

STEEP

Soft Tissue Endoscopic Exploration Procedure

A new perspective in breast surgery

STEEP – Soft Tissue Endoscopic Exploration Procedure

Endoscopic surgery in the axilla

Endoscopic procedures and minimal invasive procedures have a tradition in gynaecology. Soft tissue continued to be a limit for the endoscopic operating area. First approaches into endoscopic procedures for retro-peritoneal diagnosis of lymph nodes can be traced back to the 1980s.

The development of sentinel diagnosis gave rise to new questions primarily concerning the treatment of the breast area. In the event of a positive sentinel, the question is how far the minimal invasive access can be used to carry out a complete excision of lymph nodes, which is as important as the question of occult metastases through the exploration in soft tissue.

For this reason the development of the axilloscope / STEEP first of all passed through various stages of minimal invasive marking measures of the axilla sentinel lymph node in case of a breast carcinoma.

Nuclear medical marking procedures as well as bluing processes produced different detection rates. For this reason, the combination seems rather sensible.

Whilst detectors can recognise lymph nodes marked by nuclear medical procedure percutaneously, this is not possible in case of bluing processes.



Atraumatic tunneling with transparent viewing cap

In an ideal situation, the lymphatics marked in blue are followed to the sentinel lymph node, which is then removed. For this reason, it suggests itself to follow the lymphatics from the injection location in the breast to the axilla, and to remove the lymph node marked in blue and by nuclear medical means.

In case of positive histological findings, the intervention can be completed then. With the introduction of the STEEP axilla endoscope, it is possible to quickly prepare the soft-tissue areas, to distinctly present the available lead structures and to carry out a complete resection.

The patented viewing cap is a key feature to success!

On account of the excellent adaptation to the optical system, the display of the operating site is ideal even in case of difficult anatomic conditions.

Thanks to this viewing cap, the anatomic structures are recognised already during the preparation and dissection, and the structures are spared in the best possible way. In the process, the integrity of the breast is primarily retained.

Therapeutic measures, such as the removal of the lymph node, are effected by an integrated working channel without requiring additional incisions.



Site after removal of the viewing cap



The lymph node is recovered through the working channel. There is no contact to the neighbouring tissue which is not affected. In particular, in case of positive histology of the extracted tissue this is an absolute safety aspect (state of the art from an oncological point of view). For this histological reprocessing, the integrity of the lymph node is of considerable prognostic significance.

Developed in close cooperation with
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Dissection of tissue and lymph nodes

The removal of the tissue is effected by an integrated working channel or an outer sheath. There is no contact to the neighbouring tissue which is not affected.

Automatic sealing cap
and instrument port

Comfortable handle
for manipulation

- Panoview Plus telescope,
10° direction of view
- Lens irrigation
- Large-lumen oval working channel
6 x 9 mm
- Transparent viewing cap for dissection
and preparation under visual control
- Outer sheath with automatic connection



Anatomic overview in the axilla

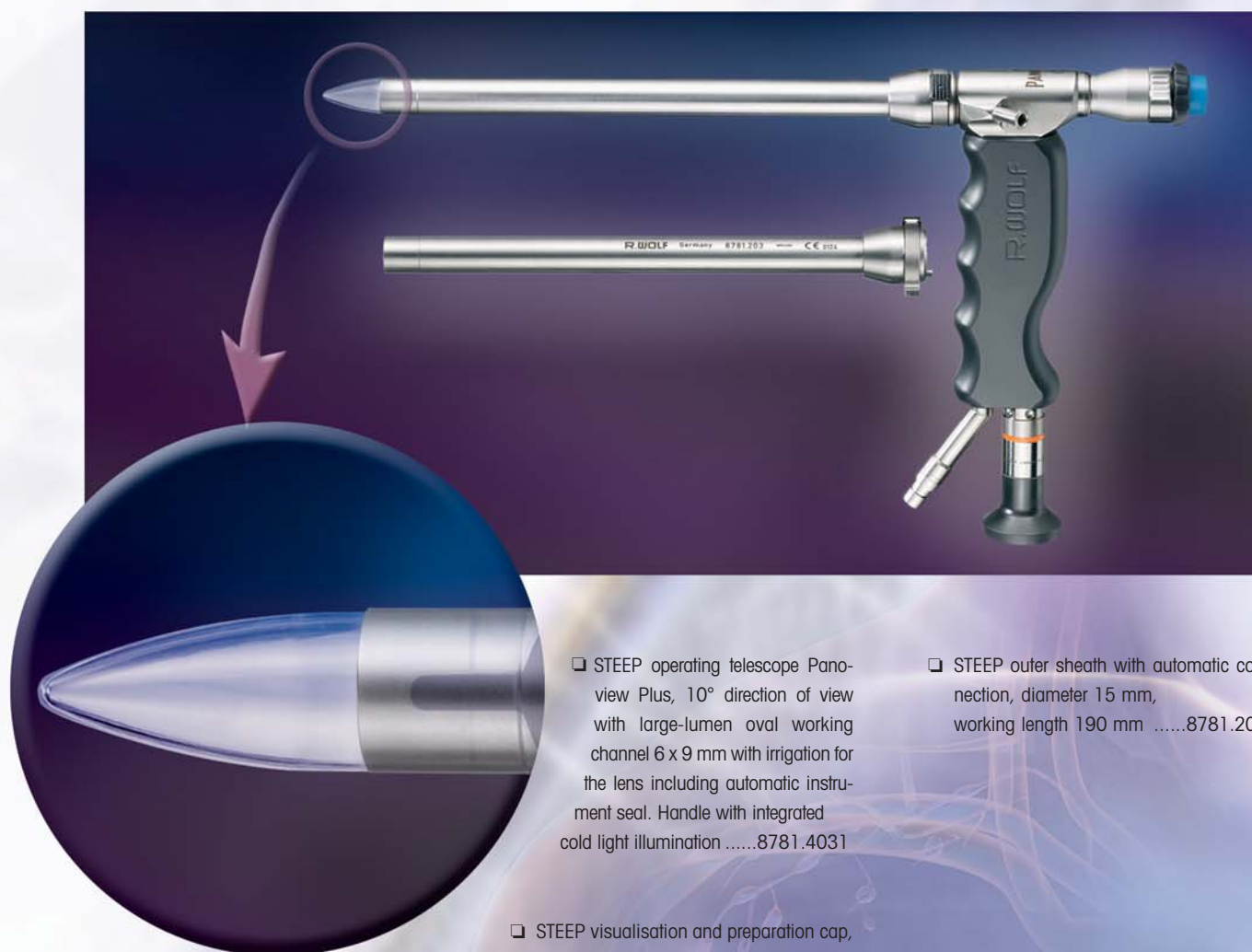


Access route through the breast



Relocated access in the axilla

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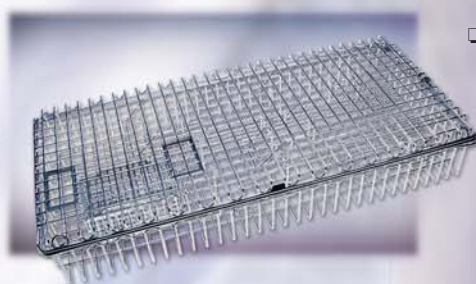


❑ STEEP operating telescope Pano-view Plus, 10° direction of view with large-lumen oval working channel 6 x 9 mm with irrigation for the lens including automatic instrument seal. Handle with integrated cold light illumination8781.4031

❑ STEEP outer sheath with automatic connection, diameter 15 mm, working length 190 mm8781.203

❑ STEEP visualisation and preparation cap, transparent, pack of 5, single sterile packed4781.103

❑ Reprocessing basket38046.111



Instruments for dissection and preparation see laparoscopy instrument catalogue.

