



maxROM
total knee replacement system

more to life™



maxROM knee

Benefits of the maxROM high flexion multi-radius knee

Controlled ligament tension throughout range of motion is critical to ensuring mid-flexion stability in total knee designs. Carefully balanced changes in radius through flexion can result in improved stability which leads to greater confidence from patients in simple daily tasks such as driving, stair climbing and sitting or rising from a chair.

Multiradius design



The MaxROM® Knee's multi flexion radius design provides for a smooth transition of rotation through the functional range of motion improving collateral ligament tension. Because of the mechanics, joint stability is maintained throughout the full ROM, which can lead to better patient confidence and ability.

MaxROM® CR – high flexion multi radius knee

Maximum contact area for minimum stress and minimum wear

NORMAL KNEE KINEMATICS

- An even tension in the PCL and collateral ligaments with a more natural ROM from the single posterior axis of rotation.
- A better balance of the natural ligament structures through correct anterior positioning.
- A superior match for natural knee mechanics from the variable A/P radius.
- Anatomic trochlear groove design allows for unsurfaced patella
- Anatomic size range minimizes bony and soft tissue impingement

MAXIMUM RANGE OF MOTION (maxROM)

- An increased and reproducible range of motion from superior design.
- Reduced tension across extensor mechanism which facilitates deeper flexion from the deep patella groove.
- Deep flexion maximizing ROM of up to 150 degrees

REDUCED POLYETHYLENE WEAR

- Reduced contact stress and a potential reduction in polyethylene wear by maximizing the contact area in the conforming bearing surface in both the M/L and A/P planes.
- Reduced wear by maximizing the femoro-tibial contact area in extension, by providing 95% conformity in the M/L plane.



3-Peg All-Polyethylene Patella

MaxROM® PS – posterior stabilized

MAXROM® PS KNEE has been developed to give:

SUPERIOR PATELLO-FEMORAL ARTICULATION

- Recreation of natural knee biomechanics from the A/P flexion multiple radius.
- A reduced patello-femoral joint reaction force and improved extensor function delivered by the single A/P flexion radius.
- A smooth patella tracking through the maximum ROM by creating a natural patellar surface from the deepened patello-femoral groove allowing for unsurfaced patella.

MaxROM® PS femoral component removes less bone.

HIGHLY CONFORMING BEARING

- Maximizing bearing contact area in both M/L and A/P planes, potentially reducing polyethylene wear.
- Reduced wear by maximizing the femoro-tibial contact area in extension, by providing 95% conformity in the M/L plane.

OPTIMUM BONE CONSERVATION

The MaxROM® Knee's PS cam mechanism requires minimum posterior bone removal between condyles supporting the minimally invasive approach and impressive bone conservation.

Instrumentation

Efficient, highly reproducible and intuitive tissue friendly instrumentation Versatile Minimally invasive 4 in 1 cutting block gives accurate alignment of femoral bone cuts.

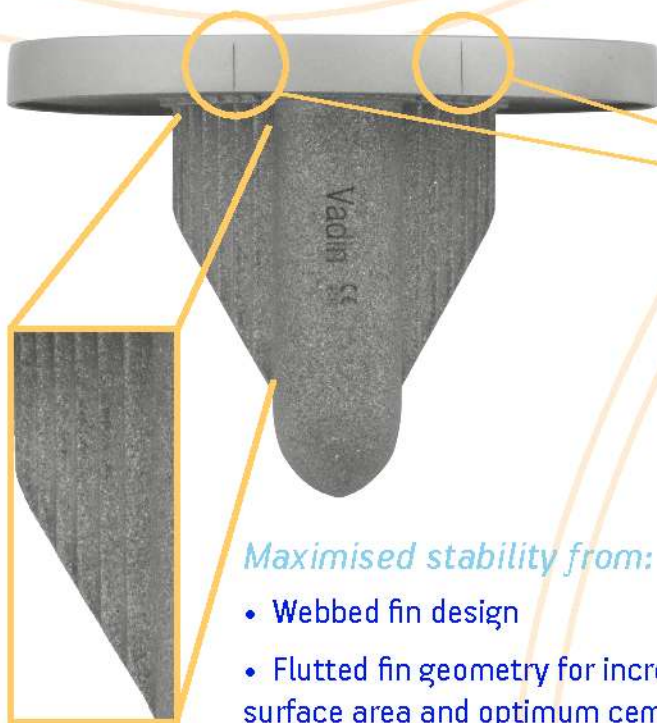




Benefits of the MaxROM® Tibial component

The MaxROM® tibia plateau is available in two versions: modular and monoblock. A distal stem can be attached to the modular version to improve stability. The distal tibia plug is manufactured from Ti Alloy and is screwed into the central peg. Both the monoblock and the modular tibial versions are intended for cemented use.

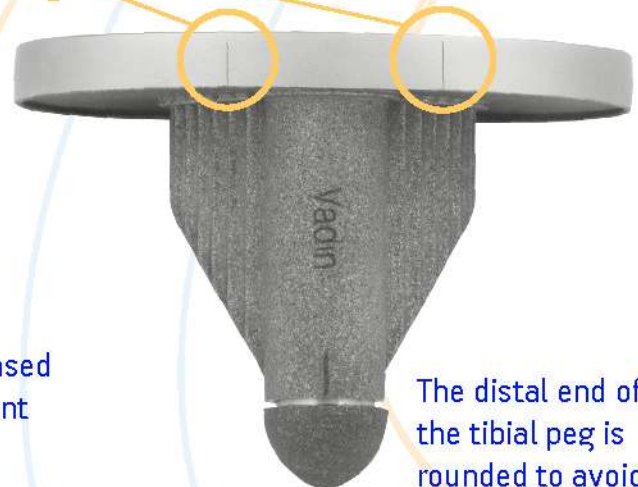
Resistance to tibial subsidence and rotation is delivered from the central peg and fin combination.



Maximised stability from:

- Webbed fin design
- Fluted fin geometry for increased surface area and optimum cement interdigitation
- Grit blasted Ti alloy surface for solid fixation

The anterior face of the tibial plateau is laser marked to register external rotation position of the implant to deliver the optimum orientation achieved during trial reduction.



The distal end of the tibial peg is rounded to avoid cortical impingement.



Wide size range minimizes tibial overhang and bony or soft tissue impingement.

MaxROM® Tibial Insert design features

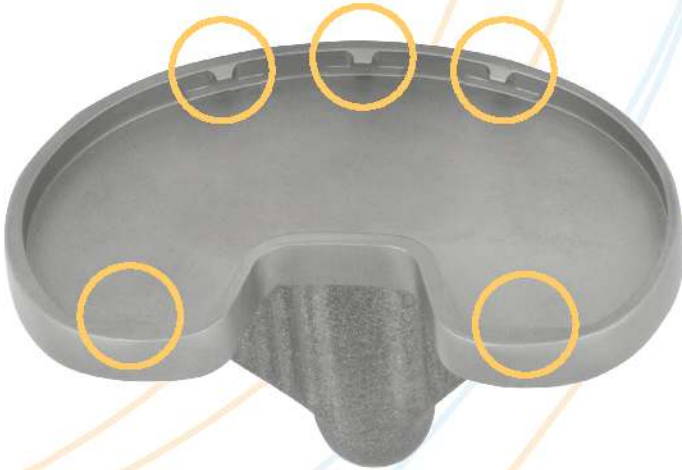
Minimum of 9 mm polyethelene thickness to support tibial wear and creep theory.

Optimum tissue balance for flexion and extension can be achieved through the large range of insert options available (9mm – 19mm in 2mm increments)

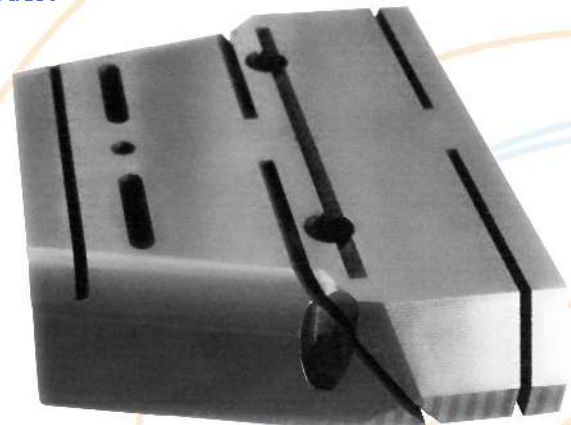
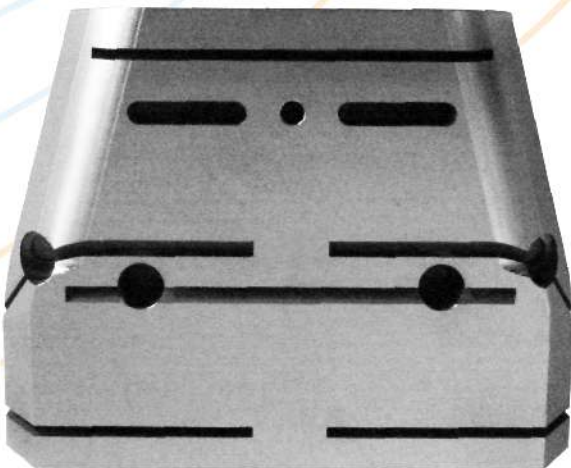


There are no holes on the tibia plateau surface for the avoidance of polyethylene particle migration to the bone.

The combined features of the polished tibial plateau and 5 point locking mechanism offer increased insert stability and reduced backside wear.



Minimally invasive 4 in 1 cutting block give accurate alignment of femoral bone cuts.





High-Flexion Total Knee System

implants for life™



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