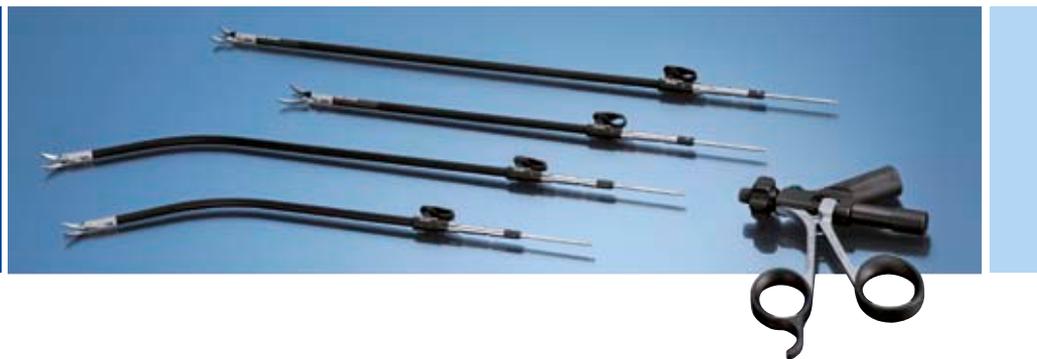


## Bipolar Instruments for Minimally Invasive Thoracic Surgery



---

## **Bipolar Instruments for Minimally Invasive Thoracic Surgery**

In recent years, video-assisted thoracoscopic anatomic lung resection has considerably gained in importance in patients with stage I non-small cell bronchial carcinoma. In most cases, a 4-5 cm lateral mini-thoracotomy is used in addition to two trocar accesses (10 mm) for the thoracoscope and a thoracoscopic instrument. To supplement the existing thoracoscopic instruments, bipolar instruments with a working length of 20 cm have now been developed for bimanual preparation at the hilum of the lung as well as for lymphadenectomy via the mini-thoracotomy. The shorter working length enables easy guidance of the end of the instrument and unproblematic access to the surgical field via the mini-thoracotomy.

Bipolar technology permits anatomically precise preparation with minimal bleeding. With these instruments, surgeons can achieve the same quality of preparation and radical oncological resection as in open surgery. Switching instruments is rarely necessary since all essential preparation steps can be performed with this technique. Therefore, the instruments perfectly complete the tray for video-assisted oncological or anatomic resection.

Prof. Dr. med. Erich Stoelben  
Thoracic Surgeon  
Chief of Staff, Lung Clinic Cologne-Merheim  
Witten/Herdecke University Medical Center

## Bipolar Instruments in Thoracic Surgery

Since thoracic surgery is performed in close proximity to the heart, coagulation techniques must be particularly gentle, especially in patients with pacemakers.

Our new, distally curved, rotating bipolar instruments (ROBI®) are an optimal choice for such procedures.

Through a modification of sheath curvature and length, the proven KELLY dissecting forceps and a selection of scissors have been adapted to the anatomy of the thorax. With their delicate jaws, they are ideally suited for precise preparation, reliable grasping, and secure cutting in video-assisted thoracic surgery.

The use of bipolar energy further contributes to safe and precise procedures since the surgeon is in control of the applied current at all times. The electrons travel from the generator to the forceps, through the tissue located between the jaws, and then directly back to the generator through the cable in the forceps. A neutral electrode is not required, thereby reducing the risk of electrical burns.



---

## Special Features

- Sheath specifically curved for thoracoscopy
  - Jaws with robust joint for optimized bipolar grasping and cutting
  - Slender design
  - Curved instruments can be dismantled into the following components:
    - Handle
    - Working insert with outer sheath
  - Straight instruments can be dismantled into the following components:
    - Handle
    - Working insert
    - Outer sheath
  - HF connection angled 45° to keep the cable out of the surgical field
  - Easy and reliable cleaning of instruments
  - Autoclavable
  - Available in various lengths
  - Suitable for thoracoscopic procedures and for use through a mini-thoracotomy
-

## Curved Bipolar Instruments for Minimally Invasive Thoracic Surgery



Outer Sheath	Handle	
	38161	38121
Length 20 cm		
Length 28 cm		
Working Insert	Catalog number for the complete instrument	
48110 LK	48161 LK	48121 LK
48210 LK	48261 LK	48221 LK
	<b>RoBi® KELLY Dissecting Forceps</b> , CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, distally angled outer sheath, double action jaws, curved, jaws open horizontally to angulation, size 5 mm	
48110 LM	48161 LM	48121 LM
48210 LM	48261 LM	48221 LM
	<b>RoBi® Scissors</b> , CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, distally angled outer sheath, double action jaws, curved, scissor blades open vertically to angulation, size 5 mm	
48210 LU	48261 LU	48221 LU
	<b>RoBi® Scissors</b> , CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, distally angled sheath, double action jaws, curved, scissor blades open horizontally to angulation, size 5 mm	
48210 MT	48261 MT	48221 MT
	<b>RoBi® Scissors</b> , CLERMONT-FERRAND model, rotating, dismantling, with connector pin for bipolar coagulation, distally angled sheath, single action jaws, straight, scissor blades open vertically to angulation, size 5 mm	

## Straight Bipolar Instruments for Minimally Invasive Thoracic Surgery

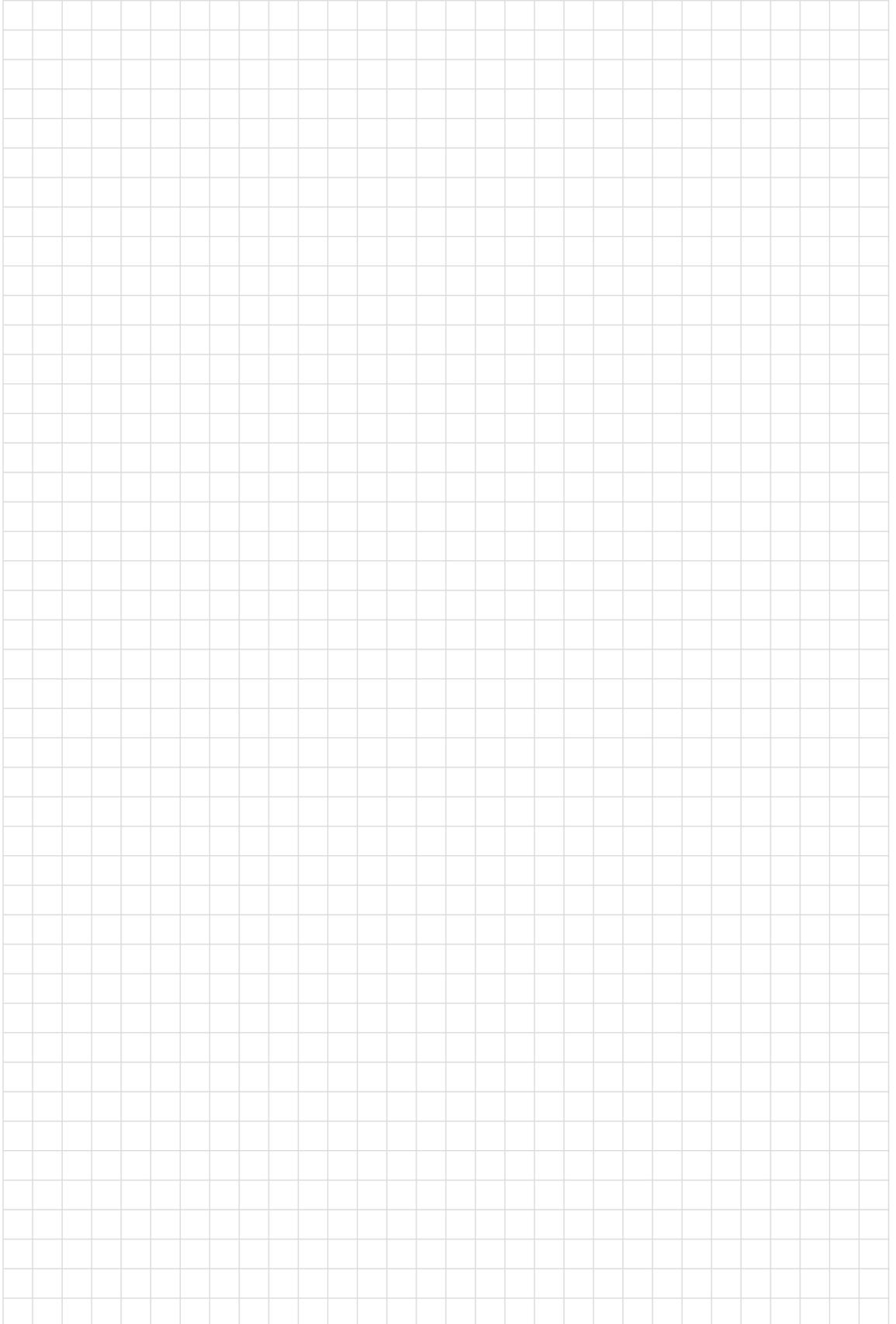


Outer Sheath	Handle	
	38161	38121
Length 20 cm		
Length 30 cm		
Working Insert	Catalog number for the complete instrument	
38210 MD	38261 MD	38221 MD
	<b>RoBi® KELLY Dissecting and Grasping Forceps</b> , CLERMONT-FERRAND model, rotating, dismantling, insulated, with connector pin for bipolar coagulation, with LUER-Lock irrigation connection for cleaning, straight sheath, double action jaws, especially suitable for dissection, size 5 mm	
38110 MW	38161 MW	38121 MW
38210 MW	38261 MW	38221 MW
	<b>RoBi® METZENBAUM Scissors</b> , CLERMONT-FERRAND model, rotating, dismantling, insulated, with connector pin for bipolar coagulation, with LUER-Lock irrigation connector for cleaning, curved jaws, more slender scissor blades, double action jaws, size 5 mm	
38110 ML	38161 ML	38121 ML
	<b>RoBi® KELLY Dissecting and Grasping Forceps</b> , CLERMONT-FERRAND model, rotating, dismantling, insulated, with connector pin for bipolar coagulation, LUER-Lock irrigation connector for cleaning, double action jaws, long, size 5 mm	

Please note:

For the instrument only the individual component parts are numbered. The catalog number for the complete instrument is not on the instrument. Please take this number from the numbers indicated in the red background of the table above. The color green indicates the working inserts.

## Notes





ENDOWORLD®

[WWW.KARLSTORZ.COM](http://WWW.KARLSTORZ.COM)

KARL STORZ GmbH & Co. KG  
Mittelstraße 8, 78532 Tuttlingen, Germany  
Postbox 230, 78503 Tuttlingen, Germany  
Phone: +49 (0)7461 708-0  
Fax: +49 (0)7461 708-105  
E-Mail: [info@karlstorz.de](mailto:info@karlstorz.de)  
[www.karlstorz.com](http://www.karlstorz.com)

KARL STORZ Endoscopy-America, Inc.  
2151 East Grand Avenue  
El Segundo, CA 90245-5017, USA  
Phone: +1 424 218-8100  
Phone toll free: 800 421-0837 (US only)  
Fax: +1 424 218-8525  
Fax toll free: 800 321-1304 (US only)  
E-Mail: [info@ksea.com](mailto:info@ksea.com)

**STORZ**  
KARL STORZ—ENDOSKOPE  
THE DIAMOND STANDARD