



HD - KOMPAKTEINHEIT

*HD - COMPACT UNIT*

## TEKNO CAM 3700 HD - KOMPAKTEINHEIT

### TEKNO CAM 3700 HD - COMPACT UNIT

Die TeknoCam 3700 HD vereint drei hochwertige Geräte für den professionellen Einsatz in einem kompakten Gehäuse. Die Kamera besticht durch ihr brillantes und scharfes HD Bild, ergänzt durch die exzellente Leuchtkraft der LED-Lichtquelle und die Archivierungsmöglichkeit von Bildern und Videos in HD-Qualität.

Dadurch wird die TeknoCam 3700 HD zum Multitalent mit vielfachen Einsatzmöglichkeiten und hoher Funktionalität.

Das eingebaute Touchscreen-Display ermöglicht die schnelle, einfache und intuitive Bedienung der verschiedenen Funktionen. Zusätzlich können alle Funktionen auch über ein optional erhältliches Tablet gesteuert werden.

#### KAMERA / KAMERAKOPF

Die Kontrolleinheit bietet die Möglichkeit zwei verschiedene Kameraköpfe (3 CMOS HD / 1 CMOS HD), die jeweils ein Full-HD (1080p) Bild im Verhältnis 16:9 generieren, anzuschließen. Dadurch kann die TeknoCam 3700 HD in den verschiedensten Bereichen eingesetzt und auf die Bedürfnisse des Anwenders abgestimmt werden. Der ergonomische und robuste Kamerakopf ist autoklavierbar und ist zudem mit vier individuell programmierbaren Tasten ausgestattet.

#### LICHTQUELLE

Die hohe Leuchtkraft der langlebigen LED-Lichtquelle ist vergleichbar mit einer Xenon 300 Watt. Sie besitzt einen drehbaren Adapter für vier verschiedene Lichtleitkabel (Tekno [Wolf]/Storz/Olympus/ACMI). Dies hat den großen Vorteil, dass bereits vorhandene Lichtleitkabel nicht getauscht bzw. gewechselt werden müssen.

#### ARCHIVIERUNGSSYSTEM

Zur Komplettierung des Multifunktions talents TeknoCam 3700 HD ist auch ein Archivierungssystem vorhanden, das es dem Anwender erlaubt bis zu zwei HD-Videosignale gleichzeitig aufzunehmen. Ebenso besteht auch die Möglichkeit Bilder während des Eingriffes zu erstellen.

Optional kann das Gerät in verschiedene Netzwerke (beispielsweise DICOM / HL7) integriert werden, womit der Import, wie auch der Export von Daten durchgeführt werden kann.

Die TeknoCam 3700 HD verfügt neben verschiedenen Videoausgängen noch über weitere Anschlüsse wie z.B. einen Druckerausgang oder die Möglichkeit einen Fußschalter anzuschließen um Bilder oder Videos zu erstellen.

*The TeknoCam 3700 HD combines three high-grade units for professional use in one compact housing. The camera convinces by its brilliant and sharp HD picture, completed by the excellent illuminating power of the LED light-source and the possibility of saving and storing pictures and videos in HD quality.*

*This makes the TeknoCam 3700 HD to a multi talent with high functionality to be used in various disciplines. The built-in touchscreen offers a quick, simple and intuitive command of the different functions. In addition, all functions may be controlled by an optional tablet-PC.*

#### CAMERA / CAMERA-HEAD

*The control unit offers the possibility to connect two different camera-heads (3 CMOS HD / 1 CMOS HD), both generating a full-HD (1080p) picture with a 16:9 ratio. This makes the TeknoCam 3700 HD suitable for several disciplines and adjustable according to the surgeon's specific needs. The ergonomic and robust camera-head is autoclavable and provides four individually programmable buttons.*

#### LIGHTSOURCE

*The high illumination power of the durable LED light-source is comparable to a Xenon 300 Watt. It provides a rotatable adapter for four different cold-light cables (Tekno [Wolf]/Storz/Olympus/ACMI), offering the advantage of using already existing light guides.*

#### DATA STORAGE SYSTEM

*The incorporated data storage system completes the multi-functional TeknoCam 3700 HD. It offers the possibility of saving two HD-video-signals at a time. Photos can also be taken during an intervention.*

*Optionally the device can be integrated into various networks (for example DICOM / HL7), making the import as well as the export of data possible.*

*Beside various video-outputs, the TeknoCam 3700 HD also provides several outputs, e.g. to connect a printer or a foot-switch for starting video-takes or photos*

## TEKNO CAM 3700 HD - KOMPAKTEINHEIT

### TEKNO CAM 3700 HD - COMPACT UNIT



**tk 754-2805-009**

Netzwerkschnittstelle (DICOM / HL7)  
Network interface (DICOM / HL7)

### TEKNO CAM 3700 HD

**tk 754-2805-000**

mit Lichtquelle und Archivierung  
with light source and capture system



3 CMOS	<b>tk 754-2805-001</b>
1 CMOS	<b>tk 754-2805-002</b>

HD Kamerakopf, autoklavierbar  
HD camera head, autoclavable



Tablet	<b>tk 754-2805-010</b>
--------	------------------------



f = 16-34 mm	<b>tk 754-3910°</b>
--------------	---------------------

Zoomobjektiv, autoklavierbar  
Zoom objective, autoclavable



f = 15-35 mm	<b>tk 754-3908</b>
--------------	--------------------

ISO-Focal Zoom, einlegbar  
ISO-Focal zoom, soakable

## TECHNISCHE DATEN

### TECHNICAL DATA

#### KAMERA

Sensor: 1/3" 3CMOS  
Bildpunkte: 1920 x 1080p (FULL HD)  
TV-Auflösung: > 1000 Linien  
Bildformat: 16 : 9  
Lichtempfindlichkeit: 1,5 lux  
Signal-Rauschabstand: 58 dB  
Digitale Videoausgänge: 1x DVI-D / 2x 3G HD-SDI  
Sonstige Ausgänge: 2x Peripherie / 1x Netzwerk  
Eingänge: 1x Fußschalter / 1x Tablet / 1x Mikrofon

Sterilisierbarer C-Mount Kamerakopf: Autoklav und Sterrad  
4 belegbare Fernbedienknöpfe am Kamerakopf  
Speicherung von Benutzereinstellungen  
Digital Zoom (2x), in 20 Stufen regelbar  
Simultane Aufnahme von zwei Videoquellen

Abmessungen Kontrolleinheit (B x H x T): ca. 40 x 12 x 34 cm  
Gewicht Kontrolleinheit: ca. 8.2 kg  
Abmessungen Kamerakopf (B x H x T): 8 x 4 x 5 cm  
Gewicht Kamerakopf (B x H x T): ca. 0.53 kg

#### LICHTQUELLE:

Farbtemperatur: 5.700 °K  
Lebensdauer: > 30.000h  
Lichtleiteranschluss: TEKNO [Wolf] / Storz / Olympus / ACMI  
Lichtintensitätsregelung: 0 - 100% einstellbar

#### ARCHIVIERUNGSSYSTEM:

Daten Ausgänge: 1x USB (Vorderseite) / 3x USB (Rückseite)  
Bildauflösung: 1080p JPG  
Videoformate: H.264 Encoding  
Speicherkapazität (HDD): 256 GB (ca. 70 Stunden)  
Fernsteuerung: Kamerakopf oder Fußschalter

DICOM / HL7 (Optional - tk 754-2805-009):  
Import / Export von Daten

Netzspannung: 100 - 240 VAC; 50 - 60 Hz  
Leistungsaufnahme: 400 VA  
Klassifizierung / Typ: 1 / BF  
Hergestellt und geprüft nach: IEC 60601-1 Ed. 3.1: 2012  
CE-Kennzeichnung entsprechend: RL 93/42/EWG

#### CAMERA

Sensor: 1/3" 3CMOS  
Pixel: 1920 x 1080p (FULL HD)  
Resolution: > 1000 lines  
Picture format: 16 : 9  
Sensitivity: 1.5 lux  
Signal noise ratio: 58 dB  
Digital video outputs: 1x DVI-D / 2x 3G HD-SDI  
Others outputs: 2x Peripherals / 1x Network  
Inputs: 1x Footswitch / 1x Tablet / 1x Microphone

Sterilization C-Mount camera head: Autoclave and Sterrad  
4 preselectable remote buttons on camera head  
Memories to adjust and store applications  
Digital zoom (2x), adjustable in 20 steps  
Dual channel to record two video signals simultaneously

Dimensions CCU (W x H x D): approx. 40 x 12 x 34 cm  
Weight CCU: approx. 8.2 kg  
Dimensions camera head (L x W x H): 8 x 4 x 5 cm  
Weight camera head with cable: Approx. 0.53 kg

#### LIGHT SOURCE:

Color temperature: 5.700 °K  
Working life: > 30.000h  
Light guide adapter: TEKNO [Wolf] / Storz / Olympus / ACMI  
Intensity control: 0 - 100% adjustable

#### CAPTURE DEVICE:

Data outputs: 1x USB (Front) / 3x USB (Rear)  
Image resolution: 1080p JPG  
Video format: H.264 Encoding  
Recording time (HDD): 256 GB (approx. 70 hours)  
Remote control: by footswitch or camera head

DICOM / HL7 (Optional - tk 754-2805-009):  
Import / Export of data

Line voltage: 100 - 240 VAC; 50 - 60 Hz  
Power consumption: 400 VA  
Classification / Type: 1 / BF  
Produced and tested acc. to : IEC 60601-1 Ed. 3.1: 2012  
CE Marking acc. to: MDD 93/42/EEC



Insufflatoren | Insufflateurs  
*Insufflators* | *Insufladores*  
 Insufflatori

*Recommended for: LAPAROSCOPY*



ADDITIONAL DISPLAYS INDICATING PRESET,  
 ACTUAL PRESSURE AND FLOW.



TEKNO FLOW 15	15 l/min	<b>tk 754-1500</b>	<b>tk 754-1500 H</b>
TEKNO FLOW 20	20 l/min	<b>tk 754-1510</b>	<b>tk 754-1510 H</b>
TEKNO FLOW 30	30 l/min	<b>tk 754-1520</b>	<b>tk 754-1520 H</b>
TEKNO FLOW 43	43 l/min	<b>tk 754-1530</b>	<b>tk 754-1530 H</b>

max. Gasflußrate  
*max. gas flow*

ohne CO<sub>2</sub> Heizung  
*without CO<sub>2</sub> heater*

mit CO<sub>2</sub> Heizung  
*with CO<sub>2</sub> heater*

Insufflatoren aus der TEKNO FLOW S Serie sind sehr solide und zuverlässig und entsprechen dem neuesten Stand der Technik.

*Insufflators from TEKNO FLOW series are very solid, reliable and correspond to the state of the art.*

Intuitive Bedienbarkeit, sowie gut ablesbare Anzeigen zeichnen diesen Insufflator aus. Die Geräte besitzen zwei Anzeigen für die vom Anwender eingestellten Druck und Flussrate, sowie zwei weitere Anzeigen für die tatsächlichen Werte im Patienten. Neben der Versorgung durch Flaschengas ist auch der Betrieb über eine zentrale Gasversorgung möglich.

*Intuitive operation as well as an easy to read display are characteristics of this insufflator. The devices have two displays for the pressure and flow rate set by the user, as well as two additional displays for the actual values in the patient. Besides working with gas cylinders the operation is possible through a central gas supply.*

Ein spezielles Programm für die Pre-Insufflation, welches mit geringem Insufflationsdruck in Verbindung mit hohem Gasfluss arbeitet. Durch kontinuierliche Drucküberwachung wird ein Höchstmaß an Patientensicherheit gewährleistet. Optional sind die Insufflatoren mit einem Heizsystem erhältlich.

*A special program for pre-insufflation, which works with low inflation, combined with high gas flow, insurance works by continuous monitoring of the pressure. It offers a maximum of patient security. The insufflators are optionally available with a heating system.*



Bei Bestellung bitte CO<sub>2</sub>-Anschluss angeben! PIN INDEX (F/UK/NL) DIN (D/PL/E/JAP/GR) ISO 5145 (ITALY)  
 When ordering, please specify CO<sub>2</sub> connection! PIN INDEX (F/UK/NL) DIN (D/PL/E/JAP/GR) ISO 5145 (ITALY)



Insufflatoren  
*Insufflators*

Insufflateurs  
*Insufladores*  
Insufflatori

Technische Daten

• Durchfluss	15 / 20 / 30 / 43 l/min
• Druck	1 - 30 mmHg (max. 50 mmHg)
• Netzspannung	100 - 240 VAC; 50-60 Hz
• Leistungsaufnahme	60W (ohne Heizung) max. 100W (mit Heizung)
• Abmessungen (B x H x T)	355 x 120 x 375 mm
• Gewicht	ca. 7,5 kg
• Hergestellt und geprüft nach	IEC 60601-1
• CE-Kennzeichnung entsprechend	RL 93/42/EWG

Im Lieferumfang enthalten

- 3 Sterilfilter
- Schlüsselsatz für CO<sub>2</sub> Flasche
- 2 Insufflationsschläuche à 2,5 m
- Hochdruckschlauch 1 m
- CO<sub>2</sub> Heizung (nur bei Geräten mit Heizung)

Technical data

• Flow	15 / 20 / 30 / 43 l/min
• Pressure	1 - 30 mmHg (max. 50 mmHg)
• Line voltage	100 - 240 VAC; 50-60 Hz
• Power consumption	60W (w/o heater) max. 100W (with heater)
• Dimensions (W x H x D)	355 x 120 x 375 mm
• Weight	approx. 7.5 kg
• Produced and tested acc. to	IEC 60601-1
• CE marking acc. to	RL 93/42/EWG

Included in delivery

- 3 sterile filters
- spanner set for CO<sub>2</sub> bottle
- 2 insufflation tubes 2.5 m
- high pressure tube 1 m
- CO<sub>2</sub> heater (only for units with heater)

Zubehör  
Accessories

Accessoires  
Accesorios  
Accessori



50	<b>tk 754-1501</b>
Verpackungseinheit (Stk.) Packing unit (pcs.)	Sterilfilter für TEKNO FLOW Sterile filter for TEKNO FLOW



DIN	ISO 5145	PIN INDEX
<b>tk 754-1506</b>	<b>tk 754-1507</b>	<b>tk 754-1508</b>

Hochdruckschlauch, 1m  
High pressure tube, 1m



<b>tk 754-1505</b>
Schlauchsatz, 2,5m - 50 x autoklavierbar bei 134 °C Tubing set, 2.5m - 50 x autoclavable at 134 °C



<b>tk 751-1020</b>
Gasflasche, leer 0,75 kg (DIN Anschluss) CO <sub>2</sub> bottle, empty 0.75 kg (DIN connection)



<b>tk 754-1525</b>
CO <sub>2</sub> - Heizung für Insufflationsschlauch für Geräte Seite 6 & 8 CO <sub>2</sub> - heater for insufflation tube connector for units page 6 & 8



<b>tk 754-1527</b>
Schlauch für Insufflatorheizung tk 754-1525 Tube for insufflator heating tk 754-1525

**Koagulations-Saugkanülen, monopolar**  
*Coagulation suction tubes, monopolar*

Canules á coagulation, monopolaires  
*Cánulas para coagulación, monopolares*  
 Canule per aspirazione, monopolari



	Ø 5.0 mm	330 mm	450 mm
 Spatel <i>Spatula</i> Spatule <i>Espátula</i> Spatola 1:1		tk 706-180	tk 706-180-45
 Rundhaken <i>Hook</i> Crochet <i>Gancho</i> Uncino curvo 1:1		tk 706-182	tk 706-182-45
 Haken 90° <i>Hook 90°</i> Crochet 90° <i>Gancho 90°</i> Uncino 90° 1:1		tk 706-184	tk 706-184-45
 Knopf <i>Ball point</i> Boule <i>Bola</i> Sfera 1:1		tk 706-186	tk 706-186-45
 Nadel <i>Needle</i> Aiguille <i>Aguja</i> Ago 1:1		tk 706-187	tk 706-187-45

Elektrode, Saugkanüle mit Trompetenventil und LL-Ansatz  
*Electrode, suction tube with trumpet valve and LL-connection*

Électrode, canule avec valve à piston et connecteur LL

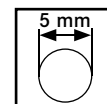
*Electrodo, cánula con valvula de trompeta y conexión LL*

Elettrodi, canule per aspirazione con valvola a trombetta, attacco LL



Nadelhalter, zerlegbar  
Needleholder, detachable

Porte-aiguilles, démontables  
Porta-agujas, desmontables  
Porta aghi, smontabili



**TEKNOSTEEL**

Die Maulteile der **TEKNOSTEEL** - Instrumente bestehen aus einer speziellen rostfreien Stahllegierung, die für lange Zeit die optimale Beibehaltung der Maulstruktur und Widerstand gegen Korrosion bietet. Die verbesserte Härte des verwendeten Materials spart unnötige Kosten für häufiges Nacharbeiten und der damit verbundenen Ausfallzeit des Instruments.

The **TEKNOSTEEL** - instruments are made of a special stainless steel which guarantees the keeping of the optimal jaw structure for a long time and a resistance against corrosion. The improved hardness of this type of steel helps to save a lot of costs for frequent rework.

Les mors du instruments **TEKNOSTEEL** sont produites d'une alliage d'acier spéciale, qui garantit la maintenance de la structure du mors pour longtemps et une haute résistance contre corrosion. La dûtreté amélioré des matériaux utilisés réduit la nécessité d'affûtage.

Las bocas de los instrumentos **TEKNOSTEEL** son producidas de una aleación de acero especial, que garantiza la estructura de la boca mas larga y una alta resistencia contro corrosión. La dureza ameliorada del material utilizado reduce la necesidad de controlas frecuentes.

Il morso dei porta aghi **TEKNOSTEEL** è prodotto con un acciaio inossidabile speciale che assicura una presa ottimale ed una resistenza contro corrosione per un lungo tempo. Ciò vi fa risparmiare dei costi per eventuali riparazioni dello strumento.



ohne Sperre  
without ratchet  
sans crémaillère  
sin cremallera  
senza cremagliera







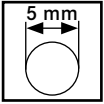
mit Sperre  
with ratchet  
avec crémaillère  
con cremallera  
con cremagliera



Einsatz allein  
Insert only  
Inserto solo  
Inserto, solo

**TEKNOLINE**

		Ø 5.0 mm	Ø 5.0 mm	Ø 5.0 mm
 1:1 Nadelhalter gerade <i>Needle holder pointed model</i> Porte-aiguilles droite Porta-agujas recta Porta aghi retto	250 mm	tk 775-4214-25 TSC	tk 775-4214-25 TSCS	tk 775-4214-25 TS
	330 mm	tk 775-4214 TSC	tk 775-4214 TSCS	tk 775-4214 TS
	450 mm	tk 775-4214-45 TSC	tk 775-4214-45 TSCS	tk 775-4214-45 TS
 1:1 Nadelhalter rechts gebogen <i>Needle holder right curved</i> Porte-aiguilles droite courbe Porta-agujas dereda curva Porta aghi a destra curvo	250 mm	tk 775-4212-25 TSC	tk 775-4212-25 TSCS	tk 775-4212-25 TS
	330 mm	tk 775-4212 TSC	tk 775-4212 TSCS	tk 775-4212 TS
	450 mm	tk 775-4212-45 TSC	tk 775-4212-45 TSCS	tk 775-4212-45 TS
 1:1 Nadelhalter links gebogen <i>Needle holder left curved</i> Porte-aiguilles gauche courbe Porta-agujas izquierda curva Porta aghi a sinistra curvo	250 mm	tk 775-4213-25 TSC	tk 775-4213-25 TSCS	tk 775-4213-25 TS
	330 mm	tk 775-4213 TSC	tk 775-4213 TSCS	tk 775-4213 TS
	450 mm	tk 775-4213-45 TSC	tk 775-4213-45 TSCS	tk 775-4213-45 TS
 1:1 Nadelhalter schnabelförmig <i>Needle holder beaked</i> Porte-aiguilles en forme de bec Porta-agujas curva en forma de pico Porta aghi a forma di becco	250 mm	tk 775-4210-25 TSC	tk 775-4210-25 TSCS	tk 775-4210-25 TS
	330 mm	tk 775-4210 TSC	tk 775-4210 TSCS	tk 775-4210 TS
	450 mm	tk 775-4210-45 TSC	tk 775-4210-45 TSCS	tk 775-4210-45 TS



Scheren, zerlegbar  
*Scissors, detachable*

Ciseaux, démontables  
*Tijeras, desmontables*  
Forbici, smontabili

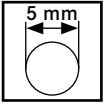


ohne Sperre  
*without ratchet*  
sans crémaillère  
*sin cremallera*  
senza cremagliera

Einsatz allein  
*Insert only*  
Insert seul  
*Inserto solo*  
Inserto, solo

**TEKNOLINE**

		Ø 5.0 mm	Ø 5.0 mm
 1:1	<b>Hakenschere</b> <i>Hook scissors</i>	250 mm	tk 775-4020-25 C
	Ciseaux à crochet	330 mm	tk 775-4020 C
	<i>Tijera de gancho</i>	450 mm	tk 775-4020-45 C
	Forbici a gancio		
 1:1	<b>METZENBAUM-Schere</b> <i>METZENBAUM-scissors</i>	250 mm	tk 775-4022-25 C
	METZENBAUM ciseaux	330 mm	tk 775-4022 C
	<i>METZENBAUM tijera</i>	450 mm	tk 775-4022-45 C
	METZENBAUM forbici		
 1:1	<b>METZENBAUM-Schere, gebogen</b> <i>METZENBAUM-scissors, curved</i>	250 mm	tk 775-4023-25 C
	METZENBAUM ciseaux, courbes	330 mm	tk 775-4023 C
	<i>METZENBAUM tijera, curva</i>	450 mm	tk 775-4023-45 C
	METZENBAUM forbici, curve		
 1:1	<b>Mikroschere</b> <i>Micro scissors</i>	250 mm	tk 775-4024-25 C
	Ciseaux micro	330 mm	tk 775-4024 C
	<i>Tijera micro</i>	450 mm	tk 775-4024-45 C
	Forbici micro		
 1:1	<b>Mikroschere, gebogen</b> <i>Micro scissors, curved</i>	250 mm	tk 775-4025-25 C
	Ciseaux micro, courbes	330 mm	tk 775-4025 C
	<i>Tijera micro, curva</i>	450 mm	tk 775-4025-45 C
	Forbici micro, curve		
 1:1	<b>Peritoneal-Schere, 1 Blatt gezahnt</b> <i>Peritoneal scissors, 1 blade serrated</i>	250 mm	tk 775-4026-25 C
	Ciseaux péritonéales, une lame crantée	330 mm	tk 775-4026 C
	<i>Tijera peritoneal, una hoja dentada</i>	450 mm	tk 775-4026-45 C
	Forbici paritoneale, 1 lama dentellata		
 1:1	<b>METZENBAUM-Schere, gebogen, lang</b> <i>METZENBAUM-scissors, curved, long</i>	250 mm	tk 775-4027-25 C
	METZENBAUM ciseaux, courbes, longue	330 mm	tk 775-4027 C
	<i>METZENBAUM tijera, curva, larga</i>	450 mm	tk 775-4027-45 C
	METZENBAUM forbici, curve, lama lunga		
 1:1	<b>OP-Schere</b> <i>OP-scissors</i>	250 mm	tk 775-3928-25 C
	Ciseaux à opérations	330 mm	tk 775-3928 C
	<i>Tijera para operaciones</i>	450 mm	tk 775-3928-45 C
	Forbici per operazione		
 1:1	<b>OP-Schere, gebogen</b> <i>OP-scissors, curved</i>	250 mm	tk 775-3929-25 C
	Ciseaux à opérations, courbes	330 mm	tk 775-3929 C
	<i>Tijera para operaciones, curva</i>	450 mm	tk 775-3929-45 C
	Forbici per operazione, curve		



Fasszangen, zerlegbar  
*Grasping forceps, detachable*

Pincès à saisir, démontables  
*Pinzas de agarre, desmontables*  
Pinze da presa, smontabili










ohne Sperre  
*without ratchet*  
sans crémaillère  
*sin cremallera*  
senza cremagliera

mit Sperre  
*with ratchet*  
avec crémaillère  
*con cremallera*  
con cremagliera

Einsatz allein  
*Insert only*  
Insert seul  
*Inserto solo*  
Inserto, solo

**TEKNO**LINE

		Ø 5.0 mm	Ø 5.0 mm	Ø 5.0 mm			
 <p>1:1</p>	<b>Fasszange, atraumatisch, spitz</b> <i>Grasping forceps pointed, atraumatic</i> Pince à saisir, atraumatique, pointu <i>Pinza de agarre, atraumatica, aguda</i> Pinza da presa atraumatica, acuta	250 mm 330 mm 450 mm	tk 775-4064-25 C tk 775-4064 C tk 775-4064-45 C	tk 775-4064-25 CS tk 775-4064 CS tk 775-4064-45 CS	tk 775-4064-25 tk 775-4064 tk 775-4064-45		
	 <p>1:1</p>	<b>MARYLAND Fasszange, grob gerieft, gebogen</b> <i>MARYLAND coarse serrated, curved</i> MARYLAND, strié fort, courbe <i>MARYLAND, estriada fuerte, curva</i> MARYLAND, zigrinatura larga, curva	250 mm 330 mm 450 mm	tk 775-4069-25 C tk 775-4069 C tk 775-4069-45 C	tk 775-4069-25 CS tk 775-4069 CS tk 775-4069-45 CS	tk 775-4069-25 tk 775-4069 tk 775-4069-45	
		 <p>1:1</p>	<b>MARYLAND Fasszange, fein gerieft, gebogen</b> <i>MARYLAND grasping forceps, fine serrated</i> MARYLAND, strié fin <i>MARYLAND, estriada fina</i> MARYLAND, pinza da presa, zigrinatura fine	250 mm 330 mm 450 mm	tk 775-4021-25 C tk 775-4021 C tk 775-4021-45 C	tk 775-4021-25 CS tk 775-4021 CS tk 775-4021-45 CS	tk 775-4021-25 tk 775-4021 tk 775-4021-45
			 <p>1:1</p>	<b>MARYLAND, kreuzgerieft</b> <i>MARYLAND, cross serrated</i> MARYLAND, strié en cruciforme <i>MARYLAND, estriada en cruciforma</i> MARYLAND, zigrinatura a croce	250 mm 330 mm 450 mm	tk 775-4075-25 C tk 775-4075 C tk 775-4075-45 C	tk 775-4075-25 CS tk 775-4075 CS tk 775-4075-45 CS
 <p>1:1</p>				<b>MARYLAND, DEBAKEY, gebogen</b> <i>MARYLAND, DEBAKEY, curved</i> MARYLAND, DEBAKEY, courbe <i>MARYLAND, DEBAKEY, curva</i> MARYLAND, DEBAKEY, curva	250 mm 330 mm 450 mm	tk 775-4088-25 C tk 775-4088 C tk 775-4088-45 C	tk 775-4088-25 CS tk 775-4088 CS tk 775-4088-45 CS
	 <p>1:1</p>			<b>MIXTER Fasszange, 45° gewinkelt</b> <i>MIXTER grasping forceps, 45° angled</i> MIXTER, 45° angulé <i>MIXTER, 45° angulada</i> MIXTER, pinza da presa angolata a 45°	250 mm 330 mm 450 mm	tk 775-4228-25 C tk 775-4228 C tk 775-4228-45 C	tk 775-4228-25 CS tk 775-4228 CS tk 775-4228-45 CS
		 <p>1:1</p>		<b>MIXTER Fasszange, 45° gebogen</b> <i>MIXTER grasping forceps, 45° curved</i> MIXTER, 45° courbé <i>MIXTER, 45° curvada</i> MIXTER, pinza da presa curva a 45°	250 mm 330 mm 450 mm	tk 775-4222-25 C tk 775-4222 C tk 775-4222-45 C	tk 775-4222-25 CS tk 775-4222 CS tk 775-4222-45 CS

**Clip Anlegezangen**  
*Clip application forceps*

Pinces à poser des clips  
*Pinzas para clips*  
Pinze per applicatore di clip



		Ø 10.0 mm - 330 mm	Ø 10.0 mm - 330 mm
ETHICON - small	Ø 10.0 mm	<b>tk 708-750</b>	-
ETHICON - medium	Ø 10.0 mm	<b>tk 708-751</b>	<b>tk 708-741</b>
ETHICON - medium/large	Ø 10.0 mm	<b>tk 708-752</b>	<b>tk 708-742</b>
ETHICON - large	Ø 12.5 mm	<b>tk 708-753</b>	<b>tk 708-743</b>
PILLING-WECK - small	Ø 10.0 mm	<b>tk 708-770</b>	-
PILLING-WECK - medium	Ø 10.0 mm	<b>tk 708-771</b>	<b>tk 708-761</b>
PILLING-WECK - medium/large	Ø 10.0 mm	<b>tk 708-772</b>	<b>tk 708-762</b>
PILLING-WECK - large	Ø 12.5 mm	<b>tk 708-773</b>	<b>tk 708-763</b>

für Clips Typ  
*for clips type*  
pour clips, type  
*para clips, tipo*  
per clips tipo

für Trokare  
*for trocars*  
pour trocars  
*para trócares*  
per trequarti

Einsatz, allein  
*Insert, only*  
Insert, seul  
*Inserto, solo*  
Inserto, solo

Zange komplett, zerlegbar , 360° drehbar  
*Forceps, complete, detachable, 360° rotatable*  
Pince complete, démontable, rotative de 360°  
*Pinza completa, desmontable, giratoria de 360°*  
Pinza completa, smontabile, rotante 360°

ETHICON clips - small	-	<b>tk 708-705 / LT 100</b>
ETHICON clips - medium	-	<b>tk 708-706 / LT 200</b>
ETHICON clips - medium/large	<b>tk 708-707 / LT 300</b>	-
ETHICON clips - large	<b>tk 708-708 / LT 400</b>	-

Pack mit 18 Magazinen à 6 Stck.  
*Pack with 18 magazines à 6 pcs.*  
Paquet de 18 magasins de 6 pcs  
*Paquetes. de 18 cargadores de 6 pzas*  
Confezione con 18 cartucce di 6 pezzi

Pack mit 36 Magazinen à 6 Stck.  
*Pack with 36 magazines à 6 pcs.*  
Paquet de 36 magasins de 6 pcs  
*Paquetes. de 36 cargadores de 6 pzas*  
Confezione con 36 cartucce di 6 pezzi

**Endoretraktor, Elevator**  
*Endo-retractor, elevator*

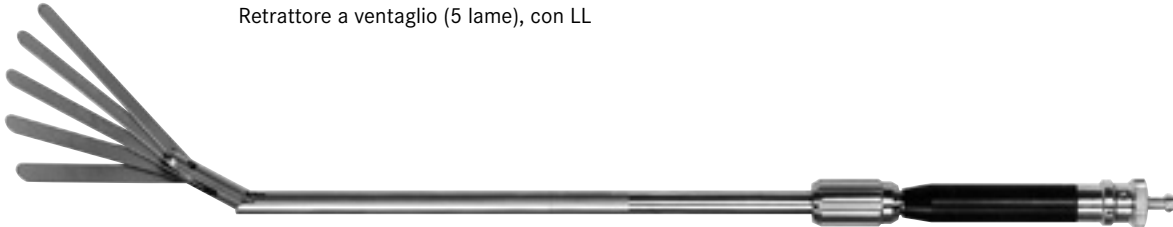
Endo-retracteur, elevateur  
*Endo-retractor, elevator*  
 Retrattore, Elevatore



	380 mm
Ø 10 mm	<b>tk 704-112</b>

**Fächer-Retraktor (5 Finger) mit Spülvorrichtung**  
*Fan-Retractor (5 fingers) with rinsing channel*

Retracteur en éventail, (5 doigts), avec connecteur LL  
*Retractor en abanico, (5 dedos), con conexión LL*  
 Retrattore a ventaglio (5 lame), con LL



	347 mm
Ø 10 mm	<b>tk 704-113</b>

**Fächer-Retraktor (5 Finger) mit Spülvorrichtung, abwinkelbar**  
*Fan-Retractor (5 fingers) with rinsing channel, angleable*






Retracteur en éventail, (5 doigts), avec connecteur LL, pliable  
*Retractor en abanico, (5 dedos), con conexión LL, boca para doblar*  
 Retrattore a ventaglio (5 lame), angolabile, con LL



Elektroden, monopolar  
*Electrodes monopolar*

Electrodes monopolaires  
*Electrodos monopolares*  
Elettrodi monopolari



	Ø 2.8 mm		Ø 5.0 mm	
	250 mm	330 mm	330 mm	450 mm
 <b>Spatel</b> <i>Spatula</i> Spatule <i>Espátula</i> Spatola	tk 762-103-25	tk 762-103	tk 706-152	tk 706-152-45
 <b>Rundhaken</b> <i>Hook</i> Crochet <i>Gancho</i> Uncino	tk 762-101-25	tk 762-101	tk 706-154	tk 706-154-45
 <b>Haken 90°</b> <i>Hook 90°</i> Crochet 90° <i>Gancho 90°</i> Uncino 90°	tk 762-102-25	tk 762-102	tk 706-156	tk 706-156-45
 <b>Kugel</b> <i>Ball point</i> Boule <i>Bola</i> Sfera	tk 762-104-25	tk 762-104	tk 706-158	tk 706-158-45
 <b>Nadel</b> <i>Needle</i> Aiguille <i>Aguja</i> Ago	tk 762-105-25	tk 762-105	tk 706-159	tk 706-159-45

Elektrode, monopolar, massive Ausführung  
*Electrode, monopolar, solid model*  
 Electrode, monopolaire, modèle solide  
*Electrodo, monopolar, modelo sólido*  
 Elettrodi, monopolari, modello solido



**tk 706-150**

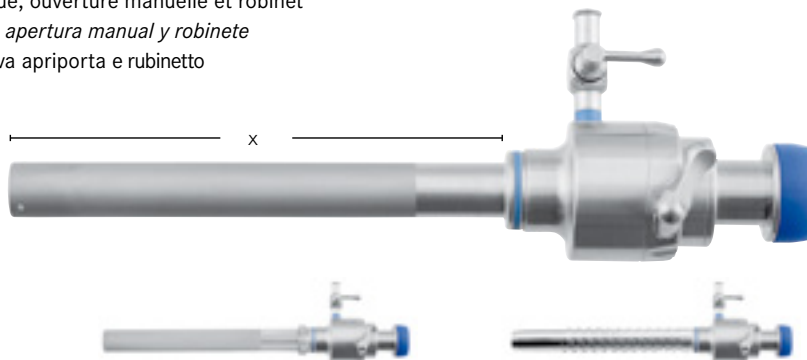
Komfort-Handgriff für Elektroden (tk 706-152 - tk 706-158)  
*Comfort-handle for electrodes (tk 706-152 - tk 706-158)*  
 Poignée de confort pour électrodes (tk 706-152 - tk 706-158)  
*Mango de confort para electrodos (tk 706-152 - tk 706-158)*  
 Manico confortabile per elettrodi (tk 706-152 - tk 706-158)

Trokare  
Trocars

Trocarts  
Trócares  
Trocar

Trokarhülse mit Automatik-Ventil, manueller Klappenöffnung und Hahn  
*Trocar sheath with multifunctional valve and stopcock*

Gaine de trocart avec valve automatique, ouverture manuelle et robinet  
*Vaina de trocar con valvula automatica, apertura manual y robinete*  
*Camicia con valvola automatica con leva apriporta e rubinetto*



SLIMSL

Ø 5.5 mm ○	x = 103 mm	tk 704-360	tk 704-670
Ø 11.0 mm ●	x = 105 mm	tk 704-365	tk 704-673
Ø 13.0 mm ●	x = 102 mm	tk 704-295	tk 704-676

Metallrohr, glatt  
*Metal tube, smooth*  
Tube metalique, lisse  
*Tubo de metal, lisa*  
Tubo metallico, liscio

Metallrohr mit Gewinde  
*Metal tube, threaded*  
Tube metalique avec filetage  
*Tubo de metal con rosca*  
Tubo metallico con filetto

SLIMSL

Ø 5.5 mm ○	x = 95 mm	tk 704-671	tk 704-672
Ø 11.0 mm ●	x = 97 mm	tk 704-674	tk 704-675
Ø 13.0 mm ●	x = 94 mm	tk 704-677	tk 704-678

Kunststoffrohr, glatt  
*Plastic tube, smooth*  
Tube plastique, lisse  
*Tubo plastico, lisa*  
Tubo di plastica, liscia

Kunststoffrohr mit Gewinde  
*Plastic tube, threaded*  
Tube plastique avec filetage  
*Tubo de plastico con rosca*  
Tubo di plastica con filetto

SLIMSL-XL

Ø 5.5 mm ○	x = 150 mm	tk 704-4002-15
Ø 11.0 mm ●	x = 150 mm	tk 704-4010-15
Ø 13.0 mm ●	x = 150 mm	tk 704-4012-15

Metallrohr, glatt  
*Metal tube, smooth*  
Tube metalique, lisse  
*Tubo de metal, lisa*  
Tubo metallico, liscio



Trokare  
Trocars

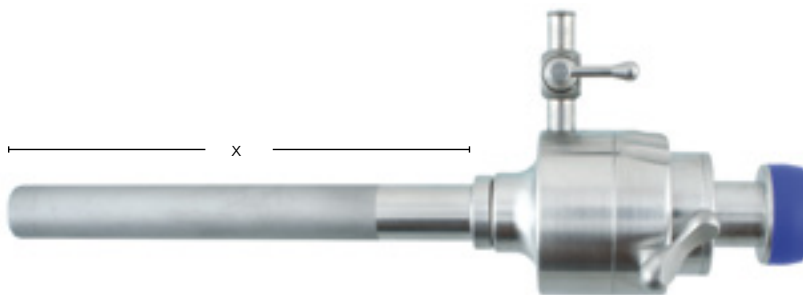
Trocarts  
Trócares  
Trocar

Trokarhülse mit Automatik-Ventil, manueller Klappenöffnung und Hahn  
*Trocar sheath with multifunctional valve and stopcock*

Gaine de trocar avec valve automatique, ouverture manuelle et robinet

Vaina de trocar con valvula automatica, apertura manual y robinete

Camicie con valvola automatica con leva aprivalvola e rubinetto



CLASSIC

Ø 3.5 mm	x = 70 mm	tk 730-210	-
Ø 5.5 mm	x = 95 mm	tk 704-679	tk 704-680
Ø 7.0 mm	x = 95 mm	tk 704-362	-
Ø 11.0 mm	x = 101 mm	tk 704-683	tk 704-684

Metallrohr, glatt  
*Metal tube, smooth*

Tube metalique, lisse  
*Tubo de metal, lisa*  
Tubo metallico, liscio

Metallrohr mit Gewinde  
*Metal tube, threaded*

Tube metallique avec filetage  
*Tubo de metal con rosco*  
Tubo metallico con filetto



CLASSIC

Ø 5.5 mm	x = 95 mm	tk 704-681	tk 704-682
Ø 11.0 mm	x = 101 mm	tk 704-685	tk 704-686

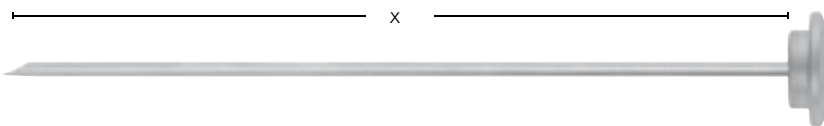
Kunststoffrohr, glatt  
*Plastic tube, smooth*

Tube plastique, lisse  
*Tubo plastico, lisa*  
Tubo di plastica, liscia

Kunststoffrohr mit Gewinde  
*Plastic tube, threaded*

Tube plastique avec filetage  
*Tubo de plastico con rosca*  
Tubo di plastica con filetto

Trokare | Trocarts  
 Trocars | Trócares  
 Trocar



Ø 2.8 mm	x = 108 mm	x = 148 mm
	<b>tk 730-171</b>	<b>tk 730-161</b>
	<b>tk 730-172</b>	<b>tk 730-162</b>

für tk 730-170  
 for tk 730-170  
 pour tk 730-170  
 para tk 730-170  
 per tk 730-170

für tk 730-160  
 for tk 730-160  
 pour tk 730-160  
 para tk 730-160  
 per tk 730-160



Ø 3.5 mm		<b>tk 704-070</b>	<b>tk 730-220</b>	<b>tk 704-072</b>
Ø 5.5 mm		<b>tk 704-016</b>	<b>tk 704-022</b>	<b>tk 704-031</b>
Ø 7.0 mm		<b>tk 704-014</b>	<b>tk 704-018</b>	-
Ø 10.0 mm		-	-	<b>tk 704-033</b>
Ø 11.0 mm		<b>tk 704-006</b>	<b>tk 704-026</b>	<b>tk 704-035</b>
Ø 12.5 mm		-	-	<b>tk 704-036</b>
Ø 13.0 mm		<b>tk 704-093</b>	<b>tk 704-092</b>	-
Ø 15.0 mm		<b>tk 704-015</b>	<b>tk 704-028</b>	-
Ø 20.0 mm		<b>tk 704-020</b>	<b>tk 704-029</b>	-

Ø 5.5 mm		<b>tk 704-016-15</b>	<b>tk 704-022-15</b>	-
Ø 11.0 mm		<b>tk 704-006-15</b>	<b>tk 704-026-15</b>	-
Ø 13.0 mm		<b>tk 704-012-15</b>	<b>tk 704-027-15</b>	-

Für Trokar-System  
 For trocar system  
 Pour système trocar  
 Para el sistema de trócares  
 Sistema per trocar

Trokar (dreikant)  
 Trocar (pyramidal)  
 Trocart (pyramidal)  
 Trócar (piramidal)  
 Trocar (piramidale)

Trokar (Kegelform)  
 Trokar (conical tip)  
 Trocart (conique)  
 Trócar (conico)  
 Trocar (conico)

Trokar (stumpf)  
 Trocar (blunt)  
 Trocart (mousse)  
 Trócar (romo)  
 Trocar (smusso)

**Zubehör für Trokare**  
**Accessories for trocars**

**Accessoires pour trocarts**  
**Accesorios para trócares**  
**Accessorio per trocar**



	35.0 mm
Ø 5.5 mm	<b>tk 704-436</b>
Ø 10.0 mm	<b>tk 704-437</b>
Ø 11.0 mm	<b>tk 704-438</b>
Ø 12.5 mm	<b>tk 704-439</b>
Ø 13.0 mm	<b>tk 704-440</b>

- Ø Trokar **Abstandshalter mit Fixiergewinde**
- Ø Trocar **Distance holder with fixation thread**
- Ø Trocart **Pièce de distance avec vis de fixation**
- Ø Trócar **Pieza de distancia con tornillo de fijación**
- Ø Trocar **Distanziatore con vite di fissaggio**



Ø 5.5 mm	Ø 3.0 mm	<b>tk 704-233</b>
Ø 10.0 mm	Ø 5.5 mm	<b>tk 704-240</b>
Ø 11.0 mm	Ø 5.5 mm	<b>tk 704-241</b>
Ø 12.5 mm	Ø 5.5 mm	<b>tk 704-242</b>
Ø 12.5 mm	Ø 10.0 mm	<b>tk 704-243</b>
Ø 13.0 mm	Ø 5.5 mm	<b>tk 704-244</b>
Ø 13.0 mm	Ø 10.0 mm	<b>tk 704-245</b>

- Ø Trokar **Reduzieraufsatz mit Silikonhalterung**
- Ø Trocar **Reduction adaptors with silicon-holder**
- Ø Trocart **Réducteur avec support de silicón**
- Ø Trócar **Reductor con soporte de silicona**
- Ø Trocar **Riduttore con supporto in silicone**



Ø 5.0 mm	Ø 4.0 mm	<b>tk 704-200</b>
Ø 11.0/10.0 mm	Ø 5.5 mm	<b>tk 704-000</b>
Ø 12.5 mm	Ø 5.5 mm	<b>tk 704-216</b>
Ø 15.0 mm	Ø 5.5 mm	<b>tk 704-203</b>
Ø 12.5 mm	Ø 10.0 mm	<b>tk 704-217</b>
Ø 15.0 mm	Ø 10.0 mm	<b>tk 704-204</b>
Ø 20.0 mm	Ø 10.0 mm	<b>tk 704-207</b>
Ø 20.0 mm	Ø 15.0 mm	<b>tk 704-218</b>

- Ø Trokar **Reduzierhülsen**
- Ø Trocar **Reduction sleeves**
- Ø Trocart **Gaine de réduction**
- Ø Trócar **Vaina para reducción**
- Ø Trocar **Riduttore**



Ventilhandgriffe und monopolare Elektroden  
*Valve handles and monopolar electrodes*

Poignées avec valves, électrodes monopolaires  
*Mangos con valvulas, electrodos monopolares*  
 Manico con valvola, elettrodi monopolari



**tk 704-750**

Saug-/Spül - Pistolenhandgriff mit 2 Wege Schiebeventil und Schlauchanschlüssen, ergonomische Griffform, vergrößerter Saugkanal, gerade Durchgänge, Komfortbedienung durch kleinen Schwenkbereich des Schiebeventils  
*Suction / irrigation pistol handle with 2 way valve and tube connectors, ergonomic handle, larger suction canula, straight channels, comfortable handling due to movement of the lever*

Poignée d'aspiration/irrigation avec valve de deux voies et 2 connecteurs, forme ergonomique, canaux larges, manipulation confortable

*Mango de irrigación/aspiración con valvula y 2 conexiones, forma ergonomica, canales grandes, manipulación confortable*

Impugnatura a forma di pistola con valvola a 2 vie, 2 attacchi p. tubi e attacco per tubi d'aspirazione (M8x1 mm)



	330 mm	450 mm
Ø 3.0 mm	<b>tk 704-751</b>	
Ø 5.0 mm	<b>tk 704-752</b>	<b>tk 704-752-45</b>
Ø 10.0 mm	<b>tk 704-753</b>	<b>tk 704-753-45</b>

Saug-/Spülrohr  
*Suction/irrigation tube*

Tube d'irrigation/aspiration  
*Vaina de irrigación/aspiración*  
 Tubo d'aspirazione/irrigazione



**tk 704-760**

Elektrodenadapter für Saug-/Spül-Pistolenhandgriff (tk 704-750), 360° drehbar  
*Adapter for electrodes for suction/irrigation handle (tk 704-750), 360° rotatable*

Adapteur pour électrodes pour poignée (tk 704-750), rotatif de 360°  
*Adaptator para electrodos para mango (tk 704-750), giratorio de 360°*  
 Adattore per elettrodi per impugnatura (tk 704-750), rotante 360°

## Hoch auflösende Endoskope *High definition endoscopes*

---

Endoscopes de haute définition  
*Endoscopios de alta definición*  
Endoscopi ad alta definizione

Unsere HD-Endoskope zeichnen sich durch ein speziell berechnetes Linsensystem aus, welches optimal auf die in HD-Kameras verwendeten Sensor Formate abgestimmt ist. Diese Optimierung überzeugt im Einsatz durch ein brilliant klares Bild.

*Our HD endoscopes stand out for their especially designed lens system, which is optimized for the sensor formats, used in HD cameras. This improvement convinces during use by a brilliant clear image.*

Nos endoscopes HD se distinguent par leur système de lentilles, spécialement évalué et optimisé pour des formats des capteurs des caméras HD. Cette amélioration convainc pendant l'utilisation par un image brillant et clair.

*Nuestros endoscopios HD se caracterizan por su sistema de lentes, especialmente evaluado y optimado para los formatos de los sensores en las cámaras HD. Este mejoración convence durante la utilización por un imagen brillante y claro.*

I nostri endoscopi si caratterizzano per il loro sistema di lenti, che è ottimizzato per il formato del sensore utilizzato nelle telecamere HD. I miglioramenti permettono di ottenere durante l'utilizzo un'immagine nitida e chiara.

## Lichtleitfaser Schutzglas *Light guide protection*

---

Protection des fibres de verre  
*Protección de las fibras de vidrio*  
Protezione delle fibre di vetro



Optional sind unsere Laparoskope mit Hitzeschild am Lichtleiteranschluss erhältlich. Ein dem Endoskoplichtleiter vorgesetzter Quarzstab schützt die Glasfasern der Optiken langfristig vor Verbrennung.

*As an option, our laparoscopes are available with a heat protection at the light guide connector. A quartz stick, placed in front of the light guides protects the fibers of the endoscopes at long-term from burnings.*

En option, nos laparoscopes sont disponibles avec une protection de chaleur l'entrée de la lumière. Une tige de quartz, située devant le connecteur protégé les fibres à long terme des combustions

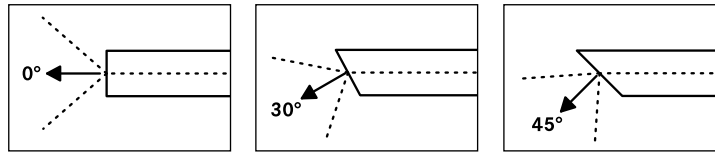
*Opcionalmente, nuestros laparoscopios son también disponibles con una protección de calor a la entrada de la luz. Una tija de cuarzo, delante de la conexión de luz protegé las fibras a largo plazo contra combustions.*

Come opzione, I nostri laparoscopi sono fornibili con una protezione termica sul connettore cavo luce. Una lente in quarzo, inserita all'ingresso del cavo luce protegge a lungo termine le fibre dell'endoscopio da bruciature



Laparoskope  
Laparoscopes  
Laparoscopios  
Laparoscopi

autoklavierbar / autoclavable  
134°C / 273°F - 18 min.



**STANDARD**

Ø 5.0 mm - 240 mm	tk 700-001	tk 700-011	-
Ø 5.0 mm - 300 mm	tk 700-000	tk 700-003	tk 700-004
Ø 5.0 mm - 360 mm	tk 700-002	tk 700-012	-
Ø 6.5 mm - 300 mm	tk 700-010	tk 700-013	-
Ø 10.0 mm - 310 mm	tk 700-020	tk 700-023	tk 700-024
Ø 10.0 mm - 450 mm	tk 700-420	tk 700-423	tk 700-424
Ø 10.0 mm - 540 mm	tk 700-430	tk 700-433	-

**FULL SCREEN**

Ø 5.5 mm - 310 mm	tk 700-450	tk 700-453	-
-------------------	------------	------------	---

**HD**

Ø 10.0 mm - 310 mm	tk 700-520	tk 700-523	-
--------------------	------------	------------	---

**HEAT PROTECTED**

Ø 10.0 mm - 310 mm	tk 700-440	tk 700-443	tk 700-444
--------------------	------------	------------	------------

- Ø, Arbeitslänge
- Ø, Working length
- Ø, Longueur de travail
- Ø, Longitud de trabajo
- Ø, Lunghezza operativa

**Glasfaser-Kaltlichtkabel**  
**Fiber optic cables**
**Cables de lumière froide**  
**Cables de fibra óptica**  
**Cavi luce in fibra ottica**
**autoklavierbar / autoclavable**  
**134°C / 273°F - 18 min.**


Ø 3.5 mm	1800 mm	<b>tk 39522-18</b>	<b>tk 39532-18</b>
Ø 3.5 mm	2300 mm	<b>tk 39522-23</b>	<b>tk 39532-23</b>
Ø 3.5 mm	3000 mm	<b>tk 39522-30</b>	<b>tk 39532-30</b>
Ø 4.8 mm	1800 mm	<b>tk 39523-18</b>	<b>tk 39533-18</b>
Ø 4.8 mm	2300 mm	<b>tk 39523-23</b>	<b>tk 39533-23</b>
Ø 4.8 mm	3000 mm	<b>tk 39523-30</b>	<b>tk 39533-30</b>

<b>Faserbündel</b>	<b>Länge</b>	<b>Kabel ohne Adapter</b>	<b>komplett mit 2 Adaptern: TEKNO / Storz</b>
<b>Fiber bundle</b>	<b>Length</b>	<b>Cable without adapters</b>	<b>complete with 2 adapters: TEKNO / Storz</b>
<b>Fibres</b>	<b>Longueur</b>	<b>Cable sans adaptateurs</b>	<b>complet avec 2 adaptateurs : TEKNO / Storz</b>
<b>Fibras</b>	<b>Longitud</b>	<b>Cable sin adaptadores</b>	<b>completo con 2 adaptadores : TEKNO / Storz</b>
<b>Cavo luce</b>	<b>Lunghezza</b>	<b>Cavo senza adattatori</b>	<b>completo di 2 adattatori: TEKNO / Storz</b>

**- Speziell für XENON-Lichtquellen**

Unsere Hochleistungs-Kaltlichtkabel werden durch ein Spezialverfahren am Lichteintritt komprimiert und können so mehr Licht transportieren. Sie sind speziell für hochenergetische Xenon-Lichtquellen geeignet!

**- adaptierbar an alle gängigen Systeme mittels Adapter**
**- Especially for XENON light sources**

Our high density fiber optic cables are specially prepared at the light entrance for transporting more light. They are suited for high energy XENON light sources.

**- suitable for all common systems with adapter**
**- Spécialement pour sources de lumière de XENON.**

Les cables de haute performance sont préparés spécialement à l'entrée de la lumière pour pouvoir transporter plus de lumière. Ils sont appropriés pour les sources énergétiques de Xenon.

**- compatibles avec tous systèmes commun avec adaptateurs**
**- Particularmente para fuentes de luz XENON.**

Nuestros cables de fibra óptica de alto rendimiento disponen de un tratamiento especial en la punta proximal para una mayor transmisión de luz. Estos cables son especialmente recomendados para el uso con fuentes de luzes Xenon.

**- compatibles con todos equipos corrientes con adaptador**
**- Speciale per fonti di luce allo XENON**

I nostri cavi luce ad alta densità sono preparati in modo speciale nella connessione con la fonte per trasportare maggior quantità di luce. Essi sono costruiti per le fonti di luce XENON ad alta potenzialità.

**- fornibili per tutti i sistemi più comuni con adattatori**

# POWEREDGE

Bipolare Koagulationszange mit Messer

Bipolar Coagulation Forceps with cutting blade





# POWEREDGE

## Bissinger POWEREDGE - bipolare Koagulationszange mit Schneidefunktion.

Poweredge ist ein wiederverwendbares Instrument, das dem Chirurgen ermöglicht Gewebe oder Gefäße mit dem Maul zur fassen, zu koagulieren und anschließend, ohne Instrumentenwechsel zu durchtrennen. Das Instrument besteht aus fünf Teilen, die zu Reinigen sind. Poweredge ist wiederverwendbar, was zu einer erheblichen Kostensenkung pro Operation führt, und mit der Wegwerfklinge ist das Instrument immer scharf.

- Zwei Längen - 25 cm und 34 cm
- Stumpfe Dissektion
- Atraumatische Spitze
- Auswechselbares Messer - immer scharf
- Kostenersparnis - Wiederverwendbarkeit
- Standard-Flachstecker für alle gängigen Geräte
- Zerlegbar ohne Zusatzinstrumente
- Hohe Qualität - Made in Germany

## Bissinger POWEREDGE - bipolar coagulation forceps with cutting function.

Poweredge is a reusable device that allows the surgeon to coagulate tissue or vessels between the jaws and then cut without changing instruments. The instrument separates into five pieces for cleaning. Poweredge is reusable leading to a significant cost reduction per operation, and with the disposable blade the instrument is always sharp.

- Two lengths - 25cm and 34cm available
- Blunt dissection
- A-traumatic tip
- Disposable blade - always sharp
- Cost savings - reusable instrument
- Standard flat plug for compatibility with standard cables
- Separates for cleaning without tools
- High quality - made in Germany

## Bequeme Einhandbedienung

Durch verlängerte Flügel kann der Chirurg das Drehrad in jeder Position des Griffs bequem mit einem Finger um 360° bewegen und dadurch die Elektrode genau positionieren.

## Simple one handed operation

The extended flanges on the electrode shaft, give the surgeon enhanced single finger control over the full 360° rotation available, resulting in precise control of the electrode.

**Standard-Flachstecker**  
passend für alle gängigen Kabel.

**Standard flat plug**  
with common bipolar cable fitting

**Ergonomischer Messergriff**  
**Ergonomic blade trigger**

360°

**Koagulieren und Schneiden ohne Instrumentenwechsel**

**Coagulate and cut without changing instruments**

## Atraumatische Spitze

ermöglicht eine verletzungsfreie Gewebepräparation.

## A-traumatic tip

avoids unnecessary tissue damage.

## Steriles auswechselbares Messer, Verpackung à 20 Stück

Leichter Austausch mit Schutzkappe, die beim Wechseln automatisch abfällt.

## Sterile disposable blade, pack of 20 pieces

Easy to insert with a protective cap that automatically detaches when blade is changed.

Poweredge Griff Poweredge handle	Art. No. 82710001
Poweredge Elektrode 34 cm Poweredge electrode 34 cm	Art. No. 82710100
Poweredge Elektrode 25 cm Poweredge electrode 25 cm	Art. No. 82710104
Poweredge Schaft 34 cm Poweredge shaft 34 cm	Art. No. 82710034
Poweredge Schaft 25 cm Poweredge shaft 25 cm	Art. No. 82710030
Poweredge Klingenhalterrohr 34 cm Poweredge blade holding tube 34 cm	Art. No. 82710600
Poweredge Klingenhalterrohr 25 cm Poweredge blade holding tube 25 cm	Art. No. 82710601
Poweredge Schubstange 34 cm Poweredge drive rod 34 cm	Art. No. 82710500
Poweredge Schubstange 25 cm Poweredge drive rod 25 cm	Art. No. 82710501
Poweredge Klinge (20 Stück) Poweredge blade (20 pieces)	Art. No. 82710300



**Bissinger – bessere Lösungen im Blick**

Bipolare und monopolare Instrumente  
 Zubehör für die Elektrochirurgie  
 Chirurgische Instrumente  
 Entwicklung von Instrumenten auf  
 Kundenwunsch  
 Service und Reparaturen

**Bissinger – Focus on better solutions**

Bipolar and monopolar instruments  
 Accessories for electrocautery  
 Surgical instruments  
 Design and development of instruments  
 to customer specifications  
 Service and repair

2-Bananenstecker* 	3 m	Art. No. 80100010
	5 m	Art. No. 80100013
U20 	4 m	Art. No. 80100260
Erbe 	3 m	Art. No. 80100017
	5 m	Art. No. 80100018
Martin, Berchtold Aesculap GK 55, GK 60 	3 m	Art. No. 80100019
	5 m	Art. No. 80100020
Valleylab, Lamidey, EMC 	3 m	Art. No. 80100021
	5 m	Art. No. 80100022

**CE 0297**

**Günter Bissinger  
 Medizintechnik GmbH**

Hans-Theisen-Str.1  
 79331 Teningen/Germany  
 Tel. +49 7641 9 14 33 0  
 Fax +49 7641 9 14 33 33  
 eMail: info@bissinger.com  
 Internet: <http://www.bissinger.com>

\*Entspricht nicht EU-Bestimmungen  
 \*Non-compliant with EU standards

**alsa**<sup>®</sup>  
bologna

# EXCELL NHP/T

ELECTROSURGICAL UNITS FOR  
MONOPOLAR AND BIPOLAR USE  
WITH 7.0" TOUCH-SCREEN



*A NEW STEP AHEAD  
TO THE FUTURE*



The units EXCELL NHP/T series are provided with all the technical features, and the monopolar and bipolar currents needed to perform the most advanced electrosurgery

All models are provided with 10 currents for the monopolar cutting	
Pure Cut	Pure cut without coagulating effect. For open or laparoscopic surgery and for under liquid endoscopy (TURP, TURV).
Blend Cut 1	Cut blended with a medium coagulating effect. For open or laparoscopic surgery and for under liquid endoscopy (TURP, TURV).
Blend Cut 2	Cut blended with a very high coagulating effect. For open or laparoscopic surgery.
Pure Cut Pulsed	Pulsed pure cut without coagulating effect. For open or laparoscopic surgery.
Blend Cut Pulsed	Pulsed cut blended with a medium coagulating effect. For open or laparoscopic surgery.
Auto Pure Cut Micro	"Constant voltage" delicate pure cut without coagulating effect. For open or laparoscopic surgery and for under liquid endoscopy (TURP, TURV).
Auto Blend Cut Micro	"Constant voltage" delicate cut blended with a medium coagulating effect. For open or laparoscopic surgery and for under liquid endoscopy (TURP, TURV).
Auto Papillo Pure Cut	"Constant voltage" pure cut, without coagulating effect, for flexible endoscopy. With four modes of delivery: continuous and pulsed (slow, medium, fast).
Auto Polipo Blend Cut	"Constant voltage" cut, blended with a medium coagulating effect, for flexible endoscopy. With four modes of delivery: continuous and pulsed (slow, medium, fast).
Auto EndoCut	"Constant voltage" cut with alternating phases of cutting and blended cut, for flexible endoscopy. With four modes of delivery: 90% Coagulation and 10% Cut, 80% Coagulation and 20% Cut, 75% Coagulation and 25% Cut, 50% Coagulation and 50% Cut.
All models are provided with 5 currents for the monopolar coagulation	
Fulg Forced Coag	High voltage, contact free coagulation. For open or laparoscopic surgery, for under liquid endoscopy (TURP, TURV) and for flexible endoscopy.
Spray Coag	Very high voltage, contact free coagulation. For open or laparoscopic surgery, for under liquid endoscopy (TURP, TURV) and for flexible endoscopy.
Pulsed Spray Coag	Identical to the <b>Spray coag</b> current, but pulsed and more delicate.
Pin Point Contact Coag	Medium voltage, contact coagulation. For open or laparoscopic surgery, for under liquid endoscopy (TURP, TURV) and for flexible endoscopy.
Soft Micro Coag	Delicate, low voltage coagulation. For open or laparoscopic surgery.
The models NHP/TA-400 and NHP/TA-200 are provided with 2 currents for the Argon coagulation	
Standard	Very fast and efficacious coagulation ( <b>Spray Coag</b> current enhanced by the Argon gas). For open or laparoscopic surgery and for flexible endoscopy.
Pulsed	Identical to the <b>Standard</b> current, but more delicate. ( <b>Pulsed Spray Coag</b> current enhanced by the Argon gas).
All models are provided with 4 currents for the bipolar cutting	
Standard Bicut	Cut for open or laparoscopic surgery.
Blend Bicut	Cut blended with a very high coagulating effect (Coagulation = 95%) for open or laparoscopic surgery.
Saline Uro-Gyn Cut	Cut for endoscopy in saline (TURPis, TURVis) with two modes of delivery: continuous and pulsed. For urology and gynaecology. The continuous delivery is suitable to perform the vaporization.
Saline Arthro Cut	Cut for arthroscopy in saline with two modes of delivery: continuous and pulsed. For arthroscopy. The continuous delivery is suitable to perform the vaporization.
All models are provided with 3 currents for the bipolar coagulation and 2 currents for the bipolar vessel sealing	
Soft Micro Bicoag	Very precise and delicate coagulation. For open or laparoscopic surgery, for endoscopy in saline (TURPis, TURVis) and for flexible endoscopy.
Forced Macro Bicoag	Fast coagulation. For open or laparoscopic surgery.
Auto Soft Micro Bicoag	Identical to the <b>Soft Micro Bicoag</b> , but with <i>Impedance sensing</i> automatic activation/deactivation. It is not suitable for the endoscopy in saline. Activation with delay adjustable from 0 to 5 seconds and deactivation with bitonal, grave, acoustic signal.
Sealing	Current to coagulate/seal vessels up to 8 mm in open and laparoscopic surgery. Activation with pedal and automatic <i>Impedance sensing</i> deactivation with bitonal, acute, acoustic signal.
Auto Sealing	Identical to the <b>Sealing</b> , but with <i>Impedance sensing</i> automatic activation/deactivation. It is not suitable for the endoscopy in saline. Activation with delay adjustable from 0 to 5 seconds and deactivation with bitonal, grave, acoustic signal.

## Technical features of all models

HF generator	Meets IEC 60601-1 and IEC 60601-2-2 (Latest editions). Supply section “switching” type.
EMC compatibility	Meets IEC 60601-1-2 (Latest edition).
EC Classification and approval	Class IIB according to 93/42/CEE (and its revised version) – Certificate nr. 187/MDD (IMQ 0051).
ALSA quality system	Meets ISO 9001 and ISO 13485 (Latest editions). Certificates 9120.ALSA and 9124.ALS2 (IMQ 0051).
Classification according to IEC 60601-1	Class I, CF type with the following typical low frequency leakage currents (all cables tied together): On the patient: 4µA = 0,004mA / Into the enclosure: 1µA = 0,001mA / To earth: 30µA = 0,03mA.
Output circuit according to IEC 60601-2-2	<b>FLOATING</b> (Isolated at high and low frequencies) and protected against the use of the defibrillator. Typical HF leakage currents measured at the unit: Monopolar currents = 90mA, Bipolar currents = 60mA.
Working frequency	Monopolar and bipolar currents: 440kHz ± 5%.
Functioning control	<b>Computerized MASTER/SLAVE SYSTEM</b> <ul style="list-style-type: none"> <li>It performs a <b>Main Auto-check</b> at the switching ON (repeated every 30 minutes of operation) and the continuous <b>Standard Auto-check</b> during use.</li> <li>It stops the power activation in case of hardware/software failures, mistakes of use, an anomalous power delivery, and it signals them by acoustic and visual <b>Error Codes</b>.</li> <li>It memorizes all <b>Error Codes</b> to help the check and the technical assistance.</li> </ul>
Self-adjusting of output powers	<b>Computerized self-adjustment with PER (Power Efficiency Rating &gt; 98%) according to the impedances of tissues (Feed-back in real time - 7000 times/sec) by two different systems:</b> <ul style="list-style-type: none"> <li><b>ADC System – Dynamic self-adjustment with constant power</b> The powers have a progressive setting (Micro and Macro setting with steps from 0,1 to 10W). Monopolar currents (from 1 to 10W), Bipolar currents (from 0,1W to 5W).</li> <li><b>APC System - Fully automatic control</b> The powers have a setting with 10 effects (the unit shows, for each effect, the maximum delivered power).</li> </ul>
Control of the HF leakage currents	By a specific computerized circuit with alarms.
Memorization of programs	100 programs identifiable by number and text (Surgical use or Name of the surgeon).
Usable pencils or instruments	<b>All models allow the following use of the monopolar and bipolar accessories:</b> <ul style="list-style-type: none"> <li>One/two either hand-switched or foot-switched monopolar pencils or instruments. Two monopolar pencils can be used simultaneously according to IEC 60601-2-2.</li> <li>One/two bipolar instruments by foot-switch activation (When selecting the <b>Auto Soft Micro Bicoag</b> or the <b>Auto Sealing</b> currents, an instrument is usable by the <b>Impedance sensing</b> automatic activation/deactivation).</li> </ul> <b>The models TA-400 and TA-200 allow, when the Argon section is ON, the use also of the following:</b> <ul style="list-style-type: none"> <li>One hand-switched or foot-switched pencil/instrument for the Argon enhanced electro-surgery.</li> </ul>
Twin foot-switches	<b>The unit can be used by either one or two waterproof (IPN8) twin foot-switches.</b> <ul style="list-style-type: none"> <li>Only with one twin foot-switch (DS/Esw or DS/Eswl, large model for the use in endoscopy) with a Foot-selector to activate either the monopolar or the bipolar currents.</li> <li>Only with one twin foot-switch (DS/B) to activate the bipolar currents only.</li> <li>With both twin foot-switches, one to activate the monopolar currents and one to activate the bipolar ones.</li> </ul>
Control circuit of the neutral electrode	<b>NPCC System with double circuit: Contact quality monitor and Continuity monitor with four progressive alarm lights and stop of the power delivery. The circuit operates as follows:</b> <ul style="list-style-type: none"> <li>It checks all kinds of neutral electrode, both “split” double area and “non split” single area.</li> <li>It has two modes of use: Large electrodes for adults and Small electrodes for paediatrics and new-born.</li> <li>It allows the use of cables with both European “Ø 6,35mm” and USA “2 pins” connectors.</li> </ul>
Luminous and acoustic signals of activation and alarm	They meet IEC 60601-2-2 (Latest edition). Lights: Cutting = yellow, Coagulation = blue, Alarms and Error codes = red Activation sounds: Continuous (acute for the cut and grave for the coagulation, with level adjustable from 45 to 65dB), including a bitonal sound to indicate the power deactivation when using the currents: Auto Soft Micro Bicoag, Sealing and Auto Sealing. Alarm sound: Intermittent (High >65dB and not adjustable).
Mains supply and consumption, Mains switch, Fuses and Standby	100 / 230V ± 10% ~ 50/60Hz (Consumption: Max. 3,6A = 828VA, Standby 0,4A = 92VA). Bipolar switch (green), Two fuses 8A, Standby mode selectable on the touch-screen.
Equipotential connection	Standard DIN 42801 plug.
Enclosure, Cooling	Metal painted case, protected against the spilling of liquids according to IEC 60601-2-2. Cooling by convection (No fan).
Software updating and calibration	Updating by a serial port connected to a PC, calibration on-site.
Dimensions and weight (LxWxH)	NHP/T-400 and T-200: 38x35x19cm - 10Kg – NHP/TA-400 and TA-200: 38x38x19cm - 10,5Kg.
<b>Technical features of the Argon gas section (Models TA-400 and TA-200 only)</b>	
Gas (Supply)	By 1 or 2 cylinders (5lt) or by centralized supply with max pressure of 4,5 atm.
Gas (Antibacterial protection)	Antibacterial filter on the gas output.
Gas (Working pressure and Flow)	Pressure: 2 atm. Flow: Max 15lt/min, adjustable from 1 to 15 lt/min and self-adjusted.
Gas (Pressure, Consumption)	By the main Auto-check system of the unit and Pressure Safety System. It blocks the usability of the Argon section either if the gas is absent/not sufficient or its pressure is too high, by informing the users through alarms and Error Codes. The system includes a pressure reducer and a safety valve.



# EXCELL NHP/T-400 and EXCELL NHP/TA-400 – THE CURRENTS

## MONOPOLAR CUTTING

	Pure Cut	Blend Cut 1	Blend Cut 2	Pure Cut Pulsed	Blend Cut Pulsed	Auto Pure Cut Micro	Auto Blend Cut Micro	Auto Papillo Pure Cut	Auto Polipo Blend Cut	Auto Endocut
Max Output Power	400 W	300 W	250 W	400 W	250 W	300 W	300 W	300 W	300 W	300 W
Rated load	400 Ω	400 Ω	400 Ω	400 Ω	400 Ω	300 Ω	300 Ω	300 Ω	300 Ω	300 Ω
Vpp	2550	3390	3330	2640	3330	1137	1500	1140	1490	1670
Crest factor	1,46	1,94	2,29	2	3,2	1,5	1,98	1,5	1,98	
Modulation	0	17 kHz	17 kHz	3 Hz	50 Hz	0	17 kHz	0	17 kHz	-
Duty Cycle	100%	95%	65%	50%	50%	100%	90%	100%	95%	
Power setting	Progressive with steps from 1 to 10 W						10 Effects			
Power control	ADC System - Dynamic self-adjusting with constant power						APC System - Totally self-adjusting with constant voltage			

## MONOPOLAR COAGULATION

	Fulg Forced Coag	Spray Coag	Pin Point Contact Coag	Pulsed Spray Coag	Soft Micro Coag
Max Output Power	150 W	200 W	300 W	200 W	280 W
Rated load	300 Ω	700 Ω	400 Ω	700 Ω	300 Ω
Vpp	4500	7750	3700	7850	3300
Crest factor	6,45	7,75	2,2	11,54	2,16
Modulation	60 kHz	30 kHz	17 kHz	3 Hz	17 kHz
Duty Cycle	18%	7%	85%	50%	75%
Power setting	Progressive with steps from 1 to 10 W				10 Effects
Power control	ADC System - Dynamic self-adjusting with constant power				APC System - Totally self-adjusting with constant voltage

## ARGON PLASMA COAGULATION (Model NHP/TA-400 only)

	Spray Coag + Gas Argon	Pulsed Spray Coag + Gas Argon
Max Output Power	200 W	200 W
Rated load	700 Ω	700 Ω
Vpp	7750	7850
Crest factor	7,75	11,54
Modulation	30 kHz	3 Hz
Duty Cycle	7%	50%
Power setting	Progressive with steps from 1 to 10 W	
Gas setting	From 1 to 15 Lt/min	
Power control	ADC System - Dynamic self-adjusting with constant power	

## BIPOLAR CUTTING

	Saline Uro-Gyn Cut	Saline Arthro Cut	Standard Bicut	Blend Bicut
Max Output Power	350 W	230 W	200 W	160 W
Rated load	350 Ω	350 Ω	300 Ω	200 Ω
Vpp	1070	1070	1070	740
Crest factor	1,5	1,5	1,5	1,57
Modulation	0	0	0	17 kHz
Duty Cycle	100%	100%	100%	95%
Power setting	10 Effects		Progressive with steps from 0,1 to 5 W	
Power control	ADC System - Dynamic self-adjusting with constant power			

## BIPOLAR COAGULATION AND VESSEL SEALING

	Soft Micro Bicoag	Auto Soft Micro Bicoag	Sealing	Auto Sealing	Forced Macro Bicoag
Max Output Power	140 W	140 W	320 W	320 W	200 W
Rated load	100 Ω	100 Ω	50 Ω	50 Ω	100 Ω
Vpp	460	460	780	780	550
Crest factor	1,56	1,56	2,47	2,47	1,6
Modulation	0	0	0	0	0
Duty Cycle	100%	100%	100%	100%	100%
Power setting	Progressive with steps from 0,1 to 5 W		10 Effects		Progressive with steps from 0,1 to 5 W
Power control	APC System - Totally self-adjusting with constant voltage			ADC System - Dynamic self-adjusting with constant power	



# EXCELL NHP/T-200 and EXCELL NHP/TA-200 – THE CURRENTS

## MONOPOLAR CUTTING

	Pure Cut	Blend Cut 1	Blend Cut 2	Pure Cut Pulsed	Blend Cut Pulsed	Auto Pure Cut Micro	Auto Blend Cut Micro	Auto Papillo Pure Cut	Auto Polipo Blend Cut	Auto Endocut
Max Output Power	200 W	200 W	200 W	200 W	200 W	200 W	200 W	200 W	200 W	200 W
Rated load	400 Ω	400 Ω	400 Ω	400 Ω	400 Ω	300 Ω	300 Ω	300 Ω	300 Ω	300 Ω
Vpp	2550	3390	3330	2640	3330	1137	1500	1140	1490	1670
Crest factor	1,46	1,94	2,29	2	3,2	1,5	1,98	1,5	1,98	
Modulation	0	17 kHz	17 kHz	3 Hz	50 Hz	0	17 kHz	0	17 kHz	-
Duty Cycle	100%	95%	65%	50%	50%	100%	90%	100%	95%	
Power setting	Progressive with steps from 1 to 10 W						10 Effects			
Power control	ADC System – Dynamic self-adjusting with constant power						APC System - Totally self-adjusting with constant voltage			

## MONOPOLAR COAGULATION

	Fulg Forced Coag	Spray Coag	Pin Point Contact Coag	Pulsed Spray Coag	Soft Micro Coag
Max Output Power	150 W	200 W	200 W	200 W	200 W
Rated load	300 Ω	700 Ω	400 Ω	700 Ω	300 Ω
Vpp	4500	7750	3700	7850	2875
Crest factor	6,4	7,75	2,2	11,54	2,1
Modulation	60 kHz	30 kHz	17 kHz	3 Hz	17 kHz
Duty Cycle	18%	7%	85%	50%	75%
Power setting	Progressive with steps from 1 to 10 W				10 Effects
Power control	ADC System - Dynamic self-adjusting with constant power				APC System - Totally self-adjusting with constant voltage

## ARGON PLASMA COAGULATION (Model NHP/TA-200 only)

	Spray Coag + Gas Argon	Pulsed Spray Coag + Gas Argon
Max Output Power	200 W	200 W
Rated load	700 Ω	700 Ω
Vpp	7750	7850
Crest factor	7,75	11,54
Modulation	30 kHz	3 Hz
Duty Cycle	7%	50%
Power setting	Progressive with steps from 1 to 10 W	
Gas setting	From 1 to 15 Lt/min	
Power control	ADC System - Dynamic self-adjusting with constant power	

## BIPOLAR CUTTING

	Saline Uro-Gyn Cut	Saline Arthro Cut	Standard Bicut	Blend Bicut
Max Output Power	350 W	230 W	200 W	160 W
Rated load	350 Ω	350 Ω	300 Ω	200 Ω
Vpp	1070	1070	1070	740
Crest factor	1,5	1,5	1,5	1,57
Modulation	0	0	0	17 kHz
Duty Cycle	100%	100%	100%	95%
Power setting	10 Effects		Progressive with steps from 0,1 to 5 W	
Power control	ADC System – Dynamic self-adjusting with constant power			

## BIPOLAR COAGULATION AND VESSEL SEALING

	Soft Micro Bicoag	Auto Soft Micro Bicoag	Sealing	Auto Sealing	Forced Macro Bicoag
Max Output Power	140 W	140 W	320 W	320 W	200 W
Rated load	100 Ω	100 Ω	50 Ω	50 Ω	100 Ω
Vpp	460	460	780	780	550
Crest factor	1,56	1,56	2,47	2,47	1,6
Modulation	0	0	0	0	0
Duty Cycle	100%	100%	100%	100%	100%
Power setting	Progressive with steps from 0,1 to 5 W		10 Effects		Progressive with steps from 0,1 to 5 W
Power control	APC System - Totally self-adjusting with constant voltage			ADC System - Dynamic self-adjusting with constant power	



*EXCELL NHP/T-400  
with footswitch DS/Esw*



*EXCELL NHP/T-400  
with footswitch DS/Eswl*



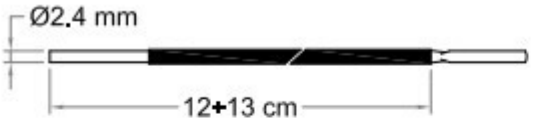




**alsa apparecchi medicali s.r.l.**

Via C. Bonazzi, 16  
40013 CASTEL MAGGIORE (BO) - ITALY  
Tel. +39 051 70 01 01 (r.a.) Fax +39 051 70 21 82  
[www.alsamed.com](http://www.alsamed.com)  
[alsa@alsamed.com](mailto:alsa@alsamed.com)

ACCESSORI ARTROSCOPICI  
 ARTHROSCOPIC ACCESSORIES  
 ACCESSOIRES ARTHROSCOPIQUES  
 ACCESORIOS DE ARTROSCOPI



<p>STERILIZZABILE MAX 80-100 VOLTE / STERILIZABLE MAX 80-100 TIMES              STERILISABLE MAX 80-100 FOIS - ESTERILIZABLE MAX 80-100 VECES</p>	<p>MPE/E MPE/F</p>
	<p>MPE/CMS</p>
<p>ANGLED NEEDLE</p>	<p>E/ND12</p>
<p>DAGGER</p>	<p>E/DR12</p>
<p>HOOK</p>	<p>E/HK12</p>
<p>HOCKEY</p>	<p>E/HY14</p>

 <p>Ø2.4 mm 12+13 cm</p>	<p>A lama • Knife À lame • De cuchillo</p>	<p>E40</p>
	<p>A lama (spatola) isolata • Insulated knife (spatula) À lame (spatule) isolé • De cuchillo (espátula) aislado</p>	<p>E40/I</p>
	<p>Ad ago grosso • Thick needle À aiguille grosse • De aguja grueso</p>	<p>E41</p>
	<p>Ad ago sottile • Thin needle À aiguille fine • De aguja fino</p>	<p>E42</p>
	<p>Ad ago sottile isolato • Insulated thin needle À alguille fine isolé • De aguja fino aislado</p>	<p>E42/I</p>

PINZE PER COAGULAZIONE BIPOLARE "POWERGRIP"  
 BIPOLAR COAGULATION FORCEPS "POWERGRIP"  
 PINCES DE COAGULACION BIPOLAIRE "POWERGRIP"  
 PINZAS DE COAGULACIÓN BIPOLAR "POWERGRIP"



<p style="text-align: center;">Inserto / Insert / Insertion / Inserción</p> <p style="text-align: center;">34 cm</p> <p>82410034 Stelo / Shaft / Axe / Asta</p> <p style="text-align: right;">82410001 Impugnatura / Grip Empoigner / Mango</p>		
<p>82400019</p>	<p>82400018</p>	<p>82400010</p>
<p>Dissettore Maryland Maryland dissector Dissecteur Maryland Disector Maryland</p>	<p>Forbici Scissors Ciseaux Tijeras</p>	<p>Pinza da presa Grasping forceps Pinces de préhension Pinza de presa</p>
<p>82400014</p>	<p>82400015</p>	<p>82400011</p>
<p>Pinza da presa micro France Grasper micro France Pince de préhension micro France Pinzas de sujeción micro France</p>	<p>Pinza da presa curva Curved grasping forceps Pince de préhension courbée Pinzas de presa curva</p>	<p>Pinza delicata curva Curved delicate forceps Pince delicate courbée Pinzas delicadas curva</p>

# MD-2702 CLINICAL REVIEW MONITOR



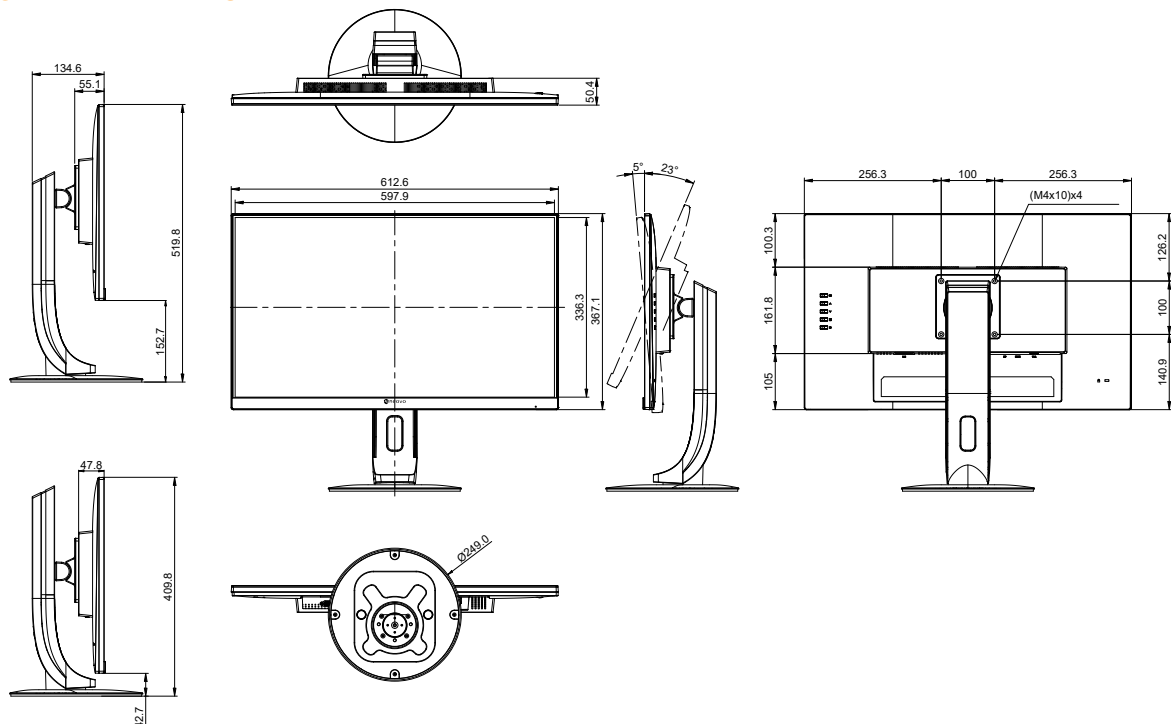
## FEATURES

- Full HD 1920 x 1080 resolution
- 178° /178° wide viewing angle
- Support DICOM Part 14 with calibrated greyscale and brightness
- Crisp 20,000,000:1 dynamic contrast ratio
- 3-sided narrow bezel design for seamless multi-display setups
- Medical adapter certified to the IEC/EN 60601-1 medical standard
- White exterior design for easy contaminant detection
- Versatile Connectivity: DisplayPort, HDMI and VGA
- HDMI inputs for Full HD connectivity with a variety of devices
- Selectable aspect ratio
- VESA mounting for flexible installation in healthcare settings
- Height adjustable stand allows users to tilt, pivot and swivel



Featuring DICOM preset and medical-grade power supply, the MD-2702 clinical review monitor ensures correct and consistent brightness and greyscale levels of medical images in detail at any viewing angle. Its image stability, medical-grade power supply, and VESA-compatible mounts give clinical professionals confidence in clinical review and easy to set up a mobile workstation while meeting the standards of premium quality assurance and financial benefits.

## TECHNICAL DRAWING





## SPECIFICATIONS

### Panel

Panel Type	LED-Backlit TFT LCD (VA Technology)
Panel Size	27.0"
Max. Resolution	FHD 1920 x 1080
Pixel Pitch	0.311 mm
Brightness	300 cd/m <sup>2</sup> 180 cd/m <sup>2</sup> (DICOM Preset)
Contrast Ratio	20,000,000:1 (DCR)
Viewing Angle (H/V)	178°/178°
Display Colour	16.7M
Response Time	5 ms

### Frequency

Frequency (H)	30 kHz-83 KHz
Frequency (V)	50 Hz-76 Hz

### Signal Input

DisplayPort	x 1
HDMI	1.4 x 1
VGA	15-Pin D-Sub x 1

### Power

Power Supply	External
Power Requirements	DC 12V, 2.5A
On Mode	16W (On)
Stand-by Mode	< 0.3W
Off Mode	< 0.2W

### Operating Conditions

Temperature	0°C-40°C (32°F-104°F)
Humidity	10%-85% (non-condensing)

### Storage Conditions

Temperature	-25°C-55°C (-13°F-131°F)
Humidity	5%-93%(non-condensing)

### Mounting

VESA FPM PMI	Yes (100 x 100 mm)
--------------	--------------------

### Stand

Tilt	-5° to 23°
Pivot	-2.5° to 92.5°
Swivel	± 65°
Height Adjustment	0-110 mm

### Security

Kensington Security Slot	Yes
--------------------------	-----

### Dimensions

Product with Base (W x H x D)	612.6 x 519.8 x 249.0 mm (24.1" x 20.5" x 9.8")
Product w/o Base (W x H x D)	612.6 x 367.1 x 50.4 mm (24.1" x 14.6" x 2.0")
Packaging (W x H x D)	700.0 x 456.0 x 282.0 mm (27.6" x 18.0" x 11.1")

### Weight

Product w/o Base	3.7 kg (8.2 lb)
Product with Base	6.1 kg (14.5 lb)
Packaging	8.8 kg (19.4 lb)

### Regulation Approval

Certifications & Compliance	CE, LVD, WEEE, RoHS, REACH, EAC, UKCA, BSMI
Power Adaptor Certifications	ADAPTER/ATM065T-P120: CE, FCC, PSE, WEEE, BSMI, Medical Grade

### Accessories

Supplied	Power Adaptor, Power Cord, HDMI Cable, Quick Start Guide, Warranty Card
----------	---

### Optional Accessories

Ceiling Mount (Landscape only)	CMP-01+WMK-03
Wall Mount (Landscape only)	WMA-01, WMK-01, WMK-03, PMK-01
Desk Mount (Landscape only)	DMC-01, ES-02





## CERTIFICATO CE

Certificato n. 187/MDD

### Dichiarazione di approvazione del sistema qualità

(Sistema completo di garanzia qualità)

Visto l'esito delle verifiche condotte in conformità all'Allegato II, con l'esclusione del punto 4, della direttiva 93/42/CEE e s.m.i., si dichiara che la ditta:

#### ALSA APPARECCHI MEDICALI SRL

40013 CASTEL MAGGIORE (BO) - VIA C. BONAZZI 16 (ITA) - Italy

mantiene nello stabilimento di:

40013 CASTEL MAGGIORE (BO) - VIA C. BONAZZI 16 (ITA) - Italy

un sistema qualità che assicura la conformità dei seguenti prodotti:

**Aspiratori chirurgici**

**Accessori per elettrobisturi**

**Aspiratori di fumi elettrochirurgici**

**Elettrobisturi**

Modd. come da documento 'Allegato al Certificato CE no. 187/MDD - Elenco dei Dispositivi' rev. 0 del 2021/03/05; tale allegato costituisce parte integrante e sostanziale del presente certificato.


ai requisiti essenziali della direttiva suddetta ad essi applicabili (in tutte le fasi dalla progettazione al controllo finale) ed è sottoposta alla sorveglianza prevista dal punto 5 dell'Allegato II. Per i dispositivi in classe III questo certificato è valido solamente con il relativo certificato di esame CE della progettazione di Allegato II.4.

Riferimento pratiche IMQ:

10A9800405; 10A9900240; 10AA00040; 10AA00016; 10AA00060; 10AA00156; 10AA00262; 10AB00169; 10AB000170; 10AC00210; 10AE00050; 10AF00011; 10AF00032; 10AF00192; 10AG00183; 10AH00132; 10AH00244; 10AI00034; 10AI00127; 10AI00122; 10AJ00093; 10EL00005; COMEDCONMHDM110021912-01; 10SN00082; DM16-0007485-01; 10AN00148; 10EO00012; DM16-0007485-01; DM17-0017739-01; DM18-0029069-01; DM18-0029585-01; DM18-0031303; DM19-0046045-01; DM21-0060400-01.

**Questa Dichiarazione di approvazione è rilasciata dall'IMQ S.p.A. quale organismo notificato per la direttiva 93/42/CEE e s.m.i. Il numero identificativo dell'IMQ S.p.A. quale organismo notificato è: 0051.**

Emesso il: 1999-05-10  
 Data aggiornamento: 2021-03-05  
 Sostituisce: 2019-11-25  
 Data scadenza: 2024-05-26



IMQ DocuSign



## EC CERTIFICATE

Certificate No 187/MDD

### Full Quality Assurance System Approval Certificate

On the basis of our examination carried out according to Annex II, excluding section 4, of the Directive 93/42/EEC and its revised version, we hereby certify that:

#### ALSA APPARECCHI MEDICALI SRL

40013 CASTEL MAGGIORE (BO) - VIA C. BONAZZI 16 (ITA) - Italy

manages in the factory of:

40013 CASTEL MAGGIORE (BO) - VIA C. BONAZZI 16 (ITA) - Italy

a quality assurance system ensuring the conformity of the following products:

**Surgical aspirators**

**Accessories for electrosurgical units**

**Electrosurgical smoke evacuators**

**Electrosurgical unit**

Type ref. as to document 'Annex of EC Certificate no. 187/MDD - Device List' rev. 0 dated 2021/03/05; this annex is integral and substantial part of this certificate.


with the relevant essential requirements of the aforementioned directive (from design to final inspection and testing) and it is subject to surveillance as specified in section 5 of Annex II. For class III devices, this certificate is valid only with the relevant EC Design-Examination Certificate of Annex II.4.

Reference to IMQ files Nos:

10A9800405; 10A9900240; 10AA00040; 10AA00016; 10AA00060; 10AA00156; 10AA00262; 10AB00169; 10AB000170; 10AC00210; 10AE00050; 10AF00011; 10AF00032; 10AF00192; 10AG00183; 10AH00132; 10AH00244; 10AI00034; 10AI00127; 10AI00122; 10AJ00093; 10EL00005; COMEDCONMHDM110021912-01; 10SN00082; DM16-0007485-01; 10AN00148; 10EO00012; DM16-0007485-01; DM17-0017739-01; DM18-0029069-01; DM18-0029585-01; DM18-0031303; DM19-0046045-01; DM21-0060400-01.

**This Approval Certificate is issued by IMQ S.p.A. as Notified Body for the Directive 93/42/EEC and its revised version. Notified Body notified to European Commission under number: 0051.**

Date: 1999-05-10  
 Updated: 2021-03-05  
 Substitution Date: 2019-11-25  
 Expiry Date: 2024-05-26



IMQ DocuSign

# Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

<p><b>Categoria di dispositivo:</b> Aspiratori chirurgici Device category: Surgical aspirators</p>
<p><b>Serie:</b> VACUMSOL Series:</p> <p><b>Modello/i:</b> VACUMSOL AS-60; Model(s): VACUMSOL AS-65; VACUMSOL AS-65/H</p>
<p><b>Serie:</b> VORTEX-S Series:</p> <p><b>Modello/i:</b> VORTEX-S AS-200/20LT; Model(s): VORTEX-S AS-200/30LT; VORTEX-S AS-200/20LT VE; VORTEX-S AS-200/30LT VE</p>
<p><b>Serie:</b> VORTECO Series:</p> <p><b>Modello/i:</b> VORTECO AS-100/15LT; Model(s): VORTECO AS-100/20LT; VORTECO AS-100/30LT; VORTECO AS-100/30LT VE</p>
<p><b>Serie:</b> POLIVAC Series:</p> <p><b>Modello/i:</b> POLIVAC B4/SLT 30 1; Model(s): POLIVAC B4/SLT 30 2; POLIVAC B4/SLT 30 1-EXP; POLIVAC B4/SLT 30 2-EXP; POLIVAC B4/SLT 30 P-EXP; POLIVAC B4/SLT 50 E; POLIVAC B4/SLT 30 1VE-EXP; POLIVAC B4/SLT 30 PVE-EXP</p>

# Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

<p><b>Categoria di dispositivo:</b> Accessori per elettrobisturi Device category: Accessories for electro-surgical units</p>
<p><b>Serie:</b> MPE e MLD Series:</p> <p><b>Modello/i:</b> Manipoli porta elettrodi monopolari riusabili per utilizzo con comando a pedale Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• MPE/S; MPE/E; MPE/E5; MPE/F</li> <li>• MLD; MLD/F</li> </ul>
<p><b>Serie:</b> MPE/CMS Series:</p> <p><b>Modello/i:</b> Manipoli porta elettrodi monopolari riusabili per utilizzo con comando manuale a doppio pulsante Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• MPE/CMS; MPE/CMS5; MPE/CMS300; MPE/CMS300-4</li> </ul>
<p><b>Serie:</b> E Series:</p> <p><b>Modello/i:</b> Serie di elettrodi attivi monopolari riusabili per elettrochirurgia Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• SEL/VI; SEL/D; SEL/E</li> </ul>
<p><b>Serie:</b> E Series:</p> <p><b>Modello/i:</b> Elettrodi attivi monopolari riusabili per elettrochirurgia Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• E1; E11; E3; E1L; E3L; E5; E6; E7; E7L; E8; E10; E12; E13; E14; E15; E16; E17; E18; E19; E21; E23; E23N; E25; E25N; E26; EXT/15</li> <li>• E27; E29; E30; E31; E32; E33; E34; E35; E37; E39;</li> <li>• E40I; E40; E41; E41I; E42; E43; E46; E47; E47/6;</li> <li>• E48; E49; E50; E51; E52; E53; E54; E55; E56; E57; E58</li> <li>• E101; E102; E103; E105; E106; E109; E110; E111; E112; E120; E121;</li> <li>• E/ND12; E/DR12; E/HK12; E/HY12;</li> <li>• E/ND18; E/DR18; E/HK18; E/HY18</li> </ul>
<p><b>Serie:</b> SAD Series:</p> <p><b>Modello/i:</b> Elettrodi attivi monopolari (aghi sottili) per elettrochirurgia Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• SAD; SAD/AN; SAD/1; SAD/1AN; SAD/2; SAD/2AN; SAD/3; SAD/3AN</li> </ul>
<p><b>Serie:</b> AID Series:</p> <p><b>Modello/i:</b> Elettrodi attivi monopolari (aghi sottili) per elettrochirurgia Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• AID</li> </ul>

# Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

<p><b>Categoria di dispositivo:</b> Accessori per elettrobisturi Device category: Accessories for electro-surgical units</p>
<p><b>Serie:</b> SAD e AID Series:</p> <p><b>Modello/i:</b> Mandrino riduttore per aghi Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• MID</li> </ul>
<p><b>Serie:</b> EL/MLH Series:</p> <p><b>Modello/i:</b> Elettrodi attivi monopolari riusabili per laparoscopia Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• EL/MLH-J; EL/MLH-L</li> </ul>
<p><b>Serie:</b> PMC e PBC Series:</p> <p><b>Modello/i:</b> Pinze bipolari isolate standard Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• PMC/JR; PMC/JC; PMC/RS; PMC/CS; PMC/R; PMC/C; PMC/R25; PMC/C25; PMC/RSB; PMC/B; PMC/B25; PMC/BCD; PMC/BCU</li> <li>• PBC/R; PBC/C; PBC/R25; PBC/C25; PBC/B; PBC/B25; PBC/BCD; PBC/BCU</li> </ul>
<p><b>Serie:</b> PMC/L e PBC/L Series:</p> <p><b>Modello/i:</b> Pinze bipolari isolate con irrigazione Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• PMC/JRL; PMC/JCL; PMC/RSL; PMC/CSL; PMC/RL; PMC/CL; PMC/R25L; PMC/C25L; PMC/RSBL; PMC/BL; PMC/B25L; PMC/BCDL; PMC/BCUL</li> <li>• PBC/RL; PBC/CL; PBC/R25L; PBC/C25L; PBC/BL; PBC/B25L; PBC/BCDL; PBC/BCUL</li> </ul>
<p><b>Serie:</b> PBC/ns, PMC/ns Series:</p> <p><b>Modello/i:</b> Pinze bipolari isolate con punte no-stick Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• PMC/JRns; PMC/JCns; PMC/RSns; PMC/CSns; PMC/R15ns; PMC/C15ns; PMC/Rns; PMC/Cns; PMC/R25ns; PMC/C25ns; PMC/RSBns; PMC/B16ns; PMC/Bns; PMC/B25ns; PMC/BCDns; PMC/BCUns;</li> <li>• PBC/Rns; PBC/Cns; PBC/R25ns; PBC/C25ns; PBC/Bns; PBC/B25ns; PBC/BCDns; PBC/BCUns</li> </ul>



# Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

<p><b>Categoria di dispositivo:</b> Accessori per elettrobisturi Device category: Accessories for electro-surgical units</p>
<p><b>Serie:</b> EB Series:</p> <p><b>Modello/i:</b> Elettrodi bipolari isolati rigidi Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>EBT; EBT20; EBT22; EBL; EBL16,5; EBA45; EBA90; EBD18; EBD20; EBD22</li> </ul>
<p><b>Serie:</b> EL/BL Series:</p> <p><b>Modello/i:</b> Elettrodi bipolari isolati rigidi per laparoscopia Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>EL/BL-J; EL/BL-J45; EL/BL-L; EL/BL-L45; EL/BL-DL; EL/BL-DV; EL/BL-DN</li> </ul>
<p><b>Serie:</b> BITecD Series:</p> <p><b>Modello/i:</b> Forbici bipolari isolate con lame delicate Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>BITecD-18; BITecD-21; BITecD-23; BITecD-28</li> </ul>
<p><b>Serie:</b> BCS e BC Series:</p> <p><b>Modello/i:</b> Pinze "clamps" bipolari isolate Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>BCS-15; BCS-19; BCS-S19; BCS-S23</li> <li>BC-16; BC-20; BC-23; BC-26</li> </ul>
<p><b>Serie:</b> POWER GRIP Series:</p> <p><b>Modello/i:</b> Strumenti bipolari isolati per laparoscopia Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>POWER GRIP – LGF; 82400010; POWER GRIP – MFG; 82400014; POWER GRIP – FGC; 82400015; POWER GRIP – DCG; 82400011; POWER GRIP – MD; 82400019; POWER GRIP – CMS; 82400018</li> </ul>
<p><b>Serie:</b> CPB e CPB/E Series:</p> <p><b>Modello/i:</b> Cavi di collegamento per pinze, elettrodi, strumenti bipolari Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>CPB; CPB/5; CPB/U; CPB/U5; CPB/MU; CPB/MU5; CPB/RU; CPB/RU5;</li> <li>CPB/E; CPB/E5; CPB/EM; CPB/EM5; CPB/ER; CPB/ER5; CPB/EU; CPB/EU5;</li> <li>CPB/EE; CPB/EE5; CPB/EE-4; CPB/EE5-4; CPB/EEM; CPB/EEM5; CPB/EES;</li> <li>CPB/EES5; CPB/EST; CPB/E-WMS; CPB/WMS</li> </ul>

# Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

<p><b>Categoria di dispositivo:</b> Accessori per elettrobisturi Device category: Accessories for electrosurgical units</p>
<p><b>Serie:</b> CPB/tec e CPB/E-tec Series:</p> <p><b>Modello/i:</b> Cavi di collegamento per forbici bipolari isolate Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• CPB/E-tec; CPB/E-tec5;</li> <li>• CPB/tec; CPB/tec5; CPBS/tec; CPBS/tec5; CPBM/tec; CPBM/tec5; CPBV/tec; CPBV/tec5</li> </ul>
<p><b>Serie:</b> PMI, PIC, PMI/P, FI e CFI Series:</p> <p><b>Modello/i:</b> Pinze (con collegamento all'elettrobisturi e utilizzo mediante comando a pedale) Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• PMI/1; PMI/1-20; PMI/1-25; PMI/1C25; PMI/2; PMI/2-25; PMI/B1-18; PMI/B2-18; PMI/B1; PMI/B; PMI/DB1-20; PMI/DB1-25; PMI/DB2-20; PMI/DB2-25</li> </ul> <p><b>Modello/i:</b> Pinze (senza collegamento all'elettrobisturi e utilizzo mediante contatto) Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• PIC/1; PIC/1-25; PIC/2; PIC/2-25; PIC/B1-18; PIC/B2-18; PIC/B1; PIC/B; PIC/DB1-20; PIC/DB1-25; PIC/DB2-20; PIC/DB2-25</li> </ul> <p><b>Modello/i:</b> Pinze (con collegamento all'elettrobisturi e utilizzo mediante comando manuale) Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• PMI/PB; PMI/PB14; PMI/PB19; PMI/PJ18; PMI/PJ21; PMI/PJ24</li> </ul> <p><b>Modello/i:</b> Forbici (con collegamento all'elettrobisturi e utilizzo mediante comando a pedale) Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• FI/18; FI/18C; FI/24; FI/24C; FI/W18; FI/W18C; FI/W24; FI/W24C</li> </ul> <p><b>Modello/i:</b> Cannule di aspirazione (con collegamento all'elettrobisturi e utilizzo mediante comando a pedale) Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• CFI/1; CFI/2; CFI/3</li> </ul>
<p><b>Serie:</b> EL/ML Series:</p> <p><b>Modello/i:</b> Strumenti attivi monopolari riutilizzabili per laparoscopia Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• EL/ML-J; EL/ML-JS; EL/ML-L; EL/ML-LS</li> </ul>

# Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

<p><b>Categoria di dispositivo:</b> Accessori per elettrobisturi Device category: Accessories for electro-surgical units</p>
<p><b>Serie:</b> CPI, CPE, CEP3, CEP4M e CEP4 Series:</p> <p><b>Modello/i:</b> Cavi di collegamento per strumenti/elettrodi monopolari Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• CPI; CPI/5; CPI-M4; CPI/5-M4; CPI-M6; CPI-M8; CPI/SM; CPI/L</li> <li>• CPE/5; CPE-M4; CPE/5-M4; CPE-M6; CPE-M8;</li> <li>• CEP3; CEP3/5; CEP3-M4; CEP3/5-M4; CEP3-M6; CEP3-M8;</li> <li>• CEP4M; CEP4M/5; CEP4M-M4; CEP4M/5-M4; CEP4M-M6; CEP4M-M8;</li> <li>• CEP4; CEP4/5; CEP4-M4; CEP4/5-M4; CEP4-M6; CEP4-M8</li> </ul>
<p><b>Serie:</b> NP/A e EIP Series:</p> <p><b>Modello/i:</b> Elettrodi neutri con cavi di collegamento Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• EIP/9; EIP/9-5; EIP/S;</li> <li>• NP/A; NP/A5</li> </ul>
<p><b>Serie:</b> CMS/E Series:</p> <p><b>Modello/i:</b> Cavi di collegamento per elettrodi neutri Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• CMS/E; CMS/E5; CMS/EA; CMS/EA5; CMS/EEN; CMS/E5EN</li> </ul>
<p><b>Serie:</b> NP/GA e NP/GP Series:</p> <p><b>Modello/i:</b> Elettrodi neutri in gomma conduttiva Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• NP/GA</li> <li>• NP/GP</li> </ul>
<p><b>Serie:</b> AC/E Series:</p> <p><b>Modello/i:</b> Manico AC/HANDLE ed elettrodi attivi rigidi per chirurgia con gas argon Model(s):</p> <p><b>Codici / Codes:</b></p> <ul style="list-style-type: none"> <li>• AC/HANDLE; AC/E25-C; AC/E100-C; AC/E320-C; AC/E320-H; AC/E40-A; AC/E100-A; AC/E40-L; AC/E100-L</li> </ul>

# Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

<b>Categoria di dispositivo:</b> Accessori per elettrobisturi Device category: Accessories for electro-surgical units
<b>Serie:</b> AC/FP Series:
<b>Modello/i:</b> Cavo di collegamento AC/CABLE ed elettrodi attivi flessibili per chirurgia con gas argon Model(s):
<b>Codici / Codes:</b> <ul style="list-style-type: none"><li>AC/CABLE; AC/FP1; AC/FP1-5; AC/FP2; AC/FP3; AC/FP3s; AC/FP3-5; AC/FP4; AC/FP4-5</li></ul>

## Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

<b>Categoria di dispositivo:</b> Aspiratori di fumi elettrochirurgici Device category: Electro-surgical smoke evacuators
<b>Serie:</b> CS Series: CS
<b>Modello/i:</b> CS200; Model(s): CS200LC; CS900LC

# Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

<p><b>Categoria di dispositivo:</b> Elettrobisturi Device category: Electrosurgical unit</p>
<p><b>Serie:</b> ALSATOM Series:</p> <p><b>Modello/i:</b> ALSATOM SU 50-MPC; Model(s): ALSATOM SU 100-MPC; ALSATOM SU 140-MPC; ALSATOM SU 140/D-MPC; ALSATOM SU 140/BD-MPC; ALSATOM SU 140/D-MPC (100V-60Hz).</p>
<p><b>Serie:</b> MCDSe Series:</p> <p><b>Modello/i:</b> EXCELL 200 MCDSe; Model(s): EXCELL 250 MCDSe; EXCELL 350 MCDSe; EXCELL 400 MCDSe; EXCELL 400/A MCDSe</p>
<p><b>Serie:</b> NHP Series:</p> <p><b>Modello/i:</b> EXCELL NHP 250/D; Model(s): EXCELL NHP 350/D; EXCELL NHP 400/D; EXCELL NHP 250/DA; EXCELL NHP 400/DA; EXCELL NHP ENDOMED</p>
<p><b>Serie:</b> NHP/T Series:</p> <p><b>Modello/i:</b> EXCELL NHP/T-400; Model(s): EXCELL NHP/T-200; EXCELL NHP/TA-400; EXCELL NHP/TA-200</p>
<p><b>Serie:</b> TopTom Series:</p> <p><b>Modello/i:</b> TopTom SU 50; Model(s): TopTom SU 100; TopTom SU 140; TopTom SU 140/D</p>





# Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

<b>Marca</b> Trade mark:	<b>BUTTERFLY ITALIA</b>
-----------------------------	-------------------------

<b>Categoria di dispositivo:</b> Device category:	<b>Elettrobisturi</b> Electrosurgical unit
--	---

<b>Modello/i:</b> Model(s):	<b>BIPOLAR HF 100;</b> <b>BIPOLAR HF 140.</b>
--------------------------------	--

# Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

<b>Marca</b> Trade mark:	<b>TONTARRA</b>
-----------------------------	-----------------

<b>Categoria di dispositivo:</b> Device category:	<b>Elettrobisturi</b> Electrosurgical unit
--	---

<b>Modello/i:</b> Model(s):	<b>PWT-400</b>
--------------------------------	----------------

# Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

**Marca**  
Trade mark: **AMNOTEC**

**Categoria di dispositivo:** **Elettrobisturi**  
Device category: **Electrosurgical unit**

**Serie:** **AMNOTOM**  
Series:

**Modello/i:** **AMNOTOM 160 BASE;**  
Model(s): **AMNOTOM 400 COMPACT;**  
**AMNOTOM 400 PREMIUM;**  
**AMNOTOM 400 PREMIUM A**



# Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

<b>Marca</b> Trade mark:	<b>ZACCANTI S.p.A.</b>
-----------------------------	------------------------

<b>Categoria di dispositivo:</b> Device category:	<b>Elettrobisturi</b> Electrosurgical unit
--	---

<b>Modello/i:</b> Model(s):	<b>BIPOGYN</b>
--------------------------------	----------------

# Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

<b>Marca</b> Trade mark:	<b>EFER ENDOSCOPY</b>
-----------------------------	-----------------------

<b>Categoria di dispositivo:</b> Device category:	<b>Elettrobisturi</b> Electrosurgical unit
--	---

<b>Modello/i:</b> Model(s):	<b>SIRIUS 900</b>
--------------------------------	-------------------

# Allegato al Certificato CE n. 187/MDD - Elenco dei Dispositivi

Annex of EC Certificate no. 187/MDD - Device List

rev. 0 del/of 2021/03/05

<b>Marca</b> Trade mark:	<b>MEDICAL SWAN</b>
-----------------------------	---------------------

<b>Categoria di dispositivo:</b> Device category:	<b>Elettrobisturi</b> Electrosurgical unit
--	---

<b>Modello/i:</b> Model(s):	<b>PULSAR MB350</b>
--------------------------------	---------------------



www.imq.it



IQNet, the association of the world's first class certification bodies, is the largest provider of management System Certification in the world. IQNet is composed of more than 30 bodies and counts over 150 subsidiaries all over the globe.

## CERTIFICATO N. CERTIFICATE N. 9120.ALSA

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITA' DI  
WE HEREBY CERTIFY THAT THE QUALITY MANAGEMENT SYSTEM OPERATED BY

### ALSA APPARECCHI MEDICALI SRL

VIA C. BONAZZI 16 - 40013 CASTEL MAGGIORE (BO)

UNITA' OPERATIVE / OPERATIVE UNITS

VIA C. BONAZZI 16 - 40013 CASTEL MAGGIORE (BO)

E' CONFORME ALLA NORMA / IS IN COMPLIANCE WITH THE STANDARD  
**ISO 9001:2015**

PER LE SEGUENTI ATTIVITA' / FOR THE FOLLOWING ACTIVITIES

Progettazione, produzione, immissione in commercio, assistenza tecnica e produzione conto terzi di elettrobisturi con o senza gas ARGON e relativi accessori, aspiratori chirurgici e relativi accessori, aspiratori di fumi elettrochirurgici e relativi accessori  
*Design, manufacture, placing on the market, technical service and contract manufacturing of electrosurgical units with or without ARGON gas and related accessories, electrosurgical aspirators and related accessories, electrosurgical smoke evacuators and related accessories*

Ulteriori informazioni riguardanti l'applicabilità dei requisiti ISO 9001:2015 possono essere ottenute consultando l'organizzazione  
*Further clarifications regarding the applicability of ISO 9001:2015 requirements may be obtained by consulting the organization*

IL PRESENTE CERTIFICATO E' SOGGETTO AL RISPETTO DEL  
REGOLAMENTO PER LA CERTIFICAZIONE DEI SISTEMI DI GESTIONE  
*THE USE AND THE VALIDITY OF THE CERTIFICATE SHALL SATISFY THE  
REQUIREMENTS OF THE RULES FOR CERTIFICATION OF MANAGEMENT SYSTEMS*

<b>DATE:</b>	PRIMA CERTIFICAZIONE <i>FIRST CERTIFICATION</i>	EMISSIONE CORRENTE <i>CURRENT ISSUE</i>	SCADENZA <i>EXPIRY</i>
	1998-05-05	2022-03-18	2025-12-19

IMQ S.p.A. - VIA QUINTILIANO, 43 - 20138 MILANO ITALY  
Management Systems Division - Flavio Ornago



SGQ N° 005 A

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC  
*Signatory of EA, IAF and ILAC Mutual Recognition Agreements*

IAF: 19

La validità del certificato è subordinata a sorveglianza annuale e riesame completo del Sistema di Gestione con periodicità triennale  
*The validity of the certificate is submitted to annual audit and a reassessment of the entire management System within three years*



Organismo di Certificazione Federato CISQ  
www.imq.it



www.cisq.com

CISQ è la Federazione Italiana di Organismi di Certificazione dei sistemi di gestione aziendale.  
*CISQ is the Italian Federation of management system Certification Bodies.*



# IQNet

THE INTERNATIONAL CERTIFICATION NETWORK

# CERTIFICATE

*CISQ/IMQ has issued an IQNet recognized certificate that the organization:*

## **ALSA APPARECCHI MEDICALI SRL**

VIA C. BONAZZI 16 - 40013 CASTEL MAGGIORE (BO)

*has implemented and maintains a  
Quality Management System  
for the following scope:*

***Design, manufacture, placing on the market, technical service and contract manufacturing of electrosurgical units with or without ARGON gas and related accessories, electrosurgical aspirators and related accessories, electrosurgical smoke evacuators and related accessories***

*Further clarifications regarding the applicability of ISO 9001:2015 requirements may be obtained by consulting the organization*

*which fulfills the requirements of the following standard:*

## **ISO 9001:2015**

*Issued on: 2022 - 03 - 18*

*Expires on: 2025 - 12 - 19*

*This attestation is directly linked to the IQNet Partner's original certificate and shall not be used as a stand-alone document*

*Registration Number: IT - 1231*



*Alex Stoichitoiu  
President of IQNET*



*Ing. Mario Romersi  
President of CISQ*

**IQNet Partners\*:**

AENOR Spain AFNOR Certification France APCER Portugal CCC Cyprus CISQ Italy  
CQC China CQM China CQS Czech Republic Cro Cert Croatia DQS Holding GmbH Germany EAGLE Certification Group USA  
FCAV Brazil FONDONORMA Venezuela ICONTEC Colombia Inspecta Sertifointi Oy Finland INTECO Costa Rica  
IRAM Argentina JQA Japan KFQ Korea MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland  
NYCE-SIGE México PCBC Poland Quality Austria Austria RR Russia SII Israel SIQ Slovenia  
SIRIM QAS International Malaysia SQS Switzerland SRAC Romania TEST St Petersburg Russia TSE Turkey YUQS Serbia





www.imq.it



IQNet, the association of the world's first class certification bodies, is the largest provider of management System Certification in the world. IQNet is composed of more than 30 bodies and counts over 150 subsidiaries all over the globe.

## CERTIFICATO N. CERTIFICATE N. 9124.ALS2

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITA' DI  
WE HEREBY CERTIFY THAT THE QUALITY MANAGEMENT SYSTEM OPERATED BY

### ALSA APPARECCHI MEDICALI SRL

VIA C. BONAZZI 16 - 40013 CASTEL MAGGIORE (BO)

UNITA' OPERATIVE / OPERATIVE UNITS

VIA C. BONAZZI 16 - 40013 CASTEL MAGGIORE (BO)

E' CONFORME ALLA NORMA / IS IN COMPLIANCE WITH THE STANDARD  
**ISO 13485:2016**

PER LE SEGUENTI ATTIVITA' / FOR THE FOLLOWING ACTIVITIES

Progettazione, produzione, immissione in commercio, assistenza tecnica e produzione conto terzi di elettrobisturi con o senza gas ARGON e relativi accessori, aspiratori chirurgici e relativi accessori, aspiratori di fumi elettrochirurgici e relativi accessori  
*Design, manufacture, placing on the market, technical service and contract manufacturing of electrosurgical units with or without ARGON gas and related accessories, electrosurgical aspirators and related accessories, electrosurgical smoke evacuators and related accessories*

Ulteriori informazioni riguardanti l'applicabilità dei requisiti ISO 13485:2016 possono essere ottenute consultando l'organizzazione  
*Further clarifications regarding the applicability of ISO 13485:2016 requirements may be obtained by consulting the organization*

IL PRESENTE CERTIFICATO E' SOGGETTO AL RISPETTO DEL  
REGOLAMENTO PER LA CERTIFICAZIONE DEI SISTEMI DI GESTIONE  
*THE USE AND THE VALIDITY OF THE CERTIFICATE SHALL SATISFY THE  
REQUIREMENTS OF THE RULES FOR CERTIFICATION OF MANAGEMENT SYSTEMS*

<b>DATE:</b>	PRIMA CERTIFICAZIONE <i>FIRST CERTIFICATION</i>	EMISSIONE CORRENTE <i>CURRENT ISSUE</i>	SCADENZA <i>EXPIRY</i>
	1998-11-30	2022-03-18	2025-12-19

IMQ S.p.A. - VIA QUINTILIANO, 43 - 20138 MILANO ITALY  
Management Systems Division - Flavio Ornago



SGQ N° 005 A

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC  
*Signatory of EA, IAF and ILAC Mutual Recognition Agreements*

La validità del certificato è subordinata a sorveglianza annuale e riesame completo del Sistema di Gestione con periodicità triennale  
*The validity of the certificate is submitted to annual audit and a reassessment of the entire management System within three years*



Organismo di Certificazione Federato CISQ  
www.imq.it



www.cisq.com

CISQ è la Federazione Italiana di Organismi di Certificazione dei sistemi di gestione aziendale.  
*CISQ is the Italian Federation of management system Certification Bodies.*



## CE – Declaration of Conformity

We hereby certify that AG Neovo complies - with the following specific products – with the requirements of the guideline in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (2014/30/EU), Low-voltage Directive (2014/35/EU), and the ErP Directive (2009/125/EC).

Brand Name : AG Neovo  
Product : MD-2702  
Type of Equipment : LCD Monitor

Name of the Manufacturer: ASSOCIATED INDUSTRIES CHINA, INC.  
Address of the Manufacturer: 5F-1, NO.3-1, PARK ST., NANGANG DISTRICT, TAIPEI,  
11503, TAIWAN  
TEL: +886-2-2655-8080 FAX: +886-2-2655-7878

In accordance with the following standards:

- ◆ EN 55032:2015 / AS/NZS CISPR 32:2015 / CISPR 32:2015, Class B
- ◆ EN 55032:2015+AC:2016 / EN 55032:2015+A11:2020 / CISPR 32:2015+COR1:2016, Class B
- ◆ EN 55032:2015+A1:2020 / AS/NZS CISPR 32:2015+AMD1:2020, Class B
- ◆ EN 55035:2017 / CISPR 35:2016
- ◆ EN 55035:2017+A11:2020
- ◆ IEC 61000-3-2:2014 / EN 61000-3-2:2014, Class D
- ◆ IEC 61000-3-2:2018 / EN IEC 61000-3-2:2019, Class D
- ◆ EN IEC 61000-3-2:2019+A1:2021, Class D
- ◆ IEC 61000-3-3:2013 / EN 61000-3-3:2013
- ◆ IEC 61000-3-3:2013+A1:2017 / EN 61000-3-3:2013+A1:2019
- ◆ EN IEC 62368-1:2020+A11:2020
- ◆ IEC 62368-1:2018
- ◆ IEC 62368-1:2014 / EN 62368-1:2014; A11:2017

In case of product changes that are not previously agreed by AG Neovo, this declaration of Conformity will lose its validity.

Date of CE Mark: September 23, 2021

Date of Issue: September 24, 2021

Place of the signature: Taiwan



Tony Chu (Senior Manager)

This declaration of conformity is issued under the sole responsibility of the manufacturer.

# EC Certificate

**mdc medical device certification GmbH**

Notified Body 0483  
herewith certifies that

**Tekno-Medical Optik-Chirurgie GmbH**  
**Sattlerstraße 11**  
**78532 Tuttlingen**  
**Germany**

for the scope

**sterile scalpel knives UMDNS 12-252;**  
**shaver blades, UMDNS 17-117;**  
**saw blades for orthopedics, UMDNS 13-447**

has introduced and applies a

## Quality System

for the manufacture of the products concerned and carries out a  
final inspection as specified in Annex V, Section 3.

The mdc audit has proven that this quality system  
meets all requirements according to

## Annex V – Section 3 of the Council Directive 93/42/EEC

of 14 June 1993 concerning medical devices.

The surveillance will be held as specified in Annex V, Section 4.

Valid from	2018-07-05
Valid until	2023-07-04
Registration no.	D1043500072
Report no.	P18-00452-117481
Stuttgart	2018-06-27



Head of Certification Body



Benannt durch/Designated by  
Zentralstelle der Länder  
für Gesundheitsschutz  
bei Arzneimitteln und  
Medizinprodukten  
www.zlg.de  
ZLG-BS-246.10.06

# EC Certificate

**mdc medical device certification GmbH**

Notified Body 0483  
herewith grants

**Tekno-Medical Optik-Chirurgie GmbH**  
**Sattlerstraße 11**  
**78532 Tuttlingen**  
**Germany**

for the scope

**aneurysm clip**  
**(sterile and non-sterile, temporary and permanent,**  
**made of titanium and steel),**  
**UMDNS 10-905**

the

## EC Design Examination Certificate

The examination of the design of the product by mdc has proven  
that the design meets the requirements according to

**Annex II – Section 4**  
**of the Council Directive 93/42/EEC**

of 14 June 1993 concerning medical devices.

This certificate is only valid in connection with a valid  
mdc certificate according to Annex II – excluding section 4 for the  
above mentioned products.

Valid from	2018-11-22
Valid until	2023-11-22
Registration no.	D1043500074
Report no.	P18-00455-117538
Stuttgart	2018-11-22



Head of Certification Body



# EC Certificate

**mdc medical device certification GmbH**

Notified Body 0483  
herewith certifies that

**Tekno-Medical Optik-Chirurgie GmbH**  
**Sattlerstraße 11**  
**78532 Tuttlingen**  
**Germany**

for the scope

**instruments for high frequency surgery,  
endoscopic instruments and devices with accessories,  
suction- and irrigation units, battery operated units  
(see attachment)**

has introduced and applies a

**Quality System**

for the design, manufacture and final inspection.

The mdc audit has proven that this quality system  
meets all requirements according to

**Annex II – excluding Section 4  
of the Council Directive 93/42/EEC**

of 14 June 1993 concerning medical devices.

The surveillance will be held as specified in Annex II, Section 5.

Valid from	2018-11-19
Valid until	2023-07-04
Registration no.	D1043500076
Report no.	P18-00452-133952
Stuttgart	2018-11-19



Head of Certification Body



**Attachment of the certificate**

**No. D1043500076**

Date 2018-11-19

Page 1 of 1

Product category	Product	Class	Product code
Battery operated units	Drill, battery operated and accessories Saw, battery operated and accessories	Ila	16-868
Instruments for high frequency surgery	Electrosurgical units with accessories	Ilb	11-490
	HF-handles	Ilb	11-499
	Bipolar coagulation forceps, bipolar coagulation grippers Bipolar and monopolar forceps	Ilb	11-502
	Monopolar and bipolar electrodes Coagulation electrodes, coagulation grippers, scissors	Ilb	16-206
	Electrodes, electrosurgical, sterile and non sterile Bipolar coagulation forceps EVO II Bipolar clamps and scissors-clamps Monopolar laparoscopic electrodes	Ilb	16-860
	Endoscopic instruments and devices with accessories	Morcellator handpiece complete	Ila
Morcellator		Ila	11-333
Arthroscopic shaver systems with accessories		Ila	17-918
Laparoscopic instruments for electrosurgery		Ilb	11-502
Resectoscopes monopolar and bipolar		Ilb	13-335
Insufflators, laparoscopy with accessories		Ilb	16-849
Suction- and irrigation units	Suction- /irrigation unit MULTI PUMP and accessories Pump for arthroscopy ART PUMP II and accessories Pump for arthroscopy ART PUMP II D and accessories Pump for hysteroscopy HYS PUMP II and accessories Pump for urology URO PUMP II and accessories	Ila	17-424



Head of Certification Body



# EC Certificate

**mdc medical device certification GmbH**

Notified Body 0483  
herewith certifies that

**Tekno-Medical Optik-Chirurgie GmbH**  
**Sattlerstraße 11**  
**78532 Tuttlingen**  
**Germany**

for the scope

**instruments for high frequency surgery,  
endoscopic instruments and devices with accessories,  
suction- and irrigation units, battery operated units  
(see attachment)**

has introduced and applies a

## Quality System

for the design, manufacture and final inspection.

The mdc audit has proven that this quality system  
meets all requirements according to

**Annex II – excluding Section 4  
of the Council Directive 93/42/EEC**

of 14 June 1993 concerning medical devices.

The surveillance will be held as specified in Annex II, Section 5.

Valid from	2021-05-20
Valid until	2023-07-04
Registration no.	D1043500083
Report no.	P21-00826-205644
Stuttgart	2021-05-20



Head of Certification Body





**Attachment of the certificate**

**No. D1043500083**

Date 2021-05-20

Page 1 of 1

Product category	Product	Class	Product code
Instruments for high frequency surgery	Electrosurgical units with accessories	IIb	11-490
	HF-handles	IIb	11-499
	Bipolar coagulation forceps Bipolar forceps	IIb	11-502
	Monopolar and bipolar electrodes Coagulation electrodes, coagulation grippers, scissors	IIb	16-206
	Electrodes, electrosurgical, sterile and non sterile Bipolar coagulation forceps EVO II Bipolar clamps and scissors-clamps Monopolar laparoscopic electrodes	IIb	16-860
	Pistol handle, with HF	IIa	15-206
Endoscopic instruments and devices with accessories	Pistol handle, without HF	IIa	15-206
	Laparoscopic instruments for electrosurgery	IIb	11-502
	Resectoscopes monopolar and bipolar	IIb	13-335
	Insufflators, laparoscopy with accessories	IIb	16-849
Suction- and irrigation units	Arthroscopic shaver systems with accessories	IIa	17-918
	Suction- /irrigation unit MULTI PUMP and accessories	IIa	17-424
	Pump for arthroscopy ART PUMP II and accessories		
	Pump for arthroscopy ART PUMP II D and accessories		
	Pump for hysteroscopy HYS PUMP II and accessories		
Pump for urology URO PUMP II and accessories			
Battery operated units	Drill, battery operated and accessories	IIa	16-868
	Saw, battery operated and accessories		



Head of Certification Body



# Certificate

**mdc medical device certification GmbH**  
certifies that

**Tekno-Medical Optik-Chirurgie GmbH**  
**Sattlerstraße 11**  
**78532 Tuttlingen**  
**Germany**

for the scope

**development, manufacturing and distribution of  
surgical instruments and accessories, endoscopic instruments and  
devices with accessories, dental instruments, instruments and implants for osteosynthesis,  
OR-lamps, OR-tables and accessories and repair service for rigid endoscopes**

has introduced and applies a

## Quality Management System

The mdc audit has proven that this quality management system  
meets all requirements of the following standard

**EN ISO 13485**

Medical devices – Quality management systems –  
Requirements for regulatory purposes

EN ISO 13485:2016 + AC:2016 - ISO 13485:2016

Valid from	2021-07-05
Valid until	2024-07-04
Registration no.	D1043500084
Report no.	P21-00826-205639
Stuttgart	2021-06-23



Head of Certification Body

