



MIRUS

Endo Mechanical Closure Devices (Staplers)

### Infrastructure

Situated on 180 acres of land and built over a 300,000 sq.ft. area, Meril's ISO 13485 & cGMP certified ultra-modern manufacturing facility is constructed to satisfy the stringent needs of our cardiovascular, orthopedics, diagnostics and endo-surgery businesses, as well as our R&D endeavors.

Fully integrated manufacturing systems ensure backward integration, flawless man-material movement and complete control over processes to eliminate production errors. All manufacturing and sterilization processes are conducted in-house, in addition to the analytical and microbiological QA/QC tests required to meet the world-class production standards.











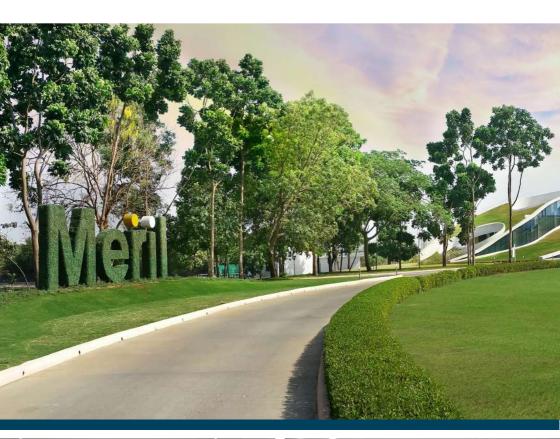
### **Talent**

Meril's 3200+ personnel are a strong, experienced team comprising designers, engineers, chemists, microbiologists, regulatory affair experts, R&D scientists, clinical affairs experts, legal, finance, sales and marketing professionals with innovative capabilities. The team is continuously striving towards improving and saving lives every day by providing revolutionary solutions for diagnosis, prevention and treatment.

Currently Meril has direct sales & representative offices in India, Germany, Turkey, USA, China and Brazil, and a strong distribution network spread over an additional 102 countries in 6 continents.

### Meril Academy

While innovations and advancements in medical technology play a vital role in contributing to the betterment of a healthy society, a larger role also lies in educating and imparting practical training to doctors, clinicians and other members of the medical fraternity. This initiative will help bridge the gaps between the available technology, its adoptions and its implementation for superior patient care.







Also, to add value to medical professionals and young medical interns, Meril Academy functions as world class institution. Spread over a massive area of 200,000 sq. ft. and surrounded with lush, green natural beauty, Meril Academy is situated at the Meril headquarters in Vapi.







### Meril Endo-Surgery

In line with the objective to design and develop novel, clinically relevant, state-of-art surgical devices, Meril is expanding its endo-surgery franchise. At Meril, we strive to create and develop products through innovative thinking, cutting edge technologies and collaboration with medical professionals and healthcare organizations, with an aim to identify clinical needs and translate them into market-leading solutions.

Meril's vision is to become a 'one-stop' solution for surgeons by providing them with an extensive product portfolio comprising absorbable & non-absorbable surgical sutures, tissue sealants, hemostats, hernia repair meshes, intra uterine devices, energy devices and mechanical closure devices.





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## Staplers

### MIRUS<sup>™</sup> - The Symbol of Excellence

Technological advances across numerous scientific disciplines have produced unique surgical devices and instruments that are used during a surgery. Both, the ongoing introduction of new devices and the continuing technical improvements in existing devices are changing the ways surgeons perform traditional tasks and enable them to develop new surgical techniques with the goal of improving patient outcomes.

The surgical stapler is an example of a device that has evolved through the ongoing innovation and is currently being used in several surgical procedures.

The stapling technique was pioneered by the Hungarian surgeon, Humor Hultl, known as the "Father of Surgical Stapling".

From Hultl's prototype to today's surgical stapling concept, there have been revolutionary changes and Meril's surgical stapling range is aligned with these developments to provide excellent patient outcomes with accurate device function.

 ${
m MIRUS}^{
m M}$  reflects the symbol of excellence and motivates us to give additional features leading to superior patient outcomes. With advanced computer aided designing, ultra-modern manufacturing facility, trained manpower, good quality control,  ${
m MIRUS}^{
m M}$  stapling products are able to deliver optimal tissue compression, accurate B-shape formation and leak proof anastomoses. With the help of advanced development process,  ${
m MIRUS}^{
m M}$  surgical stapling portfolio will continue to add features and benefits to make it a symbol of excellence.

### **MIRUS**<sup>™</sup> Linear Cutter

The MIRUS™ Reloadable Linear Cutters render two double staggered rows of titanium staples and simultaneously cut and separate tissue between the two double rows. The MIRUS™ Reloadable Linear Cutter and reloads are available in lengths 60mm, 80mm & 100mm with two different sizes of staples to accommodate various tissue thicknesses.

#### The MIRUS™ Linear Cutter is:

Reliable: A kind of mechanism for predictable staple formation. Safety lockout characteristic forestalls firing

of unloaded device

**Flexible:** Two diverse reloads for different types of tissue thicknesses

Easy to use: One-hand position; moderate locking position takes into account repositioning of tissue



Stapler	Description	Reloads	Open Length	Close Length	Color	No. of Firings	No. of Staples	Rows of Staples	Staple Line Length	Cut Length
MLC60	Mirus Disp. Linear Cutter 60	MLCR60-3.8 MLCR60-4.8	3.8 mm 4.8 mm	1.5 mm 2.0 mm	Blue Green	8	64	4	64 mm	60 mm
MLC80	Mirus Disp. Linear Cutter 80	MLCR80-3.8 MLCR80-4.8	3.8 mm 4.8 mm	1.5 mm 2.0 mm	Blue Green	8	84	4	84 mm	80 mm
MLC100	Mirus Disp. Linear Cutter 100	MLCR100-3.8 MLCR100-4.8	3.8 mm 4.8 mm	1.5 mm 2.0 mm	Blue Green	8	104	4	104 mm	100 mm

# MIRUS <sup>™</sup> Linear Stapler (Auto)

The device gives two staggered rows of titanium staples in 30mm, 45mm, 60mm and 90mm sizes. The device might be reloaded up to seven times for a maximum of eight firings.

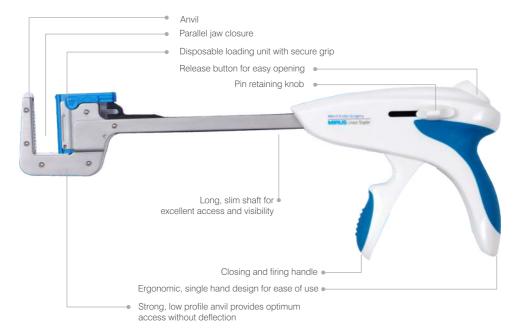
### The MIRUS™ Reloadable Linear Stapler is:

**Dependable:** Parallel jaw closure furnishes unvarying staple arrangement

**Easy to use:** One-hand operation (close, fire, release) **Easy to place:** Adjustable intermediate locking position

**Versatile:** Two diverse reloads to cater to a variety of tissue thicknesses

### (Without Dial)



Stapler	Description	Reloads	Open length	Close length	Color	Number of firings	Number of staples	Rows of staples
MALS30	Mirus Auto Linear Stapler 30	MLSR30-3.5	3.5 mm	1.5 mm	Blue	8	11	2
WALSSU	Willus Auto Lillear Stapler 30	MLSR30-4.8	4.8 mm	2.0 mm	Green	8	11	2
MALCAE	Mirus Auto Linear Stapler 45	MLSR45-3.5	3.5 mm	1.5 mm	Blue	8	15	2
IVIAL545	MALS45 Mirus Auto Linear Stapler 45	MLSR45-4.8	4.8 mm	2.0 mm	Green	8	15	2
MALS60	Mirus Auto Linear Stapler 60	MLSR60-3.5	3.5 mm	1.5 mm	Blue	8	21	2
WALSOU	Willus Auto Lillear Stapler 60	MLSR60-4.8	4.8 mm	2.0 mm	Green	8	21	2
MALS90	Mirus Auto Linear Stapler 90	MLSR90-3.5	3.5 mm	1.5 mm	Blue	8	33	2
IVIAL590	Will do Auto Elifedi Staplei 90	MLSR90-4.8	4.8 mm	2.0 mm	Green	8	33	2

## MIRUS<sup>™</sup> Circular Stapler

The MIRUS<sup>™</sup> Circular Stapler exemplifies the Meril commitment to the improvement in offering superior products. The Circular Stapler design reflects three decades of experience drawn from leading Bariatric, Colorectal and General surgeons across the globe. With consolidating exclusive technology, 4.5mm staples, and other unique features, the MIRUS<sup>™</sup> Circular Stapler gives phenomenal clinical performance, usability and adaptability.

Our intraluminal stapler has a Tissue Compression Indicator, which measures compressed tissue thickness at particular positions inside a gap setting scale. When in association with tissue, these staplers furnish an essential layering for a perfect anastomosis. Throughout booting, the regulated tissue layering and automatic adjustable height staples offer uniform staple arrangement.

### The MIRUS™ Circular Staplers are available in following sizes:

II Rows - 24mm, 25mm, 26mm, 29mm, 32mm III Rows - 21mm, 24mm, 25mm, 26mm, 29mm, 32mm



opening and closing anvil

Stapler	Description	Open length	Close length	Cutting Diameter	Head Diameter	Rows of staples	Staple Quantity
MCS-21R3	Mirus Disp. Circular Stapler 3Row 21	4.5 mm	1.0-2.5 mm	12	21	3	21
MCS-24R3	Mirus Disp. Circular Stapler 3Row 24	4.5 mm	1.0-2.5 mm	15	24	3	24
MCS-25R3	Mirus Disp. Circular Stapler 3Row 25	4.5 mm	1.0-2.5 mm	16	25	3	33
MCS-26R3	Mirus Disp. Circular Stapler 3Row 26	4.5 mm	1.0-2.5 mm	17	26	3	33
MCS-29R3	Mirus Disp. Circular Stapler 3Row 29	4.5 mm	1.0-2.5 mm	20	29	3	36
MCS-32R3	Mirus Disp. Circular Stapler 3Row 32	4.5 mm	1.0-2.5 mm	22	32	3	42
MCS-24	Mirus Disp. Circular Stapler 24	4.5 mm	1.0-2.5 mm	15	24	2	18
MCS-25	Mirus Disp. Circular Stapler 25	4.5 mm	1.0-2.5 mm	16	25	2	20
MCS-26	Mirus Disp. Circular Stapler 26	4.5 mm	1.0-2.5 mm	17	26	2	20
MCS-29	Mirus Disp. Circular Stapler 29	4.5 mm	1.0-2.5 mm	20	29	2	24
MCS-32	Mirus Disp. Circular Stapler 32	4.5 mm	1.0-2.5 mm	22	32	2	30

# MIRUS<sup>™</sup> Hemorrhoids Stapler

PPH is also abbreviated for Procedure for Prolapsed Hemorrhoids, PPH has a point of interest over traditional procedures because the methodology is performed above the dentate line inside the anal canal for transection and resection of the prolapsed tissue while influencing fewer nerve endings. PPH mechanism furnishes two staggered rows (in 32mm & 34mm) & three staggered rows (in 34mm) of titanium staple line.

The accompanying accessories comprise of an Obturator, circular anal dilator, anospcope, suture threader and a suture kit for purse-string. The anospcope is designed to aide purse-string suture application above the dentate line. It consists of an aide and markings to help in taking a circumferential purse-string suture at a predictable placement inside the rectum.

### The MIRUS™ Hemorrhoids staplers are available in following sizes:

II Rows - 32mm and 34mm

III Rows - 34mm



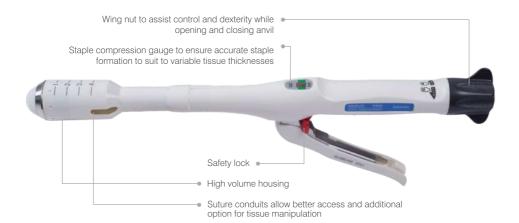




Circumferentially mounted blade assembly pushing razor sharp steel cutting blade, plus rounded edges to internal housing

Stainless steel anvil shaft maximizes stability during firing and clamping

Also available in **3 Rows** for superior hemostasis



Stapler	Description	Open leg length	Close leg length	Knife Diameter	Number of Staples	Rows of staples
MPPH34R3	Mirus Disp. PPH 3Row 34	3.5 mm	0.75 - 1.5 mm	23	48	3
MPPH32	Mirus Disp. PPH 32	3.5 mm	0.75 - 1.5 mm	24.1	32	2
MPPH34	Mirus Disp. PPH 34	3.5 mm	0.75 - 1.5 mm	25.6	32	2

## MIRUS<sup>™</sup> Skin Stapler

#### Outstanding performance across wider skin wounds

Skin staplers are typically used at the end of a surgical procedure for routine wound closure. The staples are then removed with staple extractor after the skin has had an opportunity to heal.

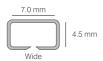
The MIRUS™Skin Stapler's handle design is characterized by good texture for an user friendly experience.

The angled head provides a clear view to ensure precise staple placement and allows the pins to staple the tissue easily.

Staple material : 316L Stainless Steel
Sterilization : Ethylene Oxide
Packaging : 8 pcs/Box
Code : MSS35
Size : 35
Staples : Regular



#### **Staple Dimension:**



Larger diameter wire, greater width, and extra staple height leads to a secure wound closure

Stapler Skin Stapler
Procedure Application Wound closure



### LIGATION CLIP | Titanium

The MIRUS™ ligation clips are implantable medical devices. They are widely used in surgeries for hemostasis as well as for marking purposes. They are designed for use on tubular structures or blood vessels, wherever indicated. Ligation clips are commonly used in cardiothoracic, vascular, gastrointestinal, urological, gynecological, bariatric and general procedures.

#### Available as:

Clip Size : Small, Medium, Medium-Large, Large

Clips/Cartridges: 6 Cartridges/Box: 20 Clips/Box: 120

Product Code : MLT100, MLT200, MLT300, MLT400



#### Meril Titanium Clips:

The titanium clip engulfs tissue with precise tip-to-tip closure. The clip wire is designed to give each clip a firm grip on vessels, while the triangulated cross-section of the clip leg maximizes surface-to-surface contact between clip and jaw, practically eliminating clip fallout.

Lateral and Transverse grooves allow secure fixation on the structure and increase resistance to dislodgement of a formed clip.

 $MIRUS^{TM}$  ligation clips can be used in endoscopic procedures as well as in open surgeries. They are compatible with Meril applicator and other applicators available in the market.

Ligation Clips

Titanium

Procedure Application

Blood vessel ligation for hemostatic purposes

## **MIRUS**<sup>™</sup>Ligation | Titanium

### **Appliers for Open Surgery:**



Product	Product code	Specification	Length	Applicator size	Clips compatibility
Applicator-Open	FTOA-10015	OPEN APPLICATOR 100-15CM	15 cm	Small	MLT100
Applicator-Open	FTOA-10020	OPEN APPLICATOR 100-20CM	20 cm	Small	MLT100
Applicator-Open	FTOA-10028	OPEN APPLICATOR 100-28CM	28 cm	Small	MLT100
Applicator-Open	FTOA-20015	OPEN APPLICATOR 200-15CM	15 cm	Medium	MLT200
Applicator-Open	FTOA-20020	OPEN APPLICATOR 200-20CM	20 cm	Medium	MLT200
Applicator-Open	FTOA-20028	OPEN APPLICATOR 200-28CM	28 cm	Medium	MLT200
Applicator-Open	FTOA-30015	OPEN APPLICATOR 300-15CM	15 cm	Medium-Large	MLT300
Applicator-Open	FTOA-30020	OPEN APPLICATOR 300-20CM	20 cm	Medium-Large	MLT300
Applicator-Open	FTOA-30028	OPEN APPLICATOR 300-28CM	28 cm	Medium-Large	MLT300
Applicator-Open	FTOA-40015	OPEN APPLICATOR 400-15CM	15 cm	Large	MLT400
Applicator-Open	FTOA-40020	OPEN APPLICATOR 400-20CM	20 cm	Large	MLT400
Applicator-Open	FTOA-40028	OPEN APPLICATOR 400-28CM	28 cm	Large	MLT400

### **Appliers for Laparoscopic Surgery:**



Product	Product code	Specification	Length	Applicator size	Clips compatibility
Applicator-Endo	FTEA-00300	LAPAROSCOPIC APPLICATOR 300	Standard	Medium-Large	MLT300
Applicator-Endo	FTEA-00400	LAPAROSCOPIC APPLICATOR 400	Standard	Large	MLT400



### The Series of Features

### Disposable Bladeless Trocar

An Access System that enables hassle-free laparoscopic access and allows you to focus solely on your patient

With a simple twisting motion, the Bird Wing Bladeless Tip separates the tissue, rather than cutting it. The result: a smaller wound, less trauma and easier closure.



Code	Product Description	Sleeve Type	Scope Compatibility
MNK-5	Bladeless Trocar, 5 mm diameter, 95 mm Length	Stability	5 mm
MNK-10	Bladeless Trocar, 10 mm diameter, 95 mm Length	Stability	5 mm
MNK-12	Bladeless Trocar, 12 mm diameter, 95 mm Length	Stability	10 mm
MNK-15	MNK-15 Bladeless Trocar, 15 mm diameter, 110 mm Length		10 mm



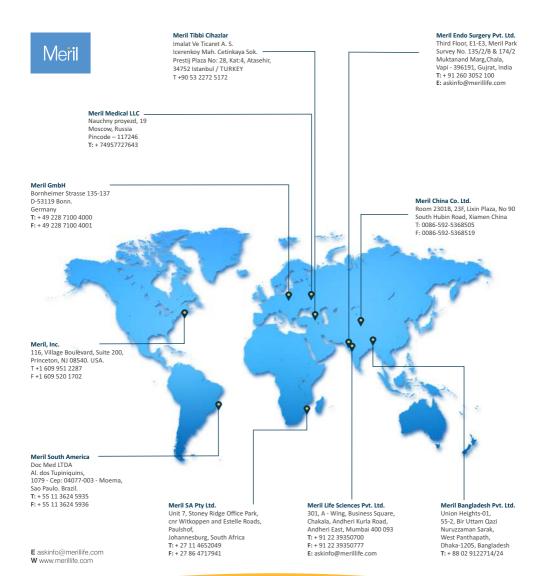
#### DISCLAIMER:

#### **Product Codes & Descriptions**

The product descriptions, if any, provided on this booklet are for informational purposes only and are subject to change. Some products may not be available in all countries. Anyone interested in a particular product should contact Meril sales representative to determine whether the product is available in their country or plan documents for a complete description of the product.







# For more information about Endo Please contact your local representative.

Please see the package insert for complete device description, product selection information, indications, contraindications, precautions, adverse effects, warning, materials, sterilization and patient guidance associated with the Endo.