

# **SURGICAL PORTFOLIO**

Access, Repair, Restore



# INDEX

Disposable Wound Retractor

Disposable Silicon Wound Retractor

Optical Bladeless Trocar

VATS / Minimally Invasive Thoracic Instruments

Endoscopic Linear Cutter Stapler

Linear Cutter Stapler

Circular Stapler

Hemorrhoids Stapler

Ultrasonic Scalpel Dissector with RTTE

Disposable Specimen Retriever

Disposable Clip

Adhesion Barrier RESTORE

**Deep Brain Stimulation** 





Providing a safe ACCESS passage to the surgical site and instrument to maneuver delicate issue and organ for a better surgical outcome



## **DISPOSABLE WOUND RETRACTOR**

### **Product Advantages**

### 01 Retraction

Provide 360° circumferential elastic retraction during procedures and evenly distribute retraction to minimize wounds and pains.

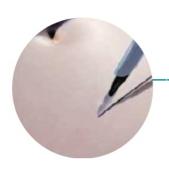
### 02 Protection

Protect wounds at the incision site with superior material strength, significantly avoid infection and keep incision moist.

### 03 Exposure

Minimize the working field for better exposure and visualization, prevent bleeding implications and free up surgeons' hands.





01 Cut the abdomen along the marked incision lines.



 $02 \\ {}^{\text{The green ring of the device is}}_{\text{implanted through the incision.}}$ 



 $03^{-1}$  Roll the outer ring inward at the 10 and 2 o'clock positions.



 $06^{\,\text{Finally remove the green ring}}_{\,\text{from the incision}}$ 

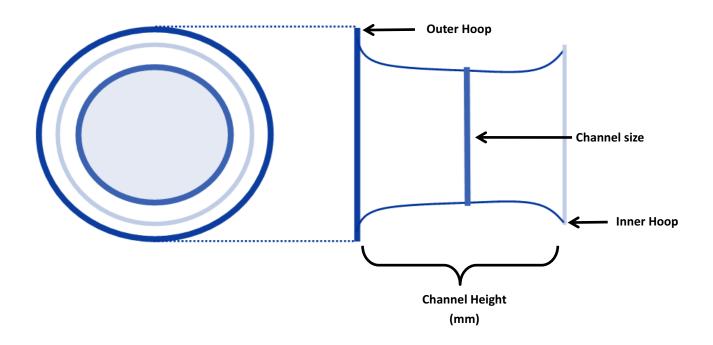


 $05^{\,\text{Perform the desired operation}}_{\,\,\text{by retracting the incision.}}$ 



until the outer ring rolls over.

## **DISPOSABLE WOUND RETRACTOR**



Outer Hoop size (mm)	Inner Hoop size (mm)	Channel Size (mm)	Channel Height (mm)	Product Code
60	70	60	150	LMQK-60/70 -60/150(A)
80	90	80	150	LMQK-80/90 -80/150(A)
120	130	120	250	LMQK-120/130 -120/250(A)
150	160	150	250	LMQK-150/160 -150/250(A)
180	190	180	250	LMQK-180/190 -180/250(A)
200	210	200	250	LMQK-200/210 -200/250(A)
220	230	220	250	LMQK-220/230 -220/250(A)
250	260	250	250	LMQK-250/260 -250/250(A)
270	280	270	250	LMQK-270/280 -270/250(A)
320	330	320	250	LMQK-320/330 -320/250(A)

## **DISPOSABLE OPTICAL BLADELESS TROCAR**

### 01 Visible puncture

With transparent puncture rob tip,camera can be placed in puncture to prevent accidental tissue injury.

### 02 Bladeless obturator

Separates, instead of cuts, reducing risk of abdominal wall injuries with bleeding complications.

### 03 Diamond tip

Facilitate smoother insertion for easier trocar placement.

04 Reverse thread design

Make the insertion smoothly and prevent the undesired movement in the operation.



Disposable Optical Bladeless Trocar 3mm

Disposable Optical Bladeless Trocar 5mm

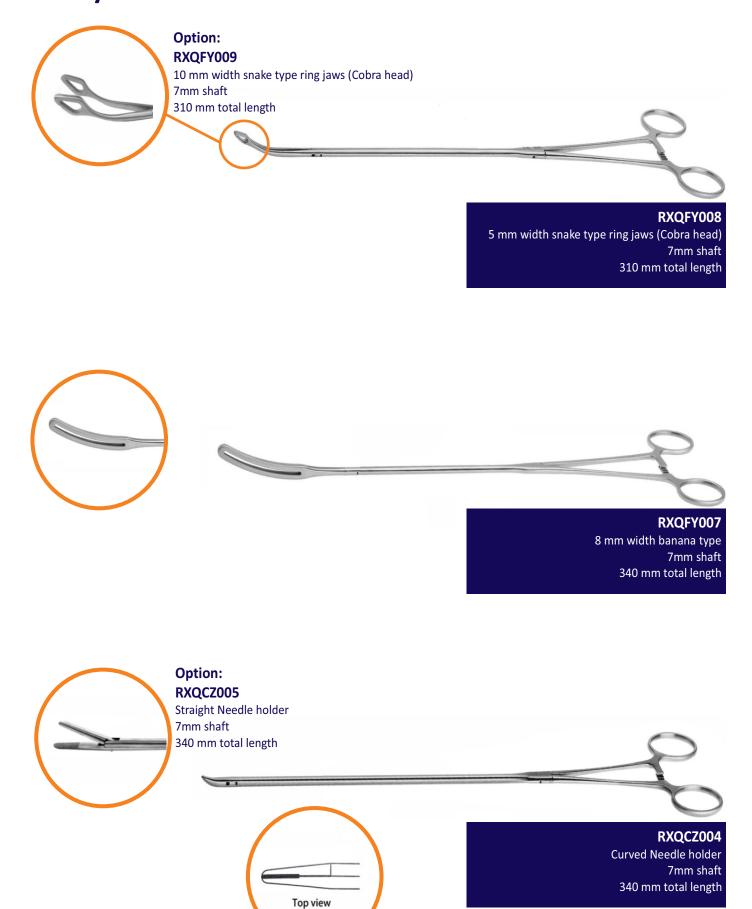
Disposable Optical Bladeless Trocar 10mm

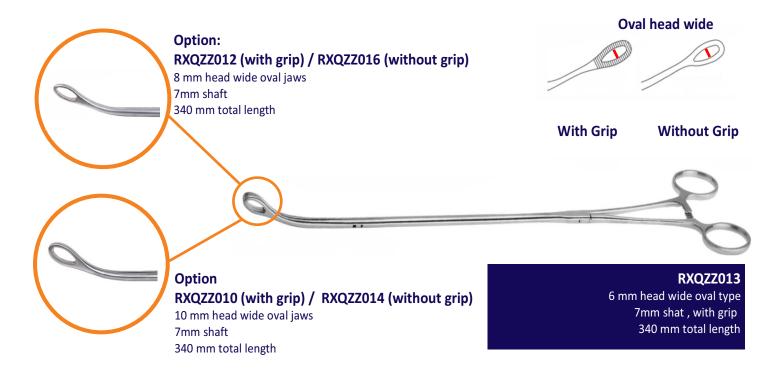
Disposable Optical Bladeless Trocar 12mm

Disposable Optical Bladeless Trocar 15mm

Diameter
3 mm
5 mm
10 mm
12 mm
15 mm

Length	Product Code
100mm	WZDT-A-3/100
100mm	WZDT-A-5/100
100mm	WZDT-A-10/100
100mm	WZDT-A-12/100
100mm	WZDT-A-15/100



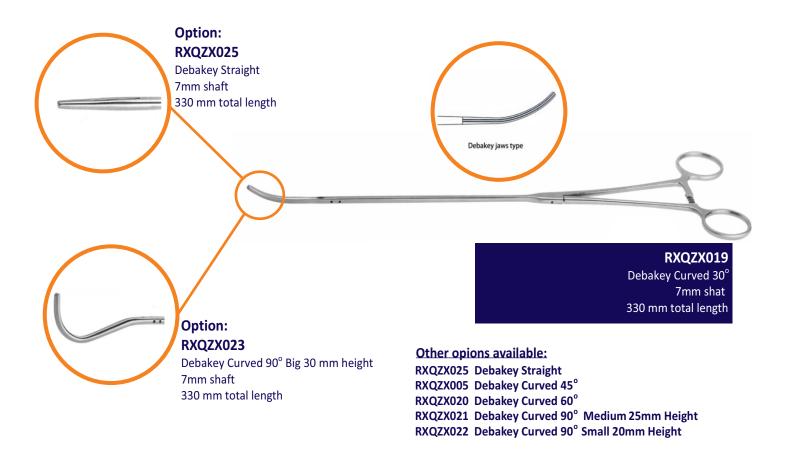


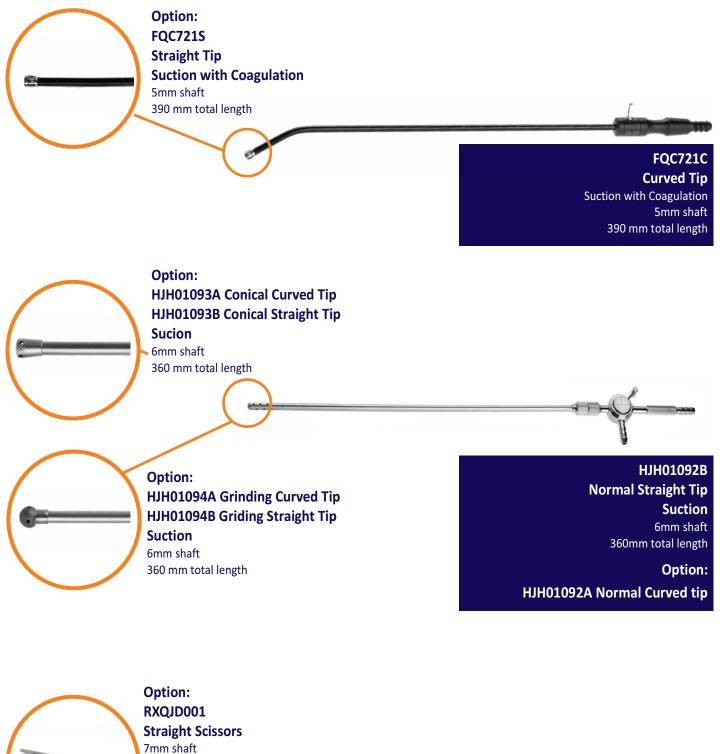
# Other options available: RXQZZ017 (without grip)

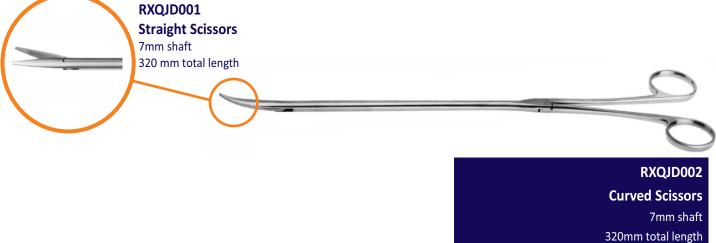
6 mm head wide oval jaws 7mm shaft 340 mm total length

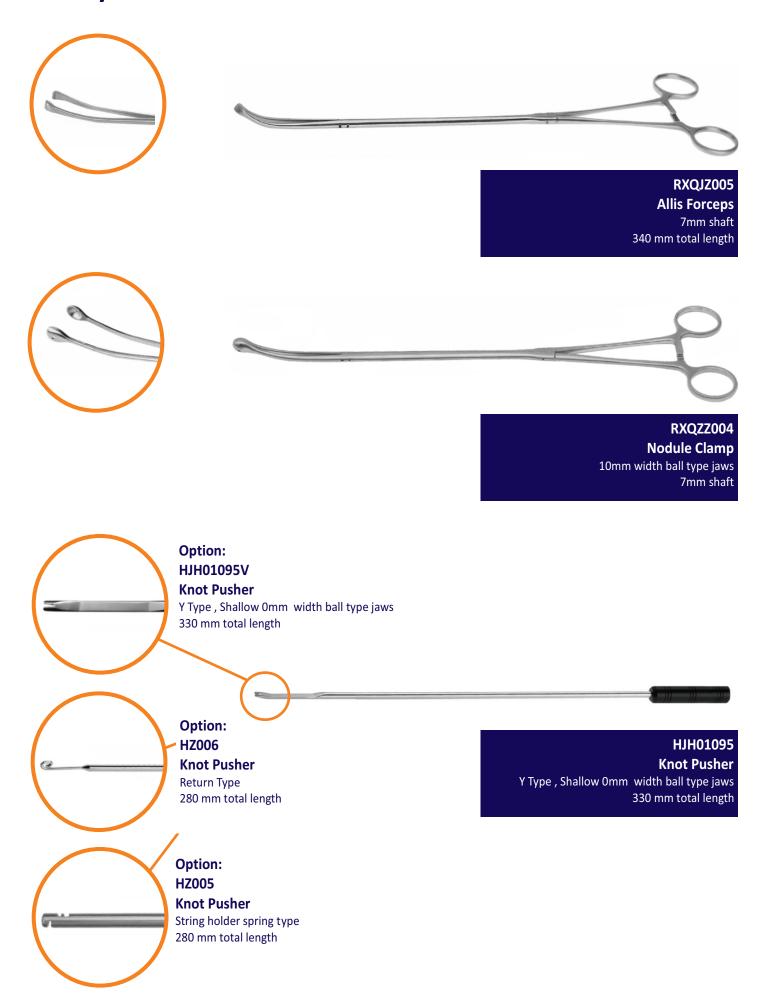
### RXQZZ015 (with grip) / RXQZZ019 (without grip)

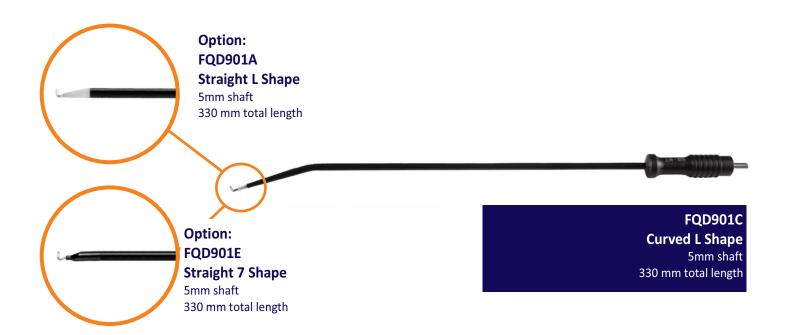
12mm head wide oval jaw 7mm shaft 340 mm total leng





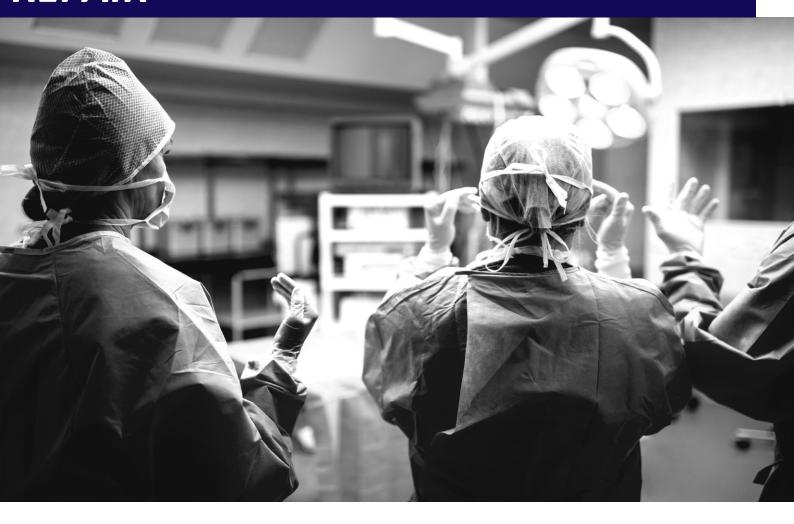






We provide customization service for VATS and Minimally invasive thoracic surgical instrument. For further information, please kindly get in touch with our representative for more information.

# REPAIR



Providing safe medical device to REPAIR and remove issue and parts of organ for a beter paient outcome



## **KEY FEATURES STAPLES TECHNOLOGY**

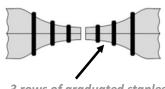
## **GRIPPING SURFACE**

Gripping surface on staple reload allows beter grasping of issue to prevent issue migration



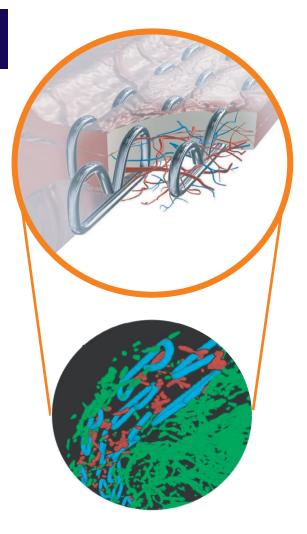
### **GRADUATED STAPLES HEIGHT**





3 rows of graduated staples height to produce graduated issue compression

"This study shows a higher perfusion volume around the staple lines using graduated-height staples as compared to single-height staples and this may contribute to better wound healing in paients."



Eschbach M, 2018, Micro-CT imaging as a method for comparing perfusion in graduated-height and single-height surgical staple lines

## **ENDOSCOPIC LINEAR CUTTER STAPLER**

Design for endoscopic and laparoscopic procedure

Graduated Staples height for better hemostasis effect

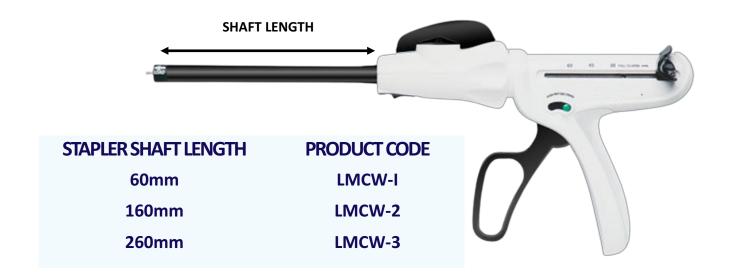
**➡** Gripping Surface to secure tissue before firing

Curved Hook design for hard to reach deep cavity

**▶** Various stapler length catering for surgical demand



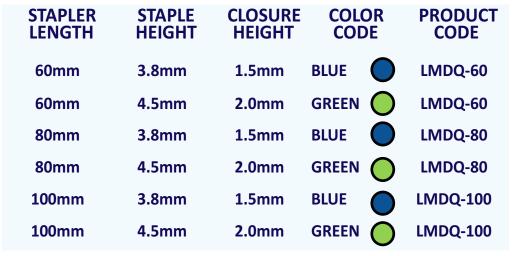
STAPLER LENGTH	STAPLER HEIGHT	COLOR CODE	PRODUCT CODE
30mm	2.5mm	BROWN O	LMCWC-B30/2.5
30mm	3.5mm	PURPLE O	LMCWC-B30/3.5
30mm	4.8mm	BLACK	LMCWC-B30/4.8
45mm	2.5mm	BROWN O	LMCWC-B45/2.5
45mm	3.5mm	PURPLE O	LMCWC-B45/3.5
45mm	4.8mm	BLACK	LMCWC-B45/4.8
60mm	2.5mm	BROWN O	LMCWC-B60/2.5
60mm	3.5mm	PURPLE O	LMCWC-B60/3.5
60mm	4.8mm	BLACK	LMCWC-B60/4.8



## LINEAR CUTTER STAPLER



- 2 row staples formation for good hemostasis result
- Smooth stapling and formation of B shape staples
- Easy latch and detach for easy operation
- **Ergonomic Design**









## **RELOADS**



STAPLER LENGTH	STAPLE HEIGHT	COLO	 PRODUCTCODE
60mm	3.8mm	BLUE	LMDQ-60/3.8
60mm	4.5mm	GREEN	LMDQ-60/4.5
80mm	3.8mm	BLUE	LMDQ-80/3.8
80mm	4.5mm	GREEN	LMDQ-80/4.5
100mm	3.8mm	BLUE	LMDQ-100/3.8
100mm	4.5mm	GREEN	LMDQ-100/4.5

## **CIRCULAR STAPLER**



Integrated Anvil for better B shape stapler formation

Larger inner diameter to prevent excessive strains on anastomosis site

Compact range of stapler size for better selection

0.D (mm)	I.D (mm)	Stapler	Height (mm)	Closure Height (mm)	CARTRII COLO		PRODUCT CODE
21	12	16	4.8	2.0	PURPLE		LMGW—21
24	14.9	18	4.8	2.0	BLACK		LMGW—24
26	16	20	5.2	2.5	BLUE		LMGW—26
29	19	24	5.2	2.5	GREEN	0	LMGW—29
32	22	30	5.2	2.5	WHITE	0	LMGW—32
34	24.4	32	5.2	2.5	GREY	0	LMGW—34

Remarks:

O.D : Outer Diameter
I.D : Internal Diameter

## **HEMORROID STAPLER**



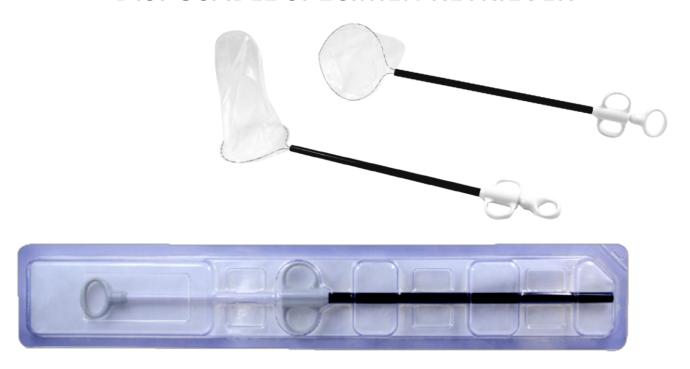
Integrated Anvil for better B shape stapler formation
Integrated shaft for better stability during stapling
Deeper and bigger cartridge for better bigger stapling area

O.D (mm)	I.D (mm)	STAPLER	HEIGHT (mm)	CLOSURE HEIGHT (mm)	PRODUCT CODE
32	23	32	3.8	1.5	LMPH—32
34	24.7	34	3.8	1.5	LMPH—34
36	26	36	3.8	1.5	LMPH-36

Remarks:

O.D : Outer Diameter
I.D : Internal Diameter

## **DISPOSABLE SPECIMEN RETRIEVER**

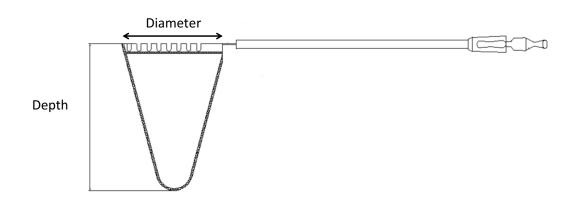


Easy to deploy

Applicable for all laparoscopic surgery

Deeper and bigger cartridge for better bigger stapling area

Diameter	DEPTH	SIZE	CAPACITY (mL)	PRODUCT CODE
11cm ± 0.5	152	S	200 mL	LMSBB - 80
11cm ± 0.5	182	M	350 mL	LMSBB - 100
11cm ± 0.5	182	L	700 mL	LMSBB - 130

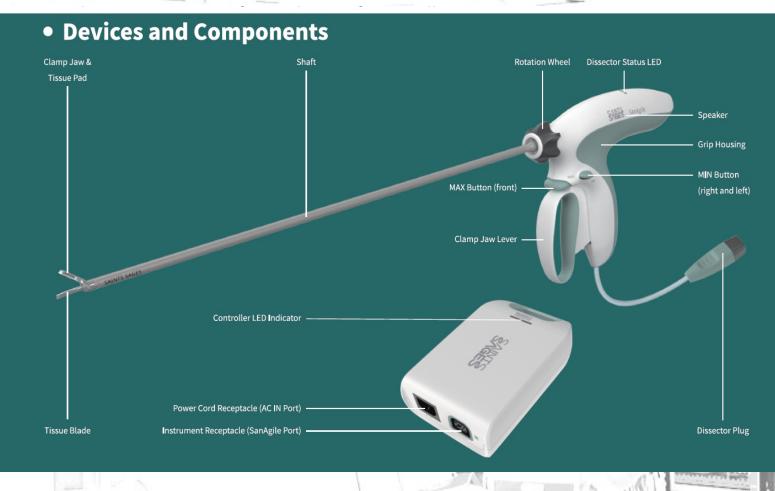


## **DISPOSABLE TITANIUM CLIP**

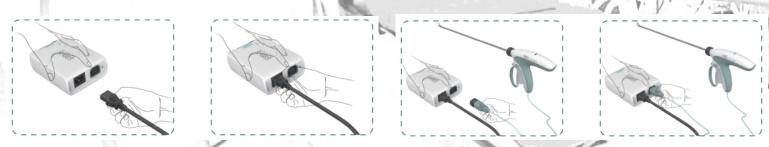


				Clip Size		
REF	Shaft Diameter (mm)	Working Length (mm)	Length (mm)	Aperture (mm)	Width (mm)	Clip Qty (pcs)
Tq10	10	290	5.5	8.7	1.0	20
TQ10-J	10	290	5.5	8.7	1.0	20
Tq5	5	330	4.4	9.1	0.75	15

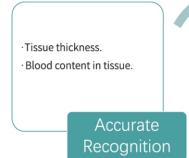




## **QUICK INSTALLATION**



# Intelligent RTTE II algorithm



### Al Analysis

·Analysis the type of the tissue
·Based on the experience of
30000+ vessels sealing
successfully.
·Activate the corresponding

energy output.

· 50000+ times adjustment per second.

·Ensure the optimal energy can be produced during the whole procedure.

Quick Feedback

Advanced Ultrasonic Dissector comes in 4 different length

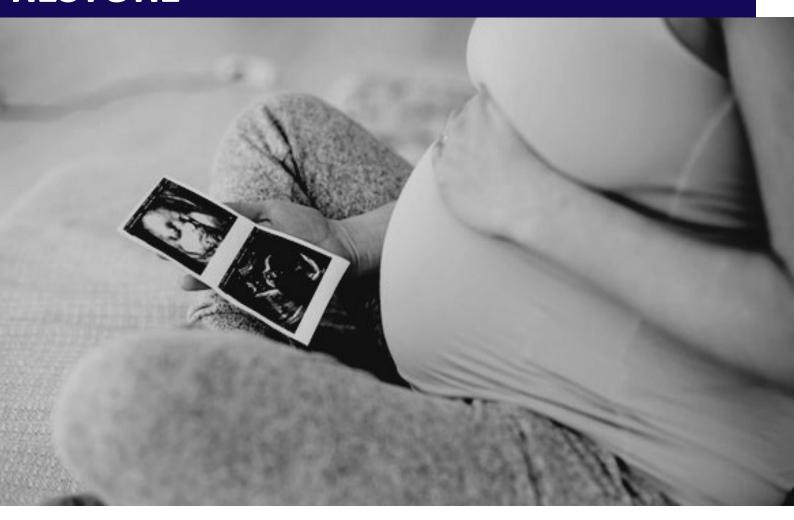
14CM

23CM

**36CM** 

45CM

# RESTORE



Providing safe medical device to REHABILITATE and rejuvenate patient's well being



# Hydlobarrier

THE NATURAL CHOICE IN ADHESION PREVENTION

Hyalobarrier

Hyalobarrier

### WHY USE HYALOBARRIER GEL?

- ⊙ 100% natural product consisting of pure hyaluronic acid auto-crosslinked. (1-12)
- ⊙ The gel, which is a natural product produced by biofermentation (no animal origin, from natural hyaluronan); bioabsorbable and inherent in the body, creates a mechanical barrier between organs after surgery at the site where there is a risk of adhesions.<sup>(1-12)</sup>
- ⊖ Highly viscous, sticks firmly to the application site, thus fulfilling the essential function of these devices to stay where it is needed. (1-12)
- ② Hyalobarrier remains in the area of application for 7 days, protecting the organism during the 3-5 days of adhesion risk and completely degrades within 30 days (bioabsorbable). (1-12)
- **⊘** Significant reduction of post-surgical adhesions. (14)
- **⊘** Significant reduction of post-surgical intrauterine adhesions. (15,16)
- **⊘**Significant increase in the pregnancy rate. (18)
- **⊗**Effectiveness in laparotomy, laparoscopy and hysteroscopy. (13-23)
- ⊘ Completely safe tested in over 500,000 patients since year 2000 with no adverse effects being reported.



# Hyalobarrier gel

## CE<sub>0459</sub>

### **Product information sheet**

### Characteristics

Hyalobarrier\* is a bioabsorbable, transparent and highly viscous gel, composed of 100% pure hyaluronic acid auto-crosslinked without the introduction of any foreign substances.

Thanks to its viscosity, Hyalobarrier® adheres perfectly to the tissue surface and to the abdominal wall, creating an anti-adhesion barrier which keeps the adjacent tissues separated during the repair phase subsequent to a surgical procedure.

### Indications

Hyalobarrier® is indicated to prevent or reduce the post-surgical adhesion.

#### Instructions for use

- Take the product out of refrigeration and let it warm at room temperature. Open
  the pouch and introduce the syringe into the operating field, adopting the normal
  aseptic techniques used in the surgical theatre.
- Remove the protective cap on the tip of the syringe and connect the enclosed cannula to the luer-lock end of the syringe. The cannula for Hyalobarrier\* gel endo has been designed to be utilized with a 0.5 cm diameter trocar.
- 3. Apply the gel inside the wound site by pushing the plunger.
- Cover the areas to be treated with the gel. It is recommended to apply a 1-2 mm thick layer of gel. The thickness of the gel layer does not influence the efficacy of the product.
- 5. Do not irrigate the surgical field after application of the product.

### **Contraindications**

Known hypersensitivity to the product, like other implant materials, the device must not be used in patients with active infection or contamination of the surgical site.

### Storage

Keep refrigerated (2-8°C).

Do not freeze.

### **Shelf life**

Three years.

### **Preclinical publications**

- Mensitieri M et al., Viscoelastic properties modulation of a novel autocrosslinked hyaluronic acid polymer. J MaterSci MaterMed 1996;7, 695-698
- De laco PA et al., A novel hyaluronan-based gel in laparoscopic adhesion prevention: preclinical evaluation in an animal model. Fert Ster 1998 Feb; 69[2]:318-23
- 3. Koçak I et al., Reduction of adhesion formation with cross-linked hyaluronic acid after peritoneal surgery in rats. Fertility and Sterility 1999 Nov; vol.72.N°5
- Belluco C et al., Prevention of postsurgical adhesion with an autocrosslinked hyaluronan derivative gel. J Surg Res 2001 Oct; 100[2]:217-21
- De laco PA et al., Efficacy of hyaluronan derivative gel in postsurgical adhesion prevention in the presence of inadequate hemostasis. Surgery 2001 Jul; 130[1]:60-4
- 6. Pucciarelli S et al., Effect of antiadhesive agent on peritoneal carcinomatosis in an experimental model. Br J Surg 2003 Jan; 90[1]:66-71
- Renier D et al., Pharmacokinetic behaviour of ACP gel, an autocrosslinked hyaluronan derivative, after intraperitoneal administration. Bio materials 2005 Sep: 26(26):5368-74
- Wallwiener M. et al, Innovative barriers for peritoneal adhesion prevention: liquid or solid? A rat uterine horn model. Fertil Steril Vol. 86, Suppl 3, October 2006 (1266 - 1276).
- Shamiyeh A. et al.: Effect of Hyaluron Derivate Gel in Prevention of Postsurgical Peritoneal Adhesions - An Experimental Study in Pigs. Hepato-Gastroenterology 54 (2007), 1121-1124.
- Binda MM, Molinas CR, Bastidas A et al. Efficacy of barriers and hypoxia-inducible factor inhibitors to prevent CO2 pneumoperitoneum enhanced adhesions in a laparoscopic mouse model. J Min Inv Gynecol 2007; 14:591-599.
- 11. Blinda MM and Koninckx PR. Prevention of adhesion formation in a laparoscopic mouse model should combine local treatment with peritoneal cavity conditioning. Hum Reprod. 2009 Jun; 24(6):1473-9. Epub 2009 Mar 3.
- Binda MM and Koninckx PR. Hyperoxia and prevenion of adhesion formation: a laparoscopic mouse for open surgery. BJOG. 2010 Feb; 117(3):331-9. Epub 2009 Oct

### Warnings and precautions

Even if the effcacy of the product is not compromised in the presence of difficult haemostasis, the use of Hyalobarrier\* on patients affected by alterations of blood coagulation, severe allergies or previous recognized anaphylaxis episodes is at total discretion of the surgeon.

Hyalobarrier® does not have intrinsic bacteriostatic or bactericidal activity.

The concomitant use of the product together with other anti-adhesion devices or with solutions instilled intraperitoneally, has not been evaluated.

The safety of Hyalobarrier\* has not been evaluated in patients affected by malignant tumours.

The syringes are single-use. Non-utilized portions of the product must be discarded. The cannula is single-use.

To avoid damage to the luer-lock connection, it is recommended not to use the cannula-syringe system as a manipulating laparoscopic instrument, e.g, for displacing tissues and organs.

### **Presentations**

### Hyalobarrier® gel

Indicated for use in open surgery procedures.

The package includes

- three individually-packaged, single-use, sterile syringes, each containing 10ml of gel
- three individually-packaged, sterile, 5 cm-cannulae.

### Hyalobarrier® gel endo

Indicated for use in laparoscopic and hysteroscopic surgical procedures.

The package includes

- three individually-packaged, single-use, sterile syringes, each containing 10ml of gel
- three individually-packaged, sterile, 30cm-cannulae. These cannulae have been designed to be utilized with a 0.5cm diameter trocar.

### **Clinical publications**

- De laco PA et al., Hyaluronan derivative gel (HYALOBARRIER\* gel) in intrauterine adhesion (IUA) prevention after operative hysteroscopy. Ellipse 2003; 19(1):15-18
- 14. Pellicano M et al., Effectiveness of autocrosslinked hyaluronic acid gel after laparoscopic myomectomy in infertile patients: a prospective, randomized, controlled study. Fertil Steril 2003 Aug; 80[2]:441-4
- 15. Acunzo G et al., Effectiveness of auto-cross-linked hyaluronic acid gel in the prevention of intrauterine adhesions after hysteroscopic adhesiolysis: a prospective, randomized, controlled study. Hum Reprod 2003 Sep: 18[9]:1918-21
- 16. Guida M. et al., Effectiveness of auto-crosslinked hyaluronic acid gel in the prevention of intrauterine adhesions after hysteroscopic surgery: a prospective, randomized, controlled study. Hum Reprod 2004 Jun; 19[6]:146-4
- Carta G et al., Postoperative adhesion prevention in gynecologic surgery with hyaluronic acid. Clin Exp Obstet Gynecol. 2004; 31[1]:39-41
- Pellicano M et al., Reproductive outcome after autocrosslinked hyaluronic acid gel application in in infertile patients who underwent laparoscopic myomectomy. Fertil Steril 2005 Feb; 83[2]:498-500
- Mais V. et al, Reduction of postoperative adhesions with an auto-crosslinked hyaluronan gel in gynaecological laparoscopic surgery: a blinded, controlled, randomized, multicentre study. Hum Reprod. 2006 May; 21(5):1248-54. Epub 2006 lap 26
- Metwally M. et al, Hyaluronic acid fluid agents for the prevention of adhesions after fertility-preserving gynecological surgery: a meta-analisis of randomized controlled trials. Fertil Steril. 2007 May; 87(5):1139-46.
- 21. Salman MC, Beksac S, Dogan NU Use of hyaluronic acid for vaginal stenosis in a woman with a history of imperforate hymen and transverse vaginal septum: a case report. Source J Reprod Med. 2009 Jun; 54(6):397-400.
- Beksac MS, Salman MC, Dogan NU A new technique for surgical treatment of vaginal agenesis using combined abdominal-perineal approach. Case Report Med. 2001; 2011:120175. Epub 2011 Apr 26.
- 23. Mais V, Cirronis MG, Peiretti M, Ferrucci G, Cossu E, Melis GB Efficacy of auto-crosslinked hyaluronan gel for adhesion prevention in laparoscopy and hysteroscopy: a systematic review and meta-analysis of randomized controlled trials. Eur J Obstet Gynecol Reprod Biol. 2012 Jan; 60(1):1-5. Epub 2011 Sep 25. Review



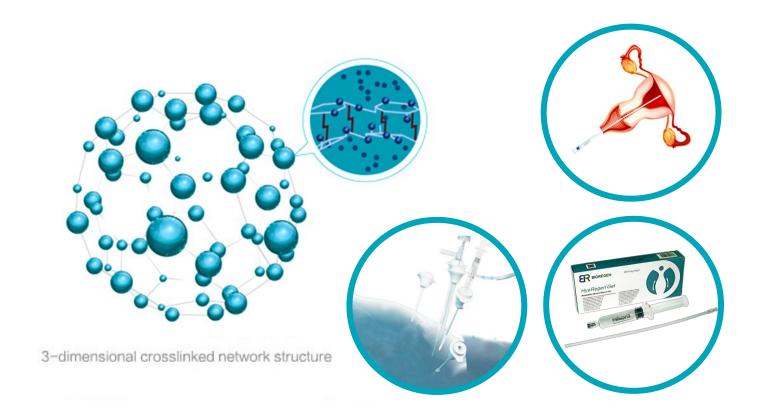






Adhesion is the formation of abnormal fibrous connection among tissues and organs, and it is scar by nature. Common cause of adhesion are surgical wound, ischemia, inflammation, foreign object or bacteria infection.

Common risk and complications arise from adhesion are small intestine obstruction, chronic pelvis pain, secondary infertility, and even second surgery



### **OUR BIOREGEN ADHESION BARRIER**

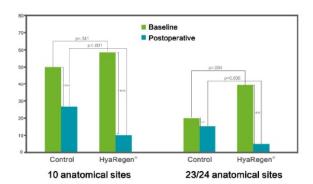
- ➡ Wide indication for Abdominopelvic and Intrauterine adhesion barrier
- ▶ Effctively prevent adhesion, inhibits tumor cell growth, metastasis and recurrance
- Over 44 international patented crosslinked formulas
- Comes with laparoscopic applicators and various volume configurations

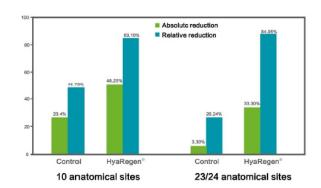




### Clinical Study: Randomized Controlled study on the Efficacy and Safety of new Crosslink Gel in Reducing Adhesion after Gynaecologic Laparoscopic Surgeries

- ☆ Randomized, controlled, multiple center clinical study (Level I).
- ☆Laparoscopic gynecological surgery; 2nd look laparoscopy at 9 PO weeks.
- ☆Modified American Fertility Society (mAFS) adhesion scores quantified blindly
- ☆Adhesions observed in 10 anatomic sites ( ovaries and tubes) and 23/24 sites ( covering entire abdominopelvic cavity)<sup>7</sup>
- ☆ Conclusions: Application of HyaRegen® Gel significantly reduced the severity of adhesion

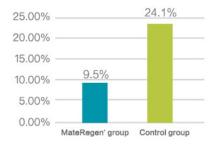




<sup>8</sup>Liu C. et al. A randomized controlled trial on the efficacy and safety of a new crosslinked hyaluronan gel in reducing adhesions after gynecological laparoscopic surgeries. JMIG 2015; 22:853–863.

### Clinical Study: Incident of Adhesion between MateRegen vs Control Group

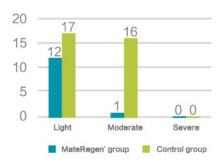
### Adhesion incidence p = 0.0012



The adhesion incidence of the MateRegen® group was 60.6% lower than that of the control group

- Used multi-centered, randomized, parallel and negative control
- · Enrolled 300 patients with missed abortion
- Study group: MateRegen® control group: conventional surgical treatment
- Received hysteroscopy in 3 months after the surgery
- The intrauterine adhesion scoring system of the American Filtration and Separations Society (AFS) is used as the evaluation standard

### Cases of adhesion p = 0.0087



The incidence of mild and moderate adhesion of the MateRegen® group was obviously lower than that of the control group

## **NEUROMODULATION**

A deep brain stimulation system (DBS) delivers electrical impulses to specific brain areas to restore the balance of circuits that are disrupted, overcoming abnormal activity in that region.



Our one of its kind DBS system is used to treat

**Dystonia** 

**Epilepsy** 

**Essential Tremor** 

**Obsessive - compulsive disorder** 

Parkinson's disease

Addiction





# **Product List**

# **Repair**

<del>-</del>	
	45cm
DEV Saint Sagas Illtrasania Discostor with DTTE II	36cm
REX Saint Sages Ultrasonic Dissector with RTTE II	23cm
	14cm
REX Saint Sages Ultrasonic Controller with RTTE II	-
	45cm
DEV Liltura a pri a Caplural	36cm
REX Ultrasonic Scalpel	
	14cm
REX Ultrasonic Scissors	9cm
REX Ultrasonic Scalpel Transducer	-
REX Ultrasonic Scissors Transducer	-
	5mm
Disposable Titanium Clip	10mm
	ML
Disposable Polymer Clips	L
	XL
	ML
Polymer Clips Applicator	L
	XL
	60cm
Endoscopic Linear Cutter Stapler	160cm
	260cm
Articulating Endoscopic Linear Cutter Stapler Reload (White & Curved Tip)	30mm
	30mm
Articulating Endoscopic Linear Cutter Stapler Reload	45mm
	60mm
	60mm
Disposable Linear Cutter Stapler (Blue/Green)	80mm
	100mm
	60mm
Disposable Linear Cutter Stapler Reload (Blue/Green)	80mm
Disposable Circular Stapler	ALL SIZES

# **Product List**

## **Access**

Optical Bladeless Trocar		
Optical Bladeless Trocar (5 Cannula + 1 Trocar)	5mm	
	60mm	
	80mm	
	120mm	
	150mm	
Disposable Wound Retractor	200mm	
	220mm	
	250mm	
	270mm	
	350mm	
Disposable Hand Laparascopic Instruments (Babcock, Scissors, Maryland and etc)	-	
Two man at Constitute voith lawingsticus 204		
Trumpet Suction with Irrigation 3M		
Trumpet Suction with Irrigation with L Electrode3M	5mm	

## **Restore**

	30ml
	80ml
Disposable Speciment Retrieval Bag	250ml
	350ml
	1000ml
Ligition Loop	-
Dia Dagan Adhassian Daggian	
BioRegen Adhession Barrier	10ml





**GET IN TOUCH WITH US** 

drdevicemed@gmail.com

## Sabah Authorised Representative:

**D.D.L. Medical Supplies**