

# BOVINE



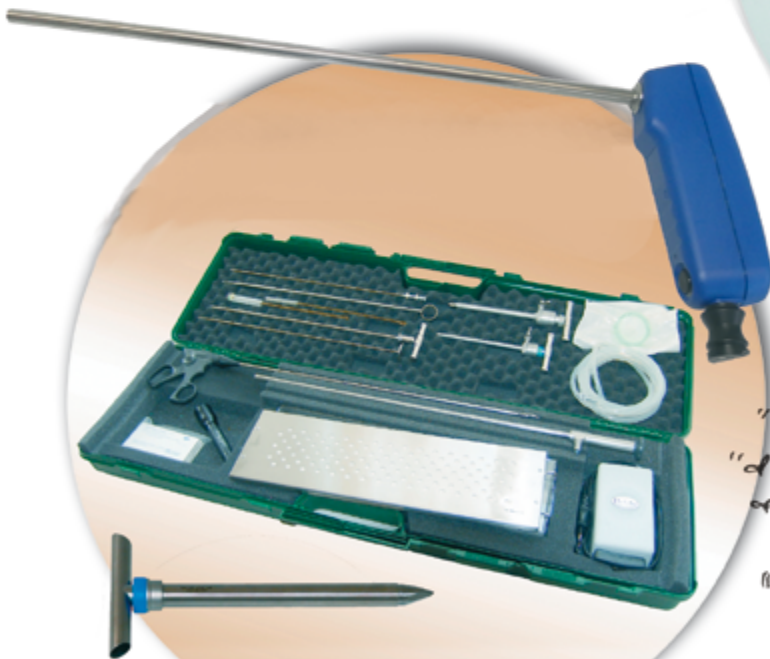
**KERATELIN®**

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**Zitzenendoskopie  
Theloskopie**

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**Laparoskopie  
Thorakoskopie**

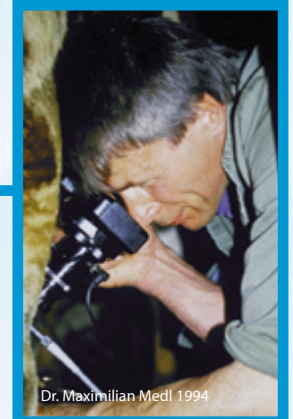
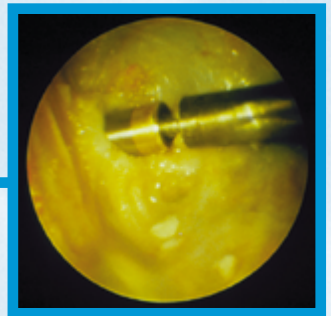
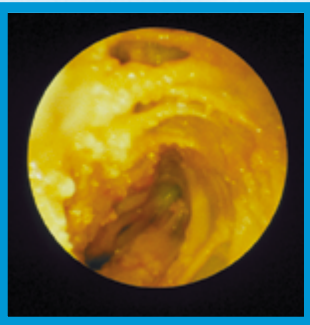
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# Bovine

Equipment for endoscopic diagnosis and minimal invasive treatment of teat disorders



Teat Endoscopy / Theloscopy  
in Dairy Cattle

# Teat Endoscopy / Theloscopy

## Treatment of teat disorders using minimal invasive techniques with teat endoscopy

The use of a lateral portal techniques in teat endoscopy by Maximilian Medl and Klaus Querengässer in 1994 has created a renaissance in research into teat disorders and treatment. Following their findings specific endoscopic equipment was developed to improve diagnosis and treatment.



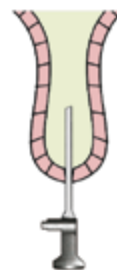
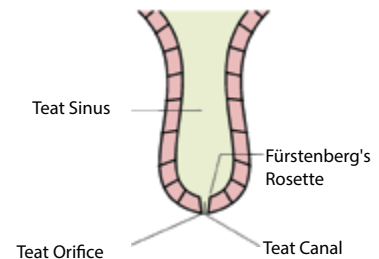
A further new generation of instruments completes the set: first a teat clamp to enable endoscopy, secondly a new teat knife with disposable blades and thirdly our stenosis cutter acc. to Eisenhut. We supply a suitable transport case to protect the scope and the instruments with additional parts. With our new Keratelin<sup>®</sup> products we offer excellent and professional after care service.

### Teat set standard

with battery handle, air pump, new instruments, complete in transportation case

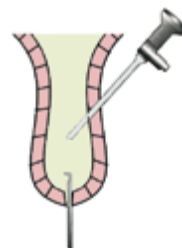
consisting of:

T141-3000	Wide angle telescope, 0°, OD: 3mm, WL: 14cm,
S140-3001	Sheath, OD: 4mm, WL: 12cm
LED-8-32	Light handle, mignon battery AA, 1,5 VDC
ZB-5-3	Inflation pump, battery operated,
Z-40-05	Special teat probe
Z-44-85	Special teat clamp, with ratchet, size 12cm
Z-55	Teat knife acc.to Dr.Ebner,
Z-47-030	Stenoscutter D: 3,0 mm
Z-47-033	Stenoscutter D: 3,3 mm
DE-5-17	Cleaning brush, small, 17cm
DE2014-41	Sterilizing & storing case, 200x140x40mm
A79-IP6-SET	DIN Okular Lense with cover adaptor
K-4530-10	Special transportation case, for teat endoscopy



**Conventional Technique:**  
Examination via teat canal

An examination of the teat sinus is possible but you can not see the Fürstenberg's Rosette, where 95% of the internal lesions occur. Parallel treatment through the teat canal is difficult.



**Medl-Technique:**  
Examination and treatment via lateral teat wall

Only lateral perforation of the teat wall enables easy examination of the whole teat lumen and especially of the Fürstenberg's Rosette. Via teat canal treatment is possible under endoscopic control.

Please ask us or your customer service for a special quotation for your practice.

Literature: MEDL, M., K. QUERENGÄSSER et al.: Zur Abklärung und Behandlung von Zitzenstenosen mittels Endoskopie, Tierärztl. Prax. 1994, 22:532-7 / QUERENGÄSSER, K.: Diagnose u. Therapie v. Zitzenstenosen beim Rind mittels Endoskopie, Univers. Zürich, Diss. 1998 / SEEH, C., R. HOSPEIS: Erfahrungen mit einem Theloresektoskop, Tierärztl. Prax. 1998, 26(G):110-8

# Teat Endoscopy / Theloscopy

Treatment of teat disorders using minimal invasive techniques with teat endoscopy



- wireless video transmission
- for TV, notebook, PC
- Li battery
- resolution 400x400

## SET-Z6-VE

Video teat endoscopy set Basic, 3,5 mm  
wireless video endoscope with radio transmission 5,8GHz:

97-FU17	wireless endoscope (VCS3), charger
TXL2-580M	5" monitor, receiver&recorder, battery operated
TR-04-84S	sheath and trocar
K-4530-10	transportation case

(without picture)

## SET-Z6-VIS

Video teat endoscopy set Plus, 3,5 mm  
wireless video endoscope with radio transmission 5,8GHz:

97-FU17	wireless endoscope (VCS3), charger
TXL2-580M	5" monitor, receiver&recorder, battery operated
TR-04-84S	sheath and trocar
ZB-5-3	battery air pump/tube
Z-40-05	palpation probe
Z-44-85	teat clamp, 12 cm
Z-55	teat knife acc. to Ebner
Z-47-030	Stenosiscutter D: 3,0 mm
Z-47-033	Stenosiscutter D: 3,3 mm
DE-5-17	cleaning brush, 17 cm
DE2014-41	sterilizing tray
K-4530-10	transportation case



## SET-Z6-EW

Additional equipment  
(only in connection with VCS3, small animals)

to be used in teat endoscopy, consisting of:

TR-04-84S	sheath and trocar
ZB-5-3	battery air pump/tube
Z-40-05	palpation probe
Z-44-85	teat clamp, 12 cm
Z-55	teat knife acc. to Ebner
Z-47-030	Stenosiscutter D: 3,0 mm
Z-47-033	Stenosiscutter D: 3,3 mm
DE-5-17	cleaning brush, 17 cm
DE2014-41	sterilizing tray
K-4530-10	transportation case

more informations to VCS3 see page 12

# Teat Endoscopy / Theloscopy

## Standard Instruments

### The new standard

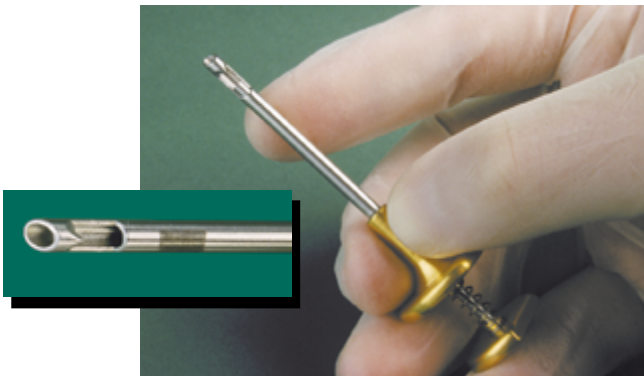


#### Teat knife acc. to EBNER

- handle with disposable blade
- blades easy to change and safe
- for each large animal practice

- Z-55 Teat knife acc. to Dr. Ebner, pat. locking system, handle and 1 blade (disposable)
- Z-55-2 Teat knife acc. to Dr. Ebner, pat. locking system, const. of: handle (Z-55) and 10 spare blades (Z-55-1)
- Z-55-1 Scalpel blades f. teat knife, 10pcs/b individually packed, sterile, comp. to handle type Z-55

### The second generation



#### Stenosis cutter acc. to EISENHUT

- high quality tissue punch
- easy to clean

- Z-47-030 Stenosiscutter acc. to EISENHUT, small OD: 3mm, WL: 4,5cm, color code: metal
- Z-47-033 Stenosiscutter acc. to EISENHUT, large OD: 3,3mm, WL: 4,5cm, color code: gold

\*the second generation\*



- Z-40-05 Special teat probe for teat canal measurement and palpation
- DE-5-17 Cleaning brush small, 17cm, for tubes ID:2 - 4mm, autoclavable, 1 pc.
- DE-10-300 Disinfection and cleaning solution IP for flexible and rigid endoscopes, 5 litres concentrate for 1-3% dilutions for manual and automated use (without picture)

## Keratelin® teat products

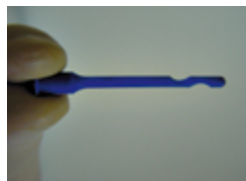
for teat care

THELASEL teat dilator  
the natural solution



Z-99025-TH

KERATELIN -  
Milk Canula, disposable



Z-99055

KERATELIN „P2-Cath“  
Permanent Catheter



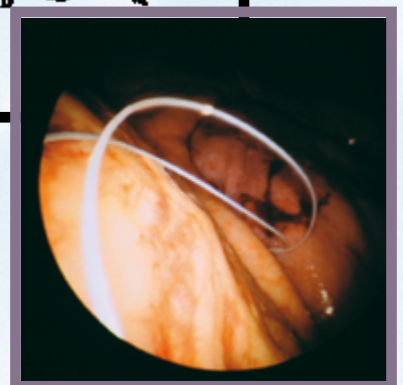
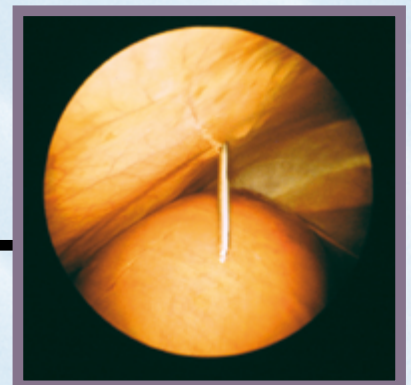
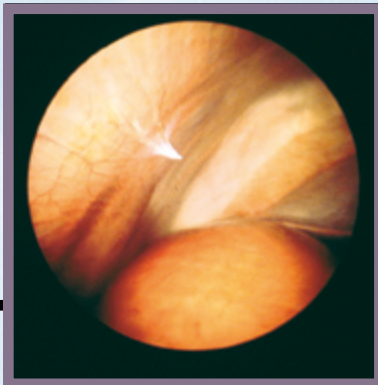
Z-99027



- Attention: sterile product - return shipment not accepted

# Bovine, Large Animals

Equipment for laparoscopic repositioning  
and fixation of abomasal displacement (acc. to Dr. Janowitz),  
accessories for standing upright position (acc. to Dr. Christiansen)



Bovine Laparoscopy

# Laparoscopy

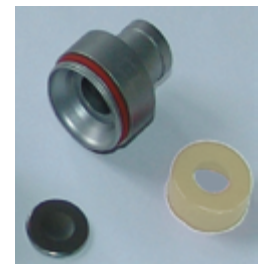
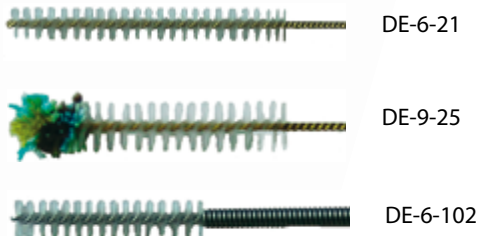
## Telescopes, Trocars and Accessories

### Telescope, Trocars

- T420-8000V Wide angle telescope, 0°, OD: 8 mm, WL: 46 cm. large image and safety version, for large animal practices
- TS40-8S Video telescope, 0°, wireless, OD: 8 mm, WL: 40 cm, in-built LED light & 5,8Ghz sender, rechargeable Li battery, fully immersible, resolution: 720x640pxs, robust veterinary version, set consisting of: video laparoscope (TS40-8), charger(TV27-NET)
- 234-200V Cannula only, magnetic valve, ID: 8mm, WL:12cm, stainless steel, stopcock
- 234-166V Trocar, only, cork screw handle, special sharp tip, for cannulas ID: 8mm, WL: 12cm
- 231-201V Cannula only, magnetic valve, ID: 5,5mm, WL:12cm, stainless steel, stopcock
- 231-166V Trocar, only, cork screw handle, special sharp tip, for cannulas ID: 5,5mm, WL: 12cm

#### Accessories:

- 234-211 Spare sealing caps, for trocar cannula 8 mm, p. of 10 pcs.
- 231-211 Spare sealing caps, for trocar cannula 5,5 mm, p. of 10 pcs.
- 230-215 Spare magnetic valve flap 8/10/11/12/13 mm, p. of 2 pcs.
- 231-215 Spare magnetic valve flap 5,5 mm, p. of 2 pcs.
- DE-6-21 Cleaning brush for tubes, size: 4 to 7 mm, 20 cm
- DE-9-25 Cleaning brush for tubes, size: 7 to 10 mm, 25 cm
- DE-6-102 Cleaning brush, flexible, for tubes, size: 5 to 8 mm, 70 cm



fully dismantable magnetic flap valve system



- easy to use
- easy to clean
- long life span



TS40-8S

Video-Laparoscope, integrated camera and LED light

T420-8000V

### Light sources for field practice

see page 156



LED-8-35

- LED-8-35 LED light handle, accu power set, comp.to Fritz/Wolf, handle water resistant, consisting of: handle only (LED-8-35G), charger (LED-8-35LA), Li accu block 3,7Vx 1Ah (LED-8-35B)



# Laparoscopy

## Instruments, Accessories

### Safety toggle

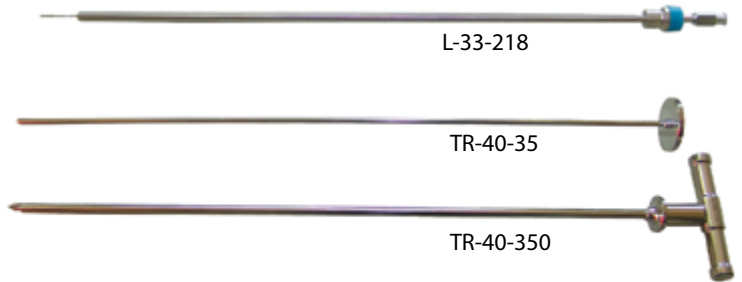


- robust and break resistant (material)
- 90 cm double suture material
- increased stiffness of suture material to assist placement in abdomen
- with markings along the suture

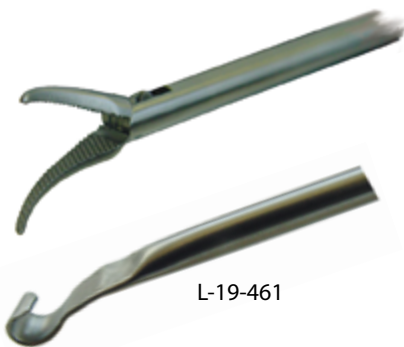
LO-40-04 Safety toggle pin acc. to Dr. Janowitz, for laparoscopic abomasal fixation, 5 pcs.

### Needle, puncture system

- L-33-218 Palpation probe and puncture cannula, OD 5 mm, 33 cm
- TR-40-350 Toggle placing trocar set acc to Janowitz, OD: 5 mm, WL 35 cm, consisting of: cannula only (TR-40), trocar only (TR-40-3), obturator (TR-40-35)



### Suture grasping forceps



- L-19-757 Suture grasping & preparation forceps acc. to Dr. Janowitz, long version, OD: 5mm, WL: 46 cm, cleaning connector
- L-19-746 Suture and preparation forceps acc. to Dr. Janowitz, specific version, OD: 5,5 mm, WL: 33 cm, cleaning connector – short version: optional –
- L-19-461 Suture grasping hook acc. to Dr. Meyer, 5 mm, 40 cm

### Accessories – optional



- 531.01H05V Metzenbaum scissors, 5 mm, 33 cm, curved insulated, dismantable, rotatable, plastic handle
- 531.60H01V Biopsy forceps, 5 mm, 33 cm, double action jaws, insulated, dismantable, rotatable
- DE-3-456 Cleaning brush, for long tubes ID: 2,5-5 mm, 6 pcs. (without picture)

# Laparoscopy

## Spieker acc. to Christiansen



TR-78-766  
completely mounted

for laparoscopic  
repositioning of LDA,  
in a standing upright  
position

Janowitz and  
Christiansen,  
Giessen 2003

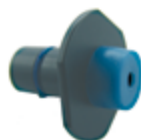


Spieker, fully dismantled

TR-78-766 Christiansen's spieker for large animals  
1 m, consisting of:  
outer tube TR-78-763  
lancet TR-78-761,  
inner tube TR-78-762



TR-13-145



237-505

TR-13-145 Working trocar, ID: 13 mm, NL: 14 cm incl.  
cannula (TR-145), sharp trocar (TR-13)

230-505 Reducer adapter for trocars from  
13 to 5 mm

# Laparoscopy

## Soak basin



DE-10-426 Soak basin for chemical solution disinfection consisting of basin /perforated), tray & cover for basin, size:72,5x20x14 cm

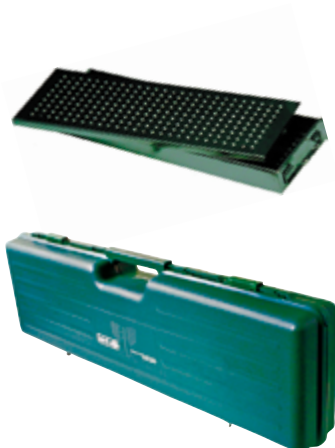
## Suction & inflation pump



- H140-35 Suction & irrigation pump, soft system, complete with 2 bottles (suction/ water) 1 litre each, tubing set autoclavable, vacuum: 3 L/min, max: 0,4 bar pressure: 4 L/min, max.0.5 bar (400mmHg) incl. transformer 115- 240VAC;50/60Hz
- H150-1-1 Inflation pump, small, 4 litre/min silicon tube, LL(m), 3m, 230VAC, 50/60Hz
- H150-1-1X Inflation pump, small, 4 litre/min max. 0,25bar, 115VAC;60Hz US-connector incl. silicon tube, LL(m) (without picture)

## Transportation case and instruments container

for safe storage of your cold light source, instruments and telescopes



- DE4011-48 Sterilizing and storing case, stainless steel, 40x11x6 cm, lid perforated, with textile filter
- K-8427-11 Case for storage and transport of telescopes and instruments, 84x27x11 cm,
- Y-K-8427-13 Spare inlay for transportation case type K-8427-11, washable (without picture)

# Laparoscopy

Set for laparoscopic repositioning and fixation of abomasal displacement in cattle acc. to Dr. Janowitz

## Sets with LED light handle

This set allows the veterinary surgeon to use a quick, and extremely safe technique with no medication requirements as well as quick recovery of the patient. The basic element in the set is a specially developed robust scope with a length designed specifically for this purpose. Instruments are specifically designed for use in large animal field situations and stored in a practical transport case to guarantee a long life.

In research programs it emerged that the traditional toggle system often offered inadequate strength and resulted in either rupture of the suture material or breakage of the plastic toggle material. This has led to the development of a new safety toggle with a 90 cm long break safe double suture.

### Basic Set



### Max. Set (+ Spieker acc. to Christiansen)



### 2-step technique (Janowitz technique)

- SET-LAB-231 Set for endoscopic LDA/RDA repositioning  
basic set complete including transportation case, consisting of:
- special cattle telescope, 8mm, 0°
  - trocars and trocar cannulas, 8 & 5mm
  - palpation probe and puncture needle
  - abomasal puncture trocar set
  - suture grasping forceps, long
  - suture grasping hook acc. to Meyer
  - safety toggle pins
  - sterilizing and storage tray
  - inflation pump
  - cleaning brushes
  - LED light handle, accu

### 2-step + 1-step technique (Janowitz + Christiansen technique)

- SET-LAB-232 as Set-LAB-231, but with Spieker acc. to Christiansen, including :
- trocar 13 mm
  - Christiansen's spieker
  - DIN ocular lense for i-phones

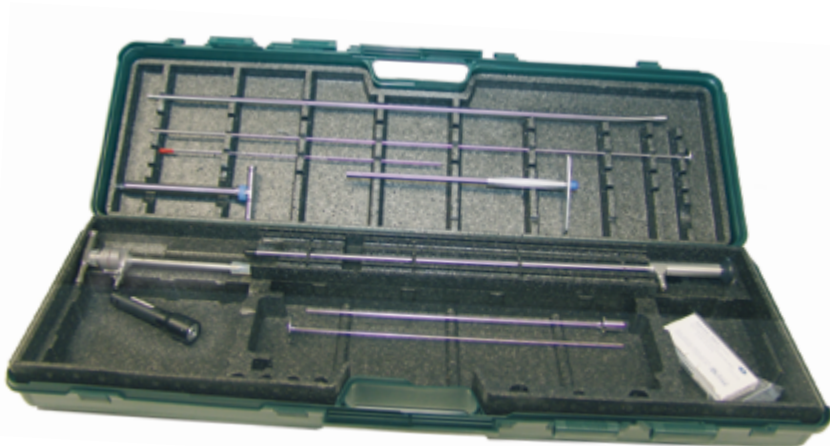
# Laparoscopy

Set for laparoscopic repositioning and fixation of abomasal displacement in cattle acc. to Dr. Janowitz

video laparoscopy set, wireless  
see next page

## Eco Set

## Adventure Set without telescope



1-step technique (only standing upright position)

1-step technique (only standing upright position)

- SET-LAB-233 Set „Eco“ for endoscop. LDA repositioning set including transportation case and spieker system, consisting of:
- cattle telescope, eco, 8mm, 0°
  - trocar and trocar cannula, 8 mm
  - toggle placing trocar cannula, blunt
  - LED light handle, battery
  - saftety toggle pins
  - trocar & cannula, 13mm, large
  - spieker acc.to.Christiansen

- SET-LAB-234 Set „Adventure“ for endoscopic LDA repositionig basic instruments, consisting of:
- trocar and cannula 13 mm with reducer cap for 10mm endoscopes
  - abomasal puncture trocar cannula and blunt obturator
  - saftety toggle pins (5 pcs.)

# Laparoscopy

## Video Set for laparoscopic repositioning and fixation of abomasal displacement in cattle, wireless

Video transmission:

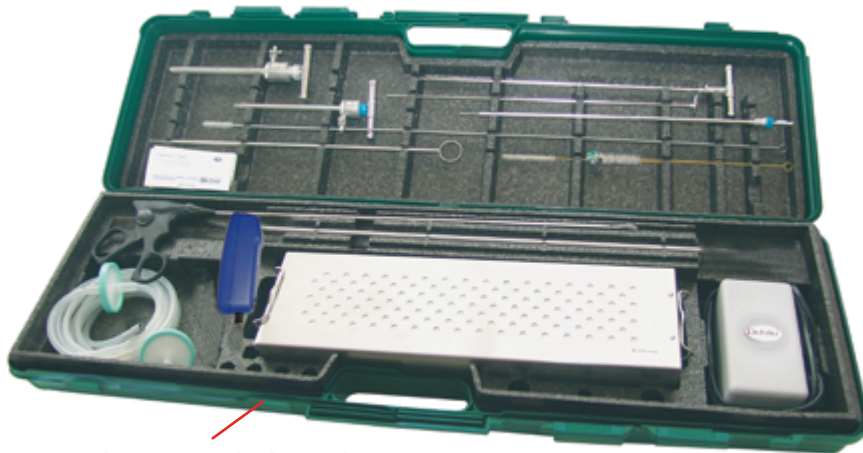
stationary

mobile



Video-Set wireless

• removable, washable inlay



case bottom can also be used as a disinfection basin

2-step technique (Janowitz technique)

SET-LAB-V41

Video set for endoscopic LDA/RDA repositioning acc.to Janowitz, standard set, with transportation case, consisting of:

- video cattle scope, 8mm, 0°, wireless
- trocars and trocar cannulas, 8 & 5mm
- palpation probe and puncture needle
- abomasal puncture trocar set
- suture grasping forceps, long
- suture grasping hook acc.to Meyer
- safety toggle pins (box w.5pcs)
- sterilizing and storage tray
- inflation pump
- cleaning brushes
- 5" receiver/monitor/recorder

for additional monitors and receivers see page: 37, 41, 115, 161