

erbe
power your performance.



ERBECRYO® 2

For biopsies, recanalization
and devitalization in bronchoscopy



ERBECRYO[®] 2

Progress in diagnostics and interventions in bronchoscopy

Cryosurgical technology has proven its worth in medical science – and is now more relevant than ever. Especially in the area of bronchoscopy cryobiopsy and cryorecanalization are often superior to all other diagnostic and interventional therapies.

With cryorecanalization, exophytic stenoses, foreign bodies and blood clots are immediately removed, and the patient can breathe again freely as soon as the procedure is over.



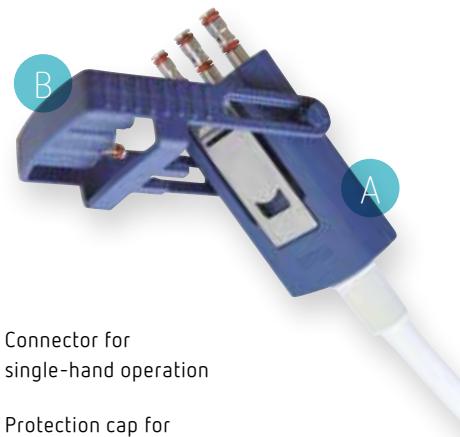
ERBECRYO 2 on cart
with wire basket

The latest requirements and findings in the area of pulmonology have been incorporated in ERBECRYO 2, together with all of our decades of practical experience in cryosurgical therapy.

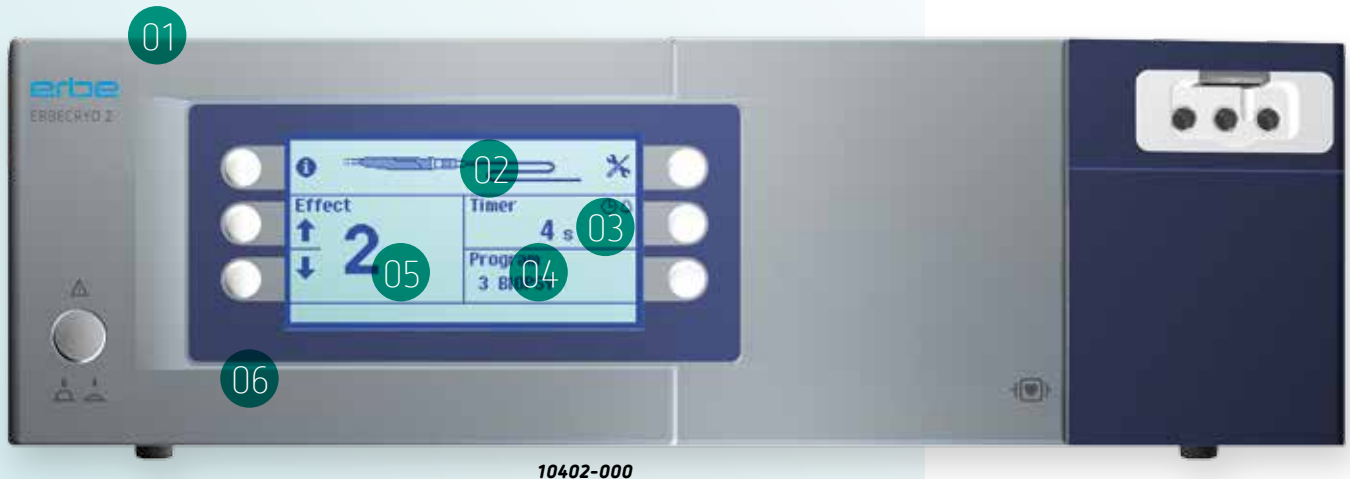
This ensures maximum safety and convenience for the user in even better quality, thanks to display support for example. All information relevant for the procedure is clearly displayed. The timer function shows the duration of activation and supports the user with visual and acoustic signaling. The effect settings allow the freeze process to be monitored and controlled.

In this way, optimum functionality of the entire system is guaranteed at all times.

Programmed for convenience



- A Connector for single-hand operation
- B Protection cap for reconditioning



10402-000

- 01 ERBECRYO 2 is also available as a standalone unit
- 02 Information on the connected instrument (length, item number, etc.)
- 03 Timer: shows the duration of activation
- 04 10 individual programs can be saved
- 05 Effects can be set depending on the probe
- 06 Clearly laid out display supports intuitive operation

THE ADVANTAGES OF ERBECRYO 2

- ☑ Convenient operation with plug and play: ERBECRYO 2 automatically sets the appropriate parameters for every probe
- ☑ Even more convenience: all important settings appear on the display:
 - Effect levels
 - Timer function
- ☑ Activation using the footswitch
- ☑ Reproducible freeze performance from the first time the probe is used through to the last

ERBECRYO[®] 2 – Application



Cryobiopsy with high diagnostic weighting
In comparison with a forceps biopsy, biopsy samples taken using cryosurgical techniques are considerably larger and do not contain artifacts.



Cryorecanalization
The stenosis tissue is frozen and extracted using cryosurgical techniques.



Cryodevitalization
For ablation of tissue structures.

CRYOBIOPSY

The target tissue freezes on the cryoprobe and an endobronchial or transbronchial biopsy of the tissue can follow. The process of endobronchial freezing can be monitored visually as the tissue turns a white color.

As the tissue – regardless of whether it is mucous or solid material – is not gripped with a forceps, the cell structure of the biopsy sample is not compromised. This means no crush artifacts or hemorrhages. This procedure is also greatly superior to that of a forceps biopsy in terms of quantity, enabling biopsy samples that are three times larger without increasing the risk of hemorrhaging.¹ Both the quantity and quality ensure reliable diagnostics. At approx. 95 % as opposed to 85 %, the histological analysis shows increased diagnostic reliability.¹

You pathologist will be delighted!

As target tissue can be frozen to the cryoprobe using a frontal or a tangential approach, biopsies can also be performed in regions of the lungs that are difficult to access.

CRYORECANALIZATION

Using cryoadhesion, exophytic stenoses in the tracheobronchial tract can be recanalized immediately under sedation.

The likelihood of stricture formation is low, and the oxygen concentration can be increased if required to 100 %, without any additional risk. In combination with the bronchoscope, benign or malignant tumors can be extracted, as well as mucous secretions or even solid bodily substances. Foreign bodies can also be retrieved using cryosurgical techniques. After immediate recanalization has been completed, the patient is also immediately able to breathe again normally.

CRYODEVITALIZATION OF TUMORS (CRYONECROSIS)

Tissue structures are devitalized² by alternating between phases of freezing and thawing. ERBECRYO 2 uses this effect to remove tissue.

Literature:

- 1) Hetzel, J et al. Cryobiopsy increases the diagnostic yield of endobronchial biopsy: a multicentre trial. *Eur Respir J.* 2012 Mar;39(3):685-90.
- 2) Mazur P. Freezing of living cells: mechanisms and implications. *Am J Physiol.* 1984 Sep;247(3 Pt 1):C125-42. Review

Cryoprobes for every application

The cryoprobes are extremely kink-resistant with considerable tensile strength. When used correctly, they can be reused and reconditioned up to 100 times. The new connector plug means that the instrument is recognized and the corresponding parameters are configured in ERBECRYO 2. Plug and play. It couldn't be easier.

Easy access to target tissue

The flexible cryoprobe can access almost any target area in the central and peripheral lung regions. It can be applied to tissue from the front, or using a tangential approach – where forceps have no chance. Access can be provided either via a rigid or a flexible bronchoscope, or using a combination of the two.



ADVANTAGES AT A GLANCE

- ✓ Superior tissue samples in terms of quality and quantity
 - No crush artifacts or hemorrhages
 - Cell layers remain intact
- ✓ High diagnostic weighting
- ✓ Supports endobronchial and transbronchial biopsy
- ✓ Greater functionality compared with forceps (for example, devitalization)
- ✓ Technology reduces costs³, while offering significant added value for the patient

CRYOPROBE VS. FORCEPS

- 01 Tissue sample from a forceps biopsy
- 02 Biopsy size with cryo (frontal application)
- 03 Biopsy size with cryo (tangential application)

3) SPECTARIS study: „Kältesonden zur schonenden Intervention in den Bronchien“ (Cryoprobes for gentle bronchial intervention) taken from „Das Einsparpotenzial innovativer Medizintechnik im Gesundheitswesen“ (The potential savings afforded by innovative medical technology in the health service), Berlin 2007. Published by: Spectaris (Berlin), ZVEI (Frankfurt), TU Berlin and Droegge & Comp.(Dusseldorf)

Overview: Cryoprobes

The flexible cryoprobes are available in various designs and can be used to perform biopsies, recanalization and devitalization.



Item number	Length	Diameter	Pulmonary application area		
			Central area	Periphery	Biopsy sample size
20402-032	900 mm	2.4 mm	■	■	●
20402-037	900 mm	1.9 mm	■	■	•
20402-040	1150 mm	1.9 mm	■	■	•



Pneumo cryoprobe
flexible, Ø 2.4 mm, length 900 mm
20402-032

Pneumo cryoprobe
flexible, Ø 1.9 mm, length 900 mm
20402-037

Pneumo cryoprobe
flexible, Ø 1.9 mm, length 1150 mm
20402-040

Technical data

ERBECRYO 2

No. 10402-000	Cart for ERBECRYO 2	20402-300
	Single-pedal footswitch for ERBECRYO 2	20402-200
	Wire basket	20180-010
	Gas hose, flexible (length 0.7 m)	20448-000
	Gas hose, flexible (length 1 m)	20410-004
	Gas bottle adapter*	20410-003

Device-specific data

Effect setting	Indication-specific parameter setting
Number of effect levels	1–5 (depending on the instrument)
Number of program memory locations	10
Activation	Footswitch
Cooling gas	CO ₂
Input pressure	45–65 bar

Power connection

Rated supply voltage	100 V to 240 V (± 10 %)
Rated supply frequency	50 / 60 Hz
Line current	0.4 – 0.8 A
Grounding terminal	Yes
Power fuse	2 x T 1.0A H 250V

Dimensions and weight of the unit

Width x height x depth	410 x 130 x 370 mm
Weight	6.7 kg

Ambient conditions for transport and storage of the unit

Temperature	-20 °C to +55 °C
Relative humidity	15 % to 80 %

Ambient conditions for operating the unit

Temperature	+15 °C to +40 °C
Relative humidity	30 % to 75 %, non-condensing

Standards

Classification in accordance with EU directive 93/42/EEC	II b
Protection class in accordance with EN 60601-1	I
Type in accordance with EN 60601-1	CF

* Please note that the gas bottle adapter may vary for individual countries.
Further cryosurgical products are listed in our accessories catalog
in the chapter "Cryosurgical instruments and accessories" (no. 85100-170),
or visit us online at www.erbe-med.com



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