



ENDOLINE
PRODUCT CATALOGUE
2022

Foreword OUR PROMISE FROM CEO

About Us EMD PROFILE COMPANY HISTORY

Laparoscopy ENDOLINE HAND INSTRUMENTS COMPONENTS INSERTS

Trocar System ENDOLINE TROCAR SYSTEM

TROCARS 3.5 - 15MM OVERVIEW

Accessories

WASH-RINSE DEVICE RINSE ADAPTERS CLOSING CAP



Be Ahead Of The Curve With Our **Latest Innovations**

WE ARE FAMILY OF MOTIVATED INDIVIDUALS, DRIVEN BY OUR DESIRE TO MAKE INNOVATIVE, EXCELLENT QUALITY MEDICAL PRODUCTS AVAILABLE TO MODERN MEDICINE IN A SUSTAINABLE WAY.

At EMD we offer quality design, production and services, that enable medical professionals to perform advanced minimal invasive operations.

Our carefully accumulated knowledge and expertise enable us to create singular tools and devices that medical professionals can use sustainably. To offer our customers the best of the best, our products are manufactured with meticulous care from high quality materials.

We are dedicated and passionate in everything we do. Through our performance and solution driven mindset, we have the opportunity to make a difference. We are innovation and business oriented with a strong belief in daring to do things better.

From CEO

66

Everything we do is rooted in the belief that, together with our colleagues, teams and partners, we can create positive change to support modern medicine through our high-end products and services.

Each time before we embark on a new development, we have to make sure we possess the essential attributes that will fuel us to work for years to come for the very moment we first hold a new product in hand. These are: know-how, perseverance, proof and faith.

We've been working hard and have come a long way over the last 25 years. When EMD was founded in 1997, we were thinking about how we could design and manufacture minimal invasive medical devices. Since then, we've made such a progress as a team that today, however, we are thinking about how to become one of the best and most innovative companies in the industry.

We are proud of the progress we're making, and are ensuring that our expertise and comptenencies are essential elements of EMD's future that we will continue to embrace and grow.





Product Catalogue

About Us **emd** 9

EMD is founded as a repair service provider. Main activity is repair of endoscopic optics and endoscopic 1997 instruments. We launch our laparoscopic system being first own product development. 2001 EMD steps out of being a local supplier and starts export activities in various markets. EMD begins to develop and 2005 produce neurosurgery devices. EMD relocates to new headquarters with more on site facilities. 2012 Company profile continues to expand. The company obtains CE approval for own neurosurgical and 2017 laparoscopy development. Product portfolio is further increased by six additional EMD 2021 product group receiving CE mark.



Our Vision

We believe in leading not following. We turn fault into our virtue and trust our nevercompromising nature dictating our rhythm, which takes us to innovative ideas and exceptional product developments.

We are convinced that possibility is bigger than the fear of failure. That is why we dare to dream big and are not afraid to be challenged on the way to success. Our vision is to be industry leaders in medical device development and manufacture.

Our Mission

OUR MISSION IS TO SUPPORT MODERN MEDICINE BY OFFERING ADVANCED, FIRST-CLASS QUALITY MEDICAL DEVICES.

Our Values

We like to walk our talk and lead by example. Our values are part of who we are, what we stand for and how we act.

Our great colleagues make the difference. It's when we share our skills, knowledge and expertise, we become one team.

We encourage and help each other to achieve our goals, while always having our customers' and their patients' best interest in mind.

Markets & Expansion

EMD is expanding, with a focus on multi-channel sales. We treat and nurture long term partnerships and business growth as one of our top priorities. We offer advanced and unique medical tools for minimal invasive surgeries that want to give professionals unbeatable value with the best combination of innovation, quality, price and sustainability.

When it comes to expansion strategies and activities, we spare no time to find the most prosperable opportunities we are able to find out there, that not only benefit us, but our partners too. With the continuous product developments we have been making recently, we are enthusiastic to be on the path greatly expanding our existing presence on the market.

Research & Development

Our network of medical professionals, together with the global industry needs and challenges set new directions to our developments.

Through our product developments, our priority is to effectively support surgical procedures, which are still very difficult or can only be performed with conventional surgery, so that they could be carried out with as few and little incisions as possible. In the near future, we continue to focus on minimal invasive developments and present new products for spine,neuro,- and laparoscopic surgery.

Innovative Solutions

Innovative product developments enable us to find and implement new technologic solutions, which are not yet in practice.

At the birth of a new idea, we start exploring ways of execution and won't stop until we find the right technology that can be applied for best results. This way, we are inspired to never stand still, we find new discoveries and are able to create that was thought impossible.

WE BELIEVE THAT

Uncompromising Quality

IS A MATTER OF HIGH EXPECTATIONS.

GUARANTEEING THE RELIABILITY OF AN **emd**® PRODUCT REQUIRES THE APPLICATION OF A MULTITUDE OF SKILLS. FROM THE PRECISE SELECTION OF RAW MATERIALS AND MACHINING TECHNO-LOGIES TO THE COMPLEXITY OF PRODUCT CERTIFICATION, EVERY STEP IS TAKEN TO ENSURE THAT OUR QUALITY ITEMS MEET THE HIGHEST SAFETY STANDARDS FOR BOTH THE PATIENT AND THE SURGEON.

LAPAROSCOPY HAS BECOME ONE OF THE MOST SUCCESSFUL BRANCHES OF MINIMALLY INVASIVE SURGERY, WITH MANY APPLICATION FIELDS, INCLUDING UROLOGY AND GYNECOLOGY AS WELL.

WE CONSIDER IT IMPORTANT TO CONTINUOUSLY DEVELOP THIS PRODUCT AREA, DYNAMICALLY ADAPTING TO THE PROFESSIONAL CHALLENGES.

THE INSERT PROFILES IN OUR ENDOLINE PRODUCT RANGE ARE SELECTED TO PROVIDE THE GREATEST POSSIBLE VARIETY TO MEET A WIDE RANGE OF NEEDS.



Unique & **Supportive Features**

THE DISMANTLING OF DEVICES IS A HIGH REQUIREMENT, ESPECIALLY FOR CLEANING AND STERILIZATION. SIMPLICITY OF ASSEMBLY IS EQUALLY IMPORTANT, BECAUSE EASE OF USE IS A KEY FACTOR IN THE TROUBLE-FREE COMPOSITION OF THE COMPONENTS.

THE DESIGN OF ENDOLINE INSTRUMENTS THEREFORE INCORPORATES A NUMBER OF UNIQUE TECHNICAL SOLUTIONS.

ONE-CLICK ASSEMBLY Once the isolated tube has been inserted into the handle, all components are automatically connected.

COLOR GUIDES

Clear color coding on **emd** EndoLine hand instruments allows simple and safer assembly.

The three components (handle, tube, insert) are color coded in a distinctive blue marker, to distinguish from other makes/generations on the same instrument tray.



PUSH BUTTON RELEASE

The push button makes disassembly particularly easy.

By pushing the button, the sliding ring handle can be lifted and the isolated tube assembled with the insert is automatically disconnected.



ERGONOMIC PLASTIC HANDLE

The ergonomic design of the handle ensures comfort use even during long operations.

Thanks to the fibreglass-reinforced plastic raw material, the handle is extremely durable.

SPECIAL LOCKING MECHANISM

The locking mechanism of the EndoLine handles can be disengaged and it allows three functions:

- OFF: handle mode without ratchet
- AUTOMATIC: operation of the ratchet gives possibility to fix the tissue securely
- O UNLOCKED: by pressing the unlocking button, the tissue fixation can be released



ANTI-REFLECTION SURFACE

The insulated tube features a matt surface to avoid reflection.



PRECISION JAWS MOVING SYSTEM

Our newly developed jaw moving mechanism provides excellent transmission of the more delicate hand movements to the head, and is designed for greater force torque as well.

The advanced shortened head housing ensures higher patient safety as uninsulated surfaces are minimized.





ELI-H1
HANDLE
plastic,

with HF unipolar connector



ELI-H3

HANDLE
plastic,
with HF unipolar connector
With releasable ratchet

Seamless Design. Expressive Benefits.

- ROTATING AND DETACHABLE LAPAROSCOPY INSTRUMENTS
- ONSTRUCTION: INSERT + SHEATH + HANDLE (ALL PARTS INTERCHANGEABLE)
- NEW IMPROVED ENDOLINE JAW-MOVING MECHANISM BY POSITIVE COUPLING
- INSULATED INSTRUMENTS EQUIPPED WITH UNIPOLAR CONNECTION
- \$\rightarrow\$ SHEATH SIZES: DIAMETER 5 OR 10MM, WORKING LENGTH 330MM
- PLASTIC HANDLES ARE AVAILABLE WITHOUT RATCHET OR EQUIPPED WITH METAL RATCHET WHICH CAN BE INACTIVATED
- **EASY DETACHING BY A SINGLE PUSH-BUTTON**

ELI - 2025H1

SCISSORS Metzenbaum with curved blades, length of head 15mm Working length 330mm, Complete Components*: insert ELI-2025, sheath ELI-S25, handle ELI-H1



ELI-2045H1

SCISSORS hook, single action jaws, length of head 10mm Working length 330mm, Complete Components*: insert ELI-2045, sheath ELI-S25, handle ELI-H1



ELI-2405H1

DISSECTING FORCEPS Maryland with curved iaws, length of head 15mm Working length 330mm, Complete Components*: insert ELI-2405, sheath ELI-S25, handle ELI-H1



ELI-2435H1

DISSECTING FORCEPS Maryland with curved long jaws, length of head 20mm Working length 330mm, Complete Components*: insert ELI-2435, sheath ELI-S25, handle ELI-H1



ELI-2535H1

DISSECTING FORCEPS with bent (angle 90°) jaws, length of head 16mm Working length 330mm, Complete Components*: insert ELI-2535, sheath ELI-S25, handle ELI-H1



ELI-2465H1

ADHESION FORCEPS with finely toothed "S" shapedjaws, length of head 12mm Working length 330mm, Complete Components*: insert ELI-2465, sheath ELI-S25, handle ELI-H1



ELI-2425H1

GRASPING FORCEPS anatomical, length of head 12mm Working length 330mm, Complete Components*: insert ELI-2425, sheath ELI-S25, handle ELI-H1



GRASPING FORCEPS with finely toothed curved iaws one of the jaws is fenestrated length of head 11mm. Working length 330mm, Complete Components*: insert ELI-2455, sheath ELI-S25, handle ELI-H1



GRASPING FORCEPS with finely toothed fenestrated jaws, length of head 16mm Working length 330mm, Complete Components*: insert ELI-2255, sheath ELI-S25, handle ELI-H1



GRASPING FORCEPS with finely toothed curved, fenestrated jaws, length of head 16mm Working length 330mm, Complete Components*: insert ELI-2235, sheath ELI-S25, handle ELI-H1



GRASPING FORCEPS with curved smooth jaws, length of head 12mm Working length 330mm, Complete Components*: insert ELI-2445, sheath ELI-S25, handle ELI-H1

ELI-2375H1

GRASPING FORCEPS CroceOlmi with finely toothed fenestrated, slightly curved upward jaws, length of head 25mm Working length 330mm, Complete

Components*: insert ELI-2375, sheath ELI-S25, handle ELI-H1

ELI-2405H3

DISSECTING FORCEPS Maryland with curved jaws, length of head 15mm Working length 330mm, Complete nts*: insert ELI-2405, sheath ELI-S25, handle with ratchet ELI-H3



DISSECTING FORCEPS Maryland with curved long jaws, length of head 20mm Working length 330mm, Complete Components*: insert ELI-2435, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2535H3

DISSECTING FORCEPS with bent (angle 90°) jaws, length of head 16mm Working length 330mm, Complete Components*: insert ELI-2535, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2465H3

ADHESION FORCEPS with finely toothed "S" shaped jaws, length of head 12mm Working length 330mm, Complete Components*: insert ELI-2465, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2425H3

GRASPING FORCEPS anatomical, length of head 12mm Working length 330mm, Complete Components*: insert ELI-2425, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2455H3

GRASPING FORCEPS with finely toothed curved jaws, one of the jaws is fenestrated length of head 11mm Working length 330mm, Complete Components*: insert ELI-2455, sheath ELI-S25, handle with ratchet ELI-H3

FLI-2255H3

GRASPING FORCEPS with finely toothed fenestrated jaws, length of head 16mm Working length 330mm, Complete Components*: insert ELI-2255, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2235H3

GRASPING FORCEPS with finely toothed curved, fenestrated jaws, length of head 16mm Working length 330mm, Complete Components*: insert ELI-2235, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2445H3

GRASPING FORCEPS with curved smooth jaws, length of head 12mm Working length 330mm, Complete Components*: insert ELI-2445, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2375H3

GRASPING FORCEPS CroceOlmi with finely toothed fenestrated, slightly curved upward jaws, length of head 25mm Working length 330mm, Complete Components*: insert ELI-2375, sheath ELI-S25, handle with ratchet ELI-H3



ELI-2225H1

GRASPING FORCEPS universal, length of head 15mm Working length 330mm, Complete Components*: insert ELI-2225, sheath ELI-S25, handle ELI-H1



GRASPING FORCEPS Babcock with long, fenestrated jaws, length of head 21mm Working length 330mm, Complete Components*: insert ELI-2275, sheath ELI-S25, handle ELI-H1

ELI-2365H1

GRASPING FORCEPS for bowel, with finely toothed long fenestrated jaws, length of head 35mm Working length 330mm, Complete Components*: insert ELI-2365, sheath ELI-S25, handle ELI-H1



GRASPING FORCEPS aligator with toothed jaws, length of head 19mm Working length 330mm, Complete

Components*: insert ELI-2525, sheath ELI-S25, handle ELI-H1



GRASPING FORCEPS with multiple teeth, length of head 12mm Working length 330mm, Complete Components*: insert ELI-2205, sheath ELI-S25, handle ELI-H1



GRASPING FORCEPS with 2:4 claws, length of head 12mm Working length 330mm, Complete

Components*: insert ELI-2215, sheath ELI-S25, handle ELI-H1

ELI-2245H1

GRASPING FORCEPS with 1:2 teeth, length of head 18mm, Working length 330mm, Complete

Components*: insert ELI-2245, sheath ELI-S25, handle ELI-H1

ELI-2305H1

GRASPING FORCEPS with 2:3 claws, length of head 23mm Working length 330mm, Complete Components*: insert ELI-2305, sheath ELI-S25, handle ELI-H1

ELI-2315H1

GRASPING FORCEPS with 8:9 claws, length of head 23mm Working length 330mm, Complete Components*: insert ELI-2315, sheath ELI-S25, handle ELI-H1

ELI-2605H1

SPOON FORCEPS

length of head 10mm Working length 330mm, Complete Components*: insert ELI-2605. sheath ELI-S25. handle ELI-H1

ELI-2715H1

KNOTTING FORCEPS with slit-profile, slightly curved smooth jaws, length of head 10mm, Working length 330mm, Complete Components*: insert FLI-2715 sheath FLI-S25 handle FLI-H1

ELI-2655H1

TENACULUM FORCEPS with 1:1 claws, lenath of head 20mm Working length 330mm, Complete Components*: insert ELI-2655, sheath ELI-S25, handle ELI-H1

ELI-2225H3

GRASPING FORCEPS universal, length of head 15mm. Working length 330mm, Complete Components*: insert ELI-2225, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2275H3

GRASPING FORCEPS Babcock with long, fenestrated jaws, length of head 21mm Working length 330mm, Complete Components*: insert ELI-2275, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2365H3

GRASPING FORCEPS for bowel, with finely toothed long fenestrated jaws, length of head 35mm Working length 330mm, Complete Components*: insert ELI-2365, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2525H3

GRASPING FORCEPS aligator with toothed jaws, length of head 19mm Working length 330mm, Complete Components*: insert ELI-2525, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2205H3

GRASPING FORCEPS with multiple teeth, length of head 12mm Working length 330mm, Complete Components*: insert ELI-2205, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2215H3

GRASPING FORCEPS with 2:4 claws, length of head 12mm Working length 330mm, Complete Components*: insert ELI-2215, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2245H3

GRASPING FORCEPS with 1:2 teeth, length of head 18mm Working length 330mm, Complete Components*: insert ELI-2245, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2305H3

GRASPING FORCEPS with 2:3 claws, length of head 23mm, Working length 330mm, Complete Components*: insert ELI-2305, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2315H3

GRASPING FORCEPS with 8:9 claws, length of head 23mm Working length 330mm, Complete Components*: insert ELI-2315, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2605H3

SPOON FORCEPS length of head 10mm

Working length 330mm, Complete Components*: insert ELI-2605, sheath ELI-S25, handle with ratchet ELI-H3

ELI-2655H3

TENACULUM FORCEPS with 1:1 claws, length of head 20mm Working length 330mm, Complete Components*: insert ELI-2655, sheath ELI-S25, handle with ratchet ELI-H3





ELI-3485H1

DISSECTOR OVERHOLD-MIXTER

length of head 31mm Working length 330mm, Complete Components*: insert ELI-3485, sheath ELI-S35, handle ELI-H1

ELI-3615H1

GRASPING FORCEPS Allis,

with fenestrated jaws, length of head 48mm Working length 330mm, Complete Components*: insert ELI-3615, sheath ELI-S35, handle ELI-H1

ELI-3255H1

GRASPING FORCEPS universal, with fenestrated jaws, length of head 32mm

Working length 330mm, Complete Components*: insert ELI-3255, sheath ELI-S35, handle ELI-H1

ELI-3315H1

GRASPING FORCEPS Debakey,

length of head 36mm Working length 330mm, Complete

Components*: insert ELI-3315, sheath ELI-S35, handle ELI-H1

ELI-3275H1

GRASPING FORCEPS Babcock I,

with fenestrated jaws, length of head 41mm Working length 330mm, Complete

Components*: insert ELI-3275, sheath ELI-S35, handle ELI-H1

ELI-3265H1

GRASPING FORCEPS Babcock II,

length of head 35mm Working length 330mm, Complete

Components*: insert ELI-3265, sheath ELI-S35, handle ELI-H1

ELI-3295H1

GRASPING FORCEPS Babcock III,

with fenestrated jaws, length of head 35mm Working length 330mm, Complete

Components*: insert ELI-3295, sheath ELI-S35, handle ELI-H1

ELI-3305H1

GRASPING FORCEPS with 2:3 claws, length of head 40mm

Working length 330mm, Complete

Components*: insert ELI-3305, sheath ELI-S35, handle ELI-H1

ELI-3325H1

GRASPING FORCEPS with 8:9 claws, fenestrated long jaws, length of head 40mm

Working length 330mm, Complete Components*: insert ELI-3325, sheath ELI-S35, handle ELI-H1

ELI-3635H1

TENACULUM FORCEPS with 1:1 claws,

length of head 31mm Working length 330mm, Complete

Components*: insert ELI-3635, sheath ELI-S35, handle ELI-H1

ELI-3435H1

DISSECTING FORCEPS Maryland with curved jaws, length of head 15mm

Working length 330mm, Complete

Components*: insert ELI-3435, sheath ELI-S35, handle ELI-H1

ELI-3625H1

SPOON FORCEPS single action jaws

length of head 10mm, Working length 330mm, Complete

Components*: insert ELI-3625, sheath ELI-S35, handle ELI-H1

ELI-3205H1

GRASPING FORCEPS length of head 45mm Working length 330mm, Complete

Components*: insert ELI-3205, sheath ELI-S35, handle ELI-H1

ELI-3485H3

DISSECTOR OVERHOLD-MIXTER

length of head 31mm

Working length 330mm, Complete

Components*: insert ELI-3485, sheath ELI-S35, handle with ratchet ELI-H3

ELI-3615H3

GRASPING FORCEPS Allis,

with fenestrated jaws, length of head 48mm Working length 330mm, Complete

Components*: insert ELI-3615, sheath ELI-S35, handle with ratchet ELI-H3

ELI-3255H3

GRASPING FORCEPS universal, with fenestrated jaws,

length of head 32mm

Working length 330mm, Complete

Components*: insert ELI-3255, sheath ELI-S35, handle with ratchet ELI-H3

ELI-3315H3

GRASPING FORCEPS Debakey,

length of head 36mm

Working length 330mm, Complete

Components*: insert ELI-3315, sheath ELI-S35, handle with ratchet ELI-H3

ELI-3275H3

GRASPING FORCEPS Babcock I, with fenestrated jaws,

length of head 41mm

Working length 330mm, Complete

Components*: insert ELI-3275, sheath ELI-S35, handle with ratchet ELI-H3

ELI-3265H3

GRASPING FORCEPS Babcock II,

length of head 35mm

Working length 330mm, Complete

ents*: insert ELI-3265, sheath ELI-S35, handle with ratchet ELI-H3

ELI-3295H3

GRASPING FORCEPS Babcock III, with fenestrated jaws,

Components*: insert ELI-3295, sheath ELI-S35, handle with ratchet ELI-H3

length of head 35mm

Working length 330mm, Complete

ELI-3305H3

GRASPING FORCEPS with 2:3 claws,

length of head 40mm

Working length 330mm, Complete

Components*: insert ELI-3305, sheath ELI-S35, handle with ratchet ELI-H3

ELI-3325H3

GRASPING FORCEPS with 8:9 claws,

fenestrated long jaws, length of head 40mm Working length 330mm, Complete

Components*: insert ELI-3325, sheath ELI-S35, handle with ratchet ELI-H3

ELI-3635H3

TENACULUM FORCEPS with 1:1 claws,

length of head 31mm

Working length 330mm, Complete

Components*: insert ELI-3635, sheath ELI-S35, handle with ratchet ELI-H3

ELI-3435H3

DISSECTING FORCEPS Maryland with curved jaws,

length of head 15mm

Working length 330mm, Complete

Components*: insert ELI-3435, sheath ELI-S35, handle with ratchet ELI-H3

ELI-3625H3

SPOON FORCEPS single action jaws

length of head 10mm, Working length 330mm, Complete

Components*: insert ELI-3625, sheath ELI-S35, handle with ratchet ELI-H3

ELI-3205H3

GRASPING FORCEPS length of head 45mm

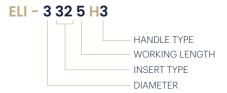
Working length 330mm, Complete Components*: insert ELI-3205, sheath ELI-S35, handle with ratchet ELI-H3

Explanation To The Use Of Order Codes





Illustration of **emd**[®] EndoLine Hand Instrument equipped with Ø5mm scissors with standard working length.





Complete Instrument

INSERT + SHEAT + HANDLE with ratchet

Illustration of **emd**[®] EndoLine Hand Instrument equipped with Ø10mm grasping forceps with standard working length, handle with ratchet.

24 Product Catalogue 25

WE BELIEVE THAT

Functionality And Design

CREATE WORK OF ART.

EITHER WE ARE WORKING ON A NEW PRODUCT DEVELOPMENT OR WE ARE RETHINKING AN OLDER DESIGN, OUR TOP PRIORITY IS CREATING HIGH-END PRODUCTS THAT COMPLY WITH THE CHALLENGES OF THE TIME, BOTH IN TERMS OF FUNCTION AND USABILITY.



Why ENDOLINE Trocar System?

OUR INTENTION IS TO PROVIDE A SAFE, STABLE AND RELIABLE PORT BETWEEN THE PATIENT AND THE SURGEON, IN ORDER TO SUPPORT FREE MOVEMENTS FOR THE MANIPULATORS DURING THE WHOLE SURGICAL PROCEDURE.

THE CONSTRUCTION OF THE TROCAR SLEEVES BOTH PROTECTS THE INSERTED TELESCOPES AND M.I.S. INSTRUMENTS AS WELL.

ROBOTICS CONTROLLED, HIGH PRECISION LASER-WELDING RESULT IN BOTH AN EXTRAORDINARY STABLE CONSTRUCTION AND AN AESTHETIC APPEARANCE.

PERFECTLY FITS IN THE FLAT OF THE HAND AND GRANTS COMFORTABLE HOLDING DURING PENETRATION OF ABDOMINAL WALL.





THE DESIGN OF **emd® ENDOLINE** TROCAR SYSTEM IS BASED ON YEARS OF OUR EXPERIENCE, COMBINED WITH THE CONTINUOUS COOPERATION AND FEEDBACK FROM MEDICAL PROFESSIONALS, RESULTING IN UNIQUE PRODUCT FEATURES.

CONICAL SHAPE -FOR GUIDANCE **OF INSTRUMENTS**

The conical shape of the insertion surface facilitates sliding in the instruments, which does not require any specific targeting.

The unobstructed instrument insertion allows the surgeon to focus more on function of the introduced manipulator itself.

SHORTENED TROCAR BODY

The shortened trocar body design grants a longer working length for the applied laparoscopic instruments.

ERGONOMIC HANDLE

The ergonomic surface of EndoLine trocar handles perfectly fits in the flat of the hand and grants comfortable holding during penetration of abdominal wall.

ADVANCED SAFETY TROCAR

Cutting/dilating edge design of emd safety trocars fully meets the basic need for minimal incision in laparoscopy.

The streamline construction fulfils the user's expectation that disassembly and assembly should be as easy as possible.

Variety of Trocar Sleeves

For the manual valve opening model, the trap-door valve is operated by a push button on the side of the trocar body. This feature is preferred when inserting a telescope or an instrument with a sensitive tip profile (eg. hook).

The valve inside the silicone-valved trocar sleeve opens automatically when a medical instrument is inserted and closes automatically when the device is removed, thus preventing gas from escaping from the abdominal cavity.

Durable Components

The raw materials used for EndoLine trocar ssystem are all selected for their long lifespan and high level of re-processing compliance.

By the optimal combination of stainless steel, plastic and silicone materials all components are fully cleanable, disinfectable and autoclavable (up to 121°C and 134°C).

Silicone Sealings

A basic requirement for laparoscopic surgery is to ensure the best possible seal.

The seals are located inside the EndoLine trocar sleeves, protecting them from possible mechanical damage during insertion of the instruments.

The color identification of the silicone seals used for emd trocar sleeves matches the size of the device



ELT-071S

TROCAR SLEEVE

with automatic silicone valve, with CO2 luer-lock connector* Working length 60mm



ELT-OP1

TROCAR with pyramidal tip



ELT-071F

TROCAR SLEEVE

with automatic silicone valve with fixation thread, with CO2 luer- lock connector*, Working length 60mm



ELT-0C1

TROCAR with conical tip





TROCAR with blunt tip



ELT-0V

VALVE

white, silicone** Use with trocar sleeves **ELT-071S ELT-071F**



ELT-0D

SEALING DISC white, silicone**

ELT-071S ELT-071F



SEALING CAP

black, silicone** Use with: CO2 luer-lock connector



ELT-171S

TROCAR SLEEVE

with automatic silicone valve, with stopcock*,

Working length 100mm



TROCAR SLEEVE

with automatic silicone valve with fixation thread, with stopcock* Working length 100mm



ELT-191S

TROCAR SLEEVE

with automatic/manual trap-door valve operation, with stopcock* Working length 100mm



ELT-19

TROCAR BODY

with automatic/manual trap-door valve operation, with stopcock*



ELT-11S

GUIDE TUBE

metal,

standard. Working length** 100mm



ELT-11F

GUIDE TUBE

ı metal. with fixation thread Working length** 100mm





ELT-10P

REDUCING PLUG

Use with instrument size **3/3.5mm**



ELT-123V

VALVE

white, silicone*** ELT-171S ELT-171F



ELT-0D

SEALING DISC

white, silicone*** Use with: reducing plug: ELT-10P



ELT-1D

SEALING DISC

green, silicone*** ELT-171S



ELT-1I

INTERNAL SEALING ELEMENT green, silicone***

Trap-door valve of trocar sleeve: **ELT-191S** Trocar body: **ELT-19**



ELT-1R

SEALING RING

green, silicone***

Trap-door valve of trocar sleeve: **ELT-191S** Trocar body: **ELT-19**

^{*} Trocar sleeves are available without stopcock as well. In case of ordering, please indicate "W", e.g. ELT-171SW

^{**} Guide tubes can be delivered in other lengths as well. Please contact us regarding the manufacturing of custom sizes.

^{***} All silicone parts are autoclaveable (121°C).





ELT-271S

TROCAR SLEEVE

with automatic silicone valve, with stopcock* Working length 100mm



ELT-271F

TROCAR SLEEVE

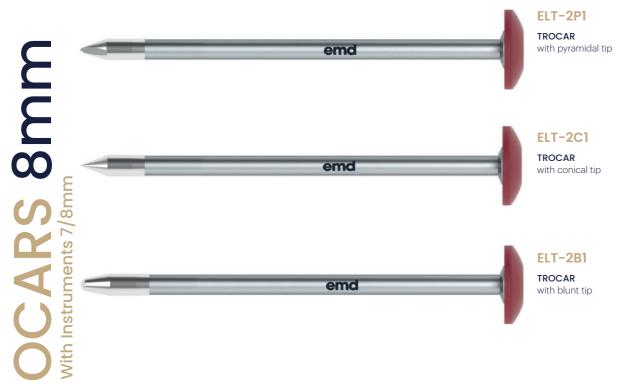
with automatic silicone valve with fixation thread, with stopcock* Working length 100mm



ELT-291S

TROCAR SLEEVE

| with automatic/manual trap-door valve operation, with stopcock* Working length 100mm





ELT-21T

REDUCING SLEEVE

Use with instrument size **5/5.5mm**



ELT-123V

VALVE

ELT-271F

white, silicone*** ELT-271S



ELT-2D

SEALING DISC

white, silicone*** ELT-271S ELT-271F



ELT-2I

INTERNAL SEALING ELEMENT white, silicone***

ELT-291S



ELT-2R

SEALING RING white, silicone***

Use with: Trap-door valve of trocar sleeve: **ELT-291S** Trocar body: **ELT-29**



ELT-21A

REDUCING ADAPTER

Use with instrument size **5/5.5mm**



ELT-21P

REDUCING PLUG

Use with instrument size **5/5.5mm**



ELT-1H

SEALING ELEMENT

green, silicone*** Use with reducing adapter: **ELT-21A**



ELT-1D

SEALING DISC

green, silicone*** Reducing plug: ELT-21P Reducing sleeve: **ETL-21T**



^{**} Guide tubes can be delivered in other lengths as well. Please contact us regarding the manufacturing of custom sizes.

^{***} All silicone parts are autoclaveable (121°C).



ELT-371S

TROCAR SLEEVE

with automatic silicone valve, with stopcock*, Working length 100mm



ELT-371F

TROCAR SLEEVE

with automatic silicone valve, with fixation thread, with stopcock* Working length 100mm



ELT-391S

TROCAR SLEEVE

with automatic/manual trap-door valve operation, with stopcock* Working length 100mm



ELT-39

TROCAR BODY

with automatic/manual trap- door valve operation, with stopcock*



ELT-31S

GUIDE TUBE

metal. standard, Working length**: 100mm



ELT-31F

GUIDE TUBE

metal. with fixation thread, Working length**: 100mm

* Trocar sleeves are available without stopcock as well. In case of ordering, please indicate "W", e.g. ELT-171SW ** Guide tubes can be delivered in other lengths as well. Please contact us regarding the manufacturing of custom sizes. *** All silicone parts are autoclaveable (121°C).





ELT-123V

VALVE

white, silicone*** Use with trocar sleeves:

ELT-171S ELT-171F



ELT-3R

SEALING RING blue, silicone***

Trap-door valve of trocar sleeve: **ELT-391S** Trocar body: **ELT-39**



ELT-3D

SEALING DISC

blue, silicone*** ELT-371S ELT-371F



ELT-3I

INTERNAL SEALING ELEMENT

blue, silicone*** Trap-door valve of trocar sleeve: **ELT-391S** Trocar body: ELT-39



ELT-31A

REDUCING ADAPTER

Use with instrument size **5/5.5mm**



ELT-31T

REDUCING SLEEVE

Use with instrument size **5/5.5mm**



ELT-1H

SEALING ELEMENT

green, silicone*** Use with reducing adapter: **ELT-31A**



ELT-1D

SEALING DISC

green, silicone*** Use with: Reducing plug: ELT-31P Reducing sleeve: **ETL-31T**





ELT-471S

TROCAR SLEEVE

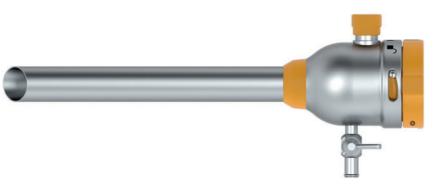
with automatic silicone valve, with stopcock* Working length 100mm



ELT-471F

TROCAR SLEEVE

ı with automatic silicone valve with fixation thread, with stopcock*, Working length 100mm



ELT-491S

TROCAR SLEEVE

with automatic/manual trap-door valve operation, with stopcock* Working length 100mm



ELT-49

TROCAR BODY

with automatic/manual trap-door valve operation, with stopcock*



ELT-41S

GUIDE TUBE

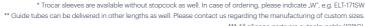
ı metal standard. Working length** 100mm

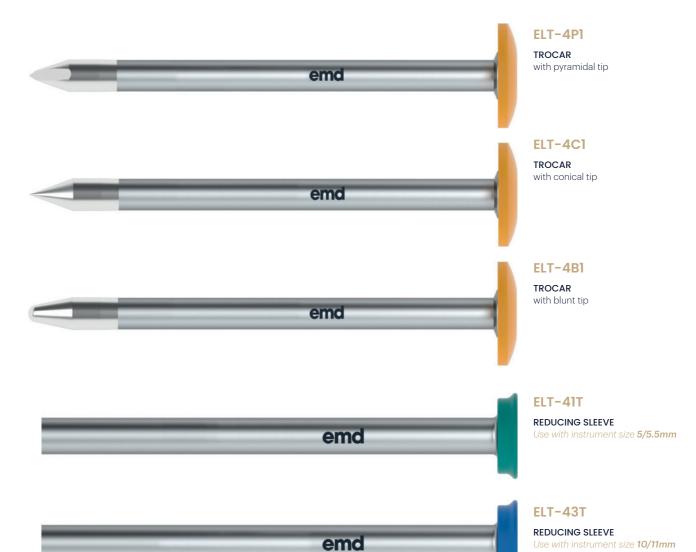


ELT-41F

GUIDE TUBE

ı metal. with fixation thread, Working length** 100mm







ELT-4V

VALVE white, silicone*** ELT-171S



ELT-4D

ELT-171F

SEALING DISC

yellow, silicone*** ELT-471S ELT-471F



ELT-41

INTERNAL SEALING ELEMENT

yellow, silicone*** Trap-door valve of trocar sleeve: **ELT-491S** Trocar body: **ELT-49**



ELT-4R

SEALING RING yellow, silicone***

Trap-door valve of trocar sleeve: **ELT-491S** Trocar body: **ELT-49**



ELT-1H

SEALING ELEMENT

green, silicone*** Reducing adapter: **ELT-41A**



ELT-1D

ELT-3D

ELT-43P

ELT-43T

SEALING DISC

blue, silicone***

SEALING DISC

green, silicone***

Reducing plug: **ELT-41P** Reducing sleeve: **ETL-41T**

Reducing adapter: **ELT-43A**





ELT-43A

ELT-41A

Use with instrur size **5/5.5mm**

REDUCING ADAPTER

size **10/11mm**

REDUCING ADAPTER



ELT-41P

REDUCING PLUG size **5/5.5mm**



ELT-43P

REDUCING PLUG size **10/11mm**



ELT-591S

TROCAR SLEEVE

with automatic/manual trap-door valve operation, with stop- cock* Working length 100mm



ELT-59

TROCAR BODY

with automatic/manual trap-doo valve operation, with stop- cock*



ELT-51S

GUIDE TUBE

metal, standard, Working length** 100mm



ELT-51F

GUIDE TUBE

metal, with fixation thread, Working length** 100mm





emd

emd

emd

emd

ELT-5P1

TROCAR with pyramidal tip



TROCAR with conical tip

ELT-5B1

TROCAR with blunt tip

ELT-53T

REDUCING SLEEVE

Use with instrument size 10/11mm

ELT-51T

REDUCING SLEEVE

Use with instrument size 5/5.5mm

INTERNAL SEALING ELEMENT

Trap-door valve of trocar sleeve: **ELT-591S**

Trap-door valve of trocar sleeve: **ELT-591S**



ELT-1H

SEALING ELEMENT green, silicone***

Reducing adapter: **ELT-51A**



ELT-3H

SEALING ELEMENT

blue, silicone*** Reducing adapter: **ELT-53A**



ELT-1D

SEALING DISC

green, silicone***

Reducing plug: **ELT-51P** Reducing sleeve: **ETL-51T**



ELT-3D

SEALING DISC blue, silicone***

Reducing plug: **ELT-53P** Reducing sleeve: ETL-53T



ELT-53A

size **5/5.5mm**

ELT-51A

REDUCING ADAPTER

REDUCING ADAPTER size **10/11mm**



ELT-51P

REDUCING PLUG size **5/5.5mm**



ELT-53P

REDUCING PLUG size **10/11mm**







ELT-36

DILATION SET

gall bladder extraction 11/20mm atraumatic guide probe 11mm, dilation sleeve 11/20mm,



ELT-3C

SEALING CAP

Use for dilation set **ELT-36**



ELT-3HCL

CONICAL ADAPTER

Hasson-technique, long Use with trocar sleeve size 11mm



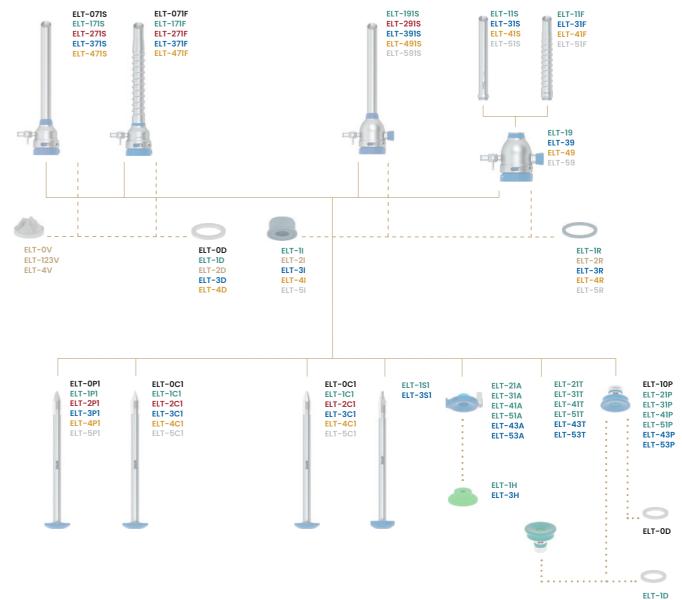
ELT-4C

SEALING CAP

Use with conical adapters **ELT-3HCL**







Samples For Special Working Length

GUIDE TUBE 5.5MM	E ELT-11S	E ELT-12S	ELT-13S	ELT-14S
GUIDE TUBE WITH FIXATION THREAD 5.5MM	ELT-11F	ELT-12F	ELT-13F	င့် ELT-14F
TROCAR WITH PYRAMIDAL TIP 5.5MM	ELT-1P1	ĕ ELT-1P2	ELT-1P3	ELT-1P4
GUIDE TUBE 11MM	ELT-31S	ELT-32S	ELT-33S	ELT-34S
GUIDE TUBE WITH FIXATION THREAD 11MM	ELT-31F	ELT-32F	ELT-33F	ELT-34F
TROCAR WITH PYRAMIDAL TIP 11MM	ELT-3P1	ELT-3P2	ELT-3P3	ELT-3P4
GUIDE TUBE 13MM	ELT-41S	ELT-42s	ELT-43S	ELT-44S
GUIDE TUBE WITH FIXATION THREAD 13MM	ELT-41F	ELT-42F	ELT-43F	ELT-44F
TROCAR WITH PYRAMIDAL TIP 13MM	ELT-4P1	ELT-4P2	ELT-4P3	ELT-4P4





42 Product Catalogue 43

WE KNOW THAT

Success Of An Operation

RELIES ON THE TEAM BEHIND.

THE LIFE EXPECTANCY OF A HIGH QUALITY MEDICAL DEVICE DEPENDS ON BOTH THE ACCURACY OF MANUFACTURING AND THE CARE TAKEN IN ITS OPERATION AND REPROCESSING.

AS MANUFACTURERS, WE STRIVE TO OFFER SOLUTIONS FOR MEDICAL STAFF TO ENSURE EASE OF USE, STORAGE AND STERILISATION.



The Importance Of **Product Care**

PROPER PRE-CLEANING IS ESSENTIAL TO PROVIDE EFFECTIVE STERILIZATION. THANKS TO OUR WASH-RINSE DEVICE ALL THE THREE COMPONENT OF THE ENDOLINE LAPAROSCOPIC INSTRUMENTS ARE FULLY FLUSHABLE.

THE SYSTEM ELEMENTS CAN BE EASILY POSITIONED AND THIS DEVICE ENSURES THAT THE INSIDE OF EACH PART IS PERFECTLY FREE OF CONTAMINATION.



ELT-RST

WASH-RINSE DEVICE

THE LIFE CYCLE OF MEDICAL DEVICES **CONTINUES** BEYOND THE O.R.

can be extended by careful maintenance. We strongly recommend to follow our product specific instructions of use.









ELI-RAS

RINSE ADAPTER

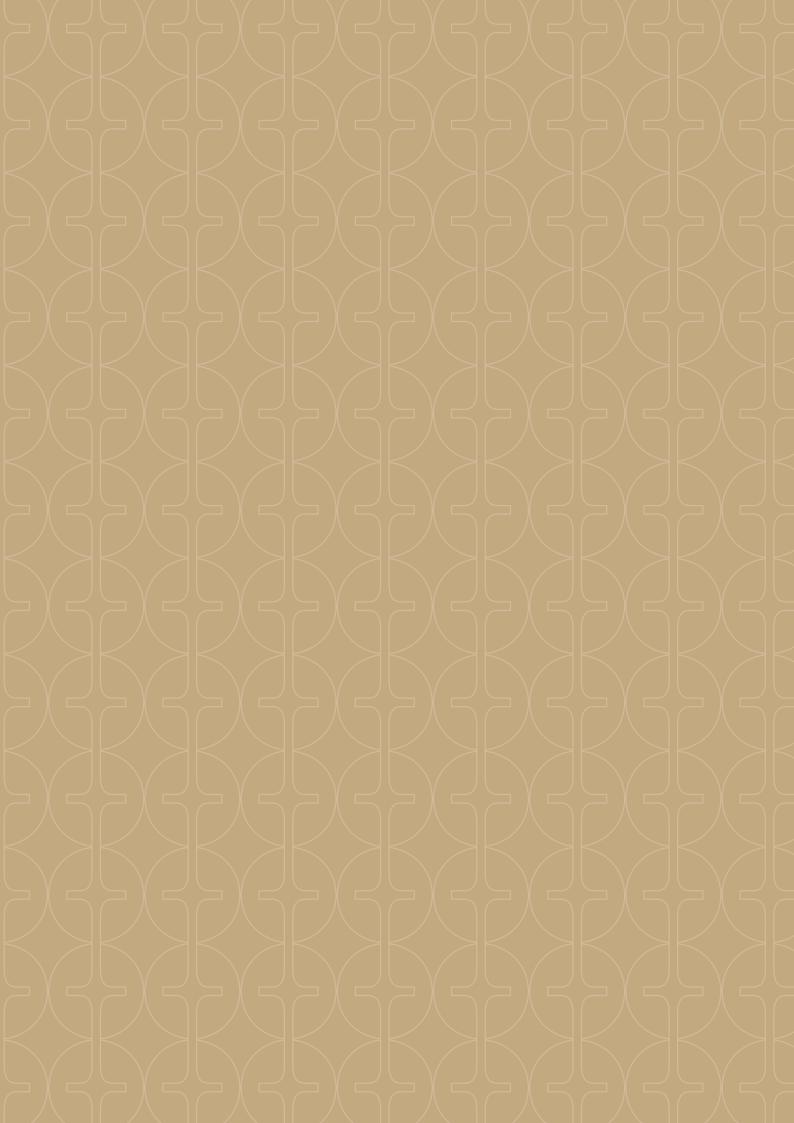
ELI-RAH

RINSE ADAPTER

ELI-RAC

CLOSING CAP

Notes			Notes		





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