ROSA ONE®

ZIMMER BIOMET
Your progress. Our promise.®

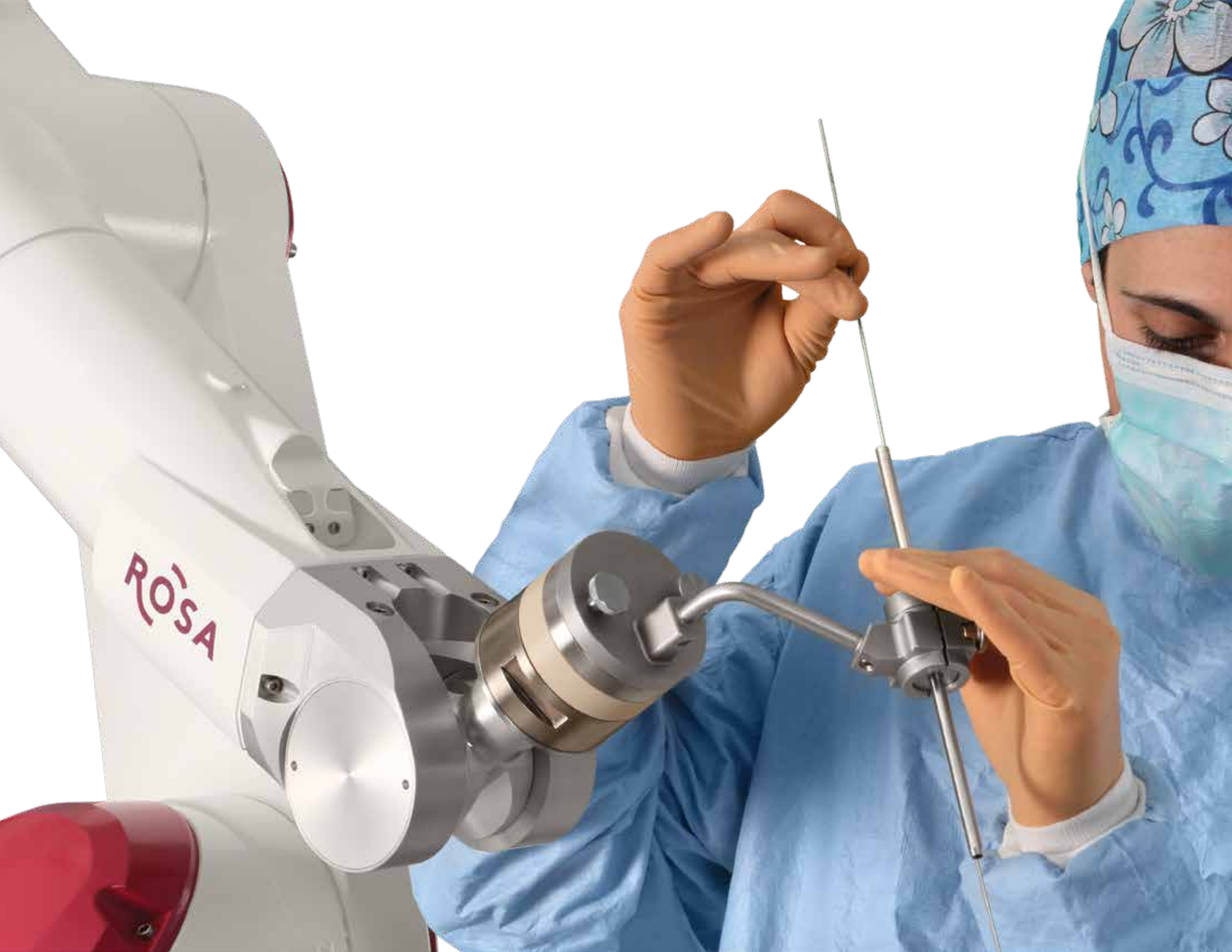
SPINE

ROBOTIC ASSISTANT
WITH INTEGRATED NAVIGATION

FOR MINIMALLY INVASIVE SPINE SURGERY

ROSA ONE® Spine is a robotic and surgical navigation system designed to aid surgeons in performing minimally invasive thoracolumbar spine procedures. ROSA ONE Spine is designed to accommodate the surgical workflow.


ROSA


ROSA

INNOVATIVE

TECHNOLOGY AND FUNCTIONALITY

Dual Platform

ROSA ONE provides both Brain and Spine applications on one system. The dual function robot can increase the utilization of the robotic platform for surgeries – which can lead to decreased acquisition, service and repair costs, and can streamline the robotic learning curve across the institution.

Robotics and Navigation

ROSA ONE Spine includes a robotic assistant and a suite of navigation technologies designed to improve implant as well as instrument placement accuracy and predictability.

Dexterity and Rigidity

With six degrees of freedom, ROSA ONE Spine allows dexterity and flexibility to access surgical sites. Once the trajectory has been set, the rigidity of the robotic arm provides gesture stability.

Workflow Integration

ROSA ONE Spine removes the need for a rigid connection to the patient or the table. This enables seamless surgical workflow integration and provides the surgeon with the flexibility of using robotics and navigation.

Dynamic Tracking

Unique 'dynamic tracking' functionality allows the robot to move in real time, in sync with the patient's movements.

MULTIPLE

STAKEHOLDER BENEFITS

Zimmer Biomet is committed to providing value to surgeons, clinicians and healthcare providers, while simultaneously improving the lives of patients worldwide. ROSA ONE Spine leverages robotic technology to improve accuracy and predictability in minimally invasive spine procedures[1] and help manage operational costs.

PATIENT

ROSA ONE Spine is a part of the MIS suite of surgical solutions which have been proven to significantly reduce blood loss,[2] lower infection rates[2] and reduce complications.[3] Studies show that use of robotic guidance during spinal fusion significantly reduces radiation exposure and length of stay.[4,5]

SURGEON

ROSA ONE Spine utilizes robotic guidance leading to a higher degree of accuracy on average than free-hand technique.[1] ROSA ONE Spine helps to plan and accurately control screw trajectory.[1] In addition, reduced radiation exposure owing to the use of robotic guidance facilitates surgeon preservation.[4,5]

The ROSA ONE Spine platform adapts to the surgical flow to ensure surgeons can focus on patient pathology and surgical goals. The intuitive workflow and customer support model ensures smooth robotic technology adoption.

HOSPITAL

The dual platform ROSA ONE system delivers a multi-application robot and optical tracking navigation system that can decrease ownership costs for hospitals, increase training efficiency and enhance access to technology for a greater number of patients.

ONE ECOSYSTEM

ROSA Technology is a part of our **Surgery Assisting Technology (SAT) Platform** — an integrated set of technologies and services that streamlines the delivery of care, facilitates surgeon preservation[5] and is designed to improve the surgeon and patient experience. From robotics, bionics and navigation solutions to clinical support and technical services — SAT enables you to deliver accurate, adaptable care in the O.R. and beyond.

SURGERY ASSISTING TECHNOLOGY

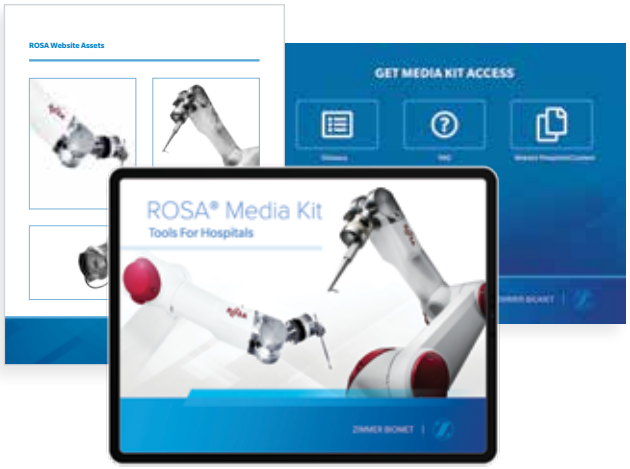
BEST-IN-CLASS IMPLANTS

OF FULLY INTEGRATED SOLUTIONS AND SERVICES

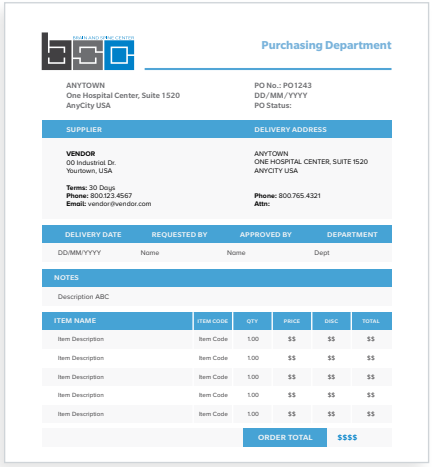
From surgical technologies and implants ... to medical education, product support, program development and contracting — we provide a fully integrated ecosystem of solutions and services through one seamless partnership — which can save institutions time, energy and money. **We call it Zimmer Biomet Connect.**

MEDICAL EDUCATION & PRODUCT SUPPORT

PROGRAM DEVELOPMENT



SEAMLESS CONTRACTING & PURCHASING



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References

1. Lonjon N, Chan-Seng E, Costalat V, Bonnafoux B, Vassal M, Boetto J (2015) Robot-assisted spine surgery: feasibility study through a prospective case-matched analysis. *Eur Spine J* Published online: 10 January.
2. Phan K, Rao PJ, Kam AC, Mobbs RJ (2015) Minimally invasive versus open transforaminal lumbar interbody fusion for treatment of degenerative lumbar disease: systematic review and meta-analysis. *Eur Spine J* 24:1017–1030
3. Vazan M, Gempt J, Meyer B, Buchmann N, Ryang YM (2017) Minimally invasive transforaminal lumbar interbody fusion versus open transforaminal lumbar interbody fusion: a technical description and review of the literature. *Acta Neurochir* 159:1137–1146
4. Hyun SJ, Kim KJ, Jahng TA, Kim HJ (2017) Minimally Invasive Robotic Versus Open Fluoroscopic-guided Spinal Instrumented Fusions. *SPINE* Volume 42, Number 6, pp 353–358
5. Wong CH, Kotani Y, Tochio J, Takeda H, Takano M, Iwasaki N. (2017) Comparison of Intraoperative Radiation Exposure for O-Arm Intraoperativect vs. C-Arm Image Intensifier in Minimally Invasive Lumbar Fusion. *Clin Surg.*; 2: 1558.

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