

## DIGITAL CUTTING BLOCK ALIGNMENT

Brainlab's adjustable cutting block allows for live navigation of the placement of femoral implant components without additional pin placement in the bone. The cutting block can be pre-placed with an easy-to-use template and simply adjusted with the innovative mechanism. This straight forward tool for distal femoral resection supplements the existing conventional instruments to allow precise adjustment of the cutting block position.



## **TECHNICAL SPECIFICATIONS:**

Adjustment knobs allow changes to the cutting block position up to  $\pm 9^{\circ}$  (orientation) and  $\pm 6 \text{mm}$  (resection height). The knobs can be turned either directly by hand, or using the included 3.5mm hex screwdriver.

The kit includes a reference array fixation on the cutting block base, therefore requiring no additional pins. An alignment guide aids in the initial positioning of the reference base. The cutting block is a modular system, allowing different saw blade thicknesses from 1.19mm up to 1.37mm.

All parts fit into a standard half-size designated sterilization tray for easy handling during cleaning and sterilization process.

### **USAGE SCENARIOS**

## ALIGNMENT VERIFICATION



The positioning of the cutting block is one of the most important factors for a successful knee replacement surgery. In combination with the innovative Alignment Verification Workflow, this block allows precise placement of the distal femoral resection without the need for additional pins.

On the femoral side, use the optional femoral alignment guide to place the cutting block in an approximate position. After a quick verification of the initial position, use the adjustment options to verify initial alignment and correct potential deviations by adjusting the block accordingly.

On the tibial side, place the cutting block using the conventional extramedullary alignment guide in an approximate position – fix this position with a single pin and perform a quick verification. Potential changes can be corrected using the adjustment options on the extramedullary instrument. In case of bigger changes, repeat the verification.

# ACCURATE ALIGNMENT



Well-aligned resections are crucial for successful knee replacement surgeries. With Brainlabe knee navigation software and the adjustable cutting block, you can improve implant alignment and reduce outliers.

The adjustable cutting block base allows the fixation of a femoral reference array right on the base, thus requiring no extra pins besides the cutting block fixation. On the tibial side, a standard 2-pin reference array is used inside the incision, and the extramedullary instrumentation from the conventional set is used for adjustments to the cutting block position.

This scenario supports measured resection procedures with navigated placement of distal femoral and tibial resection, as well as long leg alignment using a fixed spacer block. Femoral cutting block base needs to be removed before performing the finishing resections using the 4-in-1 block

## STABLE KNEES



While straight cuts are important for total knee replacement, there are more factors contributing to a good outcome.

To utilize the full power of computer navigation, femoral rotation, flexion gap balancing and ultimately long leg alignment with trial prostheses and final cemented implants can be supported by the navigation system.

To reach this goal, the bone references are required until the end of the procedure. The femoral reference array is fixed with a standard 2-pin fixation inside the incision, but out of the way of femoral instrumentation and resection planes, just as well as on the tibial side.

The adjustable cutting block with a small footprint base is placed under navigation control in the approximate position and adjusted accordingly. While the block is removed, the femoral reference array can stay in place until the end of the procedure.

## WORKFLOW: KNEE EXPRESS

#### Requires:

1x 53233/4/5 ADJUSTABLE CUTTING BLOCK – BASIC FEMUR KIT 1x 53212 FEMORAL ALIGNMENT GUIDE 1x 41866-77 FEMORAL AND TIBIAL CUTTING BLOCK ADAPTER 1x 53101 POINTER ANGLED FOR HIP/KNEE

### WORKFLOW: KNEE UNIVERSAL

#### Requires:

1x 53230/1/2 ADJUSTABLE CUTTING BLOCK - FEMUR KIT 1x 52420 BONE FIXATOR 2-PIN X-PRESS 1x 52410 REFERENCE ARRAY T-GEOMETRY X-PRESS 1x 41866-77 FEMORAL AND TIBIAL CUTTING BLOCK ADAPTER 1x 53101 POINTER ANGLED FOR HIP/KNEE

### WORKFLOW: KNEE 3 BALANCED TKR

#### Requires:

1x 53233/4/5 ADJUSTABLE CUTTING BLOCK – BASIC FEMUR KIT 2x 52420 BONE FIXATOR 2-PIN X-PRESS 1x 52410 REFERENCE ARRAY T-GEOMETRY X-PRESS 1x 52411 REFERENCE ARRAY Y-GEOMETRY X-PRESS 1x 53200 PLANE TOOL 1x 53101 POINTER ANGLED FOR HIP/KNEE

## **COMPONENTS & IMAGES IDENTIFICATION CHART**

		ADJUSTABLE CUTTING BLOCK - FEMUR KIT			ADJUSTABLE CUTTING BLOCK – BASIC FEMUR KIT		
Article Number		53230	53231	53232	53233	53234	53235
For saw blade thickness		1.19MM	1.27MM	1.37MM	1.19MM	1.27MM	1.37MM
	53210 ADJ CUTB - ADJ UNIT		•			•	
	53211 ADJ CUTB - FEM REF ARRAY		•				
	53212 ADJ CUTB - FEM ALIGN GUIDE		•				
	53213 ADJ CUTB - FEM BASE		•				
	53219 ADJ CUTB - FEM BASE SMALL					•	
	53220 ADJ CUTB - CUT SLOT FEM 1.19MM	•			•		

		ADJUSTABLE	CUTTING BLOCK	- FEMUR KIT	ADJUSTABLE CL	JTTING BLOCK – B	ASIC FEMUR KIT
	53221 ADJ CUTB - CUT SLOT FEM 1.27MM		•			•	
	53222 ADJ CUTB - CUT SLOT FEM 1.37MM			•			•
	54922 DISP. SCREW 3.2MM/100MM BL/AO (10PCS)		•				
THE PARTY OF THE P	54932 BL 3.2MM PINDRIVER (AO INTERFACE)		•				
	53218 ADJ CUTB - SCREWDRIVER		•			•	
	52314 STERILIZATION TRAY ADJ CUTTING BLOCK		•				