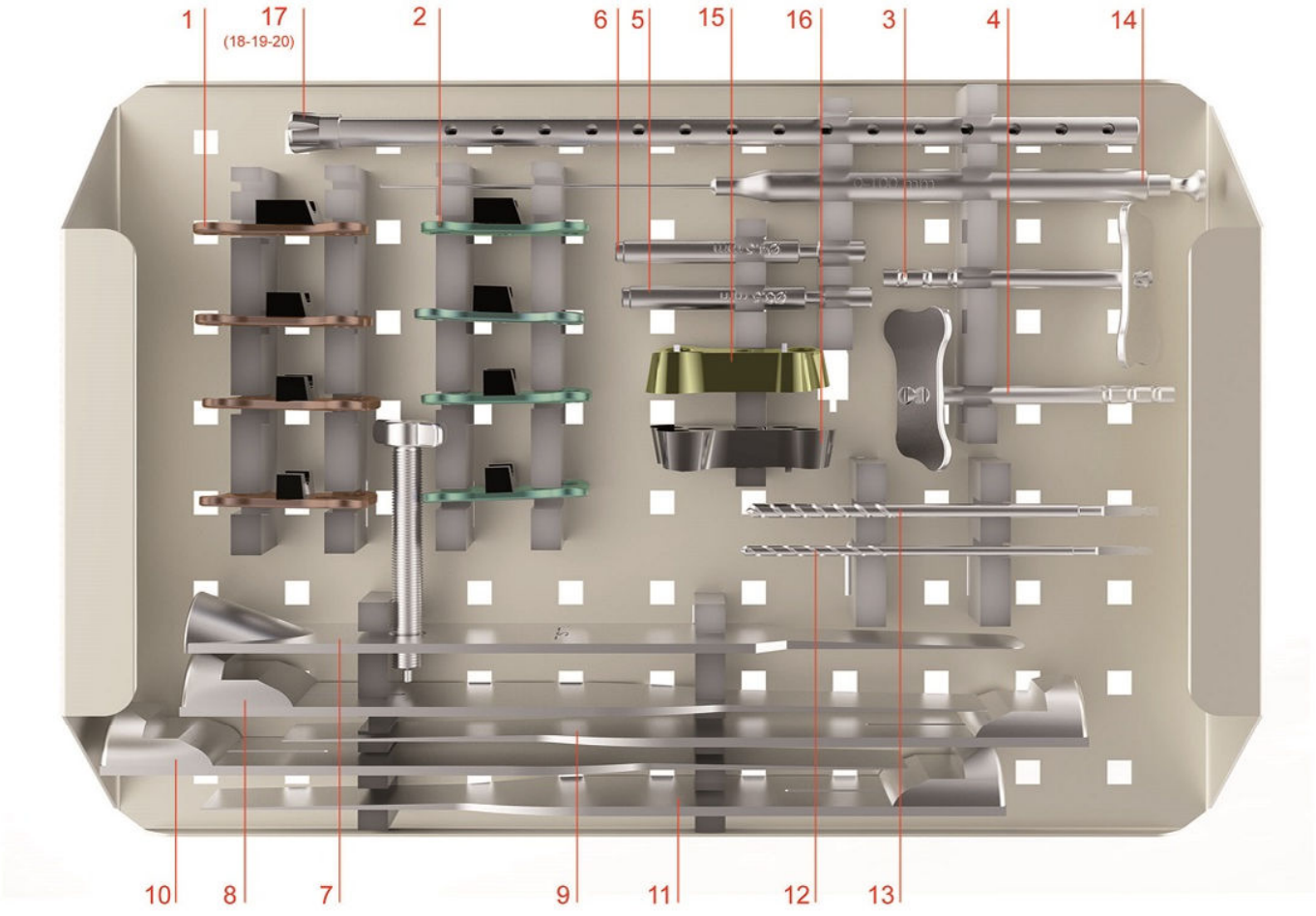


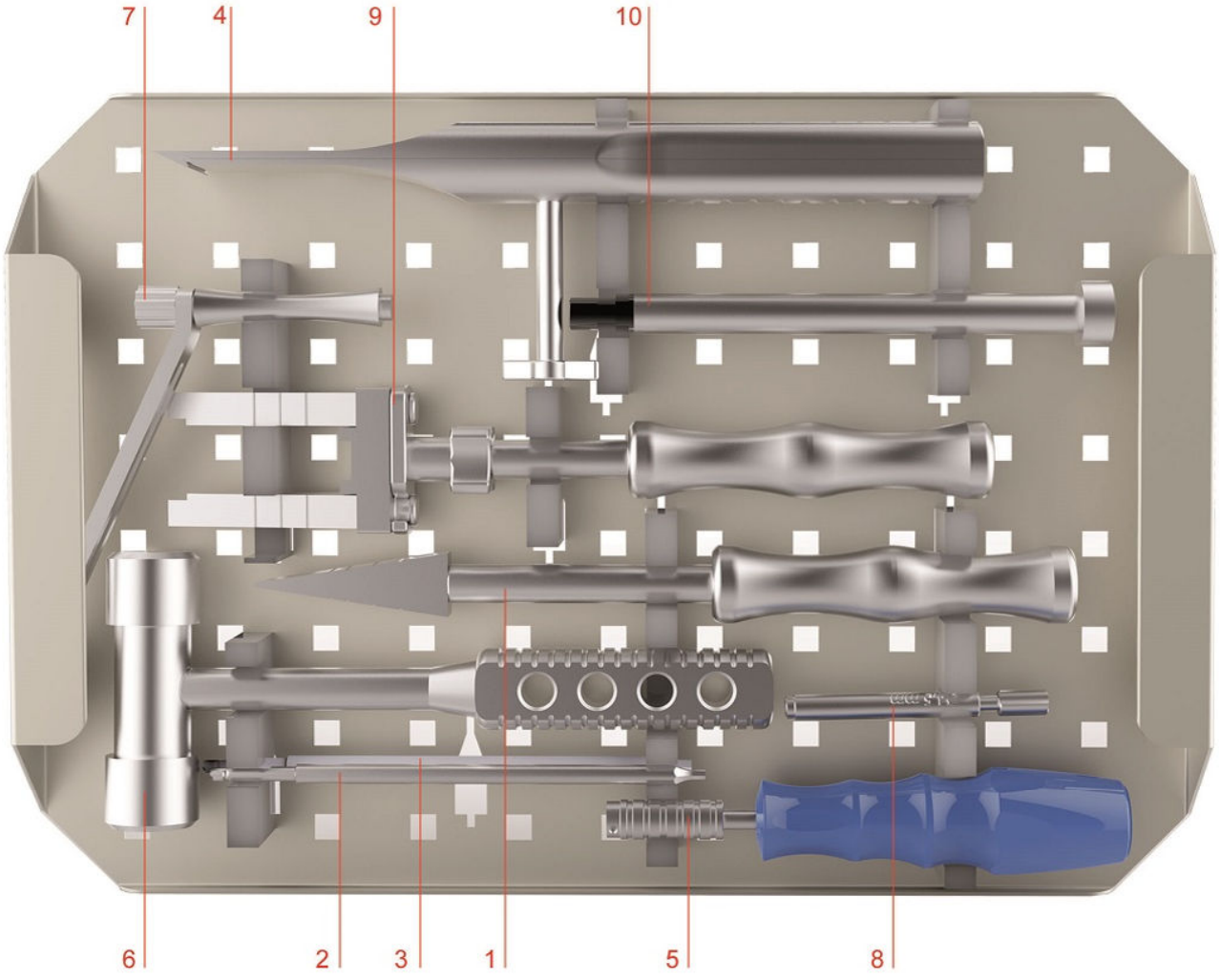
INSTRUMENTS (TRAY 1)

	Stock Code	Product Name
1-	34325000205	OWO PLATE R
2-	34326000205	OWO PLATE L
3-	08060000241	PLATE GUIDE R
4-	08060000244	PLATE GUIDE L
5-	02005700035	LOCKING DRILL GUIDE Ø 3.5 M
6-	02005700045	LOCKING DRILL GUIDE Ø 4.5 MM
7-	08050080125	DISTRACTOR OSTEOTOME WITH SCREW
8-	03436025000	OSTEOTOME 25 MM
9-	03436030000	OSTEOTOME 30 MM
10-	03436035000	OSTEOTOME 35 MM
11-	03436040000	OSTEOTOME 40 MM
12-	22310160035	BONE DRILL Ø 3.5 X 60 X 160 MM
13-	22310200045	BONE DRILL Ø 4.5 X 200 MM
14-	02005000100	DEPTH GAUGE (0-110 MM)
15-	03165000001	OWO BLOCK GUIDE (R)
16-	03166000001	OWO BLOCK GUIDE (L)
17-	04551208260	K-WIRE TUBE Ø 12X Ø 8X 260 MM
18-	23410250125	KIRSCHNER WIRE TROCAR POINT Ø 2.5 X 250 MM
19-	23410250120	KIRSCHNER WIRE TROCAR POINT Ø 2 X 250 MM
20-	23410250115	KIRSCHNER WIRE TROCAR POINT Ø 1.5 X 250 MM



INSTRUMENTS (TRAY 2)

Stock Code	Product Name
1- 08050000145	DISTRACTOR OSTEOTOME
2- 02020058025	SCREW DRIVER QUICK TIP HEXAGONAL Ø 2.5 X Ø 5 X 80 MM
3- 02000415035	SCREW DRIVER QUICK TIP HEXAGONAL Ø 3.5 X 150 MM
4- 03435000080	AUTOMATIC DISTRACTOR
5- 02010101002	SOFT SCREW DRIVER (LARGE)
6- 01193001009	HAMMER LARGE
7- 03160200016	OWO BLOCK GUIDE HOLDER
8- 03160200045	OWO BLOCK GUIDE CONNECTION SLEEVE FOR Ø 4.5 MM DRILL
9- 03435000030	WEDGE DOUBLE OSTEOTOME
10- 08040000151	PLATE IMPACTOR



INTRODUCTION

Introduction:

High Tibial Open Wedge Osteotomy is a commonly used surgery method especially for young and active patients who have Medial Osteoarthritis with pain and Varus Deformity on their knees. The aim is the acute correction of the mechanical axis from the injured medial plateau towards the lateral plateau.

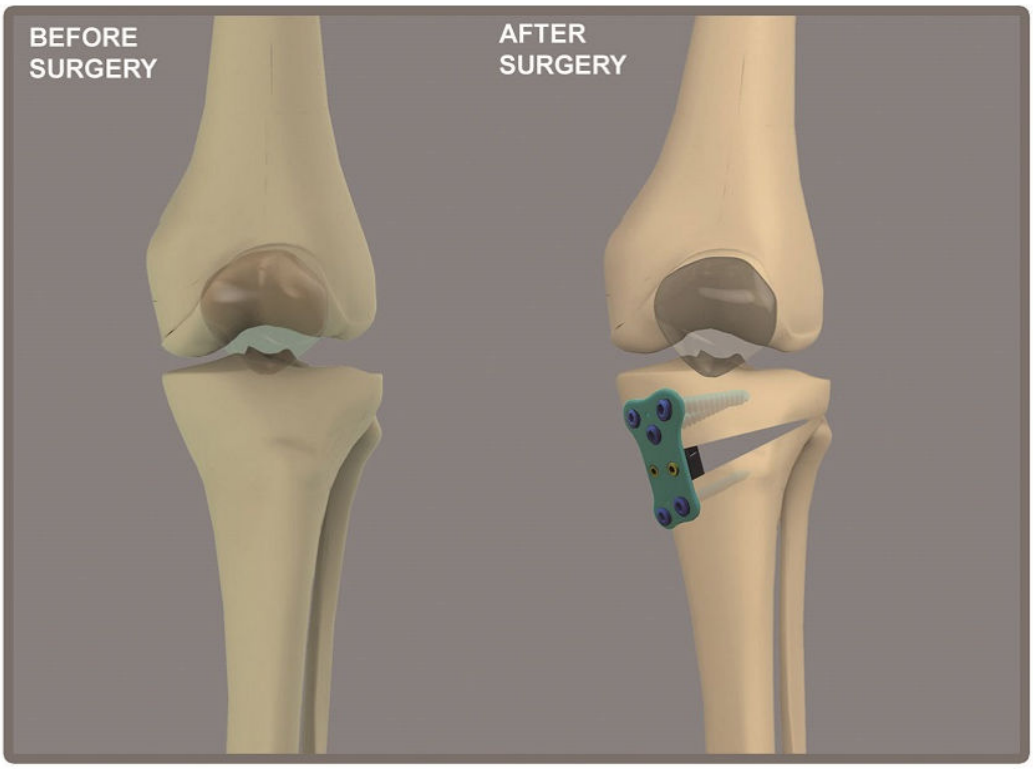


Plate Features:

-Low Profile structure.

-Anatomically designed plates for proximal medial surfaces of right and left tibia.

-There are four different sizes of 'OWO block' are available into the set from the range of 8 mm to 15 mm in length.

-There are three threaded holes at the proximal part of an 'OWO Plate' for Ø 6.5 mm cancellous screws and two threaded screw holes, which accept Ø 4.5 mm cortical screws, are available at the distal part of the plate so that the 'OWO Plate' can be fixed to the region applying five screws .

-The directions of the screws have been specially designed to get the desired engagement between the bone and plate interface and to avoid injuring the knee joint.

Advantages:

-There is no need for fibular osteotomy (No risk of peroneal nerve damages).

-Smaller incision size.

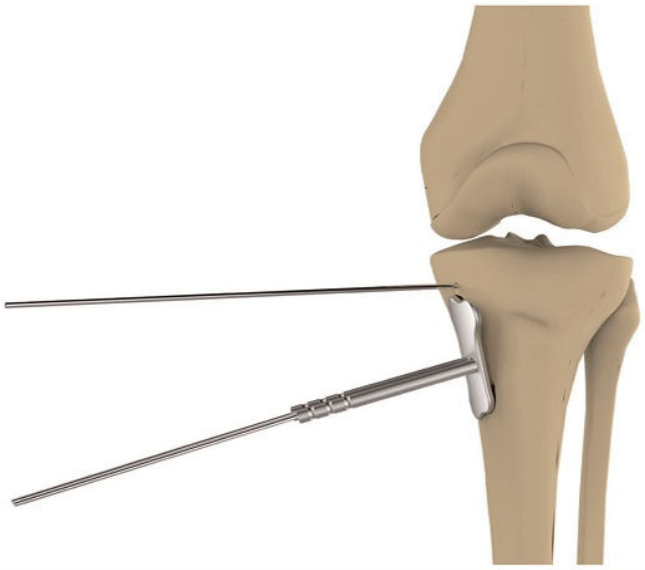
-Early time exercises for the Knee's Range of Motion are allowed.

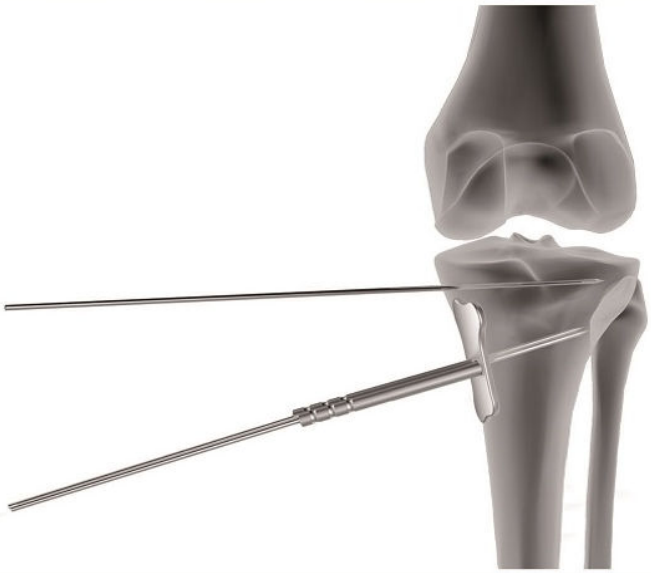
-Desired osteosynthesis application without limb shortening.

-The fluoroscopy time is reduced owing to use of drill guide and K. wire guides.

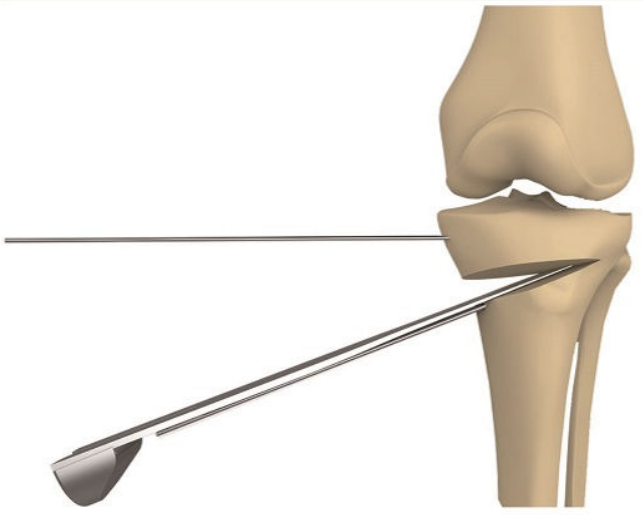
-Thanks to the unique design of 'OWO Block', it is allowed to regenerate by newly formed bone tissue formation into the wider space by infesting a small part of distracted gap.

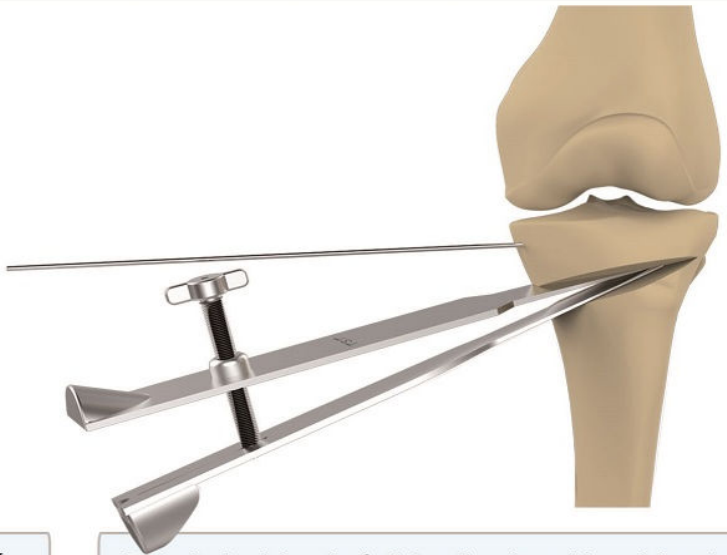
The Patient is placed in supine position on the operating table. The proper preperation of surgical environment of the limb is carried out. After the skin incision has been performed, the proximal medial surface of the tibia is reached for following surgical steps.





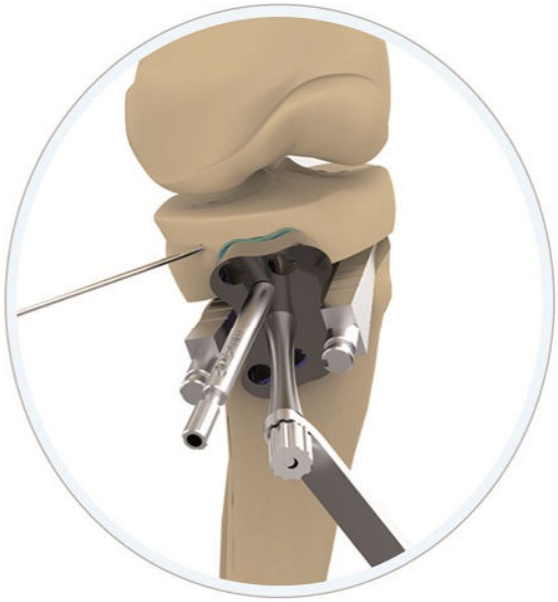
A Ø 2.5 mm K. wire is placed in a superomedial tibial tuberosity to the fibular head direction in parallel with the tibial plateau. The aim is to prevent a fracture of tibial plateau which may exist during the application of distraction following high tibial osteotomy. After the position of the K. wire has been checked under fluoroscopic control, the right or left sided 'Plate Guide' is placed just beneath the K. wire where the plate guide is in the same position with absolute 'OWO Plate' position. Ø 2 mm K. wires are sent through the parallel K. wire guides which are parallel to each other and have been integrated with the body of instrument. The instrument allows the K. wires to be placed in a inferomedial to superolateral direction so that it is located to the top of the fibular head (1 or 2 cm under the lateral proximal tibial joint surface). This application is a crucial point to detect the correct position of osteotomy line and 'OWO Plate'.

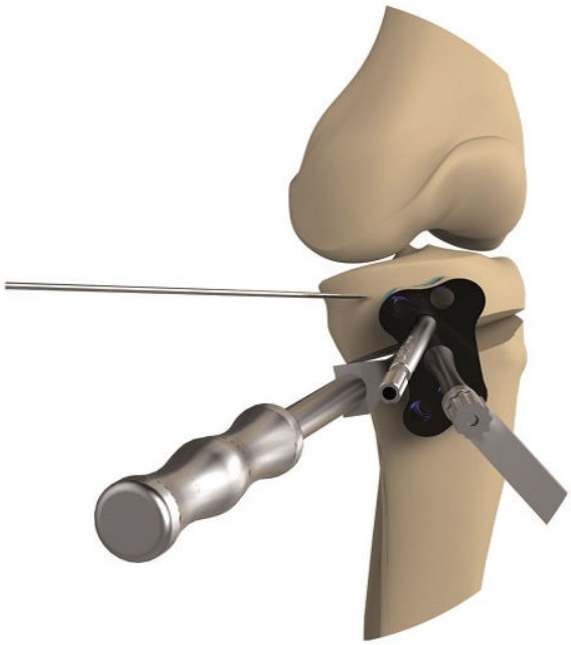




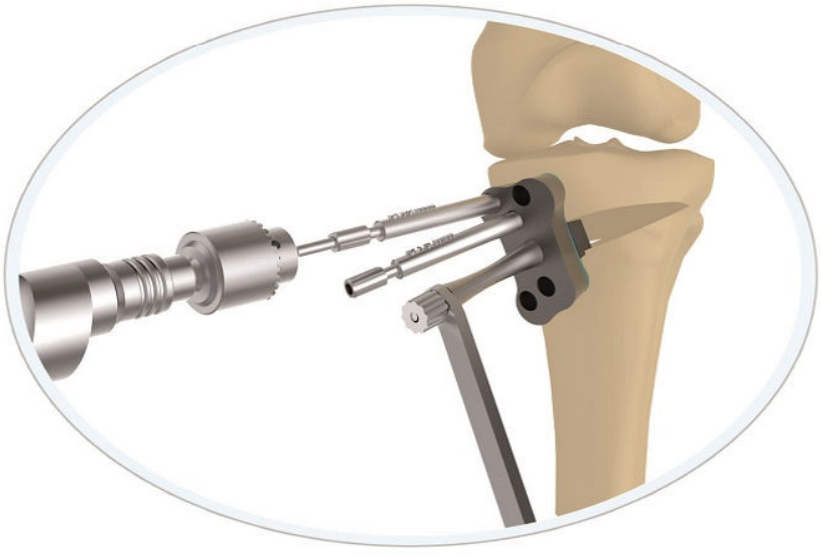
'The Plate Guide is pulled out and the position of the K. wires are checked with the help of fluoroscopy.High tibial osteotomy is applied over the K. wires using an appropriate size Osteotome (25 mm, 30 mm, 35 mm, 40 mm in width). It is important to keep the lateral cortex intact. The K. wire is parallel to the proximal tibial articular face which is left in its position. Two K. wires parallel to each other are removed.

The desired level of distraction is achieved by stages using an instrument of "Distractor Osteotome with Screw". An application of fast or uncontrolled distraction may result in fracture on the lateral cortex of proximal tibia.Controlled application of distraction provides to maintain the integrity of lateral cortex of proximal tibia and reduces the risk of the complication defined above.



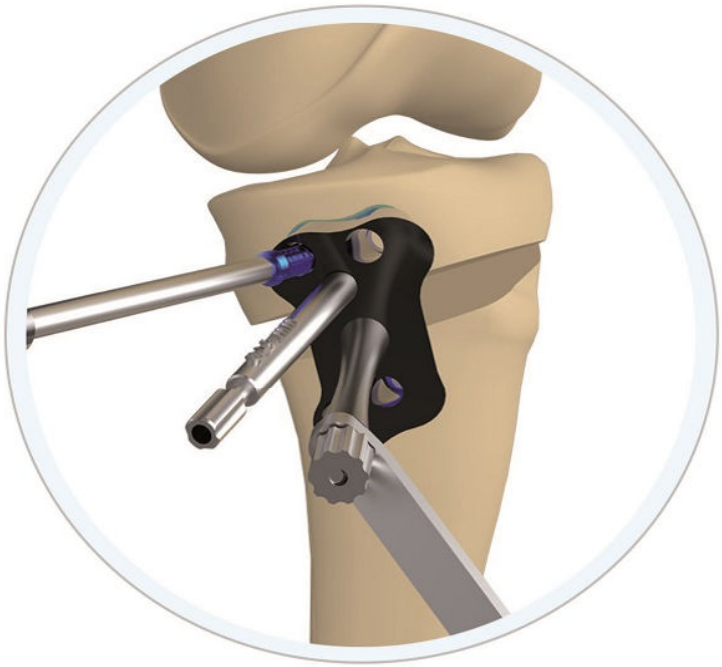


The placement of an 'OWO plate', which has appropriate 'OWO Block' size (8 mm, 10mm, 12.5 mm or 15 mm in length), can be accomplished easily with the help of an instrument of 'Distractor Osteotome' or 'Wedge Double Osteotome'. A plate impactor available in the set, can be used if it becomes difficult to place the 'OWO Block' in its exact position. The first K. wire where it had been aligned and placed in a horizontal line, parallel to the proximal tibial joint surface at tibial plateau is removed. It is recommended to use bone graft in case of using larger size 'OWO Block' than 8 mm in length.

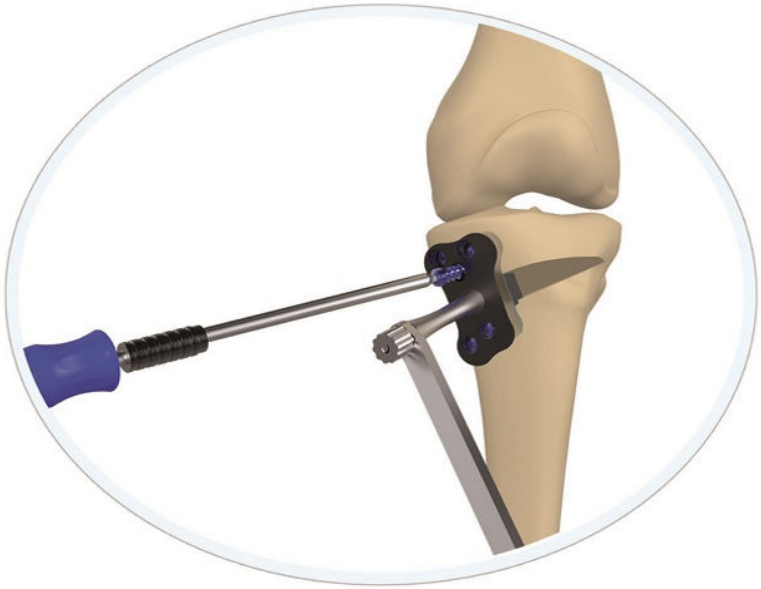


'A Ø 4.5 mm drill bit is sent through a locking drill guide, which is fastened to OWO Plate over OWO Block Guide, from right or left proximal hole. It is drilled under fluoroscopy control up to 1-1.5 cm back of the lateral condyle surface of tibia.

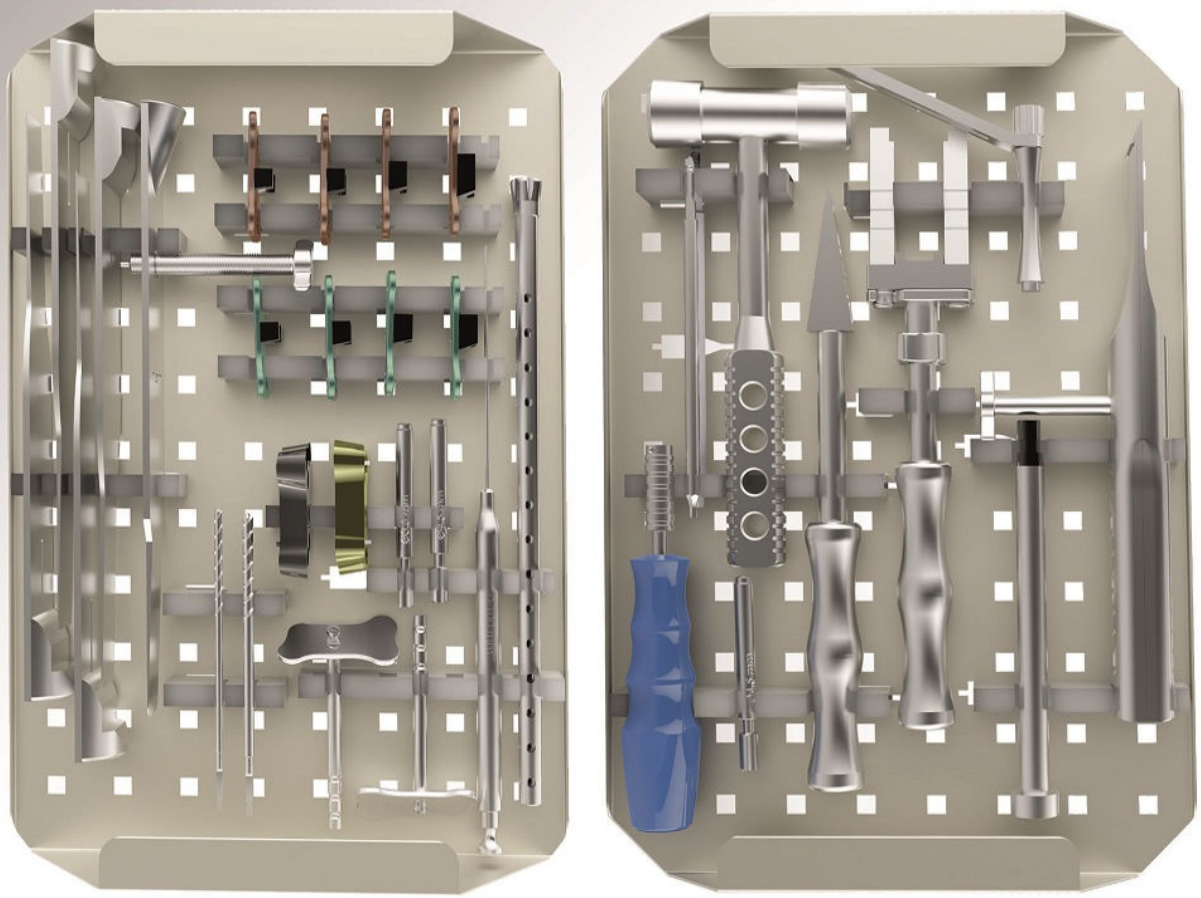
Determining the required screw's length is achieved using the instrument of 'Depth Gauge (0-110 mm)'.



After the measuring with a depht gauge, appropriate size locking or usual head Ø 6.5 mm self tapping, low profile Cancellous screw is carefully placed. On the contralateral side, the screw hole is prepared using a Ø 3.5 mm drill bit through the related drill guide. The following process is determining the length of required locking or usual head self tapping, low profile Ø 4.5 mm cortical screw with the help of 'Depth Gauge' and inserting it in its place.



The same procedure is performed for remaining screw holes. In the last stage of this application, middle proximal hole is drilled through a Ø 4.5 mm locking drill guide. After measuring the depth, an appropriate size locking or usual, self tapping, low profile head Ø 6.5 mm cancellous screw is carefully inserted. Finally, all the screw positions are checked under fluoroscopy control.



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REV 00/9.09.2013