# ROSA® Knee

with

## OptimiZe™


ZIMMER BIOMET

*Introducing*

# ROSA® Knee with OptimiZe™

Providing intelligent, personalized surgical plans and enhanced landmarking that reduces surgical variability,[1] driving confidence in accurate and reproducible outcomes.[2]


An OptimiZed experience
achieved through advanced, personalized technology
OptimiZe
to Personalize™

# OptimiZe
## PLANNING™

With our proprietary algorithm, OptimiZe Planning, you can create up to **seven profiles** based on your knee balancing preferences for the ROSA Knee application.

When you start a case, simply select the profile you want to use. A **customised plan** will automatically display on the user interface to guide implant positioning.

Reduce planning time by up to

**46%**[2*]

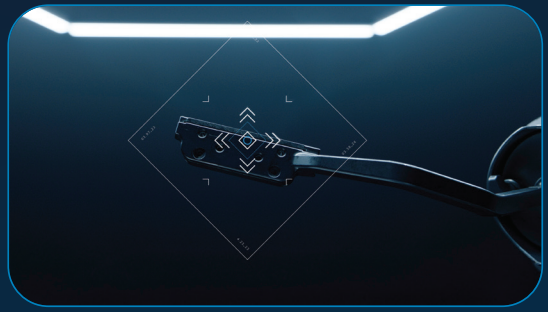
*On average versus not using OptimiZe Planning.


PATIENT ID: LSB8F8L50CS18UR
PROCEDURE: LEFT TKA
IMPLANT: Persona
FEMUR
BEARING
TIBIA
9
10
E
APPROVE PLAN
FEMUR VALGUS
0.5°
Select a Profile
FLEXION
STYLUS HEIGHT
9.0 mm
9.0 mm
21.0 mm
21.0 mm
M
L
10.0 mm
10.0 mm
TIBIA VARUS
6.0°
IMAGELESS
Brand
Persona
Femoral Implant*
CR Standard
Template*
Default CR Varus
Tibia Reference Point*
Highest
Profile Name*
TestTR
Extension*
Flexion*
Gap
Gap
Total Gap
Residual Gap
Gap Shape Extension
Equal
Gap Shape Flexion
Medial Tighter
Medial Extension (mm)
Lateral Extension (mm)
Medial Flexion (mm)
Lateral Flexion (mm)
PCA Rotation (°)
Posterior (mm)
Flexion (°)
Slope (°)
Cancel
Save Profile
Delete profile

# OptimiZe
## TRACKING™

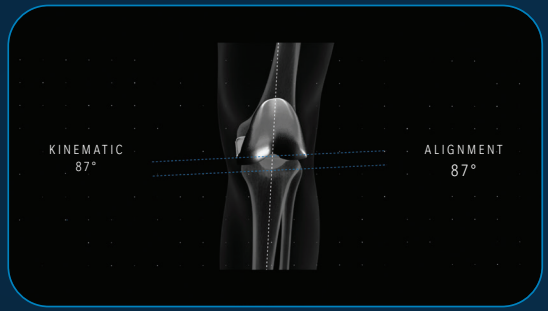
Collaborative resections with motion-sensitive **Active Track™** eliminate the need for pinning the Cut Guide to the bone.

Active Track allows bony resections to remain on plane, even with leg movement.



# OptimiZe
## KINEMATIC ALIGNMENT™

**Automated Kinematic Alignment** plan based on bony landmarks to resurface the knee to its pre-arthritic position, enabling you to evaluate the wear, and allowing the planner **to align implant position with the joint line effectively.**



# OptimiZe
## LANDMARKING™

Landmark the distal points on femoral condyles with our **easy-to-use painting** feature and tibiofemoral contact points in flexion and extension to **reduce user landmarking variability** and **provide consistent landmark positions for accurate resections.**[1]

Plus, the **Biomechanical Contact Post** creates a precise starting point for extension and flexion, allowing for improved laxity assessment and enabling accurate implant placement based on patient laxity.[1]

# OptimiZe
## EXPERIENCE™

A simplified user interface allows you to choose specific workflow and display options to tailor your user experience for every case.

**See the information you want, when you want and how you want.**


**OptimiZe Experience Menu**


**OptimiZe Experience Menu Hidden**

# ZBEdge® Analytics

ZBEdge® Analytics is a data platform that delivers intra-operative, mobility and outcome insights directly to a smartphone, enabling surgeons to objectively assess their performance and understand the potential impact of clinical decisions on patient recovery.

Within ZBEdge Analytics, ROSA Knee surgeons can monitor their performance and benchmark their progress overtime and versus their peers.

Through a personalized dashboard, surgeons can:

- View their individual performance
- View consistency of surgical times
- Monitor a set of intra-operative metrics for a cohort of patients

# The Personalized Pair™

Personalized Fit.[3,4] Personalized Technique.[5,6]
Technologies are only as good as the implants they are used with.

**Persona®**
The Personalized Knee®

# Clinical Evidence

## ACCURACY

Improved reproducibility of post-operative alignment in valgus deformities and improved tibial component positioning.[8]

May be more effective in challenging cases requiring precise alignment and component positioning.[8]

ROSA Knee provides a cutting error of less than 0.6° for all coronal and sagittal parameters.[9]

0-11% outlier cases compared to up to 30% with conventional TKA.[9]

Assessing flexion laxity with surgeon-applied stress vs a ligament tensor produces nearly identical laxity data. Surgeons may comfortably choose either technique.[10]

## PATIENT OUTCOMES

95% of patients who had a TKA with ROSA Knee and the Persona implant were happy they had the surgery.[11]

Patients recovered faster with ROSA Knee plus a personalized alignment technique, compared to conventional total knee arthroplasty.[6]

Robotic-assisted TKA does not increase the risk of periprosthetic joint infection.[12]

## EFFICIENCY

Rapid learning curve, with a significant reduction in operative time after first 10 cases.[13]

Operative times can be time-neutral as robotic proficiency improves, compared to conventional total knee arthroplasty.[14]

## References


1. Data on File. FER-EMS230714-01 Formative Evaluation Report - July Lab 2023.
2. Data on File. DVaR-DS250106-01 ROSA Knee System v1.5 Validation Report.
3. Deckey DG, Stein MK, Atkins LM, Richards AE, Wu KA, Wyles CC, Seyler TM. Fitting the Knee to the Patient, Not the Other Way Around: A Three-Dimensional Analysis of Total Knee Arthroplasty Implant Fit. J Arthroplasty. 2025 Jul;40(7S1):S333-S342. doi: 10.1016/j.arth.2025.02.030. Epub 2025 Feb 15. PMID: 39956490.
4. Maciąg BM, Stolarczyk A, Maciąg GJ, Dorocińska M, Stępiński P, Szymczak J, Świercz M, Żarnovsky K, Łapiński M, Stolarczyk M. Does the anatomic design of total knee prosthesis allow for a better component fit than its nonanatomic predecessor? A matched cohort Study. Arthroplast Today. 2021 Nov 1;12:62-67. doi: 10.1016/j.artd.2021.09.001. PMID: 34765714; PMCID: PMC8571411.
5. Massé V, Cholewa J, Shahin M. Personalized alignment™ for total knee arthroplasty using the ROSA® Knee and Persona® knee systems: Surgical technique. Front Surg. 2023;9(1098504)doi:10.3389/fsurg.2022.1098504.
6. Parratte S, et al. An anatomo-functional implant positioning technique with robotic assistance for primary TKA allows the restoration of the native knee alignment and a natural functional ligament pattern, with a faster recovery at 6 months compared to an adjusted mechanical technique. Knee Surg Sports Traumatol Arthrosc. May 13 2023;doi:10.1007/s00167-022-06995-4.
7. IQVIA Sales Data (updated quarterly)
8. Wininger AE, Lambert BS, Sullivan TC, Brown TS, Incavo SJ, Park KJ. Robotic-assisted total knee arthroplasty can increase frequency of achieving target limb alignment in primary total knee arthroplasty for preoperative valgus deformity. Arthroplasty Today. 2023;23:101196. doi:10.1016/j.artd.2023.101196.
9. Zaidi F, Goplen CM, Bolam SM, Monk AP. Accuracy and Outcomes of a Novel Cut-Block Positioning Robotic-Arm Assisted System for Total Knee Arthroplasty: A Systematic Review and Meta-Analysis. Arthroplasty Today. 2024;29.
10. Woelfle CA, Weiner TR, Sculco PK, Sarpong NO, Shah RP, Cooper HJ. Surgeon-Applied Stress and a Ligament Tensor Instrument Provide a Similar Assessment of Preresection Flexion Laxity During Robotic Total Knee Arthroplasty. Arthroplast Today. 2024;28:101450.
11. Selvanathan N, Ayeni FE, Sorial R. Is 80% satisfaction still the expectation in modern TKA mechanically aligned with robot assist? We think not. J Robot Surg. 2024 Mar 23;18(1):137. doi: 10.1007/s11701-024-01888-9. PMID: 38520596; PMCID: PMC10960738.
12. LaValva SM, Chiu YF, Fowler MJ, Lyman S, Carli AV. Does Computer Navigation or Robotic Assistance Affect the Risk of Periprosthetic Joint Infection in Primary Total Knee Arthroplasty? A Propensity Score-Matched Cohort Analysis. J Arthroplasty, 2024, 39(1):96-102. Doi: 10.1016/j.arth.2023.08.007.
13. Petrillo S, Moretti G, Bordignon N, Romagnoli S. Rapid reduction in surgical time and high level of accuracy in alignment and femoral component size prediction in robotic-assisted total knee arthroplasty with ROSA Knee System. J Exp Orthop. 2025 Jan 27;12(1):e70148. doi: 10.1002/jeo2.70148. PMID: 39872851; PMCID: PMC11770475.
14. Kenanidis E, Boutos P, Sitsiani O, Tsiridis E. The learning curve to ROSA: cases needed to match the surgery time between a robotic-assisted and a manual primary total knee arthroplasty.Eur J Orthop Surg Traumatol. Apr 27 2023;doi:10.1007/s00590-023-03554-6.



**Legal Manufacturer**
ROSA Knee
Zimmer CAS
75 Queen Street, Suite 3300
Montreal (QC)
H3C 2N6, Canada
+1 514 396 5422 or 1 866 3D ORTHO

**Legal Manufacturer**
Persona
Zimmer, Inc.
1800 West Center Street
Warsaw, Indiana 46580
USA




ZIMMER BIOMET