



**OUR TECHNOLOGY  
YOUR SKILL**



**ENT  
2014**



Our combined competences in medical endoscopy systems provide global solutions. From now on, SOPRO-COMEG forms the ideal leader with second-to-none "know-how": SOPRO in medical video imaging and COMEG in engineering endoscopy and micro lenses. Since many years, the product lines of SOPRO and COMEG have been setting the standards for image management systems with fully proven quality, efficiency, safety and convenience.

Our goal is to provide the safest and most advanced products and technologies that ensure reliable operating procedures and rapid recovery.

Synergy between our R&D Departments will result in products and systems that offer added clinical benefits and meet the requirements of patients, surgeons and the health care system even more effectively.

Engineers, mechanics, sales representatives... all our staff has one thing in common: their enthusiasm for hard work to serve our customers.

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French manufacturing plant

**La Ciotat - FRANCE**

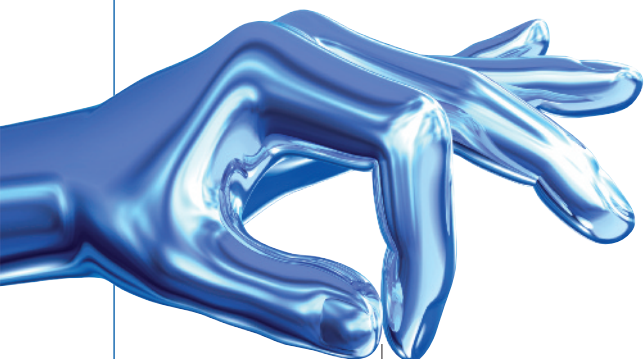
Surface : 3 200 m<sup>2</sup>



German manufacturing plant

**Tuttlingen - GERMANY**

Surface : 2 600 m<sup>2</sup>



## **1 • COMPANY**

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## Company history



**SOPRO**

**1977**

SOPRO was founded.

**1986**

Introduction of microcameras for endoscopy.

**2001**

SOPRO joins the Acteon Group.

**2003**

Sopro moves into a bigger, brand new building in La Ciotat.

**2004**

Acquisition of Geyser and development of a range of insufflators and pumps.



**COMEG**

**1975**

COMEG was founded.

**1977**

Introduction of medical endoscopes.

**1993**

Introduction of autoclavable endoscopes.

**1994**

Introduction of the urology product line.

**2001**

New optical generation of medical endoscopes.

**SOPRO  
COMEG**

**2006**

COMEG joins SOPRO

**2007**

Introduction of a Spine surgery product line

**2009**

Introduction of the Digilap Titanium, autoclavable videolaparoscope  
Introduction of the SOPRO 397 3CCD Full HD camera  
Introduction of the Sopro Medical Software  
Introduction of a range of bipolar forceps & scissors

**2010**

Introduction of the Full HD laparoscope  
Introduction of HEOS, the hysteroscopic endo operative system  
Introduction of UBIPACK, the complete solution for gynecology and ENT

**2011**

Introduction of ULYSS, 4mm autoclavable endoscope with variable direction of view

**2012**

New range of uretero-renaloscopes

**2013**

Introduction of a bipolar resectoscopy range

**Products range at a glance**



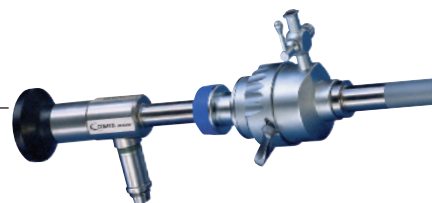
**SOPRO-COMEG offers a complete range ranking from capital equipment to re-usable, high quality, durable instruments. Whatever your application is: Urology, Laparoscopy, Arthroscopy, Gynecology, Spine, ENT, SOPRO-COMEG will offer you the best solution and fulfill your needs.**

**Capital equipment**

SOPRO-COMEG meets the needs of the surgeons and distributors by supplying the complete OR trolley. Our range includes video cameras ranking from 1 CCD to 3CCD Full HD, Xenon and LED light sources, insufflators, pump, shaver, medical grade monitor and archiving systems. These products already met a large worldwide success with the unmatched image quality they offer.

**Laparoscopy**

SOPRO-COMEG proposes a complete range of instruments for entry into the peritoneum, the first and most crucial step in successful laparoscopic surgery. A complete range of hand instruments in both monopolar and bipolar electrocautery versions is also available. The full HD 10mm laparoscope will provide you the quality you need for High Definition picture.



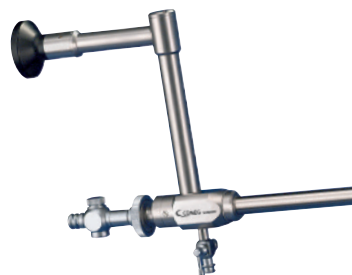
**Urology**



SOPRO-COMEG, a company with over 25 years experience in the urology field, offers endoscopes with exceptional optical quality and a complement of instruments which will ease even the most demanding urological procedures including: cystoscopy, resectoscopy and urethrotomy. These products are an integral part of recent technological advancements which improve the diagnosis-treatment process and the level of care that urologists can now offer to their patients.

**Gynecology**

Gynecology, hysteroscopy, resectoscopy and other procedures are made easier with the SOPRO-COMEG products. Clarity and efficiency are the key words of our gynecology range.



**Arthroscopy**



Sharp images, precision in visualization are possible through the use of our range for arthroscopy from 4.0mm telescopes to the small-joint arthroscopic lines.

**Spine**

Our spinal endoscopy system allows to treat disc-diseases. All types of hernias can be removed in a minimal invasive interlaminar approach, by means of the endoscopic technique. The technique also qualifies for the effective treatment of chronic back-ailments caused by disc-prolaps or tears. Furthermore, endoscopic treatment of spinal stenosis has increased.



**ENT**



Our field of activities also includes all areas of the ENT disciplines, whether it is diagnostics or therapy, practice or clinic. We propose rigid endoscopes and accessories necessary for sinuscopy, otoscopy and laryngoscopy. All our instruments are manufactured with the highest quality materials.

Company  
Optics  
ENT in Consulting Room  
Sinuscopy  
Otoscopy  
Laryngoscopy  
Bronchoscopy  
Maintenance

## Regulatory

**Our business practices and processes are designed to achieve quality results that exceed the expectations of patients, customers, surgeons. We are dedicated to the delivery of quality healthcare products around the world.**

From the start of development of a new device through manufacturing to the final quality control check before delivery, Quality is built in to all our products, as is our commitment and dedication to our customers throughout the world.

Both plants are certified to the highest international quality standard, ISO 13485 for Design, Manufacturing and Sales. Our products comply with the various regulations established across the world, specifically those required by the Food and Drugs Administration and the European Union.

### SOPRO and SOPRO-COMEG manufactures equipments and endoscopes in accordance with the following directives or standards:

- Medical device directive 93/42 EEC (M5 2007/47 EEC)
- DIN EN ISO 13485 : 2003 AC:2007 certified : Quality management system
- EN ISO 13485: 2003 AC:2007 certified Quality management system
- EN ISO 13485: 2003 AC:2007 certified Quality management system (issued according to CMDCAS program requirements)
- Series of standards IEC 60601
- Series of standards ISO 8600
- FDA regulations\* (FDA Quality system Regulation 21 CFR Part 820).
- EC attestations issued for all our class II devices..



\*the newest ones may be 510(k) pending.

## Research & Development

Innovation being the key to improve health, SOPRO-COMEG invests a significant part of its revenue in R&D and patents filing. Our key know-how is Medical imaging with a combination of young & experimented engineers focused on Electronics, Software, Optics and Mechanics.

Also, we in SOPRO-COMEG, have access to the very wide R&D department and connections of our mother company, Acteon group, adding to the previous know-how : ultrasounds, chemical, motors, X-Ray and Cone Beam Computer Tomography systems (CBCT).

This very rare combination of know-how allows us to join the extremely limited group of the companies mastering the design & the manufacturing of the complete endoscopy solution.

## Service & Assistance

**In both our main plants (La Ciotat and Tuttlingen), our on-site specialists are dedicated to servicing and providing expertises to your SOPRO-COMEG products:**

- Express repair of all our products under warranty
- Free quotation for all repairs out of warranty
- Qualified repair with original spare parts
- Streamline endoscope exchange program)
- Technical training

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## Representative offices

**Our local staff will support you, wherever you are in the world.**

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The logo features two curved, swoosh-like shapes. The top swoosh is light green and curves from the right side towards the center. The bottom swoosh is light blue and curves from the left side towards the center. The text 'SOPRO' and 'COMEG' is centered between these two swooshes.

SOPRO  
COMEG



## **2 • OPTICS**

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## SOPRO-COMEG Optics



**With more than 30 years as well known manufacturer, SOPRO-COMEG develops its own endoscopes in Tuttlingen (Germany) with the best and latest technology know-how.**

- **Stainless steel tubes:**

Choice of stainless steel tubes is done to ensure optimal quality and solidity by using European quality stainless steels. Our mechanical manufacturing department is making all cutting, polishing, finishing steps to provide you the optimal devices quality and to offer better resistance to disinfection chemical agent.

- **Rod lenses, objective and ocular:**

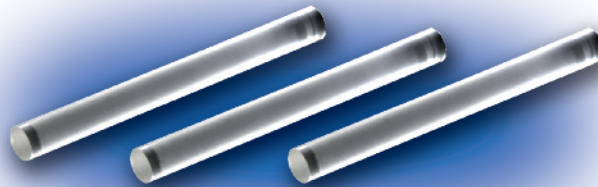
Since several years, SOPRO-COMEG research and development department does optical calculation to optimized parameters of brightness, contrast and resolution according to the intended use of the endoscope.

Sizes, designs, optical coatings, raw materials, all are precisely chosen by our engineers to achieve the quality you need.

By using the well-known **rod lenses** design and added **multi coating** on each interfaces, the SOPRO-COMEG endoscope offers you the best of the know-how in medical endoscope manufacturers.

During assembly process, the complete optical system is optimized with ocular and objective to achieve the requirements of quality.

Our SOPRO-COMEG Full HD laparoscope is able to provide a constant **high resolution** picture full screen in order to complete your Full HD video chain.



- **Light fibers** are selected and calculated to provide maximum light in the operating field. Our internal manufacturing process permits to position the fibers in order to illuminate in the same direction as the direction of view of your endoscope. Endoscope light fibers can easily be connected to many of existing light cable and all our endoscope are delivered with light cable adapters (Karl Storz, Olympus, Richard Wolf, ACMI).

- **Cleaning, disinfection, sterilization and reliability** are ones of the most important requirements of today endoscopes.

Thanks to our **laser welding** technology and our validated manufacturing processes, SOPRO-COMEG offers a constant assembly quality. The use of distal and proximal **sapphire window** avoids many scratches on the optical system and the tightness of the optical system is done with patented process using valuable raw materials. With this high technology, SOPRO-COMEG endoscopes are warranty autoclavable up to 134°C during 20 minutes, double fore-vacuum.

Cleaning disinfection and sterilization processes are validated by external laboratory to ensure the respect of quality requirements.

Our SOPRO-COMEG endoscopes can be clean manually or with automatic machines as defined in our user manual. SOPRO-COMEG endoscopes are compatible with the following sterilization methods:

- Steris TM
- Sterrad
- Vapor sterilization
- EtO
- Cidex
- Henkel-Ecolab Sekumatic FRE

## Streamline Exchange Program

Efficiency and reactivity are the main goals of our service department.

The **Streamline endoscope exchange program** is the perfect example of these commitments.

Streamline exchange program allows you to exchange your defective autoclavable optics from any brands for a newly manufactured SOPRO-COMEG optics.

All Streamline endoscopes are manufactured in our plant in Tuttlingen, Germany, with original parts to fulfill all specifications, standards and regulatory compliance ISO 13485 as the other SOPRO-COMEG optics. All individual parts are carefully checked by our incoming inspection department before assembly to achieve the quality you need.

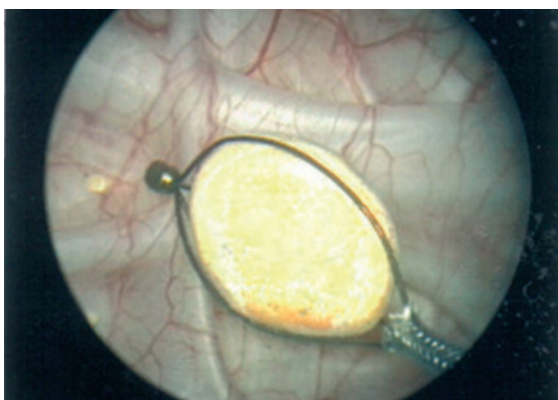
**48h:** it's the time we need to send you your Streamline endoscope after receipt of your order.

**Whatever is the autoclavable optics you send to us we provide your needs.**

As example, you can send us a broken autoclavable sinuscope from other brand and asking for a SOPRO-COMEG Full HD Streamline 10mm laparoscope.

Nevertheless, the SOPRO-COMEG optics technology permits to proceed, most of the time, to a repair. After expertise of your medical device, our technician will sent you a repair offer according to the repair flat rate.

If the device cannot be repair we will send you an offer for a Streamline product or, if the optics is not eligible to this Streamline exchange program, a very attractive pricing for new endoscope.



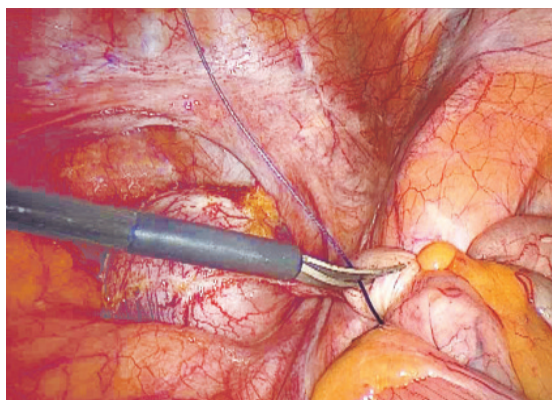
Cystoscopy



Gynecology

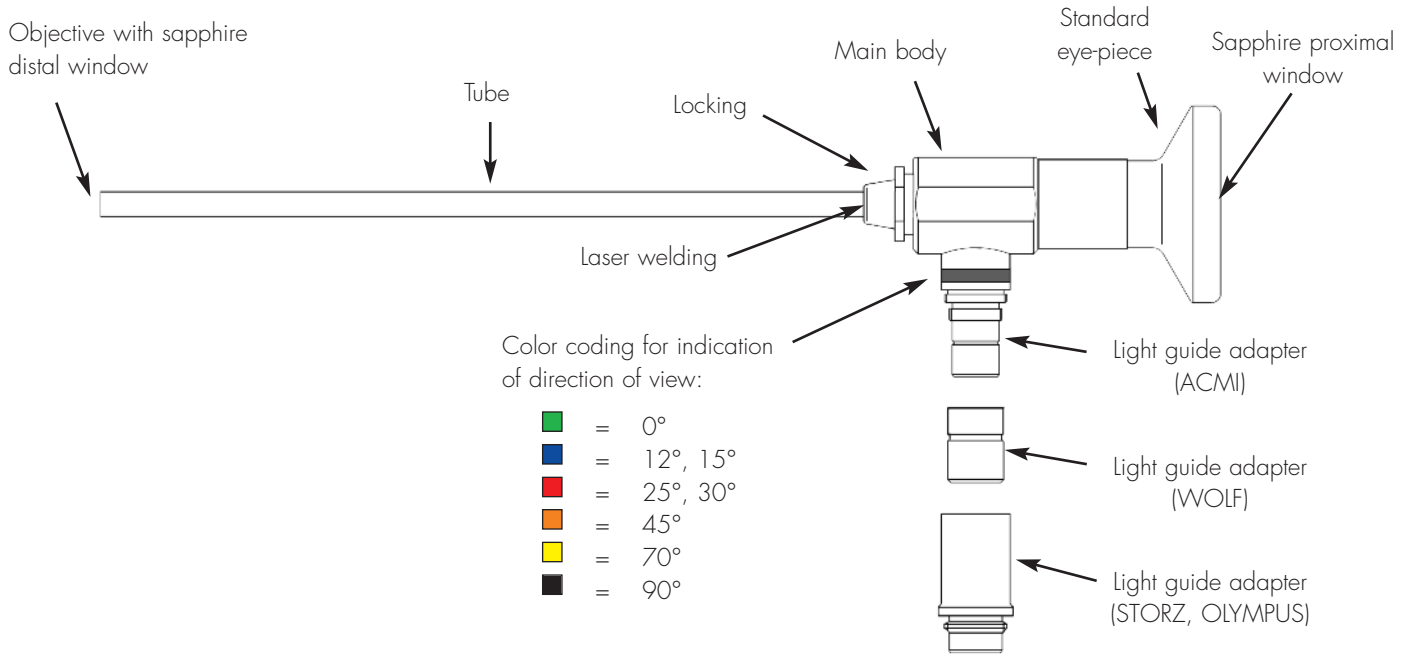


Sinuscopy



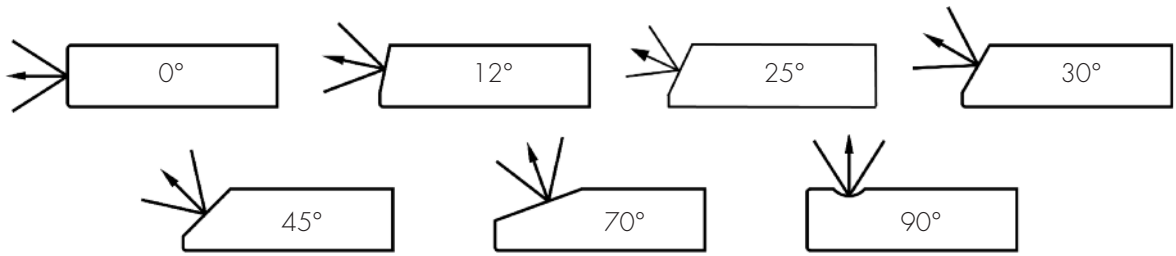
Laparoscopy

## General information



### Direction of view

Direction of view is defined by the angle between the deviation of the middle beam and the axis of the optical system.



### Field of view

Field of view is defined by the angle between the most left and right peripheral beam of the image. It is important for the distinction of wide-angle and standard-angle telescopes.



### “WIDE ANGLE” (WA)

“Wide angle” telescopes provide a bigger field of view.

The logo features two curved, swoosh-like shapes. A light blue swoosh starts on the left and curves upwards and to the right, ending under the word 'COMEG'. A light green swoosh starts on the right and curves upwards and to the left, ending over the word 'SOPRO'.

**SOPRO**  
**COMEG**



SOPRO  
COMEG

The logo features the words "SOPRO" and "COMEG" stacked vertically in a bold, sans-serif font. The text is centered between two large, curved swooshes that resemble stylized orbits or paths. The top swoosh is light green and curves from the right side towards the center. The bottom swoosh is light blue and curves from the left side towards the center. The text "SOPRO" is light green, and "COMEG" is light blue.



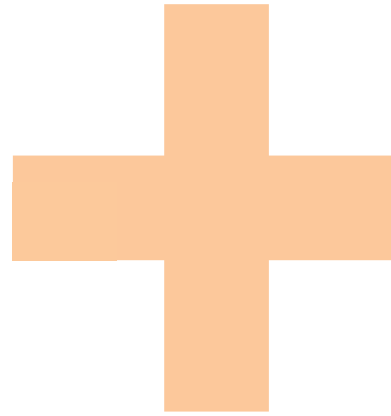
### **3 • ENT IN CONSULTING ROOM**

UBIPACK ENT .....	p18
UBICAM .....	p23
UBILED .....	p24
SOPRO IMAGING .....	p25

# UBIPACK<sub>ENT</sub>

## UBICAM

USB camera for diagnosis aid



### Compatibility

- Ubicam is compatible with all:
- Rigid endoscopes
  - Flexible endoscopes
  - Microscopes\*

### Cutting-edge technology



The new **ICE** (Intelligent Control Endoscope) feature of the Ubicam by Sopro-Comeg optimizes all settings according to the endoscope in use.

- This unique feature analyzes in real time:
- Size of the endoscope
  - Color temperature
  - Brightness



\* Equipped with a beamsplitter

# UBIPACK ENT



Powerful, ultra efficient and compact



### LED consulting light source

UBILED is packed with features with a compact and attractive design:

- Light output is comparable to a 100 watts xenon lamp
- LED lifespan of 50 000 hours
- Reduced in heat emission
- Bright illumination under all conditions
- Color temperature optimizing color contrast
- User-friendly



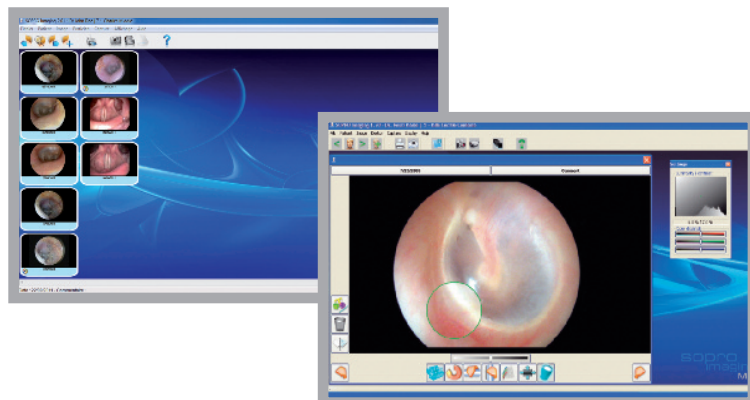
### Imaging software dedicated to diagnosis aid and patient management

Already hugely popular for many years for its ease of use and its multi-language format (25 languages), SOPRU imaging has been significantly improved with a sleek new view design and enhanced ergonomics.

Whatever your requirements, SOPRU imaging is the solution for streamlining your daily practice.

### Many tools accessible

- Capture of color frames or live video sequences
- Printing of medical reports
- Patient management
- Addition of comments
- Export or mailing of images and video sequences



# UBIPACK<sub>ENT</sub>

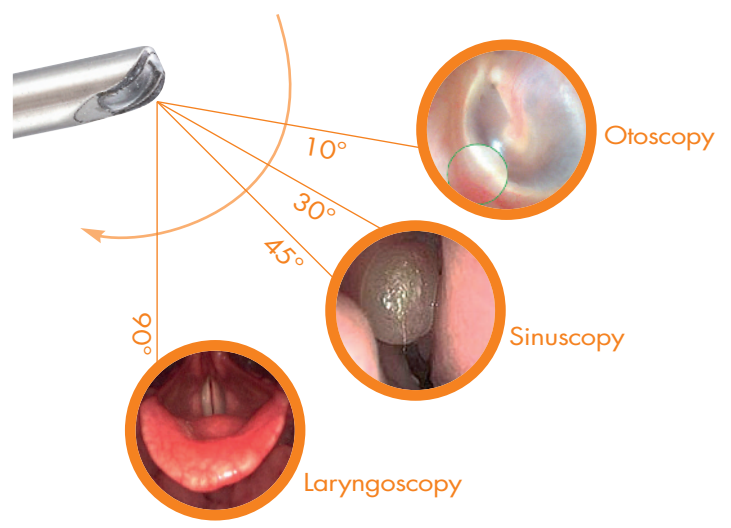


## ULYSS

Multi-view endoscope 10 to 100°



Multi-view endoscope, working length 175mm, autoclavable, titanium body, 340° shaft rotation.



### Sinuscope OR

Telescope Ø 4mm, length 175mm, autoclavable (tested up to 500 cycles) with rod lens optical system. Available in 0°, 30°, 45° or 70°.



### Otoscope OR

Telescope 0°, Ø 3 and 4mm, length 69mm, autoclavable (tested up to 500 cycles) with rod lens optical system.



# UBIPACK

## ENT

Art.-No.

**S\_K10 1000****UBIPACK ENT - PAL**

Included:

S\_181\_0011: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700215: light cable  
 505026: licence for Sopro Imaging Software  
 161 401 800: Ø 4 mm straight forward telescope 0°, autoclavable

Art.-No.

**S\_K10 1001****UBIPACK ENT - NTSC**

Included:

S\_181\_0015: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700215: light cable  
 505026: licence for Sopro Imaging Software  
 161 401 800: Ø 4 mm straight forward telescope 0°, autoclavable

Art.-No.

**S\_K10 1002****UBIPACK ENT - PAL**

Included:

S\_181\_0011: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700215: light cable  
 505026: licence for Sopro Imaging Software  
 161 401 802: Ø 4 mm straight forward telescope 30°, autoclavable

Art.-No.

**S\_K10 1003****UBIPACK ENT - NTSC**

Included:

S\_181\_0015: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700215: light cable  
 505026: licence for Sopro Imaging Software  
 161 401 802: Ø 4 mm straight forward telescope 30°, autoclavable

Art.-No.

**S\_K10 1004****UBIPACK ENT - PAL**

Included:

S\_181\_0011: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700215: light cable  
 505026: licence for Sopro Imaging Software  
 161 401 803: Ø 4 mm straight forward telescope 45°, autoclavable

Art.-No.

**S\_K10 1005****UBIPACK ENT - NTSC**

Included:

S\_181\_0015: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700215: light cable  
 505026: licence for Sopro Imaging Software  
 161 401 803: Ø 4 mm straight forward telescope 45°, autoclavable

Art.-No.

**S\_K10 1006****UBIPACK ENT - PAL**

Included:

S\_181\_0011: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700267: light cable  
 505026: licence for Sopro Imaging Software  
 161 401 805: Ø 4mm lateral telescope 70°, autoclavable

Art.-No.

**S\_K10 1007****UBIPACK ENT - NTSC**

Included:

S\_181\_0015: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700267: light cable  
 505026: licence for Sopro Imaging Software  
 161 401 805: Ø 4mm lateral telescope 70°, autoclavable

Art.-No.

**S\_K10 1008****UBIPACK ENT - PAL**

Included:

S\_181\_0011: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700215: light cable  
 505026: licence for Sopro Imaging Software  
 161 300 650: Ø 4 mm straight forward otoscope 0°, autoclavable

Art.-No.

**S\_K10 1009****UBIPACK ENT - NTSC**

Included:

S\_181\_0015: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700215: light cable  
 505026: licence for Sopro Imaging Software  
 161 300 650: Ø 4 mm straight forward otoscope 0°, autoclavable

# UBIPACK ENT

Art.-No.  
**S\_K10 1010**

**UBIPACK ENT - PAL**

- Included:  
 S\_181\_0011: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700215: light cable  
 505026: licence for Sopro Imaging Software  
 161 400 650: Ø 3 mm straight forward otoscope 0°, autoclavable

Art.-No.  
**S\_K10 1011**

**UBIPACK ENT - NTSC**

- Included:  
 S\_181\_0015: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700215: light cable  
 505026: licence for Sopro Imaging Software  
 161 400 650: Ø 3 mm straight forward otoscope 0°, autoclavable

Art.-No.  
**S\_K10 1013**

**UBIPACK ENT with ULYSS - PAL**

- Included:  
 S\_181\_0011: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700215: light cable  
 505026: licence for Sopro Imaging Software  
 161 401 760: Ø 4.3mm ULYSS, multi-view endoscope

Art.-No.  
**S\_K10 1014**

**UBIPACK ENT with ULYSS - NTSC**

- Included:  
 S\_181\_0015: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700215: light cable  
 505026: licence for Sopro Imaging Software  
 161 401 760: Ø 4.3mm ULYSS, multi-view endoscope

Art.-No.  
**S\_K10 1015**

**UBIPACK ENT - PAL**

- Included:  
 S\_181\_0011: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700215: light cable  
 505026: licence for Sopro Imaging Software

Art.-No.  
**S\_K10 1016**

**UBIPACK ENT - NTSC**

- Included:  
 S\_181\_0015: USB camera UBICAM  
 S\_084\_0001: 18.5mm coupler, C-mount, scope holder  
 S\_281\_0002: LED light source UBILED  
 S\_700215: light cable  
 505026: licence for Sopro Imaging Software

Art.-No.  
**700 362**

**UBICART**

Includes a 4 way power strip and serum, camera and light cable holders.

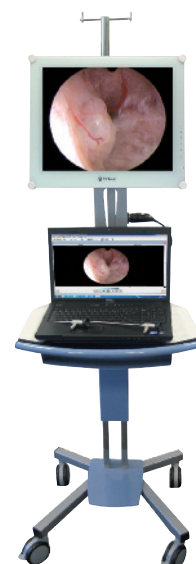
Art.-No.  
**700 418**

**UBICART**

Includes a 4 way power strip ; serum, camera and light cable holders ; isolation transformer.

Art.-No.  
**707 039**

Extra shelf (450x320mm).



Monitor, computer & optics not included



**SOPRO 181 USB 1CCD Camera**

UBICAM

**SPECIFICATIONS OF THE USB CAMERA HEAD**

- Sensor: CCD 1/4" high sensitivity
- Resolution: (752 x 582) PAL ; (768 x 494) NTSC
- Definition: 470 lines
- Sensitivity: 2 lux
- Signal/Noise Ratio: 52 dB
- Automatic electronic shutter: (1/50 to 1/100 000)
- Adjustable shutter area
- White balance with **ICE** feature
- Video enhancement
- Automatic saving of the adjusted parameters
- Automatic video setting detection
- Electronic anti-moire filter for flexible fiberscope
- Immersible USB connector
- Size of the sensor: L = 87mm, Ø = 30 mm
- Weight of the sensor: 210 g
- Cable length: 3 meters
- 1 USB 2.0 output
- Power supply: 5 V DC
- Power consumption: 2.5 VA
- Waterproof
- Cold disinfection
- Continuous Service

**Regulatory**

- Electrical safety: Class 1, BF type
- Comply with the European standard 93/42/EEC - Class I
- Comply with the international standards IEC 60601-1; IEC 60601-2-18 ; IEC 60417 and EN 980

**Environment**

- Operating Temperature range: +10°C / +40°C
- Operating Relative Humidity range: 30 to 75 %
- Transport and storage Temperature range: -10°C / +45°C
- Transport and storage Relative Humidity range: 20 to 85 %
- Operating, Transport and Storage Atmospheric pressure range: 700hPa to 1060hPa
- Not protected against waterfalls (IPX0)
- Not adapted to a use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_181_0011	UBICAM, USB2 stand alone solution, PAL, C-mount
S_181_0015	UBICAM, USB2 stand alone solution, NTSC, C-mount
S_084_0001	18.5mm coupler, C-mount, scope holder
505026	Sopro Imaging Medical licence



**SOPRO 281 - LED light source**



**SPECIFICATIONS**

- LED technology
- Nominal power: 30 W (light intensity of a 100W xenon light source)
- LED lifetime: 50.000 hours
- Color temperature: > to 4500°K
- Stand-by mode with light intensity memory
- Electronical iris
- Antiblooming system with light cable detection
- Automatic over temperature protection
- Adjustment of the light intensity
- Dimensions: D: 180mm; W: 95mm; H: 35mm
- Weight: 320g
- Power supply: (100 - 240 VAC ~ / 50 - 60 Hz)
- Light cable with Storz/Storz connector included
- Power consumption: 30 VA
- Continuous service

**Regulatory**

- Electrical protection: Class 1, BF type
- Comply with the European standard 93/42/EEC - Class I
- Comply with the international standards IEC 60601-1; IEC 60601-2-18 ; IEC 60417 and EN 980

**Environment**

- Operating Temperature range: +10°C / +40°C
- Operating Relative Humidity range: 30 to 75 %
- Transport and storage Temperature range: -10°C / +45°C
- Transport and storage Relative Humidity range: 20 to 85 %
- Operating, Transport and Storage Atmospheric pressure range: 700hPa to 1060hPa
- Not protected against waterfalls (IPX0)
- Not adapted to a use close to a mixture of inflammable anaesthetic with air or oxygen or nitrous oxide.

Art.N°	Description
S_281_0001	UBILED light source, 30W, Storz adapter
S_700215	Light cable L:2.3m ; Ø: 3,5mm, autoclavable

Sopro Imaging software



**SOPRO IMAGING SOFTWARE**

- Patient management
- Image and video captures
- Image annotation and drawings
- Zoom
- Medical reports
- Export your images and videos

**RECOMMENDED CONFIGURATION**

- Operating system: Windows® 7 Pro SP1
- Processor: Intel® Core 2
- RAM: 4 Gb
- Hard disk: 320 Gb or more
- USB ports: 4 USB2.0 Hi-Speed ports
- Graphic card: Chipset Nvidia® or ATI® / 512 MB unshared memory compatible DirectX 9
- USB Chipset: Intel or NEC® / RENESAS®
- Screen resolution: 1280 x 1024 or more

Art.N°	Description
990145	CD-Rom Sopro Imaging Medical software



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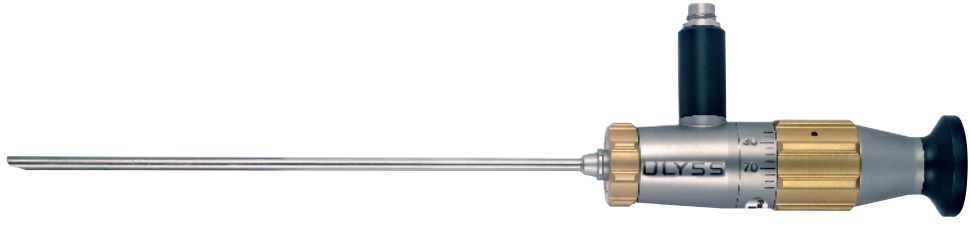


## **4 • SINUSCOPY**

Sinusscopes . . . . .	p28
Handles . . . . .	p31
Standard suction/irrigation handle and adaptable tubes . . . . .	p32
ULYSS suction/irrigation handle and adaptable tube . . . . .	p33
ULYSS suction/irrigation sheaths . . . . .	p33

## Sinuscopes

Art.-No. **161 401 760** **FULL HD** **NEW**



**ULYSS multi-view sinuscope, 10° to 100°**

- Ø 4.3 mm
- Length 175 mm
- With 340° shaft rotation
- With fiber optic light transmission incorporated
- Autoclavable
- Titanium body
- Delivered with sterilization sheath ref 191 402 061
- Patents : DE 10 2009 049 143 / U.S. No. 8,485,968

Art.-No. **161 271 760**

**Straight forward telescope 0°**

- Ø 2,7 mm
- Length 175 mm
- With rod lenses optical system
- With fiber optic light transmission incorporated
- Autoclavable
- Color code: ■

Art.-No. **161 271 762**

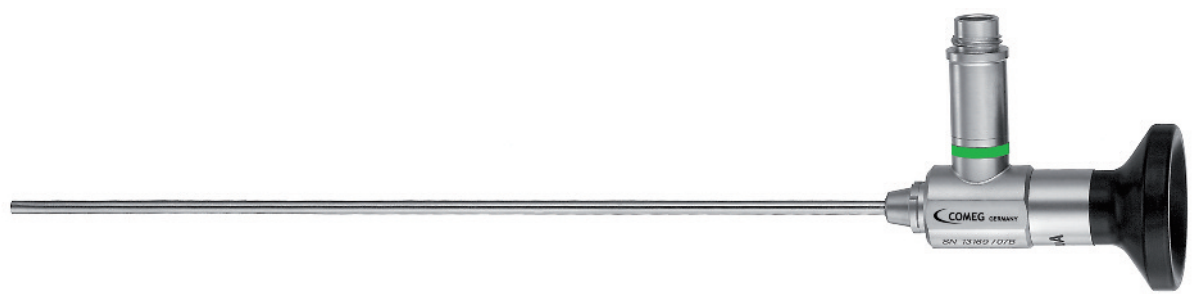
**Forward oblique telescope 30°**

- Ø 2,7 mm
- Length 175 mm
- With rod lenses optical system
- With fiber optic light transmission incorporated
- Autoclavable
- Color code: ■

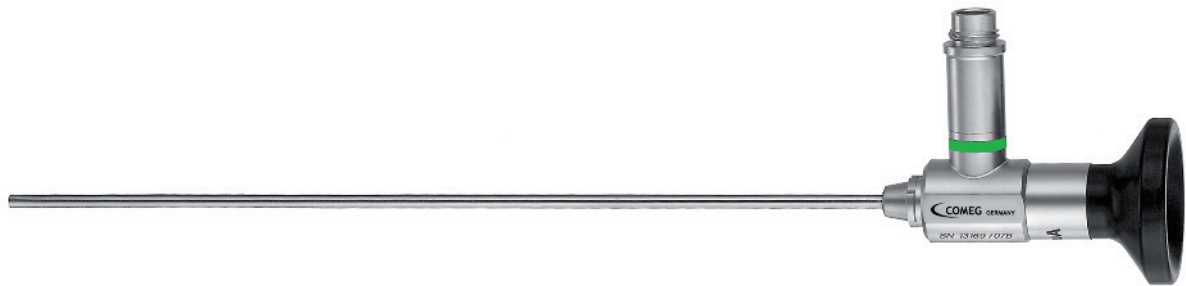
Art.-No. **161 271 765**

**Lateral telescope 70°**

- Ø 2,7 mm
- Length 175 mm
- With rod lenses optical system
- With fiber optic light transmission incorporated
- Autoclavable
- Color code: ■



## Sinusscopes



Art.-No.

**161 271 780****Straight forward telescope 0° wide angle** 

Ø 2,7 mm

Length 175 mm

Telescope provide a bigger field of view

With rod lenses optical system

With fiber optic light transmission incorporated

Autoclavable

Color code: 

Art.-No.

**161 271 785****Lateral telescope 70° wide angle** 

Ø 2,7 mm

Length 175 mm

With rod lenses optical system

With fiber optic light transmission incorporated

Autoclavable

Color code: 

Art.-No.

**161 271 782****Forward oblique telescope 30° wide angle** 


Ø 2,7 mm

Length 175 mm

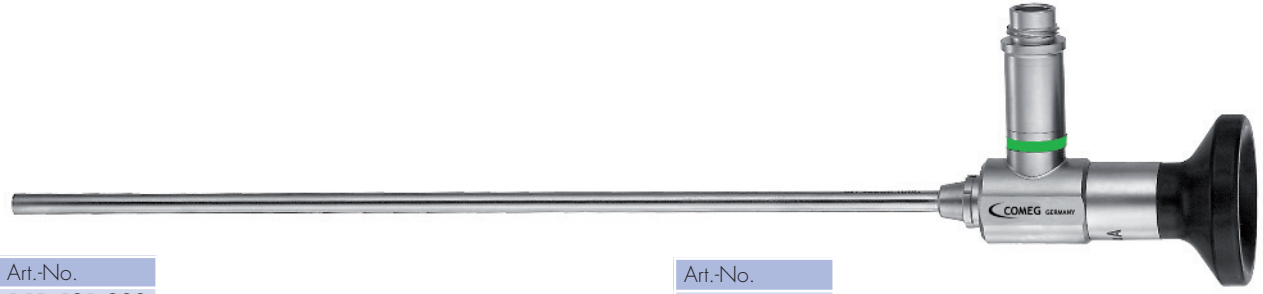
With rod lenses optical system

With fiber optic light transmission incorporated


Autoclavable

Color code: 


## Sinuscopes




Art.-No.  
**161 401 800**

**Straight forward telescope 0°**   
 Ø 4 mm  
 Length 175 mm  
 With rod lenses optical system  
 With fiber optic light transmission incorporated  
 Autoclavable  
 Color code: ■


Art.-No.  
**161 401 803**

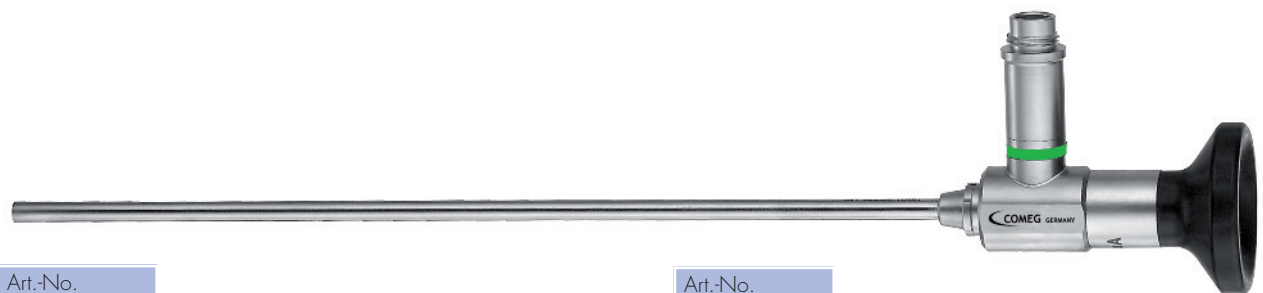
**Forward oblique telescope 45°**   
 Ø 4 mm  
 Length 175 mm  
 With rod lenses optical system  
 With fiber optic light transmission incorporated  
 Autoclavable  
 Color code: ■

Art.-No.  
**161 401 802**


**Forward oblique telescope 30°**   
 Ø 4 mm  
 Length 175 mm  
 With rod lenses optical system  
 With fiber optic light transmission incorporated  
 Autoclavable  
 Color code: ■

Art.-No.  
**161 401 805**


**Lateral telescope 70°**   
 Ø 4 mm  
 Length 175 mm  
 With rod lenses optical system  
 With fiber optic light transmission incorporated  
 Autoclavable  
 Color code: ■




Art.-No.  
**161 401 810**

**Straight forward telescope 0° wide angle**   
 Ø 4 mm  
 Length 175 mm  
 With rod lenses optical system  
 With fiber optic light transmission incorporated  
 Autoclavable  
 Color code: ■


Art.-No.  
**161 401 813**

**Forward oblique telescope 45° wide angle**   
 Ø 4 mm  
 Length 175 mm  
 With rod lenses optical system  
 With fiber optic light transmission incorporated  
 Autoclavable  
 Color code: ■

Art.-No.  
**161 401 812**

**Forward oblique telescope 30° wide angle**   
 Ø 4 mm  
 Length 175 mm  
 With rod lenses optical system  
 With fiber optic light transmission incorporated  
 Autoclavable  
 Color code: ■

Art.-No.  
**161 401 815**

**Latéral telescope 70° wide angle**   
 Ø 4 mm  
 Length 175 mm  
 With rod lenses optical system  
 With fiber optic light transmission incorporated  
 Autoclavable  
 Color code: ■

## Handles



Art.-No.  
**191 270 000**

**Handle Round**  
For  $\varnothing$  2,7 mm telescope

Art.-No.  
**191 400 000**

**Handle Round**  
For  $\varnothing$  4 mm telescope



Art.-No.  
**191 270 001**

**Handle Flat**  
For  $\varnothing$  2,7 mm telescope

Art.-No.  
**191 400 001**

**Handle Flat**  
For  $\varnothing$  4 mm telescope

## Standard suction/irrigation handle and adaptable tubes

Art.-No.

**191 500 000**

### Suction Irrigation handle

To use with Ø 2.7 mm or Ø 4 mm standard telescopes



Art.-No.

**191 270 100**

### Adaptable Tube

For Ø 2.7 mm telescopes, 0° and 30°  
ref 161 271 760 - 161 271 762

Art.-No.

**191 400 100**

### Adaptable Tube

For Ø 4 mm telescopes, 0° and 30°  
ref 161 401 800 - 161 401 802



Art.-No.

**191 270 105**

### Adaptable Tube

For Ø 2.7 mm telescope, 70°  
ref 161 271 765

Art.-No.

**191 400 105**

### Adaptable Tube

For Ø 4 mm telescope, 70°  
ref 161 401 805



Company

Optics

ENT in Consulting Room

Sinuscopy

Otoscopy

Laryngoscopy

Bronchoscopy

Maintenance

## Ulyss suction/irrigation handle and adaptable tube

Art.-No.  
**191 500 110**

### Suction Irrigation handle

To use with ULYSS multi-view sinuscope ref 161 401 760



Art.-No.  
**191 400 110**

### Adaptable Tube

For ULYSS multi-view sinuscope  
ref 161 401 760



## Ulyss suction/irrigation sheaths

Art.-No.  
**191 401 770**

### Suction Irrigation sheath

Ø5.2 mm, useful length 14 cm

Quick-Connect

4 mm adapter and Luer-lock for suction/irrigation tubing connections

Compatible with Dessi auto-laveur® system



Art.-No.  
**191 401 771**

### Suction Irrigation sheath

Ø5.2 mm, useful length 14 cm

Quick-Connect

Two Luer-lock connections for suction/irrigation tubing connections



The logo features two curved, swoosh-like shapes. The top swoosh is light green and curves from the right side towards the center. The bottom swoosh is light blue and curves from the left side towards the center. The text 'SOPRO' and 'COMEG' is centered between these two swooshes.

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## **5 • OTOSCOPY**

Otoscopes .....p36


Sheaths .....p36

## Otoscopy




Art.-No.  
**161 300 650**

### Straight forward telescope 0°

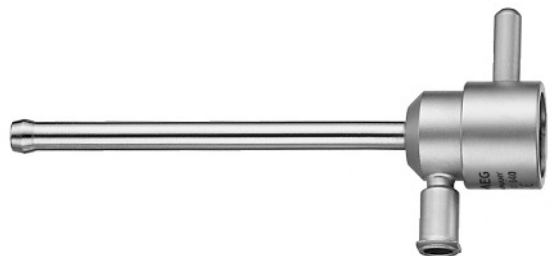
Ø 3 mm  
Length 69 mm  
With rod lenses optical system  
With fiber optic light transmission incorporated  
Autoclavable  
Color code: 

Art.-No.  
**161 400 650**

### Straight forward telescope 0°

Ø 4 mm  
Length 69 mm  
With rod lenses optical system  
With fiber optic light transmission incorporated  
Autoclavable  
Color code: 

## Sheaths



Art.-No.  
**191 300 640**

### Sheath

With LUER-Lock connection  
To use with Ø 3 mm telescope, ref 161 300 650

Art.-No.  
**191 400 640**

### Sheath

With LUER-Lock connection  
To use with Ø 4 mm telescope, ref 161 400 650



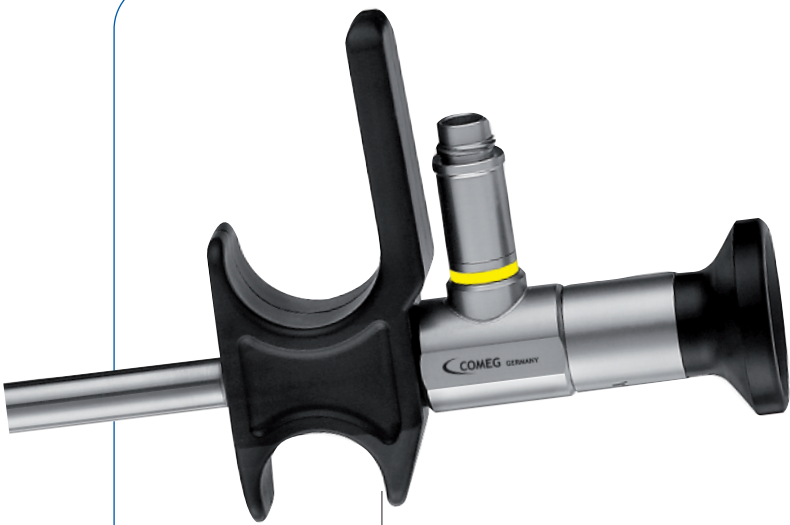
SOPRO  
COMEG

The logo features the words "SOPRO" and "COMEG" stacked vertically in a bold, sans-serif font. "SOPRO" is rendered in a light green color, while "COMEG" is in a light blue color. The text is centered between two large, curved swooshes that resemble stylized orbits or paths. The upper swoosh is light green and curves from the top right towards the center. The lower swoosh is light blue and curves from the bottom left towards the center, creating a sense of motion and framing the text.



SOPRO  
COMEG

The logo features the words "SOPRO" and "COMEG" stacked vertically in a bold, sans-serif font. The text is centered between two large, curved swooshes that resemble stylized orbits or paths. The top swoosh is light green and curves from the right side towards the center. The bottom swoosh is light blue and curves from the left side towards the center. The text "SOPRO" is light green, and "COMEG" is light blue.



## 6 • LARYNGOSCOPY


laryngoscopes .....p40

## Laryngoscopes



Art.-No.  
**162 081 685**


**Lateral telescope 70°** 

- Ø 8,5 mm
- Length 185 mm
- With rod lenses optical system
- With fiber optic light transmission incorporated
- Autoclavable
- Color code: 



Art.-No.  
**162 081 687**

**Lateral telescope 90°** 

- Ø 8,5 mm
- Length 185 mm
- With rod lenses optical system
- With fiber optic light transmission incorporated
- Autoclavable
- Color code: 



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The logo features the words "SOPRO" and "COMEG" stacked vertically in a bold, sans-serif font. The text is centered between two large, curved swooshes that resemble stylized orbits or paths. The top swoosh is light green and curves from the right side towards the center. The bottom swoosh is light blue and curves from the left side towards the center. The text "SOPRO" is light green, and "COMEG" is light blue.





## **7 • BRONCHOSCOPY**

Bronchoscopes . . . . . p44



## Bronchoscopes





Art.-No.  
**164 044 510**

**Bronchoscope 0°**   
 Ø4mm  
 Length 492mm  
 With rod lenses optical system  
 With fiber optic light transmission incorporated  
 Autoclavable  
 Color code: 



Art.-No.  
**164 055 000**

**Bronchoscope 0°**   
 Ø5.5mm  
 Length 489mm  
 With rod lenses optical system  
 With fiber optic light transmission incorporated  
 Autoclavable  
 Color code: 

Art.-No.  
**164 055 002**

**Bronchoscope 30°**   
 Ø5.5mm  
 Length 489mm  
 With rod lenses optical system  
 With fiber optic light transmission incorporated  
 Autoclavable  
 Color code: 

Art.-No.  
**164 053 630**

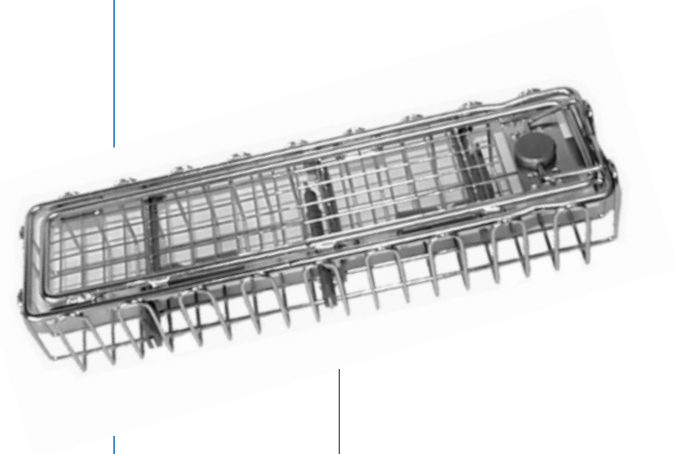
**Bronchoscope 0°**   
 Ø5.5mm  
 Length 363mm  
 With rod lenses optical system  
 With fiber optic light transmission incorporated  
 Autoclavable  
 Color code: 

The logo features two curved, swoosh-like shapes. The top swoosh is light green and curves from the right side towards the center. The bottom swoosh is light blue and curves from the left side towards the center. The text 'SOPRO' and 'COMEG' is centered between these two swooshes.

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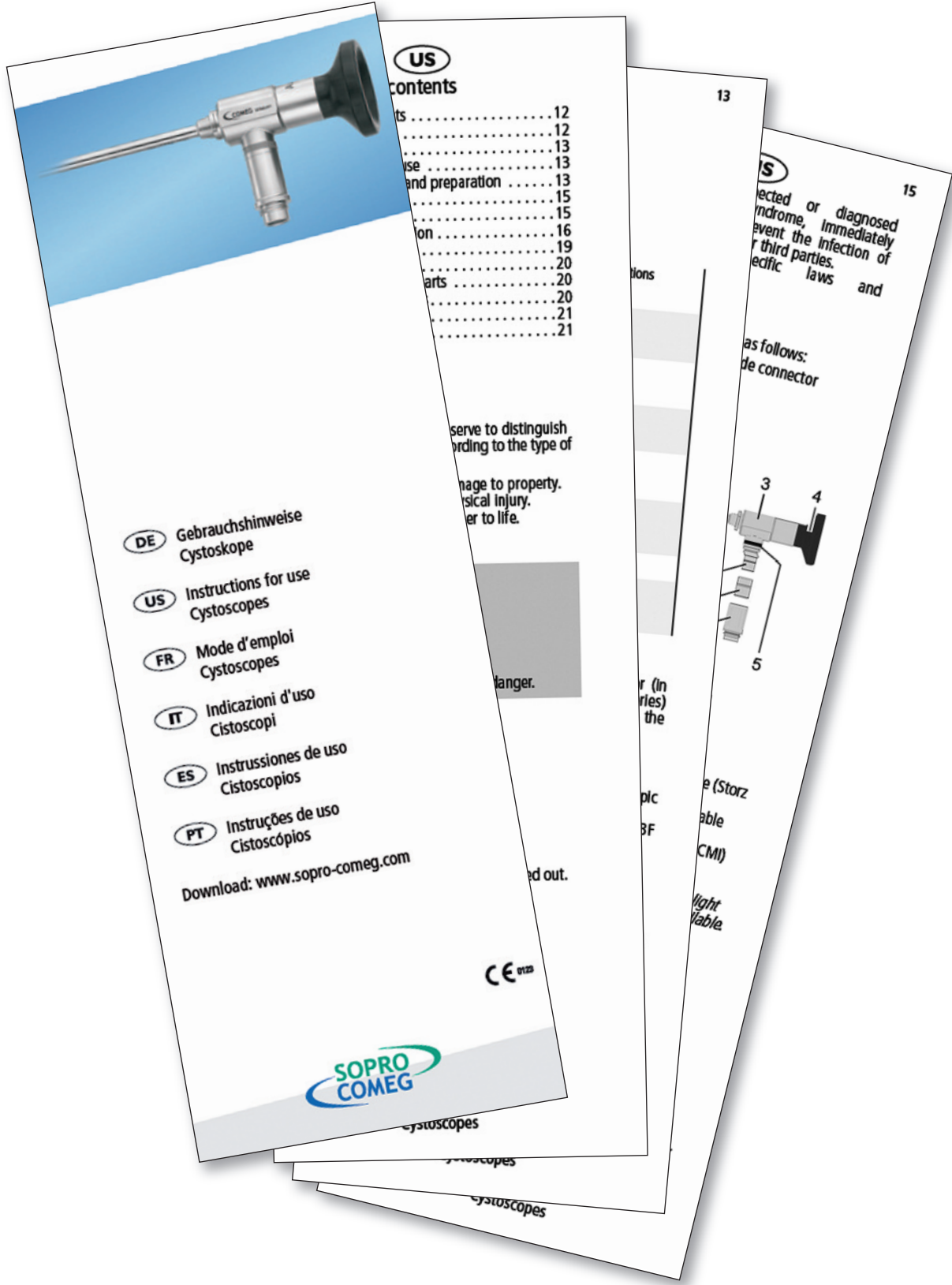


## **8 • MAINTENANCE, CLEANING AND STERILIZATION**

General information . . . . .	p48
Handling instructions for telescopes . . . . .	p49
Sterilization baskets . . . . .	p50

### General information

All our products are delivered with a IFU (Instruction for Use) where you will find all proper advices as far as maintenance, cleaning and sterilization are concerned.



## Handling instructions for telescopes

The telescopes are intended to be used according to the general instructions and only by instructed or trained medical personnel.

Service and maintenance may just be performed by authorized service personnel.

Prior and after each use on the telescopes a visual and functional inspection for completeness, optical quality, rough surfaces, sharp edges and prominent parts has to be performed. Immediately after each use the telescopes have to be cleaned and disinfected.

Special care has to be taken to scopes with working channel. It must be ensured that the solution for disinfection reaches all areas within the narrow working channel.

For the adjacent sterilization process the telescopes must be free of contaminations and residues of the agent.

In order to be compatible to other products and to allow combinations please make sure that the intended use and technical parameters (working length, diameter, connection type, etc.) match and do not adversely affect the performance and the safety requirements.

Please refer to applicable instruction manuals.

As with any optical device, SOPRO-COMEG telescopes are fragile and should be handled with care. In order to avoid damage or loss of quality the following instructions concerning handling, storing and transportation have to be followed:

- Always hold the endoscope by its eyepiece or body part!
- If possible, store the endoscopes individually!
- Avoid contact between the glass parts and other instruments or surfaces!
- The telescopes may under no circumstances be exposed to Gamma radiation! The image quality can be adversely affected!
- Do not drop the endoscope and do not bend the tube, or otherwise add mechanical stress!

### Conditions of use, storage and transport:

Use: +10° C to +134° C, 30% to 100 % rel. humidity, pressure 700 hP to 2000 hP  
Storage/ Transport: -20° C to +60° C, 10% to 90 % rel. humidity, pressure 700 hP to 1060 hP

### Safety information:

Check and sterilize instrument prior to any use. In case of any doubt return instrument to manufacturer for investigation and safety check. Disposal of product please refer to the specific regulations of your country.

Handling: In case you do not have the current version of the Handling and Instruction Guide we would be pleased to send a copy upon request.

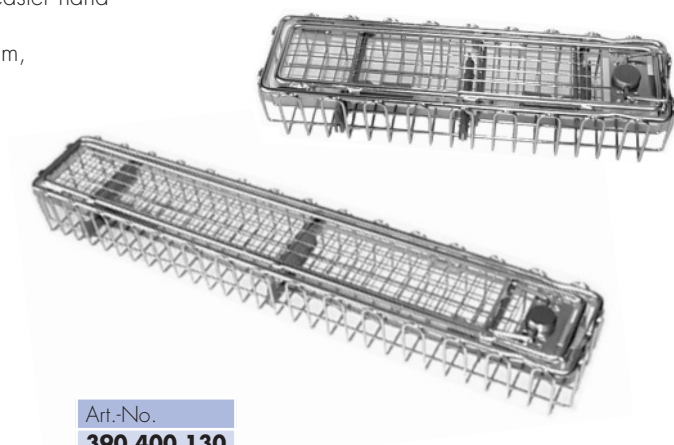
Combinations: A requirement for common use with other products is the correspondence in intended use and the technical specifications (working length, diameter, etc.). Further information you will find in our product catalogues.

Warranty: For the warranty time please look at our general trade conditions. Excluded from warranty are misuse, incorrectly cleaning, maintenance and repair, normal wear and tear and defects, known at the time of cession.

Prior to each use and/or returning to the manufacturer the products have to be cleaned and sterilized according to this maintenance instructions.

## Sterilization baskets

Include a cover and a silicone endoscope holder for easier handling during treatment (cleaning, sterilization, etc.) maximum protection against damages suitable for steam, gas and plasma sterilization



Art.-No.

**390 400 100**

### Sterilization basket

With silicone holder  
Size 290 x 80 x 52mm

Art.-No.

**390 400 130**

### Sterilization basket

With silicone holder  
Size 458 x 166 x 82mm

Art.-No.

**390 400 110**

### Sterilization basket

With silicone holder  
Size 460 x 80 x 52mm

Art.-No.

**390 400 150**

### Sterilization basket

With silicone holder  
Size 640 x 150 x 77mm

Art.-No.

**191 402 061**

### Plastic sterilization tube for endoscope

For steam sterilization  
Box of 10 units



Art.-No.

**391 308 000**

### Plastic sterilization box for ULYSS multi-view sinuscope

For steam sterilization  
Size 380 x 220 x 80



**Sterilization baskets**

Art.-No.  
**390 400 160**

**Plastic sterilization box**

For steam sterilization  
Delivered with a silicone mat  
Size 530 x 255 x 67mm



Art.-No.  
**390 400 170**

**Plastic sterilization box**

For steam sterilization  
Delivered with a silicone mat and an internal tray  
Size 530 x 255 x 110mm



Art.-No.  
**390 400 180**

**Plastic sterilization box**

For steam sterilization  
Delivered with a silicone mat and two internal trays  
Size 530 x 255 x 140mm



**Plastic sterilization boxes**

Art.-No.  
**390 400 190**

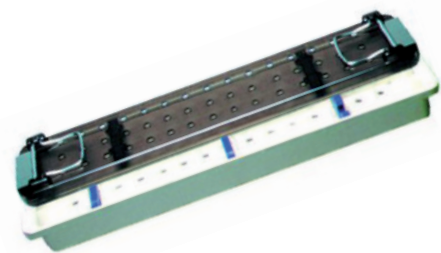
**Plastic sterilization box**

for two telescopes  
Size 394 x 70 x 35mm

Art.-No.  
**390 400 200**

**Plastic sterilization box**

for two telescopes  
Size 457 x 70 x 35mm



The logo features two curved, swoosh-like shapes. The top swoosh is light green and curves from the right side towards the center. The bottom swoosh is light blue and curves from the left side towards the center. The text 'SOPRO' is positioned above 'COMEG', both centered between the swooshes.

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**Company**

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**Optics**

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**ENT in Consulting Room**

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**Sinuscopy**

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**Otoscopy**

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**Laryngoscopy**

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**Bronchoscopy**

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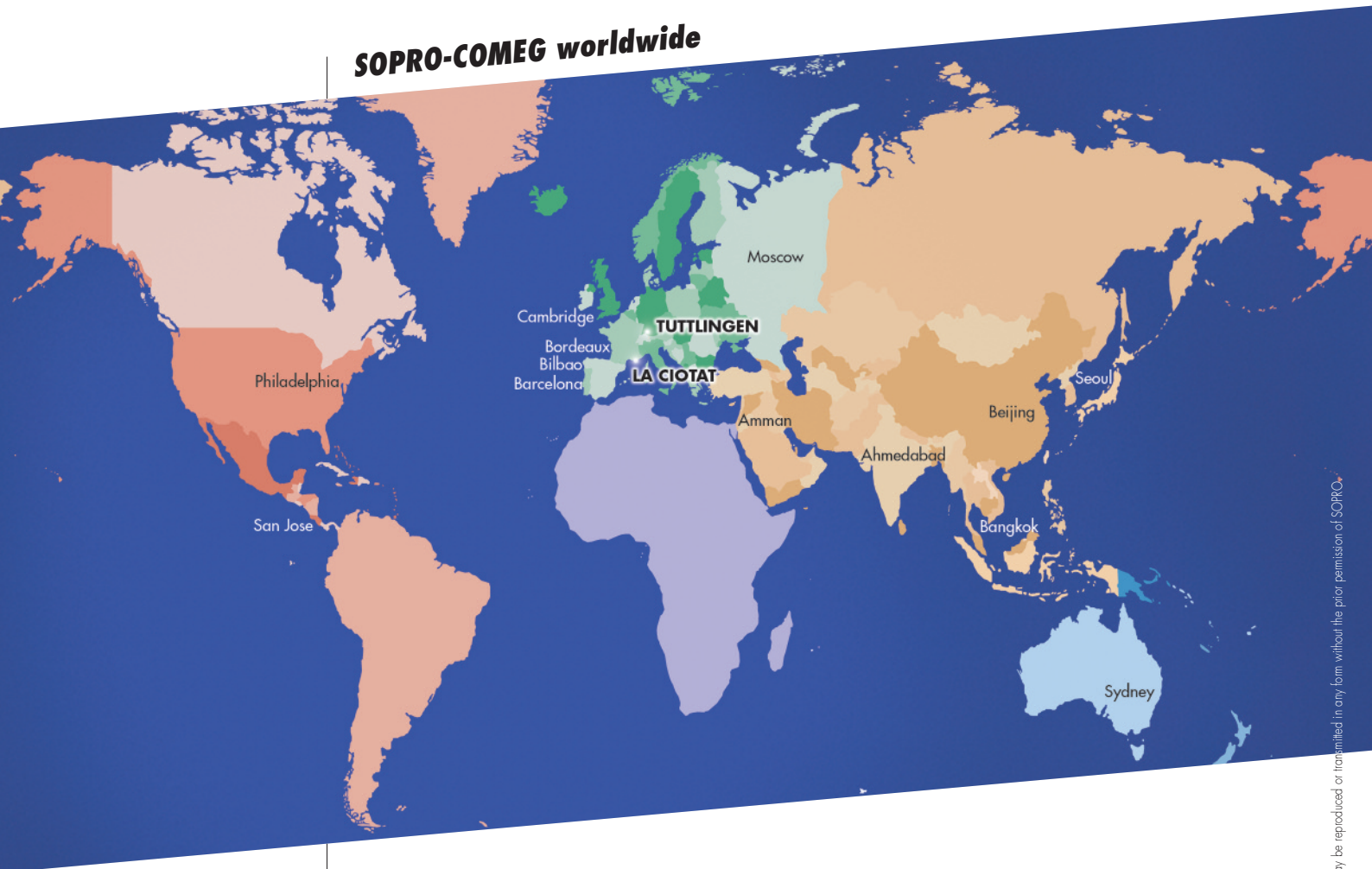
**Maintenance**

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The logo features two curved, swoosh-like shapes. The top swoosh is light green and curves from the right side towards the center. The bottom swoosh is light blue and curves from the left side towards the center. The text 'SOPRO' and 'COMEG' is centered between these two swooshes.

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## SOPRO-COMEG worldwide



### SOPRO-COMEG COMMITMENTS

#### Customer proximity

Direct and quick communication with our local sales force.

National placed inventory to ensure quick delivery time.

#### Service

Worldwide service centres to ease and fasten the support of our complete product line.

#### R&D

A network of 50 engineers to foster on products innovations and new technologies.



French production plant:  
SOPRO  
ZAC Athélia IV  
Avenue des Genévriers  
13705 La Ciotat cedex - France  
Tél. +33 (0) 442 98 01 01  
Fax +33 (0) 442 71 76 90  
info@sopro-comeg.com

[www.sopro-comeg.com](http://www.sopro-comeg.com)



German production plant:  
SOPRO-COMEG  
Dornierstr. 55  
D-78532 Tuttlingen - Germany  
Tel +49 (0) 7461-9344-0  
Fax +49 (0) 7461-9344-20  
info@sopro-comeg.com

[www.sopro-comeg.com](http://www.sopro-comeg.com)

