



Knee System

Our Knee is specially researched and developed keeping in view Asian patients' anatomy and lifestyle requirements to get a better fit and improved outcome.

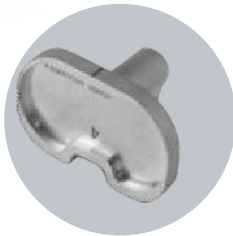
Humans are Different Sizing & Shape, High Flexion & Bone Conservation

- Hi-Flex Design - All Poly and Metal Back
- Asian Sizing, No Overhang
- Preserves bone while promoting high flexion.
- Thin anterior flange
- Low Profile Box Cut
- Excellent bone-implant fit
- Left/right components each available in 7 sizes that match with several tibial sizes to accommodate patient needs



Key Features:

- 60° flexion-cam engages post
- 90° flexion - larger side of cam (laterally) begins encouraging internal tibial rotation
- 120° + flexion - slowly increasing diameter of the lateral side of cam encourages further rotation of 10-15
- Asymmetrical cam design encourages anatomical rollback and internal tibial rotation in deep flexion
- Features a deep anterior patellar cut-out to allow for tendon clearance during deep flexion



Knee System

Approved by Indian DCGI and European CE

Knee System

Global shape and sizing

Optimal AP – ML ratios for global patients

PS & CR Femurs (L & R)

	A	B	C	D	E	F	G	H
M/L	54.00	58.00	62.00	64.00	66.00	70.00	74.00	78.00
A/P	51.00	54.00	58.00	60.00	62.00	66.00	70.00	74.00

Transitional size 'D'

Patella Dia.
25, 28, 31,
34, 37 &
40 mm

Metal Back Tibial Trays

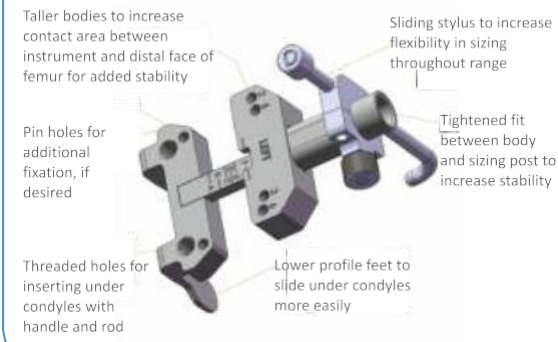
	1	2	3	4	5	6	7	8
M/L	59	62	66	66	71	72	76	78
A/P	40	40	42	46	48	50	52	54

Modularity of sizes along with compatibility of 2 size mix & match in critical sizes

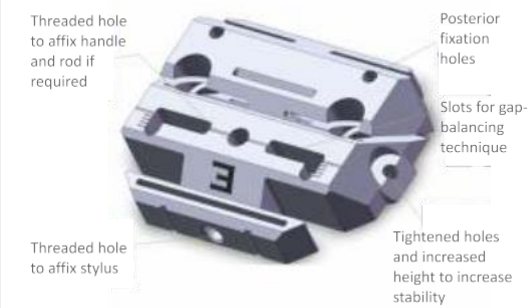
Component modularity PS femur, metal-backed tibia trays & inserts

		Femoral Component Size										
		A	B	C	D	E	F	G	H			
Metal Back Tibial Tray Size	1									1/2	Tibial Liner Size / Match for Metal Back Tibial Tray Size	Thickness of Tibial Liner
	2									3/4		
	3									5/6		
	4									7/8		
	5											
	6											
	7											
	8											

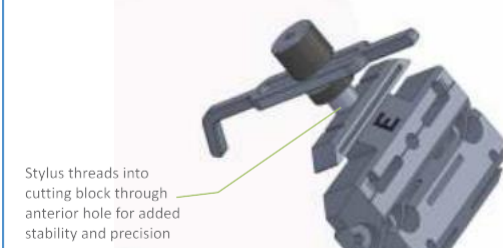
Femoral Sizing Guide



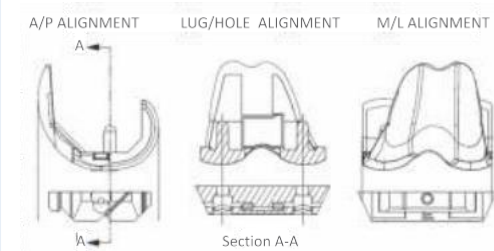
5-1 Cutting Blocks



5-1 Cutting Blocks with Stylus



5-in-1 Line to Line with Femur



For more information about knee please contact your local representative.

Please see the package insert for complete device description, product selection information, indications, contraindications, precautions, adverse effects, warnings, materials, sterilization and patient guidance associated with the Knee System

CAUTION: THIS DEVICE IS RESTRICTED TO SALE BY OR ON THE ORDER OF A LICENSED PHYSICIAN

WARNING: THIS DEVICE IS INTENDED FOR CEMENTED USE ONLY



Knee System

Knee System

A unique component option that deliver Successful, Predictable and Reproducible results.

- The one & only 7 radii knee implant in the world
- Optimised A-P & M-L ratios for femur & tibia
- Asymmetrical cam & spine mechanism for rotation up to 15 degree
- 6 degree deep trochlear groove
- Thin anterior flange
- Small femoral box profile
- Small femoral posterior condyle resection
- Extended 7th radii in the posterior condyle
- 5 point cobalt chrome tibial locking system with 3 degree & 30 mm keel
- Minimized surface roughness of 11 um for tibial trays for superior finish
- Ram extruded poly UHMWPE, GUR 1020
- Modularity of sizes & compatibility

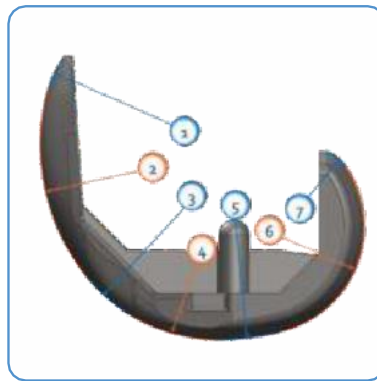


The one and only 7 radii femoral implant in the world: Facilitate coordinate articular geometry of natural femur

Coordinate articular geometry of the knee through optimised area contact

Radii 1, 2 and 3 ensure optimized patella-femoral contact.

They must be tightly controlled for smooth tracking over a thin anterior flange for optimized extensor mechanism & also minimizing the contact stress through uniform load dissipation.



Radii 4, 5, 6 and 7 control femoral rollback and flexion over a wide array of biomechanical requirements, from walking to climbing stairs & ensure optimized area contact for uniform load dissipation both in extension & flexion thereby minimizing the contact stress.

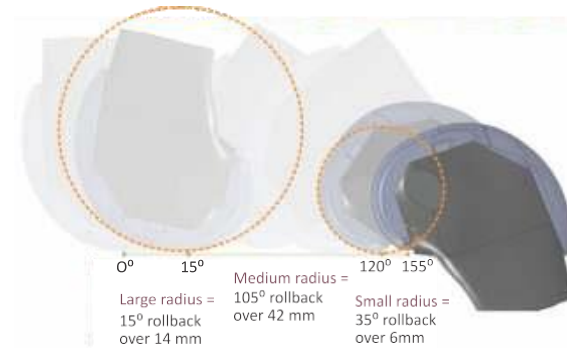
The knee femoral design is based on functional principles of progressive multi-radii of Patello-femoral and Tibio-femoral contact areas

7 radii along with thin anterior flange and 6 degree deep trochlear groove facilitate predictable Patello-femoral tracking resulting in smooth extensor mechanism



Smooth extensor mechanism helps in reducing anterior knee pain.

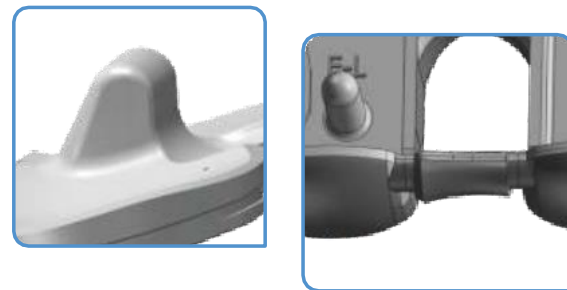
Multi radii design for predictable femoral roll back and high flexion



Increased femoral roll back allowing high flexion up to 155 degree for various daily & social activities.

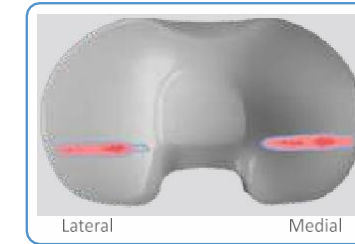
Asymmetrical post-cam mechanism for rotation at deep flexion

A modified post-cam mechanism allows for stability, posterior clearance and protection against subluxation during deep flexion.

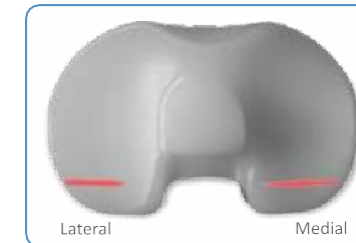


Achieves rotation up to 15 degree at deep flexion to prevent post-cam impingement, thereby reducing wear and tear of poly.

Prevention of edge loading at deep flexion



Representative Surface Stress Distribution 15 - 40+ MPa at 90 Degree Flexion, 333 kgf Load

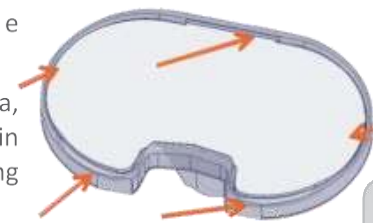


Representative Surface Stress Distribution 15 - 40+ MPa at 135 Degree Flexion, 222 kgf Load

Destiknee concentrates load towards the center of the poly.

Minimised micro motion in tibia

- 5 point locking mechanism and Optimized inside surface roughness average (11 um).
- Minimizes micro motion in tibia, thus reducing the back side wear in the tibial tray thereby improving the durability of the implant.



knee PS Tibial Inserts have identical locking mechanisms to mate.

Intelligent design for bone conservation

Thin anterior flange, low profile box and multi-radii design for minimized posterior condylar resection results in maximum bone conservation.

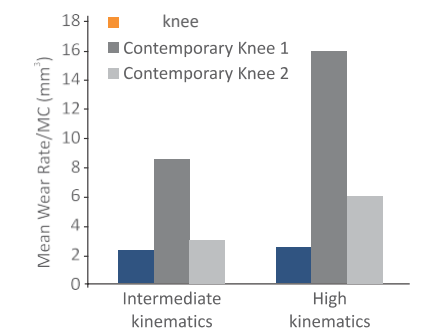
knee: Post condylar bone resection (mm)

A	B	C	D	E	F	G	H
7.2	7.7	8.2	8.5	8.8	9.4	9.8	10.4

knee: Box cut bone resection (cm³)

A	B	C	D	E	F	G	H
4.37	5.42	6.44	7.14	7.91	9.69	11.26	13.44

Importance of design in increasing implant longevity/ durability



Source: White paper on comparative Lab Test Data on polywear characteristics