

2025



Get the Shield™ for Patient Safety



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AEM® Shield™ Instruments Can Increase Patient Safety and Reduce O.R. Expenses.



Eliminate Patient Burns from both intra-operative insulation failure and capacitive coupling.


Improve Patient Safety


Contract Compliance


Reduce Cost per Procedure




Ease of Use

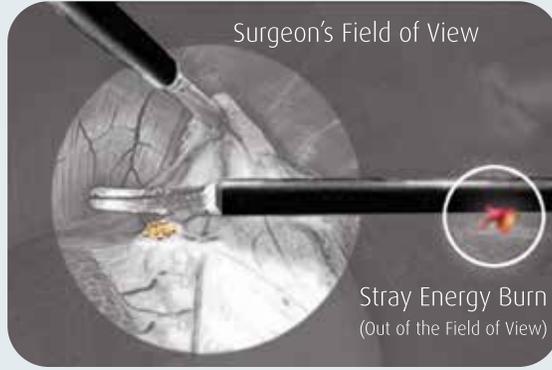
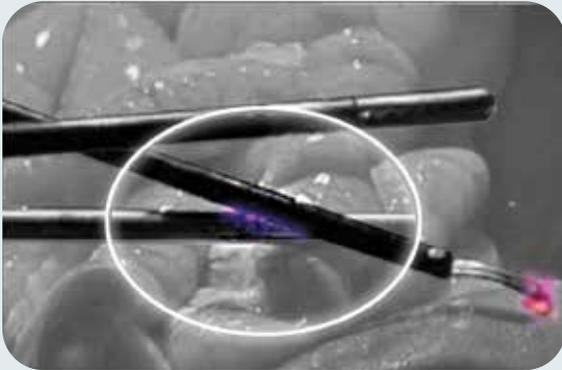

Reduce SKUs with Standardization


Less Maintenance and Reorders

Studies have shown that AEM® Technology has a lower cost per case than traditional, unshielded monopolar instruments. Data available upon request.

Eliminate the costs for insulation failure and repairing instruments. Shielded AEM® Instruments are failsafe and last longer than traditional instruments. Data available upon request.

FDA Issued a Safety Communication on the Dangers of Monopolar Laparoscopic Surgery.¹



Patient Injuries from Capacitive Energy and Intra-Operative Insulation Failure

“Monopolar Energy Use Can Directly Result in Unintended Patient Burns from Capacitive Coupling and Intra-Operative Insulation Failure.”

Complication Rates

GENERAL SURGERY

Laparoscopic surgical burns kill 1-2 people every day and cause a serious complication every 90 minutes.^{4, 9-14}

GYNECOLOGY SURGERY

Injury Type	Estimated Complication Rate from Stray Energy Burns ¹⁻⁴
Ureter	1 in 120 procedures to 1 in 70 procedures
Bladder	1 in 1000 procedures to 1 in 25 procedures
Bowel	1 in 400 procedures to 1 in 60 procedures

ESU Power Settings of less than 10 W can cause a full thickness bowel injury from stray energy.²⁰



Instrumentation Insulation-Failure Rates^{5,6}

- 1 in 5 reusables
- 1 in 33 disposables

Capacitive Coupling^{7,8}

In every surgery, a capacitor is created between the monopolar laparoscopic instrument and the patient. This leads to stray energy being coupled to the patient through intact insulation, causing internal burns.

Improve Patient Safety with AEM[®] Shield[™] Instruments.

Active Electrode Monitoring (AEM[®]) Instruments incorporate a layered design unique in the industry. They are shielded and monitored to eliminate stray energy burns, along the shaft of the monopolar instrument. Stray energy burns are caused by intra-operative insulation failure and capacitive coupling, a well-documented patient safety risk that the FDA has warned about. These burns cause a patient injury every 90 minutes and kill 1–2 people per day in the USA.

It's not the technique, it's the technology.

The protective shield built into all AEM[®] Instrumentation provides an electrical return path for capacitive energy and protection from intra-operative insulation failure. Additionally, the integrity of the instrument is continuously monitored during surgery, ensuring patients are always safe from stray energy burns, caused by both intra-operative insulation failure and capacitive coupling... guaranteed!

Outer Insulation

A diagram of a surgical instrument shaft, likely a monopolar cautery instrument, shown at an angle. The shaft is composed of several distinct sections. From the handle end (top right) to the tip (bottom left), the sections are: a green outer insulation layer, a silver protective electrical shield, a black primary inner insulation layer, and a black active electrode. Dotted lines connect text labels on the left to their corresponding parts of the instrument.

Protective Electrical Shield

Primary, Inner Insulation

Active Electrode

The AORN Electrosurgical Safety Guideline recommends to "use an Active Electrode Monitoring (AEM[®]) and Shielding Device" during Minimally Invasive Surgery.²⁴

Perioral Burns Occur

- 60% of ENT surgeons have had an electrosurgical perioral burn during a T&A procedure.²⁷
- Perioral burns to the mouth and lips occur several times per day in the USA.²⁷
- Perioral burns are an underreported complication of T&A procedures that can result in severe long-term morbidity.²⁷
- AEM® Shield™ Technology mitigates these burns, from holes in the insulation and radiant energy, when using monopolar energy.



*New Technology, New Performance,
New Patient Safety, New Outcomes*



Drive Patient Safety -

Mitigates potential perioral injuries**

Deliver Clinical Performance -

Provide fast, reliable RF hemostasis for T&A procedures

Reduce OR Expenses -

Deliver new levels of clinical efficiency and economy

	Product Description	Catalog Number	F/G quantity
	Reusable AEM EndoShield® 2 Burn Protection System	EM200	5
	Disposable AEM® Burn Protection System Cable	ES6107+	25
	Disposable AEM® Shield+™ ENT Ablator	ES6100+	10

**Shield™+ ENT Ablator optimizes delivery of RF energy by mitigating potential perioral injuries and delivering desired outcomes fast and economically. AEM® Shield Technology diverts harmful stray energy from the patient while delivering reliable RF hemostasis with speed and economy.

New Technology is on the way, but is not yet 510k cleared for sale in the USA.

AEM® Shield+™ ENT Ablator vs. Controlled Ablation Technology

	Shield+™ ENT Ablator	Controlled Ablation Technology
SPEED Operative Time for Tonsillectomies	17.4 ± 4.8 minutes ²⁸	28.6 ± 3.3 minutes ²⁸
	39% faster than Controlled Ablation Technology	64% longer than Monopolar
	<i>If you are used to doing 10 Controlled Ablation Technology procedures in one day, you could do 16 monopolar procedures in the same amount of operative time with the Shield+ ENT Ablator.</i>	
PERIORAL BURNS Patient burns to the face, lips and mouth	Mitigates the risk of perioral burns from insulation failure, radiant RF energy, or a hot instrument shaft. Improved Safety Profile, while providing efficacious, inexpensive, fast RF energy.	Can cause perioral burns from direct heat transfer of the device shaft. ^{29,31} 60% of ENT surgeons have had an electrosurgical perioral burn during a T&A procedure. Perioral burns to the mouth and lips occur several times per day in the USA. ²⁹ Just 1 patient burn can lead to substantial lost revenue from patient reviews, lost of trust for referrals, medico-legal risks, and corrective surgery.
COST Price Per Procedure	Save ~\$100 per procedure compared to alternate technologies, while providing efficacious RF energy. Significantly faster procedural times than Controlled Ablation Technology. ²⁸	High at \$220+ per procedure. Slower operative times reduce daily caseload, directly impacting clinic revenue. ²⁸
PAIN	No clinically significant difference in postoperative pain is observed between Monopolar and Controlled Ablation Technology on days 3 or 7. ^{28,30}	Postoperative pain on days 1 and 2 may be slightly lower with Controlled Ablation Technology, but the difference is not clinically significant, as patients still experience substantial pain with both Controlled Ablation Technology and monopolar techniques. ^{28,30}
RISK OF REBLEED	38 out of 1000 patients have a risk of a rebleed, following day 1 of the procedure when using RF energy. ³⁰	Controlled Ablation Technology increases the risk of rebleeding by 38% compared to monopolar RF energy. 50 out of 1000 patients have a risk of a rebleed, following day 1 of the procedure. ³⁰
RISK OF TONSIL REGROWTH	Nearly 0% when using extracapsular tonsillectomy technique, consistent with near-complete tissue removal using techniques. ³²	An average of 3.2% when using intracapsular tonsillectomy technique, with variations depending on technique and the extent of tonsillar tissue left intact. ³²

AEM® Burn Protection Systems



Eliminates stray energy burns during laparoscopy...guaranteed!

- Intuitive plug-n-play design works seamlessly with popular ESUs
- Available as a multiuse reusable with disposable cable, providing optimal cost savings and convenience
- Works with Encision's entire suite of foot-controlled AEM® monopolar instruments, with over 100 style choices
- Reduce complications and readmissions from stray energy burns
- 100% indemnity guarantee against stray energy burns



	Product Description	Catalog Number	F/G quantity
	Reusable AEM EndoShield® 2 Burn Protection System	EM200	5
	Disposable AEM® Burn Protection System Cable	ES5107	25
	Disposable AEM® Burn Protection System Cable	ES6107+	25
	Reusable Adapter for use with ConMed® ESU	ES9007	1
	Reusable Adapter for use with Olympus® ESU	ES9008	1

AEM® Burn Protection Systems



Eliminates stray energy burns during laparoscopy... guaranteed!

- Integrated hand-control and foot-control for use with any style of AEM instrument
- Reusable monitor Reduces OR waste
- Capital option, providing the lowest cost per procedure
- Compatible with popular ESUs



	Product Description	Catalog Number	F/G quantity
	Reusable AEM® EM3 Monitor	EM3+	1
	Reusable EM3 monopolar adapter	EM3-60+	1
	Reusable EM3 bipolar adapter	BP9004+	1
	Disposable AEM® Burn Protection System Cable	ES5107	25
	Disposable AEM® Burn Protection System Cable	ES6107+	25
	Reusable Adapter for use with ConMed® ESU	ES9007	1
	Reusable Adapter for use with Olympus® ESU	ES9008	1

AEM enTouch® Handles

Reusable or Disposable
Articulating Insert

Rotation Knob

AEM® Cable
Connection

Shaft

Handle

Trigger



PRODUCT HIGHLIGHTS

- Direct-drive handle provides tactile feedback, for masterful control of tissue manipulation
- Advanced, light-weight, polymer handle designed to reduce hand fatigue
- 7:1 mechanical advantage for sure gripping during procedures
- Reduces complications and readmissions by eliminating stray energy burns
- Backed by Encision's 100% indemnity guarantee

ES8000 Series Handles



The ES8000 Series is a reusable handle and is the preferred handle for use with scissors inserts.

ES8200 Series Handles



The ES8200 Series is a reusable handle that has an indexing (12 positions/revolution) and locking rotation knob that allows the surgeon to maintain a firm grip on the instrument. The shaft and the rotation knob lock in rotational position when trigger is squeezed. It is the preferred handle for use with graspers and dissectors.

AEM® Shield™ Monopolar Instruments

Reusable handles for use with reusable and disposable articulating inserts.

Handles	Catalog #	
	35cm	45cm
 AEM enTouch® Handle	ES8000	ES8000L
 AEM enTouch® Handle	ES8000H	ES8000HL
 AEM enTouch® Handle with Indexing and Locking	ES8200	ES8200L
 AEM enTouch® Handle with Indexing and Locking	ES8200H	ES8200HL

ERGONOMICS **AEM®** **CUSTOMIZATION**
BIPOLAR **INNOVATION** **PRECISION**
LAPAROSCOPIC **EXPANDED DISTRIBUTION**
SINGLE VENDOR SOURCE **BEST OF CLASS**

AEM enTouch® handles are designed to accommodate advanced laparoscopic procedures. These handle assemblies are subjected to increased torque by surgeons while manipulating tissues during laparoscopic procedures. The stiff shaft of the handles has been designed to not bend or deform easily under these strenuous use conditions.



AEM enTouch® Reusable Graspers and Dissectors



PRODUCT HIGHLIGHTS

- Available in a wide variety of tip styles and lengths, ensuring the right instrument for the most demanding surgical technique
- Enhanced stability and comfort for masterful control
- Precision energy delivery with AEM® Burn Protection Technology
- Reduce complications and readmissions by eliminating stray energy burns
- 100% indemnity guarantee from stray energy burns

**CONTACT ENCISION TODAY
TO FIND AN OPTIMAL TIP
STYLE OR TO SCHEDULE A
FREE CLINICAL EVALUATION**

REUSABLE DISSECTOR AND GRASPER INSERTS

Tip Styles 5mm (unless noted otherwise)	Jaw Length	Catalog #	
		35cm	45cm
  Right Angle Dissector	18mm	ES0004	---
  Tapered Right Angle Dissector	19mm	ES0008	---
  Blunt Nose Grasper	13mm	ES0009	ES0009-45

AEM® Shield+™ ENT Ablator
 AEM® Shield™ Monopolar Instruments
 Bipolar Laparoscopic Instruments
 Cold Laparoscopic Instruments (non-electrosurgical)

AEM® Shield™ Monopolar Instruments

AEM® Shield+™ ENT Ablator

AEM® Shield™ Monopolar Instruments

Bipolar Laparoscopic Instruments

Cold Laparoscopic Instruments (non-electrosurgical)

Tip Styles 5mm (unless noted otherwise)	Jaw Length	Catalog #	
		35cm	45cm
 Short Right Angle Dissector	11mm	ES0011	---
 Bottle Nose Grasper	13mm	ES0012	---
 Bullet Nose Grasper	13mm	ES0013	---
 Fine Tooth Fenestrated Grasper	11mm	ES0014	---
 Curved Maryland Dissector	17mm	ES0501	ES0501-45
 90° Grasper	20mm	ES0506	---
 Fenestrated Grasping Forceps	19mm	ES0507	---
 Round Nose Grasper	12mm	ES0508	---
 Pointed Nose Grasper	14mm	ES0509	---

AEM® Shield™ Monopolar Instruments

Tip Styles 5mm (unless noted otherwise)	Jaw Length	Catalog #	
		35cm	45cm
	9mm Single Action	ES0510	---
	17mm	ES0511	---
	23mm	ES0512	---
	20mm	ES0513	---
	13mm	ES0514	---
	41mm	ES0521	ES0521-45
	39mm	ES0522	ES0522-45
	17mm	ES0526	ES0526-45
	19mm	ES0533	---

AEM® Shield™ Monopolar Instruments

Tip Styles		5mm (unless noted otherwise)			Catalog #	
					35cm	45cm
		Endo Cinch Extreme Atraumatic Serrated	20mm	ES0535	---	
		Wave Grasper	24mm	ES0537	ES0537-45	
		Mixer Clamp, 90° Long	26mm	ES0538	---	
		Kelly Forceps	16mm	ES0541	ES0541-45	
		Maxi Grasper	20mm	ES0543	ES0543-45	
		Maryland Dissector, Diamond Serrations	17mm	ES0547	---	
		Dissecting Forceps, Right Angled	18mm	ES0548	---	
		Maryland Dissector, Aggressive	17mm	ES0549	---	
		Dissecting Forceps, Right Angled, Cross Serrated	18mm	ES0552	---	

AEM® Shield™ Monopolar Instruments

Tip Styles 5mm (unless noted otherwise)			Jaw Length	Catalog #	
				35cm	45cm
		Straight Micro-Grasper	11mm	ES0553	---
		Micro-Fenestrated Grasper	10mm	ES0557	---
		Tapered Micro-Fenestrated Grasper	10mm	ES0558	----
		Right Angle Dissector, 7mm, Diagonal Serrations	18mm	ES0559	---
		Maryland Dissector with 90° Tooth	19mm	ES0565	---
		Tapered Maryland Dissector	17mm	ES0566	---
		Insert, Atraumatic Grasper (Single Action)	30mm	ES0570	ES0570-45
		Insert, Traumatic Grasper	30mm	ES0571	ES0571-45
		Insert, Traumatic Grasper (Single Action)	30mm	ES0573	ES0573-45
		Insert, Fenestrated Bowel Grasper	30mm	ES0574	ES0574-45
		Beveled Maryland Dissector	17mm	ES0586	ES0586-45

AEM e-Edge® Disposable Scissors



Standard Scissors - often push tissue before cutting.



e-Edge Scissors - micro-serrations deliver precision cutting every time



PRODUCT BENEFITS

Super sharp and exceptionally responsive, e-Edge® laparoscopic scissors provide optimal performance to surgeons.

Featuring:

- e-Edge® micro-serrated blades “grip” tissue
- Direct-drive enTouch® handle provides tactile feedback
- AEM® Burn Protection minimizes surgical complications
- Works with Encision’s disposable sheath, to precisely control energy delivery at the tip

What Some of Our Customers Are Saying...

“There is no comparison.”

“You guys knocked this out of the park.”

“I switched to Encision’s scissors and finished the case in half the time.”

“These scissors are sharp! I love the pop when cutting tissue with the tip.”

Compatible with reusable enTouch® handles.

Tip Styles 5mm (Box of 10)			Jaw Length	Catalog #	
				35cm	45cm
		AEM Disposable Curved Scissors, 1/2"	11mm	ES0101	ES0101-45
		AEM Disposable Curved Scissors, 3/4"	17mm	ES0102	ES0102-45
		Hook Scissors	8mm Single Action	ES0110	---
		Scissors, 3/4", Low Profile	18mm	ES0120	---

AEM® Reusable Scissors

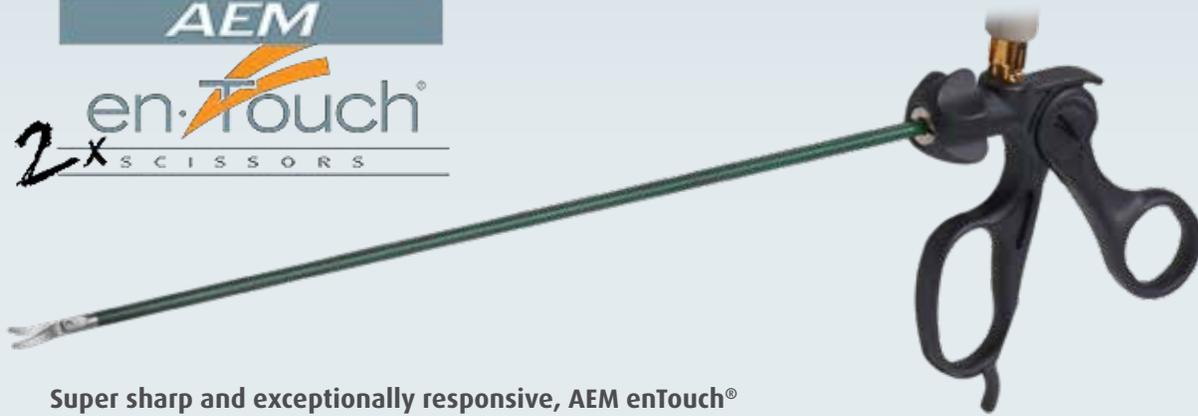


PRODUCT BENEFITS

- Works with AEM enTouch® Handles
- Available in a wide variety of tip styles, ensuring the right instrument for the most demanding surgical technique
- Works with Encision's disposable sheath, to precisely control energy delivery at the tip
- Reduce complications and readmissions by eliminating stray energy burns
- 100% indemnity guarantee from stray energy burns

Tip Styles 5mm			Length	Catalog #	
				35cm	45cm
		Curved Scissors, 1/2"	10mm	ES0001	ES0001-45
		Curved Scissors, 3/4"	17mm	ES0002	ES0002-45
		Hook Scissors	9mm Single Action	ES0010	---

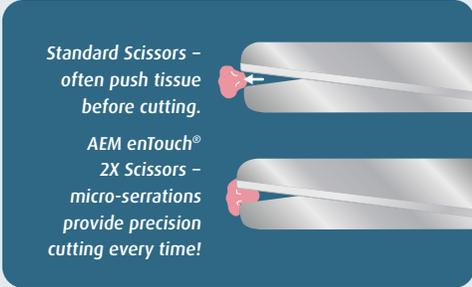
AEM enTouch® Reposable 2x Scissors



Super sharp and exceptionally responsive, AEM enTouch® Reposable 2x Scissors provides new levels of performance while reducing cost and waste.

FEATURES INCLUDE:

- Provides an exceptional surgical experience with micro-serrated blades and direct-drive AEM enTouch® Handle.
- Reduces OR expenses with multi-use insert and low cost per-procedure AEM® Instrumentation.
- Reduces OR waste utilizing a dramatic color indicators that shows when it's time for a new scissors (after 2 uses).
- Improves Patient Safety with Shielded AEM® Instruments, eliminating stray energy burns to patients.²⁴⁻²⁶



Compatible with reusable enTouch® handles.

Tip Styles 5mm (Box of 10)		Catalog #	
		35cm	45cm
		ES0201	ES0201-45
		ES0202	ES0202-45

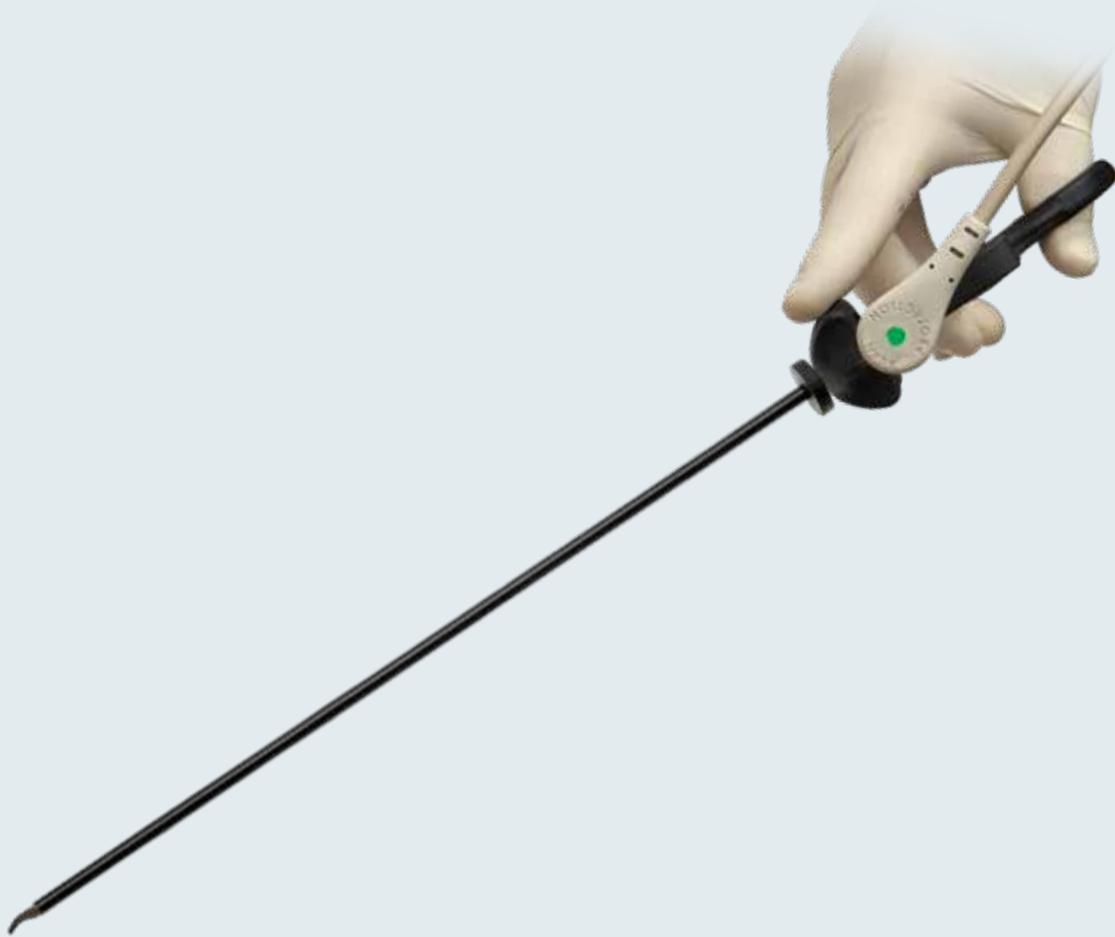
Encision® Disposable Sheath

Disposable sheath is for use with AEM enTouch® Handles and Inserts

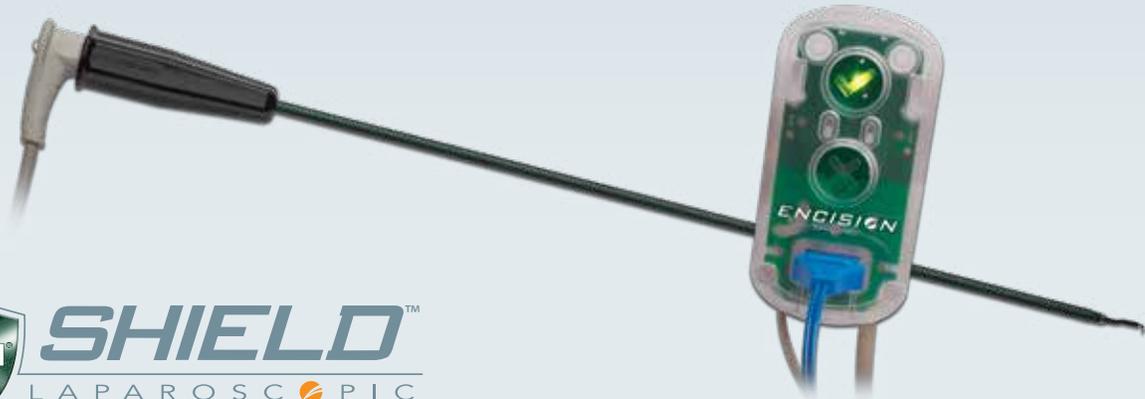
- Fits over scissors and grasper inserts to control the area of exposed metal at the tip, allowing precise energy delivery
- Disposable sheaths available 10 per box



Sheath	Outside Diameter	Catalog #	
		35cm	45cm
 Disposable Sheath (Box of 10)	5.5mm	ES0150A	ES0150-45



AEM® Shield™ Reusable Foot-Control Electrodes



PRODUCT HIGHLIGHTS

- Available in a wide variety of tip styles, ensuring the right instrument for the most demanding surgical technique
- Enhanced stability and comfort for masterful control
- Precision energy delivery with AEM® Burn Protection Technology
- Reduce complications and readmissions by eliminating stray energy burns
- 100% indemnity guarantee from stray energy burns

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AEM® Shield™ Monopolar Instruments

5mm	Tip Styles	Instrument Length	Catalog # 35cm	
		Spatula	35cm	ES3501B
		Ball Tip	35cm	ES3504B
		Flat J-Hook	35cm	ES3509B
		J-Hook	35cm	ES3510B
		L-Diamond	35cm	ES3511B
		L-Wedge	35cm	ES3512B
		L-Hook	35cm	ES3513B
		Square-L	35cm	ES3514B
		Button Tip	35cm	ES3520B
		Needle Tip	35cm	ES3521B

AEM® Shield+™ Disposable Foot-Control Electrodes

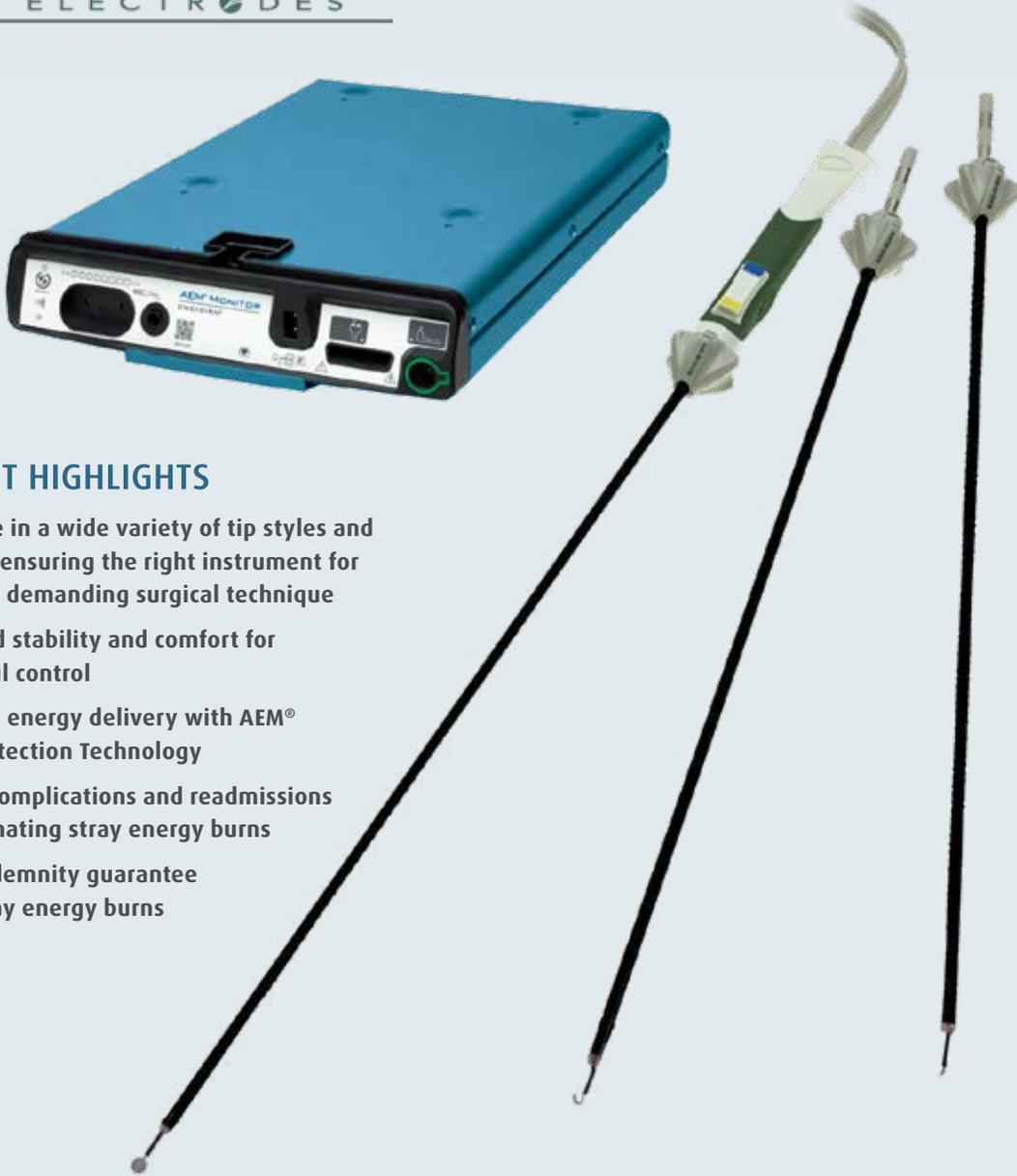


PRODUCT HIGHLIGHTS

- Available in a wide variety of tip styles and lengths, ensuring the right instrument for the most demanding surgical technique
- Surgeon-designed ergonomic handle provides enhanced stability and control
- Precision energy delivery with AEM® Burn Protection Technology
- Reduce complications and readmissions by eliminating stray energy burns
- 100% indemnity guarantee from stray energy burns

Tip Styles 5mm (Box of 10)	Catalog #	
	35cm	45cm
 	Spatula	FC0301+ FC0301-45+
 	J-Hook	FC0310+ FC0310-45+
 	L-Diamond	FC0311+ FC0311-45+

AEM® Shield+™ Disposable Hand-Control Electrodes



PRODUCT HIGHLIGHTS

- Available in a wide variety of tip styles and lengths, ensuring the right instrument for the most demanding surgical technique
- Enhanced stability and comfort for masterful control
- Precision energy delivery with AEM® Burn Protection Technology
- Reduce complications and readmissions by eliminating stray energy burns
- 100% indemnity guarantee from stray energy burns

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AEM® Shield+™ Disposable Hand-Control Electrodes

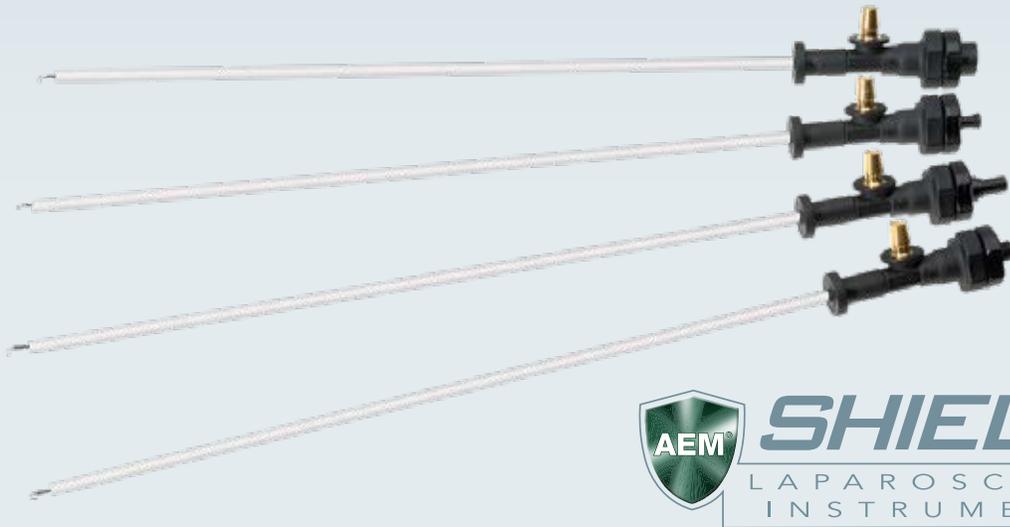
Tip Styles 5mm (Box of 10)		Catalog # 35cm	
		Spatula	ES0301
		J-Hook	ES0310
		L-Diamond	ES0311

AEM® DISPOSABLE HAND-CONTROL HANDPIECE

Tip Styles (Box of 25)	Catalog #
 <p>AEM® Shield+™ Disposable Hand-control Handpiece with Rocker Switch</p>	ES1300



AEM® Shield™ Reusable Foot-Control Suction-Irrigation Electrodes

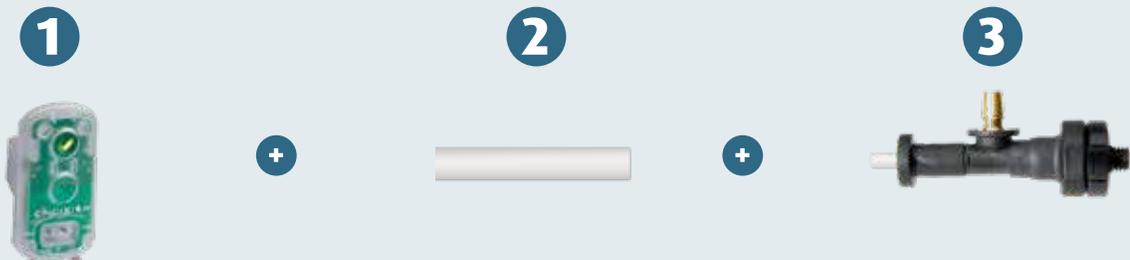


PRODUCT HIGHLIGHTS

- Suction and irrigation combined with advanced AEM® monopolar energy, for masterful control of tissue manipulation
- Available in a wide variety of tips and adapter styles, ensuring the right instrument for the most demanding surgical technique
- Reduce complications and readmissions by eliminating stray energy burns
- 100% indemnity guarantee from stray energy burns

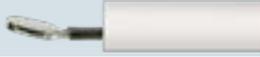
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HOW TO ORDER



*Note: The EM3 AEM® Monitor is also compatible for use with AEM® Instruments

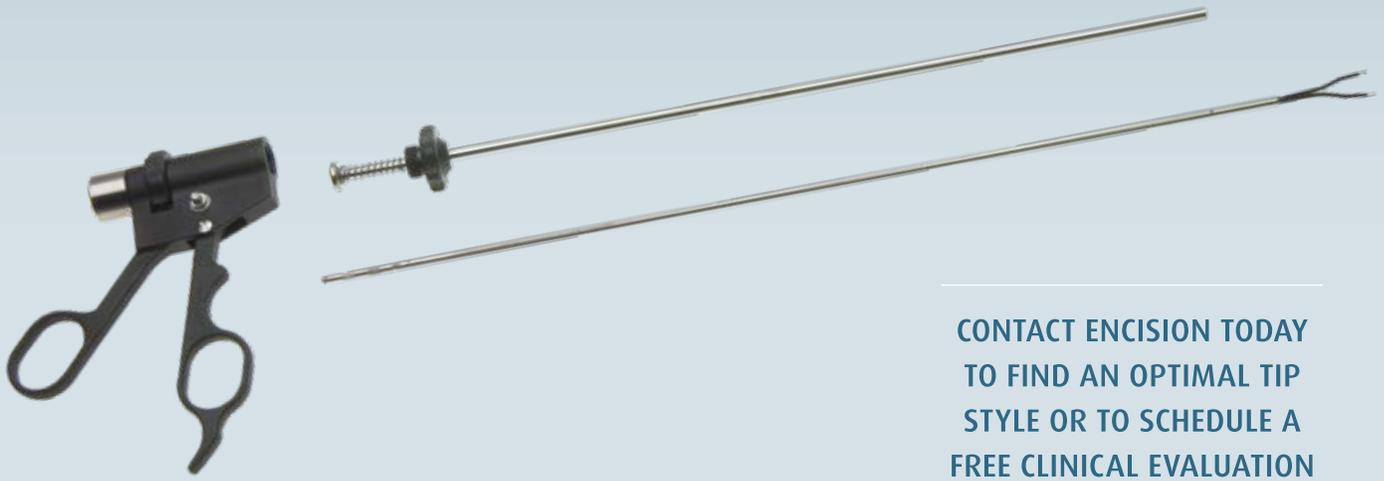
AEM® Shield™ Reusable Foot-Control Suction-Irrigation Electrodes

Tip Styles		Catalog #
5mm		35cm
	L-Diamond	ES3771
	Spatula	ES3772
	L-Hook	ES3773
	J-hook	ES3774
	Replacement Sheath	01295-001

AEM® Shield™ Reusable Foot-Control Suction-Irrigation Adapters

		Permanent or Removable	Catalog # 35cm
	Stryker Adapter (included with each electrode)	Permanent	N/A
	Bard-Davol Adapter	Permanent	ES3710
	Bard-Davol Adapter	Removable	ES3810
	Applied Adapter	Removable	ES3850

Standard Bipolar Laparoscopic Instruments



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PRODUCT HIGHLIGHTS

- Reusable bipolar instruments work with disposable cords, providing the best performance and value for your facility
- Jaw mechanism allows for precise articulation and position of the bipolar electrode paddle endpoints
- Locking handle feature allows for easy insertion and removal of forceps through trocar cannula
- Bipolar electrode paddles rotate to accommodate easier target application
- Smooth handle operation provides for an optimal tactile feel and mechanical advantage
- Bipolar handle assembly accepts both 35cm and 45cm insert and tube lengths resulting in a significant cost savings
- Modular instruments facilitate ease of assembly and cleaning
- Electrode inserts can be interchanged in the sterile field
- Molded cord connector prevents the bipolar cord from improper connection into monopolar receptacle

HOW TO ORDER



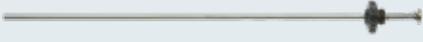
Bipolar Laparoscopic Instruments

AEM® Shield+™ ENT Ablator

AEM® Shield™ Monopolar Instruments

Bipolar Laparoscopic Instruments

Cold Laparoscopic Instruments (non-electrosurgical)

REUSABLE HANDLE ASSEMBLY			Catalog #	
			35cm	45cm
	Modular Bipolar Handle with Lock	BP7200L	---	---
	Bipolar Instrument Tube Assembly	---	BP7250	BP7250-45

REUSABLE BIPOLAR INSERTS			Catalog #	
			35cm	45cm
	Bipolar Kleppinger Forceps	BP7301	BP7301-45	
	Bipolar Hirsch Style Forceps	BP7302	---	

REUSABLE BIPOLAR INSTRUMENT CORDS		
Cords		Catalog #
	Bipolar Instrument Cord, Covidien/Valleylab	BP4200V

PowerGrip Bipolar Laparoscopic Instruments



PRODUCT HIGHLIGHTS

- PowerGrip bipolar laparoscopic instruments facilitate precise dissecting, grasping, cutting and coagulation
- The PowerGrip bipolar handles and inserts are reusable
- Jaw mechanism enables adjustable opening and closing of the jaws with very high pressure while grasping and cutting
- Smooth handle operation provides for an optimal tactile feel and mechanical advantage
- Instrument jaws are insulated to the end of the grasping and cutting zone in order to avoid unintentional coagulation
- Rotation knob allows electrode insert to be rotated up to 360° with the forefinger
- Modular instruments facilitate ease of assembly and cleaning

REUSABLE POWERGRIP HANDLE ASSEMBLY

Handle Assembly		Catalog #	
		34cm	45cm
	PowerGrip Handle, 2-Pin	BP7500	---
	PowerGrip Shaft	---	BP7550 BP7550-45

REUSABLE POWERGRIP BIPOLAR INSERTS

Tip Style	Catalog #	
	34cm	45cm
	BP7601	BP7601-45

Cold Laparoscopic Instruments (non-electrosurgical)



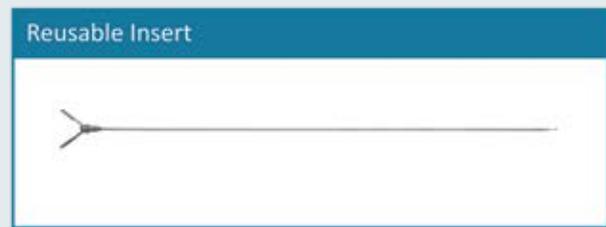
Improve Surgical Control and Patient Safety



PRODUCT HIGHLIGHTS

- Controlled Power Delivery – Machined in the USA from hardened surgical steel
- Precise Articulation – Rotates when you need it and locks when force is applied
- Easy Clean Handle – Take apart design makes cleaning a breeze, minimizing bioburden

e-Access™ Slide Lock Handle (rotatable)	Length	
	35cm	45cm
	ES8500SLR	ES8500-45SLR



Accepts any AEM® enTouch™ Grasper or Dissector	Catalog #	
	35cm	45cm
	ES0537	ES0537-45
	ES0570	ES0570-45
	ES0571	ES0571-45
	ES0573	ES0573-45
	ES0574	ES0574-45

Precision Ratchet-Lock Handles and Graspers



PRODUCT HIGHLIGHTS

- Ergonomic, ratcheted handle for precision tissue manipulation
- Integral flush ports can pass a high volume of liquid through the shaft to more effectively remove gross debris prior to sterilization
- A wide variety of tip configurations available in both standard and bariatric lengths
- Available in both 5mm and 10mm diameter shafts



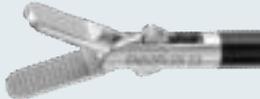
5MM DISSECTORS AND GRASPERS

Tip Styles 5mm (unless noted otherwise)	Jaw Length	Catalog #	
		32cm	45cm
 Curved Maryland	17mm	ES0501RR	ES0501-45RR
 Curved Dissecting Forceps	19mm	EP3110RR	EP3110-45RR
 Curved Maryland Dissector	23mm	EP3410RR	EP3410-45RR
 Maryland with Cross Serrations	19mm	EP3780RR	EP3780-45RR
 Short Curved Dissecting Forceps	13mm	EP3120RR	EP3120-45RR

Cold Laparoscopic Instruments (non-electrosurgical)

5MM DISSECTORS AND GRASPERS



Tip Styles 5mm (unless noted otherwise)	Jaw Length	Catalog #	
		32cm	45cm
 Heavy Curved Dissector	11mm	EP3620RR	EP3620-45RR
 Medium Curved Dissector	17mm	EP3650RR	EP3650-45RR
 Petrovich Curved Dissector	14mm	EP3760RR	EP3760-45RR
 Cross Serrated Forceps, Right Angle	12mm	EP3170RR	EP3170-45RR
 Mixer Clamp, 90° Long	19mm	ES0538RR	ES0538-45RR
 Flat Dissector	13mm	EP3550RR	EP3550-45RR
 Micro Dissecting Forceps	13mm	EP3290RR	EP3290-45RR

Cold Laparoscopic Instruments (non-electrosurgical)



5MM DISSECTORS AND GRASPERS

Tip Styles 5mm (unless noted otherwise)	Jaw Length	Catalog #	
		32cm	45cm
 Mini-Micro Dissecting Forceps	12mm	EP3490RR	EP3490-45RR
 St. Joseph Dissecting Forceps	12mm	EP3730RR	EP3730-45RR
 Bullet Nose Grasper	12mm	EP3090RR	EP3090-45RR
 Dolphin Nose Grasping Forceps	13mm	EP3420RR	EP3420-45RR
 Straight Dissector	23mm	EP3150RR	EP3150-45RR
 Straight Mini Dissector	10mm	EP3160RR	EP3160-45RR
 Micro Dolphin Dissecting Forceps	11mm	EP3200RR	EP3200-45RR

Cold Laparoscopic Instruments (non-electrosurgical)

AEM® Shield+™ ENT Ablator

AEM® Shield™ Monopolar Instruments

Bipolar Laparoscopic Instruments

Cold Laparoscopic Instruments (non-electrosurgical)



5MM DISSECTORS AND GRASPERS

Tip Styles 5mm (unless noted otherwise)	Jaw Length	Catalog #	
		32cm	45cm
 Long Dolphin Nose Grasper	16mm	EP3310RR	EP3310-45RR
 Delicate Cone Dissector	11mm	EP3190RR	EP3190-45RR
 Micro Dolphin Dissector with Cup	12mm	EP3430RR	EP3430-45RR
 Duckbill Forceps	10mm	EP3140RR	EP3140-45RR
 Standard Grasper	13mm	ES0514RR	ES0514-45RR
 Round Nose Grasper	12mm	ES0508RR	ES0508-45RR
 Long Grasping Forceps	19mm	EP3370RR	EP3370-45RR

Cold Laparoscopic Instruments (non-electrosurgical)



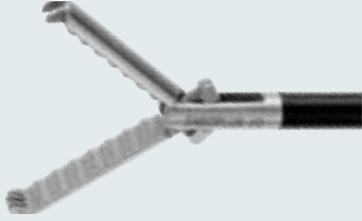
5MM DISSECTORS AND GRASPERS

Tip Styles 5mm (unless noted otherwise)	Jaw Length	Catalog #	
		32cm	45cm
 Wave Jaw Grasping Forceps	13mm	EP3340RR	EP3340-45RR
 Tenaculum	23mm	EP3640RR	EP3640-45RR
 Biopsy Forceps with Two Teeth	11mm Single Action	EP3220RR	EP3220-45RR
 Maxi Grasper	16mm	ES0543RR	ES0543-45RR
 Endo Cinch Extreme Atraumatic	22mm	ES0535RR	ES0535-45RR
 Wave Grasper	22mm	ES0537RR	ES0537-45RR
 Atraumatic Grasper, S/A	22mm Single Action	EP3460RR	EP3460-45RR

Cold Laparoscopic Instruments (non-electrosurgical)



5MM DISSECTORS AND GRASPERS

Tip Styles 5mm (unless noted otherwise)	Jaw Length	Catalog #	
		32cm	45cm
 Traumatic Grasper	22mm	EP3020RR	EP3020-45RR
 Traumatic Grasper, 2x3 Teeth, S/A	22mm Single Action	EP3450RR	EP3450-45RR
 Ripple Claw Forceps	23mm	EP3480RR	EP3480-45RR
 Claw Forceps, 2x3 Teeth	22mm	EP3210RR	EP3210-45RR
 Fenestrated Grasper	19mm	ES0507RR	ES0507-45RR
 Maxi Fenestrated Grasping Forceps	18mm	EP3380RR	EP3380-45RR
 Fenestrated Grasping Forceps	22mm	EP3280RR	EP3280-45RR

Cold Laparoscopic Instruments (non-electrosurgical)



5MM DISSECTORS AND GRASPERS

Tip Styles 5mm (unless noted otherwise)	Jaw Length	Catalog #	
		32cm	45cm
 McKernan Tri-Grasping Fenestrated Forceps	21mm	EP3070RR	EP3070-45RR
 Atraumatic Tube Forceps	14mm	EP3180RR	EP3180-45RR
 Oviduct Atraumatic Forceps	11mm	EP3440RR	EP3440-45RR
 Single Action Needle Holder	10mm Single Action	EP3700RR	EP3700-45RR
 Kocher Grasping Forceps	13mm	EP3400RR	EP3400-45RR
 Murray Grasper	11mm	EP3810RR	EP3810-45RR
 Allis Forceps	18mm	EP3000RR	EP3000-45RR
 Long Allis Forceps	28mm	EP3010RR	EP3010-45RR

Cold Laparoscopic Instruments (non-electrosurgical)



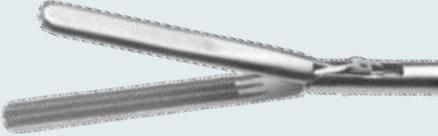
5MM DISSECTORS AND GRASPERS

Tip Styles 5mm (unless noted otherwise)	Jaw Length	Catalog #	
		32cm	45cm
 Endo Allis Forceps	34mm	EP3030RR	EP3030-45RR
 Round Tip Allis Grasping Forceps	34mm	EP3100RR	EP3100-45RR
 Paddle Babcock	29mm	EP3350RR	EP3350-45RR
 Babcock Grasping Forceps	25mm	EP3300RR	EP3300-45RR
 Babcock-DeBakey Forceps	29mm	ES0534RR	ES0534-45RR
 DeBakey Tissue Forceps	38mm	EP3250RR	EP3250-45RR

Cold Laparoscopic Instruments (non-electrosurgical)



5MM DISSECTORS AND GRASPERS

Tip Styles 5mm (unless noted otherwise)	Jaw Length	Catalog #	
		32cm	45cm
 Curved DeBakey Tissue Forceps	27mm	EP3750RR	EP3750-45RR
 Glassman Forceps	40mm	EP3040RR	EP3040-45RR
 Fenestrated Bowel Grasper	30mm	ES0522RR	ES0522-45RR
 Fenestrated Bowel Grasper	20mm	EP3690RR	EP3690-45RR
 Andrew Babcock Forceps	19mm	EP3770RR	EP3770-45RR
 Alligator Grasping Forceps	13mm	ES0536RR	ES0536-45RR
 Cobra Toothed Grasper	13mm	ES0540RR	ES0540-45RR

Cold Laparoscopic Instruments (non-electrosurgical)



5MM DISSECTORS AND GRASPERS

Tip Styles 5mm (unless noted otherwise)		Jaw Length	Catalog #	
			32cm	45cm
	Double Action Spoon Forceps	13mm	EP3820RR	EP3820-45RR
	Alligator Forceps	13mm	EP3080RR	EP3080-45RR
	Extracting Forceps Reverse Teeth	13mm	EP3260RR	EP3260-45RR
	Rodriguez Grasping Forceps	12mm Single Action	EP3870RR	EP3870-45RR

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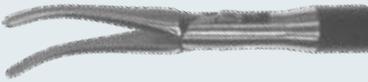
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 AEM® Shield™ Monopolar Instruments
 Bipolar Laparoscopic Instruments
 Cold Laparoscopic Instruments (non-electrosurgical)

Cold Laparoscopic Instruments (non-electrosurgical)



10MM DISSECTORS AND GRASPERS

Tip Styles 10mm (unless noted otherwise)	Jaw Length	Catalog #	
		32cm	45cm
 Maryland, 5mm with 10mm shaft	23mm	EP4410RR	EP4410-45RR
 Curved Dissector	38mm	EP4090RR	EP4090-45RR
 Angled Dissector, 5mm with 10mm shaft	16mm	EP4140RR	EP4140-45RR
 Right Angle Dissector, 5mm with 10mm shaft	19mm	EP4130RR	EP4130-45RR
 Right Angle Dissector	37mm	EP4120RR	EP4120-45RR
 Mixer Dissector	27mm	EP4160RR	EP4160-45RR
 Maxi Grasper	22mm	EP4150RR	EP4150-45RR

Cold Laparoscopic Instruments (non-electrosurgical)



10MM DISSECTORS AND GRASPERS

Tip Styles 10mm (unless noted otherwise)	Jaw Length	Catalog #	
		32cm	45cm
 Babcock Short Jaw	25mm	EP4300RR	EP4300-45RR
 Babcock with Straight Serrations	35mm	EP4320RR	EP4320-45RR
 Paddle Babcock	35mm	EP4340RR	EP4340-45RR
 Babcock with Pyramid Serrations	35mm	EP4460RR	EP4460-45RR
 Angled Circle Grasper	24mm	EP4020RR	EP4020-45RR
 Spoon Forceps	25mm Single Action	EP4240RR	EP4240-45RR
 Claw Forceps	29mm Single Action	EP4200RR	EP4200-45RR
 Tenaculum	36mm	EP4370RR	EP4370-45RR

References

1. Summerton DJ, Kitrey ND, Lumen N, et al. *EAU guidelines on iatrogenic trauma*. Eur Urol. 2012; 62: 628-639.
2. Park JH, Park JW, Song K, et al. *Ureteral injury in gynecologic Surgery: A 5-year review in a community hospital*. Korean Journal of Urology. 2012; 53(2): 120-125.
3. Lam A, Kaufman Y, Khong SY, et al. *Dealing with complications in laparoscopy*. Best Practice & Research Clinical Obstetrics & Gynaecology. 2009; 23(5): 631-646.
4. Bishoff JT, Allaf ME, Kirkels W, Moore RG, Kavoussi LR, Schroder F. *Laparoscopic bowel injury: incidence and clinical presentation*. J Urol. 1999;161(3):887-890.
5. Espada M, Munoz R, Noble BN, Magrina JF. *Insulation failure in robotic and laparoscopic instrumentation: a prospective evaluation*. Am J Obstet Gynecol. 2011; 205(2): 121.e1-5.
6. Montero PN, Robinson TN, Weaver JS, Stiegmann GV. *Insulation failure in laparoscopic instruments*. Surg Endosc. 2010; 24(2): 462-465.
7. Vilos, GA. *Electrosurgical generators and monopolar and bipolar electrosurgery*. The Journal of Minimally Invasive Gynecology. 2013; 20(3): 279-287.
8. Munro, MG. *Energy safety: Rules of the road*. OBG Management. October 2015; S10 - S13. Accessed April 18, 2016. Retrieved at http://www.obgmanagement.com/fileadmin/content_pdf/supplement_pdf/OBGM/OBGM_Special_1015_01.pdf
9. Pyrek K. *Education in electrosurgery technology is key for patient safety*. Infection Control Today. Accessed October 6, 2013. <http://www.infectioncontrolday.com/articles/2002/07/education-in-electrosurgery-technology-is-key-for.aspx>.
10. Nduka CC, Super PA, Monson JR, Darzi AW. *Cause and prevention of electrosurgical injuries in laparoscopy*. J Am Coll Surg. 1994;179(2):161-170.
11. Southern Surgeons Club New England Journal of Medicine 1991 Nov 21; 325(21):1517.
12. Polychronidis A, Tsaroucha AK, Karayiannakis AJ, et al. *Delayed perforation of the large bowel due to thermal injury during laparoscopic cholecystectomy*. J Int Med Res. 2005;33(3):360-363.
13. Brill AI, Feste JR, Hamilton TL, et al. *Patient safety during laparoscopic monopolar electrosurgery - principles and guidelines*. JSLS. 1998;2(3):221-225.
14. AHRQ. Patient safety quality indicators composite measure workgroup final report. <http://www.qualityindicators.ahrq.gov/Downloads/Modules/PSI/PSI%20Composite%20Development.pdf>. Accessed October 01, 2016
15. Munro, MG. *Energy safety: Rules of the road*. OBG Management. October 2015; S10 - S13. Accessed April 18, 2016. http://www.obgmanagement.com/fileadmin/content_pdf/supplement_pdf/OBGM/OBGM_Special_1015_01.pdf
16. AAGL Technical Bulletin Committee. *Electrosurgical safety*. AAGL Technical Bulletin. 1995;1:1-7.
17. Daniell JF. *Shocking information about laparoscopic electrosurgery*. The ISGE News. 1999:1-2.
18. Vilos, GA. *Electrosurgical generators and monopolar and bipolar electrosurgery*. The Journal of Minimally Invasive Gynecology. 2013; 20(3): 279-287.
19. Brill AI, Feste JR, Hamilton TL, et al. *Patient safety during laparoscopic monopolar electrosurgery - principles and guidelines*. JSLS. 1998;2(3):221-225.
20. Martin, Moore, Tucker, Fuchshuber, Robinson. *Quantifying Inadvertent Thermal Bowel Injury from the Monopolar Instrument*. The Journal of Surgical Endoscopy. November 2016, Volume 30, Issue 11, pp 4776-4784.
21. Stanton, Carina. *Guidelines for safe use of energy-generating devices*. AORN Journal. August 2016. Volume 104(2); P11-P13.
22. Association of periOperative Registered Nurses. *Guideline for electrosurgery*. In: *Guidelines for Perioperative Practice*. 2016 ed. Denver, CO.: AORN, Inc.; 2016:119-136.
23. <https://www.fda.gov/MedicalDevices/Safety/AlertsandNotices/ucm608637.htm> Accessed December 5, 2018
24. AORN Guidelines for Perioperative Practice: Electrosurgical Safety. Minimally Invasive Surgery. <https://www.aornguidelines.org/guidelines/content?sectionid=173718992&view=book>. Accessed November 17, 2020.
25. Guzman, Forrester, Fuchshuber, Eakin. *Estimating the Incidence of Stray Energy Burns during Laparoscopic Surgery based on Two Statewide Databases and Retrospective Rates: An Opportunity to Improve Patient Safety*. Surgical Technology International; Volume 34, 2019.
26. ECRI Evaluations and Guidance. *Active Laparoscopic Electrode Shielding Systems*. October 2020. <https://www.ecri.org/search-results/member-preview/hdjournal/pages/evaluation-background-laparoscopic-electrode-shielding/>
27. Nuara MJ, Park AH, Alder SC, Smith ME, Kelly S, Muntz H. *Perioral Burns After Adenotonsillectomy: A Potentially Serious Complication*. Arch Otolaryngol Head Neck Surg. 2008;134(1):10-15. doi:10.1001/archoto.2007.5

References

NOTE: The Shield+™ ENT Ablator utilizes RF monopolar energy, making its clinical efficacy the same as monopolar suction coagulators, with enhanced ergonomics and an improved safety profile. The Shield+ Ablator eliminates the chance of perioral burns to the lips, face, and tongue from insulation failure, radiant energy and heating of the instrument shaft.

28. Lou, Z. (2023). *A comparison of Coblation and modified monopolar tonsillectomy in adults*. BMC Surgery, 23(141). <https://doi.org/10.1186/s12893-023-02035-1>
 - Monopolar Operative Time of 17.4 ± 4.8 vs. Coblator Operative Time of 28.6 ± 3.3 minutes, $p < 0.01$ (39% improvement for monopolar, or 64% more operative time for Coblation).
 - The high temperature of the device ($>400^{\circ}\text{C}$) enables rapid dissection of scar tissue in the peritonsillar space, thereby shortening the operation time.
29. Nuara MJ, Park AH, Alder SC, Smith ME, Kelly S, Muntz H. *Perioral Burns After Adenotonsillectomy: A Potentially Serious Complication*. Arch Otolaryngol Head Neck Surg. 2008;134(1):10-15. doi:10.1001/archoto.2007.5
30. Pynnonen M, Brinkmeier JV, Thorne MC, Chong LY, Burton MJ. *Coblation versus other surgical techniques for tonsillectomy*. Cochrane Database of Systematic Reviews. 2017; Issue 8. Art. No.: CD004619. DOI: 10.1002/14651858.CD004619.pub3.
 - Systematic review of 29 studies, synthesizing evidence relevant to tonsillectomies.
 - At postoperative day 1 there is very low quality evidence that patients in the Coblation group had less pain, with a standardized mean difference (SMD) of -0.79 (95% confidence interval (CI) -1.38 to -0.19; 538 participants; six studies). This effect is reduced a SMD of -0.44 (95% CI -0.97 to 0.09; 401 participants; five studies; very low-quality evidence) at day 3, and at day 7 there is low quality evidence of little or no difference in pain (SMD -0.01, 95% CI -0.22 to 0.19; 420 participants; five studies). Although this suggests that pain may be slightly less in the Coblation group between days 1 and 3, the clinical significance is unclear.
 - There is little or no difference in the risk of bleeding in the first day after surgery, but there may be a small increased risk of bleeding with coblation after the first day. For every 1000 patients having a tonsillectomy, 50 patients would have a bleed with Coblation, compared to 36 with traditional surgical techniques. This equates to a 38% higher chance of rebleed, after day 1, when using coblation.
31. Yamasaki A, Bhattacharyya N. *Rare electrosurgical complications in tonsillectomy: Analysis of national adverse event reporting*. Laryngoscope. 2020;130(5):1138-1143. DOI: 10.1002/lary.28181
32. Soaper AL, Richardson ZL, Chen JL, Gerber ME. *Pediatric tonsillectomy: A short-term and long-term comparison of intracapsular versus extracapsular techniques*. International Journal of Pediatric Otorhinolaryngology. 2020;133:109970. DOI: 10.1016/j.ijporl.2020.109970.
 - The average published rate of tonsillar regrowth following intracapsular tonsillectomy is 3.2% and most sources cite the regrowth rate after extracapsular tonsillectomy as nearly 0%.

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