

# GENUS MB

flexion

stability

polyvalency



**ADLER**<sup>®</sup>  
ORTHO



# GENUS

In the last few years, reconstructive arthroplasty of the knee has undergone considerable development. This has led patients and operators to expect better performance.

The GENUS project originated in this context.

## GENUS - MB

**Single rotation centre with constant radius.**  
The GENUS prosthesis has a constant radius and a single centre of rotation with 0° to 90° of flexion. In the last portion, the radius of the condyles reduces to increase the range of flexion.

**Constant continuous radius.**  
At approximately 35° of flexion with the GENUS prosthesis, the patella starts working on a surface with a constant radius. From that point onwards and throughout the arc of movement, the patella tension will no longer be modified, unlike in the case of traditional knee prostheses.

**Rear condyles in closure.**

- Increase the flexion.
- Increase the range of contact.
- Increase the fixation of the implant.

**Reduce the patella tensions to the minimum.**

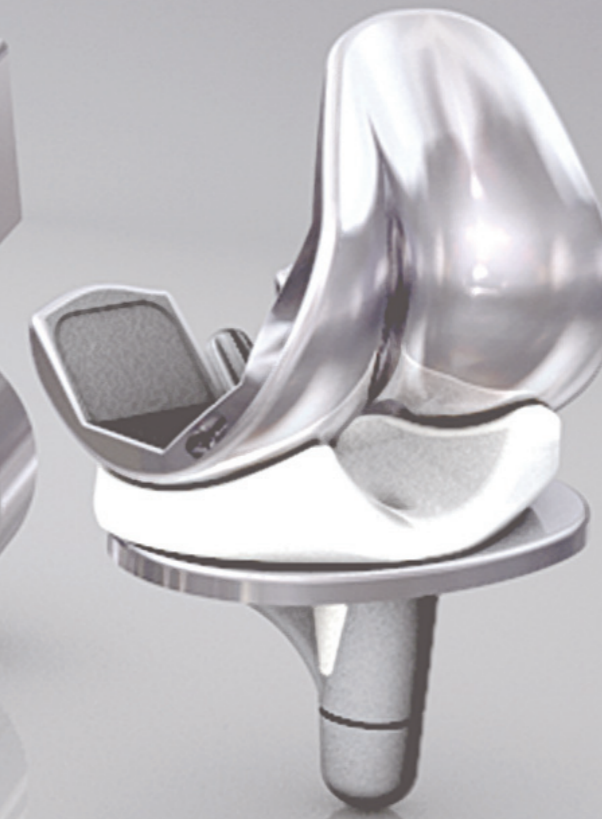
With The GENUS a less invasive anterior profile has been created thereby lightening the retinaculum of the extensor apparatus subjected to great stresses caused by the surplus material present in traditional prosthesis systems.

**Eliminating risks of conflict.**  
The polyethylene GENUS has:

- An anterior chamfer to avoid risk of patellar conflict particularly with low patellas.
- A posterior chamfer if necessary to preserve the LCP.
- A reduced height of the posterior "lip" of the insert, to avoid conflict with the posterior cortex.

**Stability, freedom and congruence without compromise.**  
With the GENUS system, the intra-operative choice of sacrificing or preserving the LCP does not affect the stability of the implant and does not modify the surgical procedures. The rotation pin of GENUS inserts has a triple profile design:

- Spherical base, to reduce shearing stresses.
- Cylindrical part, to avoid rocking effect.
- Tapered end, to facilitate insertion in "metalback".



**The high congruence**

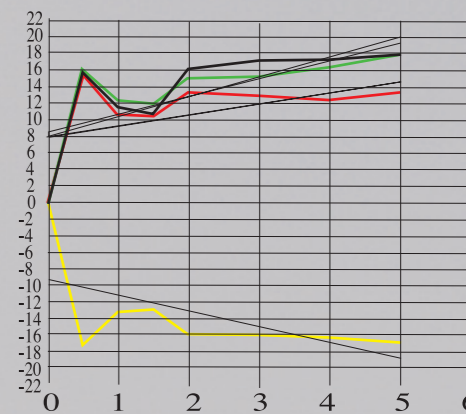
The GENUS femoral component and the polyethylene insert give the prosthesis implant great stability up to about 60° of flexion, transferring to the patient greater proprioceptive confidence while going up and down the stairs and in the walking phase.

**Reduction of polyethylene wear.**

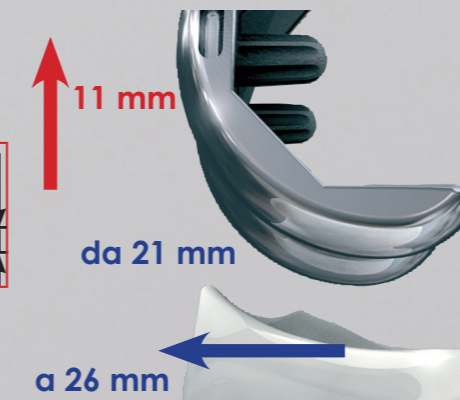
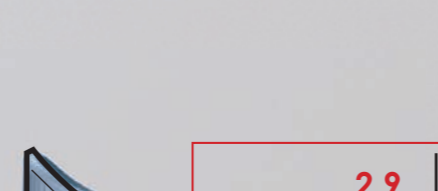
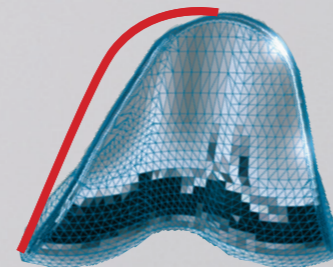
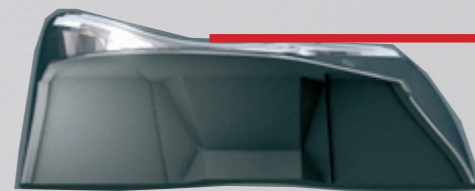
The GENUS insert with its characteristic high congruence distributes the loads uniformly, reducing risk of wear. The tests conducted (at the ZLG laboratories) showed how this feature gives results 2/3 lower than the average of polyethylene materials tested (1.95mg of GENUS against 5.75mg of average)

**The correct dimension**

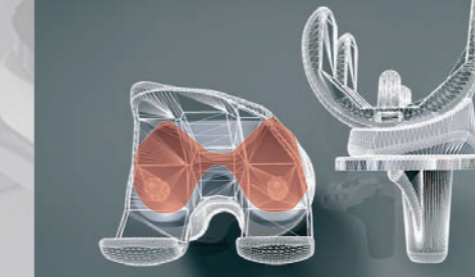
In a graph showing the anatomic values of the different morphological dimensions, it is possible to note how the development of the sizes of the GENUS prosthesis satisfies the various needs.



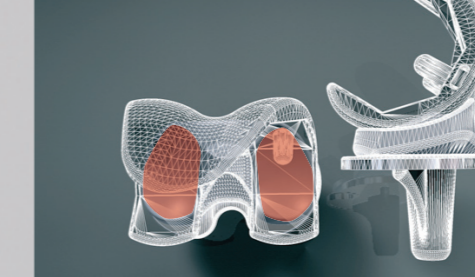
**Angle 148°**



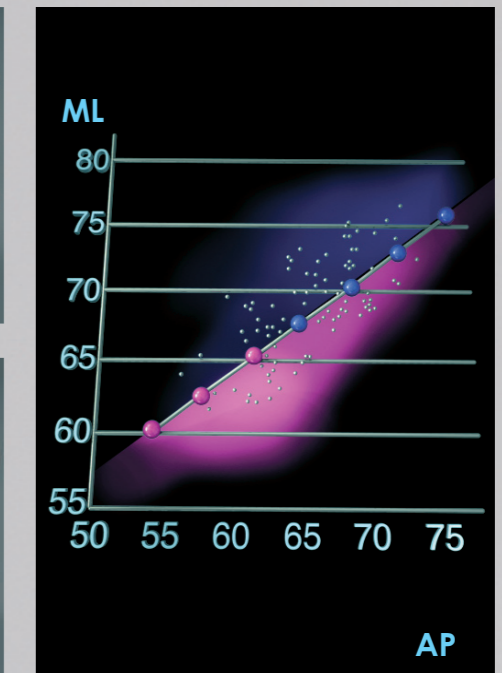
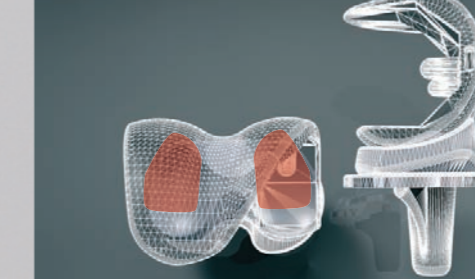
**Extension 1475 mm<sup>2</sup>**



**Flexion 60° 1308 mm<sup>2</sup>**



**Flexion 90° 816 mm<sup>2</sup>**

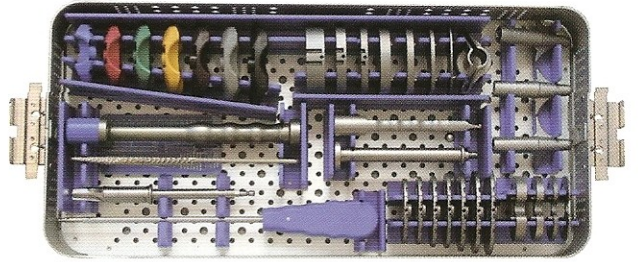


To ensure stability the GENUS tibial plate is designed with a delta-shaped tapered keel with the possibility of connecting endomedullary stems of different diameters and sizes.

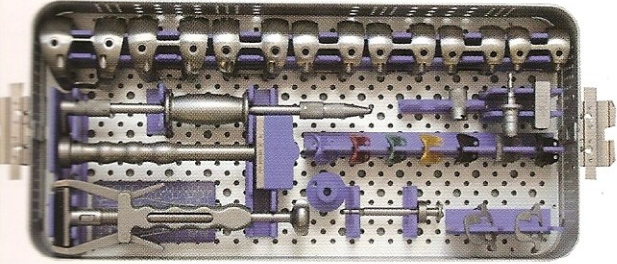




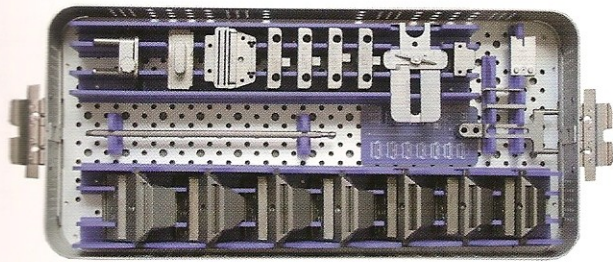
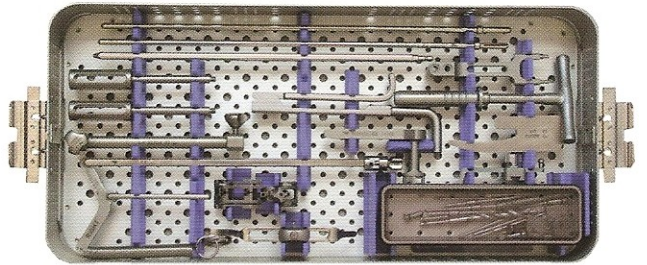
KG05700  
Basic Set 1



KG05700  
Basic Set 2

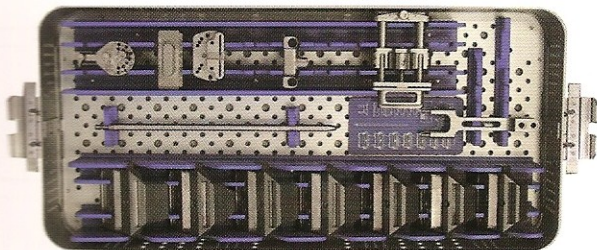
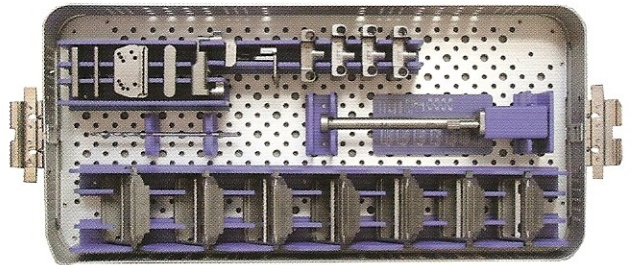


KG05700  
Basic Set 3



KG05701  
A.R.C. Set

KG05702  
D.F.C. Set



KG08600  
P.R. Set