Merai
Redesigning Future

Meril

mizzo
Endo 4000

Advanced Surgical Robotic System

PRECISION IN **EVERY MOTION**

Meril

GLOBAL MED-TECH
HUB FOR HIGH QUALITY,
NEXT GENERATION
TECHNOLOGIES

CORE OBJECTIVE

To develop, manufacture & distribute clinically relevant, state-of-the-art & best-in-the class products to alleviate human suffering & improve quality of life.

Cardiovascular | Orthopedics | Endo-Surgery | In-Vitro Diagnostics
ENT | Medical Robotics | Cell & Gene Therapy

Our Vision: Transforming Surgery

Enhanced Patient Outcomes
Better surgical results for all

Unparalleled Precision
State-of-the-art robotic control

Universal Accessibility
Quality care for everyone, everywhere

Merai
Redesigning Future

Welcome to Merai – Advancing Healthcare with AI and Robotics.

At Merai, we push the boundaries of technology to enhance patient care. Our expert team develops cutting-edge robotic systems and AI-driven diagnostics, improving outcomes and efficiency for medical professionals.

Join us on our journey as we shape the future of healthcare. Merai – Technology. Innovation. Compassion.

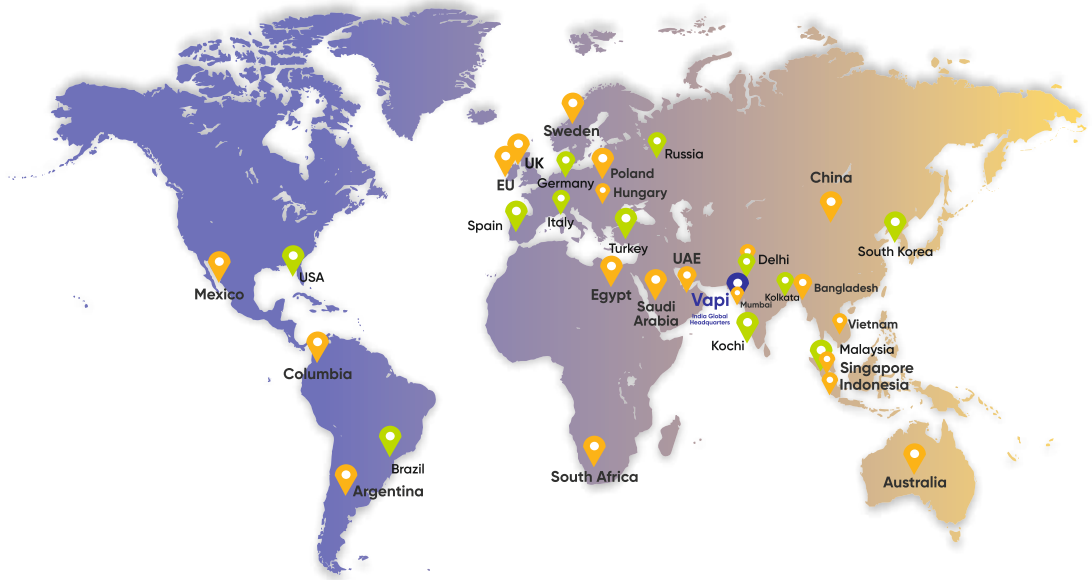
40 Meril
Subsidiaries

12 Academies
Globally

15500+
EMPLOYEES

275+
PRODUCTS

100+
COUNTRIES

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MIZZO Endo 4000

Advanced Surgical Robotic System

Step into the future of robotic-assisted surgery with Mizzo Endo 4000 a cutting-edge system engineered for unmatched precision, progress, and possibilities. With its open console, versatile arm cart, and universal vision cart, it elevates surgeon control, OR integration, and patient outcomes.

- Open Console Design
- Pre-surgery AI Planning
- Intraoperative Training
- Essential and Advanced Instrumentation
- Universal Vision Cart

Surgeon Console

- **Enhanced OR Engagement**: Surgeons maintain direct communication with the OR team
- **Ergonomic Design**: The console's user-customized adjustment enhances ergonomics and reduces fatigue during long procedures
- **High-Definition Visualization**: 3D HD Visualization for real time clarity with advanced imaging integration, including fluorescence
- **Future-Ready***: AI and telesurgery integration for next-gen surgical capabilities

*Conditions apply

Open-Multiple Screen 3D HD Surgeon Console

Advantages

Extend the reach of surgeons

- 3D HD magnified view
- User-friendly master-slave operation
- Flexible surgical instruments
- Extend the hand-eye limit of surgeons

Prolong the Professional Life of Surgeons

The ergonomic design is optimized to greatly enhance surgeon's comfort and minimize fatigue during procedures.

Intelligent identification and filtering of tremors to enhance the precision of operations.

Flexibility and Versatility

Complementary to minimally invasive surgery, Equipment is engineered for an integrated 3D-4K camera processing unit, with options for fluorescence-assisted systems and other energy platforms, intraoperative devices such as US, etc.

Improve Surgical Accuracy and Comfort

Multi-modal Image Navigation

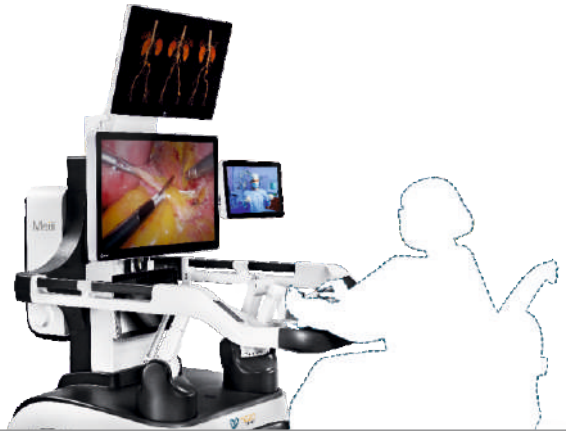
High-performance imaging navigation with 3D reconstruction, real-time ultrasound, AI fusion, bedside assistance and remote interaction enhances efficiency, integrates information and aids precise decision-making.

Accurate and Safe Operating System

The master-slave motion ratio (1:1 to 10:1) ensures precise control of rotating wrist instruments for microsurgeries. Auto-locking upon handle release ensures intraoperative safety.

User Friendly Open Console Design

The open console design reduces strain from prolonged postures, promoting natural movement and preventing neck and waist discomfort for improved ergonomics and longer working comfort.



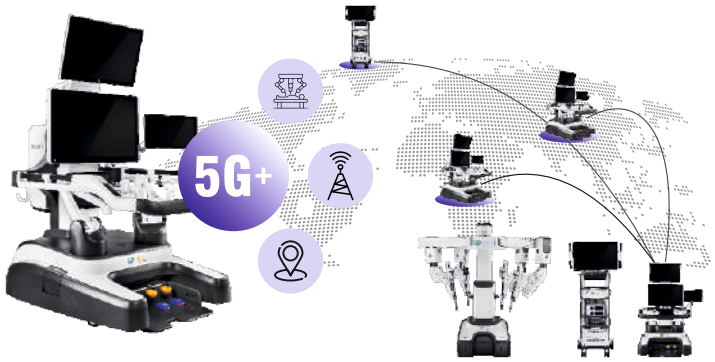
Flexible and Efficient Collaboration and Teaching

Intra Operative Teaching Real-time Interaction

The open console supports seamless collaboration and real-time observation, enhancing surgical training, skill development, and teaching effectiveness, ensuring better learning outcomes and improved operational performance.

Surgeon Independence and Optimized Processes

The integrated ValleyLab FX8 generator enhances energy precision and enables effortless preset switching directly from the surgeon's console offering greater surgeon autonomy and streamlined workflow.



Remote Surgery System*

The remote surgery system enables real-time interactive teaching across multiple locations, with a secondary screen for marking and providing guidance, allowing remote experts to offer immediate surgical support. It also facilitates the participation of multiple disciplines in diagnosis and treatment.

*Conditions apply – Infrastructure and Network Requirements

Multi-platform Supporting System

Simulation Training System

Leveraging advanced scientific training methods and a user-friendly system, surgeons can quickly progress. Multi-stage courses allow trainers to design tailored plans, enhancing training efficiency.

Modular Endoscopic Imaging System and Energy System**

3D HD displays fluorescence and surgical field images simultaneously, with automatic luminance adjustment. The endoscopic imaging system is capable of supporting various surgical procedures, thereby improving equipment utilization.

Digital Ecosystem*

Intraoperative picture marking supports postoperative review, while cloud-stored videos enable sharing and comparison. This promotes skill development, analyzes surgical data, and shortens the learning curve.

* feature under development | ** Optional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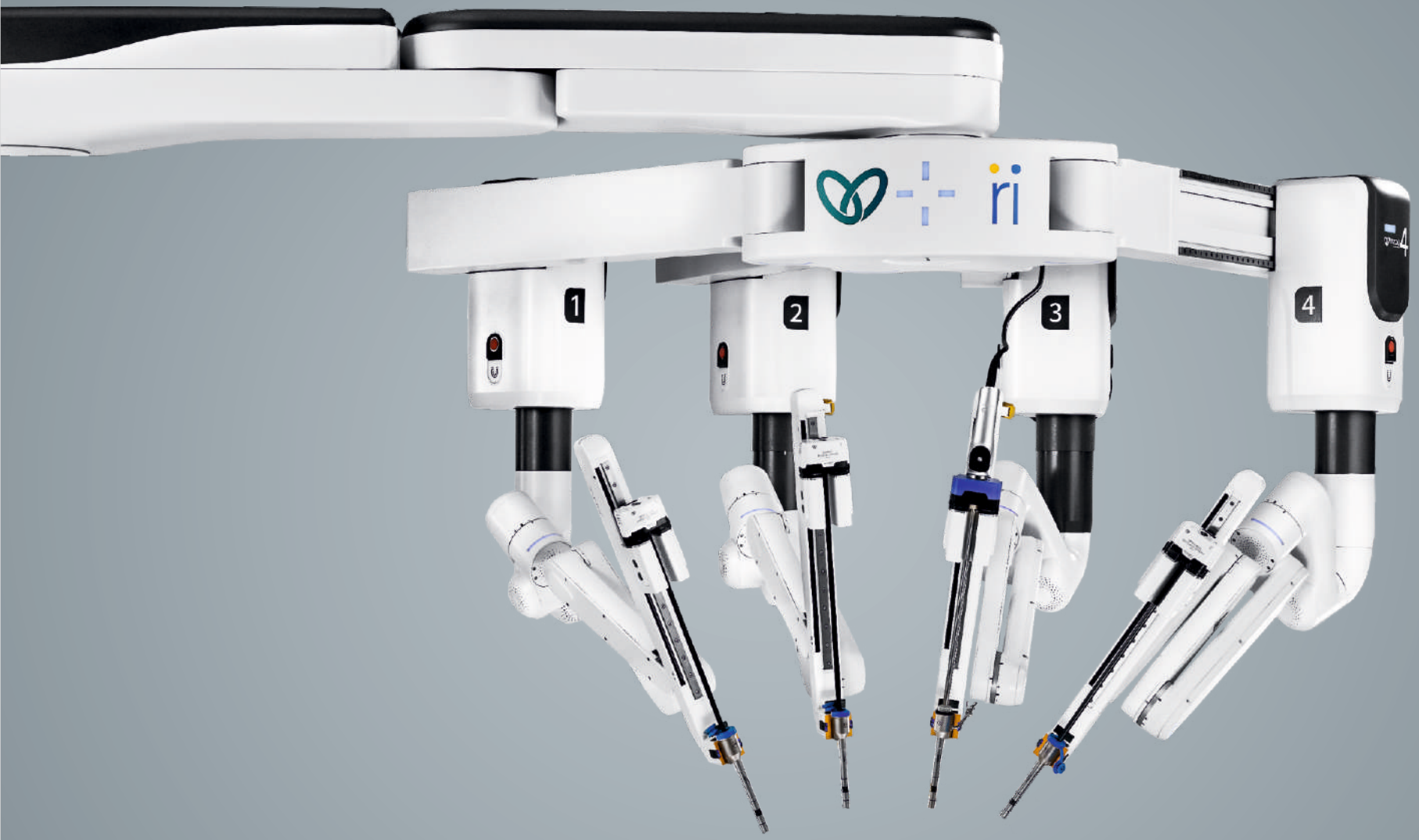
mizzo

Arm Cart

Precision and Accuracy: The Endo Mizzo 4000 robotic arm provides unparalleled precision, offering a level of control far beyond that of traditional surgical tools. Surgeons can make intricate movements with sub-millimeter accuracy, reducing the risk of human error and enhancing the success of procedures.

Enhanced Flexibility and Reach: The arm cart allows for enhanced range of motion, enabling the robotic arms to reach various angles and positions within the patient's body. The robotic arms are flexible, providing surgeons with unparalleled access to the surgical site, making even the most challenging procedures more manageable.

Build Confidence: Audio-visual feedback on the arm cart delivers real-time updates on system connectivity, component status, and surgical readiness, enabling OR staff to prepare the system more efficiently.



Precision | Access | Efficiency

Precise

Arm control screen is equipped with user-friendly interface enabling swift arm positioning and accurate set up.

Seamless

Optimized arm cart positioning to ensure seamless maneuverability and prevent collisions during surgery.

Accessibility

Extensive boom rotation range for enhanced access during complex surgical procedures.

Simplicity

Simpler port placement and arm docking.

Ergonomics

Surgeons can effortlessly navigate multiple quadrants, enabling them to perform a diverse range of minimally invasive procedures with enhanced precision and freedom.

Details Un-veiled

Engineered to support procedures across a wide range of specialties with more anatomical access.

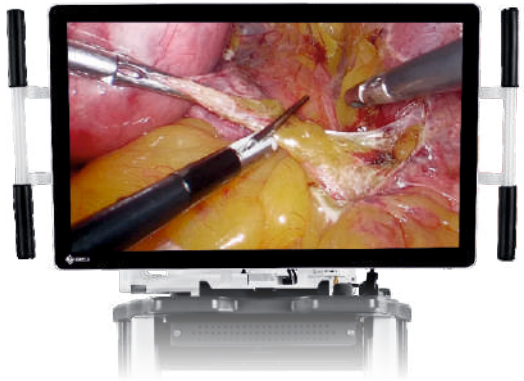
Universal | Advanced | Clarity

Vision Cart

The vision cart features an advanced energy system and 3D-4K endoscope for high-definition vision, offering detailed insights for assistant surgeons. The top-mounted screen allows OR staff to monitor the procedure, while the system display syncs with the surgeon console, showing the surgical field and operation tips.

Assistant screen: It displays the surgical field and operation tips in line with the main display of the surgeon console.

System information display: It is used to display surgery data during the operation and play the role of real-time monitoring.



Energy

ValleyLab FX8 Generator delivers precise monopolar and bipolar energy. Integrated with ultrasonic system for hemostatic dissection and/or tissue coagulation.

Universal Use

Suitable for open/lap and RAS maximizing the system's utilization within the hospital.

Real-time Monitoring

The system information display screen shows the surgical field and guidance, synced with the surgeon's console.

32" 3D HD display for
ultra clear image display

3D-4K camera control unit

Electrosurgical Unit:

ValleyLab FX8 paired
with Ultrasonic System

Instrumentation and Accessories

- Wristed instruments with seven degrees of freedom for superior dexterity, flexibility, and precise control during surgery
- Comprehensive range of essential and advanced instrumentation for diverse surgical applications
- Optimized for precision in various types of surgical procedures
- Enhanced flexibility for improved surgical outcomes

Flexibility | Dexterity | Reach

Essential and Advanced Instrumentation

Compared to traditional surgery, robotic instrumentation allows surgeons to maneuver flexibly and gain a greater range of motion than natural movements, resulting in more precise maneuvers in minimally invasive surgery. Our essential and advanced instruments offer precise robotic-assisted surgery with greater motion range, inspired by the dexterity of the human hand.

Essential

Monopolar Curved Scissors

Urology | Gynaecology | Oncology

Monopolar Straighten Scissors

Urology | Hepatobiliary | Oncology

Large Permanent Cautery Hook

Thoracic surgery | general surgery

Small Permanent Cautery Hook

Thoracic surgery | Hepatobiliary

Maryland Bipolar Forceps

General Surgery | Gynaecology | Oncology

Fenestrated Bipolar Forceps

Urology | Gynaecology | Thoracic Surgery
General surgery

Mini Non-invasive Tip Round Fenestrated Bipolar Graspers

Urology | Gynaecology | Thoracic Surgery
General surgery

Cadiere Forceps

Urology | Gynaecology | Thoracic surgery
General surgery

Fenestrated Forceps

Urology | Gynaecology

Tip Up Double Fenestrated Grasper

General surgery | Gynecology

Essential

Double Fenestrated Grasper

General Surgery | Gynaecology

*Feature Under Development

Teneculum Forceps*

General Surgery | Gynaecology
Oncology | Urology

Large Needle Driver

Urology | Gynaecology | Thoracic Surgery
General surgery | Oncology

Small Needle Driver

Urology | Gynaecology | Thoracic Surgery
General surgery | Oncology

Advanced

Disposable Ultrasound Soft Tissue Scalpel

Urology | Gynaecology | Thoracic Surgery
General surgery

Curved Dissector

Urology | General Surgery

Advanced

Vessel Sealer*

General Surgery | Gynecology | Urology
Colorectal | Bariatric Surgery

Stapling*

General Surgery | Gynecology | Colorectal
Bariatric Surgery

Clip Applicators*

General Surgery | Gynecology
Urologic Surgery | Hepatobiliary

Cannula Length

Normal Cannula+sealing cap: Length is 167mm.
Diameter:10mm

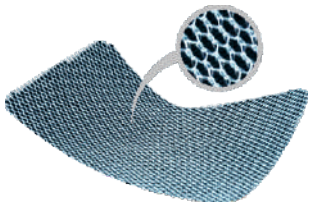
Longer Cannula+sealing cap: Length is 214mm.
Diameter:10mm

OR Requirements

1. Recommend: OR Size should be more than 40 square meters
2. Long operating rooms are not recommended. The load-bearing capacity of the floor must be 500kg/m2
3. The ambient requirements for the device are as follows:
    - Temperature 10-35 ° C,
    - Humidity 10-85%RH
    - No condensation

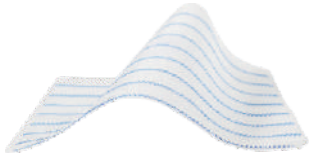
*Future upgrades

Meril Hernia Repair Solutions



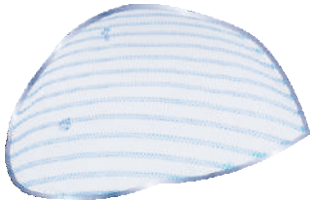
MERIGROW™ MESH
Polypropylene Macroporous Light Weight Mesh

Superior Barrier
Maximum Protection



An Intraperitoneal Mesh
MERINEUM™ MESH
Tissue Separating Dual Layer Mesh
Polylactide-caprolactone / Polypropylene Mesh

Meticulously Mimics
the Inguinal Anatomy



FILAPROP™ 3D MESH
Polypropylene Anatomical Mesh

FILAPROP™ MESH
Polypropylene

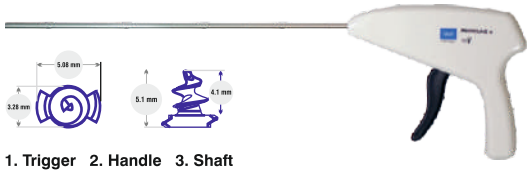
FILAPROP™ MESH *Soft*
Polypropylene Soft

Empower Your Fixation with Precision: Unleash the Potential of Mesh fixation Technology

i-Tack™ A
Poly (Lactide-co-glycolide)
Powered Absorbable Mesh Fixation Device
5mm For Laparoscopic Hernia Repair

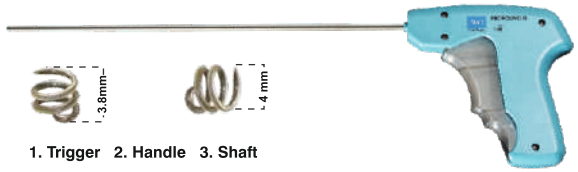
i-Tack™ N
Titanium
Powered Non Absorbable Mesh Fixation
Device 5mm For Laparoscopic Hernia Repair

Absorbable Mesh Fixation Device
PROFOUND™ A
Poly(lactide-co-glycolide)



1. Trigger 2. Handle 3. Shaft

Non-Absorbable Mesh Fixation Device
PROFOUND™ N
Titanium



1. Trigger 2. Handle 3. Shaft

Mechanical Closure Devices

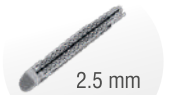
MIRUS™
Endoscopic Linear Cutter

MIRUS™
Powered Endoscopic Linear Cutter and Reloads

Trio™ Reloads

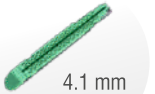
RELOADS WITH OPEN STAPLE LEG LENGTH

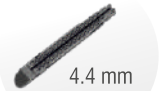
amazingly agile

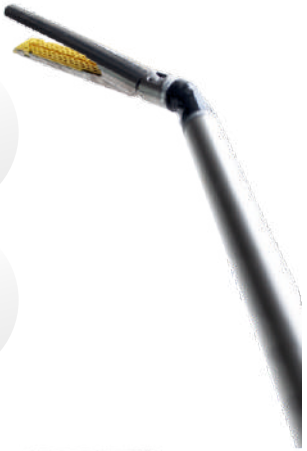

2.5 mm **White**


3.5 mm **Blue**


3.8 mm **Gold**


4.1 mm **Green**


4.4 mm **Black**



Monik™ | Trocar
The Series of Features

Eliro | Trocar
Disposable Bladeless Trocar

Mesic™
Compact Ultrasonic System

A Comprehensive Range of Sutures

(Customized Solutions for Laparoscopic and Robotic Assisted Surgeries)

MITSU AB™

Antibacterial with Triclosan

PINION™

Knotless Suture

Enduring Strength for long-term wound support

FILAXYN™

Polydioxanone Suture

Distinguished strength for life long support

FILAPROP™

Polypropylene Suture

Excellent handling characterisitics with secured wound closure

FILASILK™

Silk Suture

A Reliable choice for scarless Sub-cuticular suturing

FILAPRON™

Polyglecaprone 25 Suture

MITSU™

Polyglactin 910 Suture

MITSU FST™

Polyglactin 910 Fast Suture

FILAMIDE™

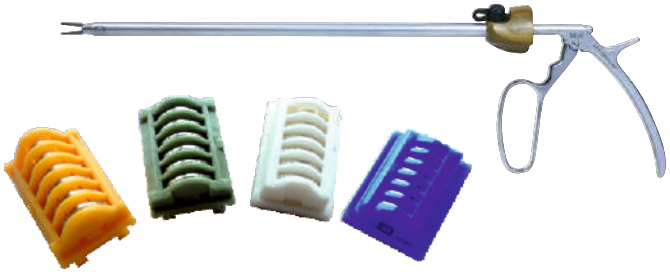
Polyamide (Nylon) Suture

MERICRON XL™

Polyester Suture

Ligating Clips

MIRUS™
Ligating Clip | Titanium



MIRUS™
Ligating Clip | Polymer

Meril Biosurgical Solutions

Absorbable Hemostat

MERIZELLE™
Oxidized Regenerated Cellulose

STANDARD
Fine Weave of ORC
12 Units

FIBER
Tufts of Soft, Light Weight ORC
12 Units

WOVEN
Denser Weave of ORC for Heavier Bleeding
12 Units

Topical Skin Adhesive

MERIGLU™
High Viscosity Tissue Adhesive
N-Butyl Cyanoacrylate

WE GOT YOU GLUED to the best outcomes.

Comprehensive Training Pathway

Hands-On Lab Training

To ensure seamless adoption of Mizzo Endo 4000, we offer a dedicated 2-day lab training program:

Day 1: Surgeon console training on a high-fidelity simulator and bedside team training on the system.

Day 2: Wet lab training on animal tissue to build practical expertise.

KOL-Supported Cases

Gain valuable insights and guidance from Key Opinion Leaders during supported cases, designed to boost team confidence and mastery.

Extended Clinical Support

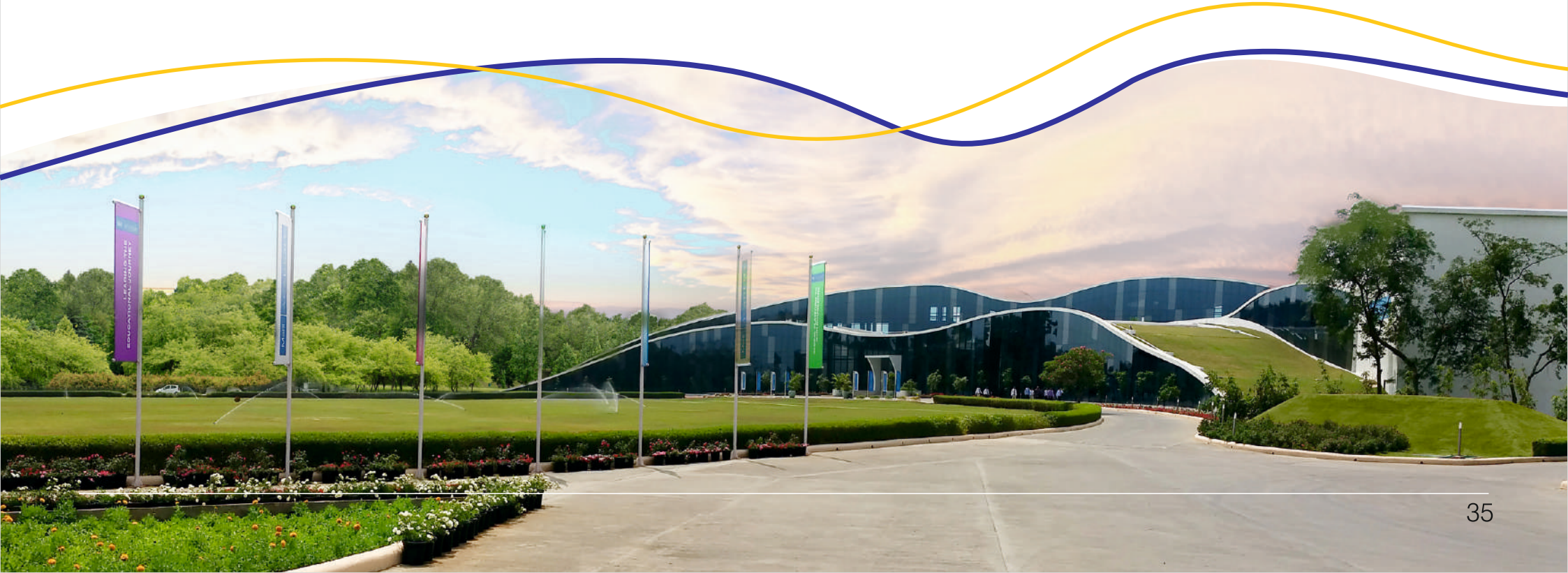
We provide a comprehensive clinical support program, ensuring ongoing assistance and continuous knowledge enhancement for optimal outcomes with Mizzo Endo 4000.

Training and Education

Meril | ACADEMY

Transforming Patient Care Through
CLINICAL EDUCATION

Dedicated live case transmissions for Cardio, Ortho, Surgery on regular basis	Targeted 10,000 HCP for educational programs	Large auditorium 750+ seating capacity	10,000+ doctors participated	3000+ employees trained



Service Support

We are committed to ensuring your surgical robotic system operates seamlessly, allowing you to focus on delivering exceptional patient care.

Preventive Maintenance

Scheduled maintenance ensures your system remains in optimal condition, minimizing downtime and maintaining consistent, reliable performance.

Training & Education

We offer comprehensive training programs to ensure your surgical and technical teams are fully proficient in operating the system with confidence and efficiency.

Extended Clinical Support

An on-site clinical application specialist, backed by a comprehensive support program, delivers continuous assistance and ongoing knowledge development to maximize outcomes with the Mizzo Endo 4000.

Multiple Surgical Applications

Urology Surgery

1. Prostatectomy
2. Nephrectomy
3. Cystectomy
4. Adrenalectomy
5. Ureteric reimplantation
   and countless others

Gynaecology Surgery

1. Hysterectomy
2. Vesicovaginal Fistula
3. Sacrocolpopexy
4. Vaginoplasty with bowel reposition
5. Myomectomy
   and countless others

General Surgery

1. Bariatric surgery
2. Hernias
3. Gastrectomy
4. Nissen Fundopilcation
5. Pancreatic duodenectomy (Whipple)
   and countless others

Thoracic Surgery

1. Thymectomy
2. Lobectomy
3. Esophagectomy
4. Pneumonectomy
5. Mediastinal Cyst
   and countless others

GI Surgery

1. Gastrojejunostomy
2. Lower Anterior Resection
3. Gastric Bypass
4. Abdominoperineal Resection
   and countless others

Onco Surgery

All radical procedures of the above anatomies

Head Neck Surgery

1. TORS
2. Neck resection
3. Thyroidectomy
   and countless others

100+ Types of Robotic
Assisted Surgeries are Possible

MIZZO
Endo 4000

Disclaimer

Meril reserves the right to update design, packaging, specifications and options without prior notice. For the latest details, please contact your local Meril sales representative.

Note: Technical data may vary within defined tolerances, and reproduced images may lose some detail. Product availability differs by country, and future availability cannot be guaranteed.

Patient outcomes vary based on factors like patient condition, disease and surgeon experience.

The owner of the Meril's Mizzo Endo 4000 must ensure proper training, supervision and adherence to cleaning, disinfection, and sterilization guidelines per the User's Manual. Use in clinical settings requires verification of proper processing.

ME/BRC/020