

# Highlights 2019

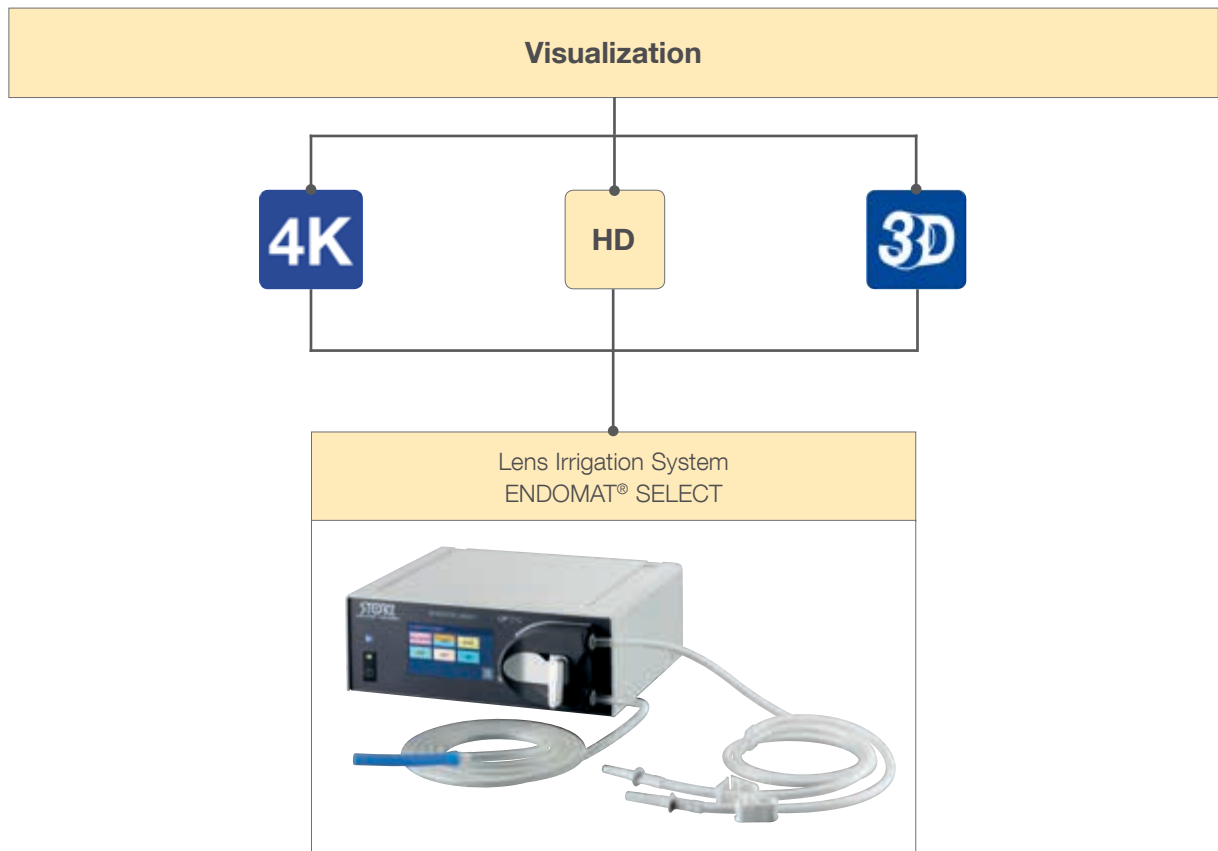
## Otorhinolaryngology

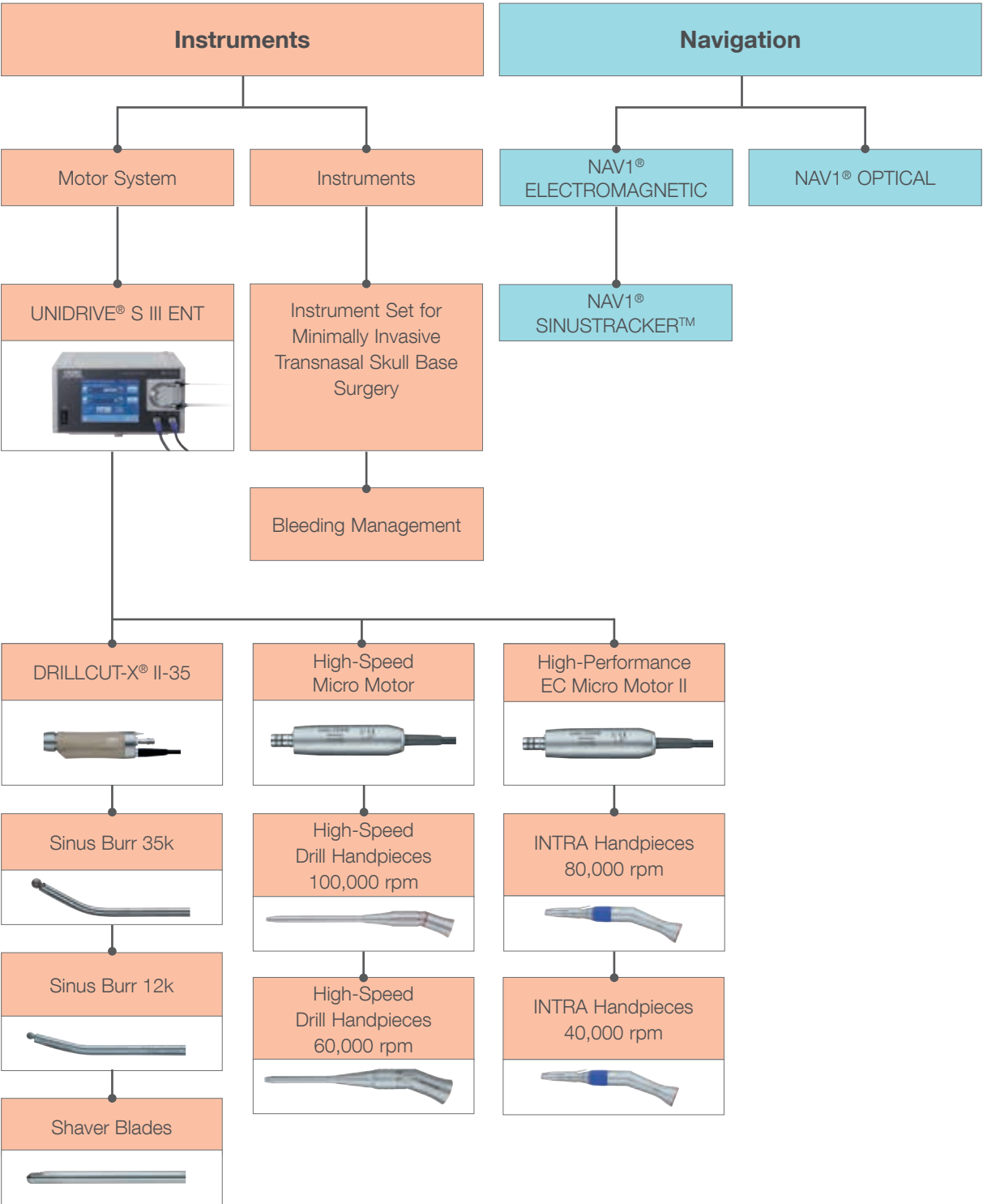


Skull Base Surgery

**STORZ**  
KARL STORZ—ENDOSKOPE

## Skull Base Surgery







## Endoscopes and Instruments for Minimally Invasive Transnasal Skull Base Surgery

The use of an endoscope in transnasal skull base surgery offers distinct advantages. These include a wider field of vision and significantly improved light intensity which provide a clear visualization of deep-lying structures. Moreover, HOPKINS® rod lens telescopes with an angled direction of view (e.g., 30°, 45°) offer the possibility of a direct view of otherwise invisible areas, thus allowing a safe surgical procedure under visual control.

The introduction of high-resolution HD and 4K video technologies and, more recently, 3D endoscopy has played a significant role in providing the excellent image quality that is a standard feature today.

## Intraoperative Visualization and Orientation

### HOPKINS® Telescopes, with enlarged view



- 7230 AA     **HOPKINS® Straight Forward Telescope 0°**, enlarged view, diameter 4 mm, length 18 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green
- 7230 BA     **HOPKINS® Forward-Oblique Telescope 30°**, enlarged view, diameter 4 mm, length 18 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red
- 7230 FA     **HOPKINS® Forward-Oblique Telescope 45°**, enlarged view, diameter 4 mm, length 18 cm, **autoclavable**, fiber optic light transmission incorporated, color code: black
- 7230 CA     **HOPKINS® Lateral Telescope 70°**, enlarged view, diameter 4 mm, length 18 cm, **autoclavable**, fiber optic light transmission incorporated, color code: yellow

## Access, Fine Dissection and Decompression

### Osteotome, Mallet, Elevator and Knife

- 486103     WALTER **Osteotome**, flat, double-edged grinding, width 3 mm, length 19 cm
- 174200     COTTLE **Metal Mallet**, length 18 cm
- 479000     MASING **Elevator**, double-ended, graduated, sharp and blunt, length 22.5 cm
- 628001     **Sickle Knife**, pointed, length 19 cm

## Antrum Punches



459051 STAMMBERGER **Antrum Punch**, right side downward and forward cutting, with cleaning connector, working length 10 cm

459052 STAMMBERGER **Antrum Punch**, left side downward and forward cutting, with cleaning connector, working length 10 cm

## STAMMBERGER RHINOFORCE® II Antrum Punch



459030 STAMMBERGER **RHINOFORCE® II Antrum Punch**, small pediatric size, slender, upward backward cutting, with cleaning connector, working length 10 cm

### KERRISON **Bone Punches**



- 662112 KERRISON **Bone Punch**, detachable, rigid, 90° downbiting, not through-cutting, size 2 mm, working length 17 cm
- 662102 KERRISON **Bone Punch**, detachable, rigid, 90° upbiting, not through-cutting, size 2 mm, working length 17 cm

### Forceps



- 451001 B GRÜNWALD-HENKE **RHINOFORCE® II Nasal Cutting Forceps**, straight, through-cutting, tissue-sparing, BLAKESLEY shape, size 1, width 3.5 mm, with cleaning connector, working length 13 cm
- 451501 B GRÜNWALD-HENKE **RHINOFORCE® II Nasal Cutting Forceps**, 45° upturned, through-cutting, tissue-sparing, BLAKESLEY shape, size 1, width 3.5 mm, with cleaning connector, working length 13 cm
- 663231 **Forceps**, dismantling, straight, with round cupped jaws, diameter 2.5 mm, working length 18 cm
- 663241 **Forceps**, dismantling, straight, with round cupped jaws, diameter 4 mm, working length 18 cm
- 663237 **Forceps**, dismantling, 45° upturned, with round cupped jaws, diameter 2.5 mm, working length 18 cm

Further instruments can be found in the ENT catalog.



## Management of Bleeding

### Safe, reliable and effective

Bleeding in the operative field critically impairs the view at the OR site and, depending on the extent of bleeding, poses a serious risk to the health of the patient. Successful hemostasis – Surgical Bleeding Management – is essential to allow surgery to continue under optimal visibility conditions and thus to prevent complications.



### STAMMBERGER **Bipolar Suction Forceps**

- 461010 STAMMBERGER **Bipolar Suction Forceps**, 15° upturned, with suction channel, for bipolar coagulation in paranasal areas, working length 12.5 cm, for use with Bipolar High Frequency Cords 847002 E or 847002 M/V/U/W
- 461015 STAMMBERGER **Bipolar Suction Forceps**, 45° upturned, with suction channel, for bipolar coagulation in paranasal areas, working length 12.5 cm, for use with Bipolar High Frequency Cords 847002 E or 847002 M/V/U/W

### Suction Cannulas

- 839330 BRINER **Bipolar Coagulation Suction Cannula**, angular, insulated, length of electrodes 3.5 mm, with cut-off hole, outer diameter 4.5 mm, working length 11 cm, for use with Bipolar High Frequency Cords 847000 E or 847000 M/V/W
- 839325 BRINER **Bipolar Coagulation Suction Cannula**, angular, insulated, length of electrodes 3.2 mm, with cut-off hole, outer diameter 3.5 mm, working length 11 cm, for use with Bipolar High Frequency Cords 847000 or 847000 A/E/M/V
- 839320 BRINER **Bipolar Coagulation Suction Cannula**, curved upwards, insulated, length of electrodes 3.2 mm, with cut-off hole, outer diameter 3.5 mm, working length 16 cm, for use with Bipolar High Frequency Cords 847000 or 847000 E/M/V/W
- 839310 N **Coagulation Suction Cannula**, for the nose, straight, outer diameter 3 mm, working length 10 cm
- 839312 SIMMEN **Coagulation Suction Cannula**, for nose and epistaxis, angular, insulated, malleable, distal with uninsulated horn for coagulation, with cut-off hole, outer diameter 3.5 mm, working length 12 cm, for use with Unipolar High Frequency Cords 26005 M, 26004 M, 26002 M, 26006 M
- 839313 SIMMEN **Coagulation Suction Cannula**, for nose and epistaxis, angular, insulated, malleable, distal with uninsulated horn for coagulation, with cut-off hole, outer diameter 4.5 mm, working length 12 cm, for use with Unipolar High Frequency Cords 26005 M, 26004 M, 26002 M, 26006 M

### Coagulation Forceps with Bridge

- 844524 **Bipolar Forceps**, bayonet-shaped, with bridge, tip 0.7 mm, length 23 cm
- 844525 **Bipolar Forceps**, bayonet-shaped, angled, with bridge, tip 0.7 mm, length 23 cm

### TAKE-APART® **Bipolar Forceps**

- 462020 **TAKE-APART® CASTELNUOVO Bipolar Forceps**, with fine jaws, distally angled 45°, with irrigation connector for cleaning, width 2 mm, outer diameter 3.4 mm, working length 14 cm including:  
**Bipolar Ring Handle**  
**Outer Sheath**  
**Inner Sheath**  
**Bipolar Forceps Insert**
- 462023 **TAKE-APART® CASTELNUOVO Bipolar Forceps**, with fine, short jaws, distally angled 45°, with irrigation connector for cleaning, width 2 mm, outer diameter 3.4 mm, working length 14 cm including:  
**Bipolar Ring Handle**  
**Outer Sheath**  
**Inner Sheath**  
**Bipolar Forceps Insert**



## UNIDRIVE® S III ENT

The high-end solution for comfort in the OR

One unit – six functions

- Shaver
- Sinus Burr
- High-speed Micro Motor
- High-performance EC Micro Motor II
- Micro Saw
- Dermatology

- 40701601-1 UNIDRIVE® S III ENT SCB**, motor control unit with color display, touch screen, two motor outputs, integrated irrigation pump and integrated SCB module, power supply 100-240 VAC, 50/60 Hz including:  
**Mains Cord**  
**Irrigator Rod**  
**Two-Pedal Footswitch**  
**SCB Connecting Cable**, length 100 cm  
**Single-use Tubing Set\***, sterile, package of 3

STERILE

#### Optional Accessories

- 280053 **Universal Spray**, 6x 500 ml bottles, - HAZARDOUS GOODS – UN 1950 including:  
**Spray Nozzle**
- 280053 C **Spray Nozzle**, for the reprocessing of INTRA burr handpieces, for use with Universal Spray 280053 B
- 031131-10\* **Tubing Set**, sterile, for single use, package of 10, for use with UNIDRIVE® ENT/ECO/NEURO, UNIDRIVE® S III ENT/ECO/NEURO

STERILE 



## DRILLCUT-X® II-35 – for Fast and Precise Work

### The new handpiece for the UNIDRIVE® S III ENT system

In conjunction with the 35k sinus burrs, the DRILLCUT-X® II-35 handpiece represents a new and efficient addition to the UNIDRIVE® S III ENT motor system. Specially optimized for the highest speeds, this handpiece together with an assortment of innovative sinus burrs allows powerful and efficient work. This saves valuable surgery time.

- Up to 35,000 rpm
- Five different burr inserts available
- Can be expanded to include a shaver blade tracker for the electromagnetic navigation of sinus burrs and shaver attachments

The expanded handpiece portfolio also makes the UNIDRIVE® S III ENT system an even more attractive option from an economic standpoint.

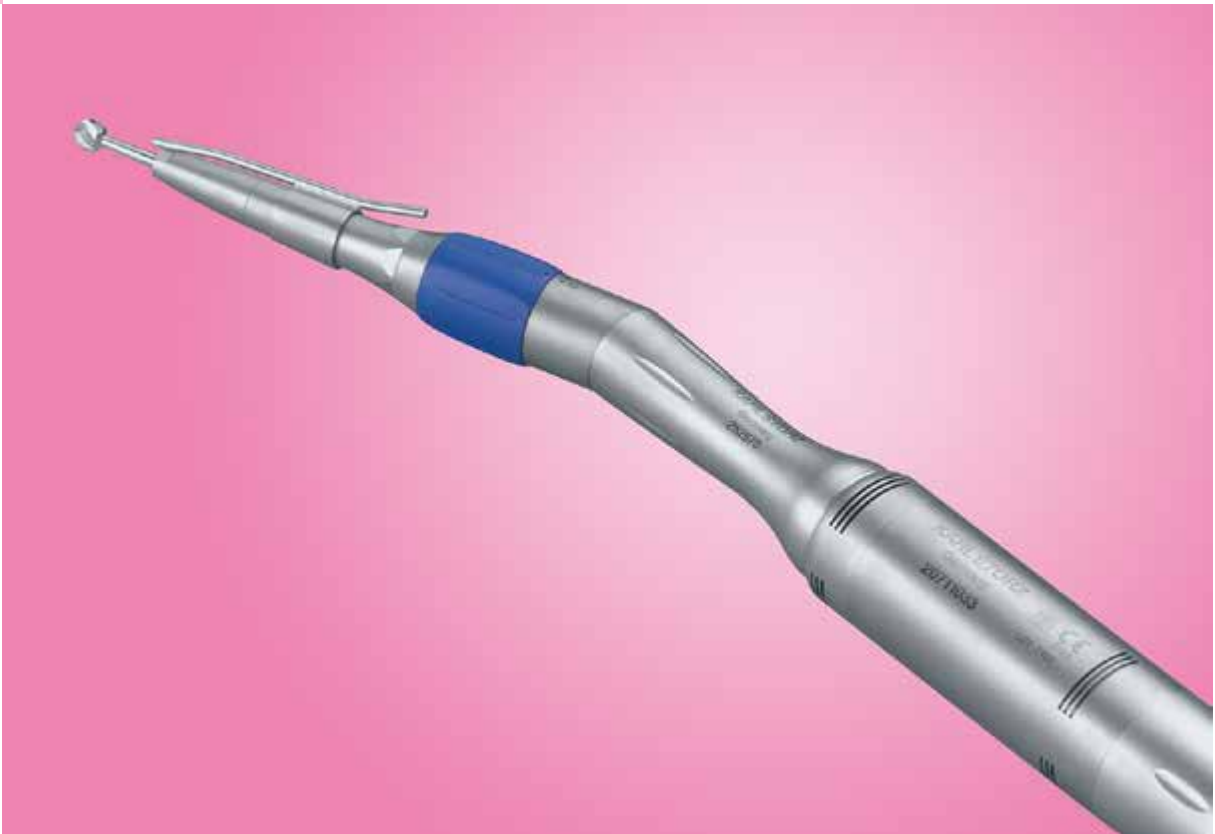
- 40712035 **DRILLCUT-X® II-35 Shaver Handpiece**, for use with UNIDRIVE® S III ENT/NEURO
- 40712535 **DRILLCUT-X® II-35 N Shaver Handpiece**, with adaptation possibilities for Optical Shaver Tracker 408001 22, for use with UNIDRIVE® S III ENT/NEURO and NAV1® PICO or NAV1® OPTICAL
- 40 7120 90 **Handle**, adjustable, for use with DRILLCUT-X® II N shaver handpiece

Optional Accessories

- 41250 RA **Cleaning Adaptor**, LUER-Lock, for cleaning DRILLCUT-X®/DRILLCUT-X® II handpieces

Detail	Sinus Burr 35k, with integrated irrigation, length 12 cm, sterile, for single use, package of 5, color code: red	
	41335 W	curved 40°, cylindrical, burr diameter 3 mm, shaft diameter 4 mm
	41335 RN	curved 15°, bud drill, burr diameter 4 mm, shaft diameter 4 mm
	41335 DW	curved 40°, diamond head, burr diameter 5 mm, shaft diameter 4 mm
	41335 DT	curved 70°, diamond head, burr diameter 3.6 mm, shaft diameter 4 mm
	41335 DS	curved 40°, diamond head, burr diameter 4 mm, shaft diameter 4 mm

12k Sinus Burrs and Shaver Blades can be found in the ENT catalog.



## High-Performance EC Micro Motor II with INTRA Drill Handpieces

- Self-cooling and brushless high-performance EC Micro Motor II
- Autoclavable and can be reprocessed in a cleaning machine
- INTRA coupling allows a wide range of applications
- Possible to adjust the number of revolutions to 80,000 rpm with the appropriate handles
- Detachable irrigation tubes
- Lightweight construction
- Low vibration

### High-Performance EC Micro Motor II

- 20711033 High-Performance EC Micro Motor II**, for use with UNIDRIVE® II/UNIDRIVE® ENT/OMFS/NEURO/ECO and Connecting Cable **20711073** or for use with UNIDRIVE® S III ENT/ECO/NEURO and Connecting Cable **20711173**
- 20711173 Connecting Cable**, to connect High-Performance EC Micro Motor II **20711033** to UNIDRIVE® S III ENT/ECO/NEURO

### INTRA Drill Handpieces, 80,000 rpm, angled

- 252573 INTRA Drill Handpiece**, angled, length 12.5 cm, transmission 1:2 (80,000 rpm)
- 252574 INTRA Drill Handpiece**, angled, length 15 cm, transmission 1:2 (80,000 rpm)
- 252575 INTRA Drill Handpiece**, angled, length 18 cm, transmission 1:2 (80,000 rpm)

### INTRA Drill Handpieces, 40,000 rpm, straight

- 252590 INTRA Drill Handpiece**, straight, length 11 cm, transmission 1:1 (40,000 rpm)
- 252591 INTRA Drill Handpiece**, straight, length 13 cm, transmission 1:1 (40,000 rpm)
- 252592 INTRA Drill Handpiece**, straight, length 17 cm, transmission 1:1 (40,000 rpm)

### INTRA Drill Handpieces, 40,000 rpm, angled

- 252571 INTRA Drill Handpiece**, angled, length 15 cm, transmission 1:1 (40,000 rpm)
- 252572 INTRA Drill Handpiece**, angled, length 18 cm, transmission 1:1 (40,000 rpm)

### Optional Accessories

- 39130 AR Cleaning Adaptor**, LUER-Lock connector, for use with INTRA and High-Speed Handpieces 2525xx, 2526xx

Suitable burr inserts can be found in the ENT catalog.



## High-Speed Micro Motor with High-Speed Drill Handpieces

### High-speed motor system for otorhinolaryngology

#### Special Features:

- Continuously variable high-speed handpieces with up to 100,000 rpm
- Easy setup and fast installation for a smooth OR workflow
- Malleable handpieces available
- Burr insert for single use



- 40701601-1 UNIDRIVE® S III ENT SCB**, motor control unit with color display, touch screen, two motor outputs, integrated irrigation pump and integrated SCB module, power supply 100-240 VAC, 50/60 Hz
- 20712033 High-Speed Micro Motor**, max. speed 60,000 rpm, including connecting cable, for use with UNIDRIVE® S III ENT/NEURO
- 252680 **High-Speed Handpiece**, short, angled, 100,000 rpm
- 252681 **High-Speed Handpiece**, medium, angled, 100,000 rpm
- 252682 **High-Speed Handpiece**, long, angled, 100,000 rpm
- 252660 **High-Speed Handpiece**, extra short, angled, 60,000 rpm
- 252661 **High-Speed Handpiece**, short, angled, 60,000 rpm
- 252662 **High-Speed Handpiece**, medium, angled, 60,000 rpm
- 252663 **High-Speed Handpiece**, long, angled, 60,000 rpm
- 252690 **High-Speed Handpiece**, extra short, straight, 60,000 rpm
- 252691 **High-Speed Handpiece**, short, straight, 60,000 rpm
- 252692 **High-Speed Handpiece**, medium, straight, 60,000 rpm
- 252671 **High-Speed Handpiece**, extra long, malleable, slim, angled, 60,000 rpm
- 252672 **High-Speed Handpiece**, super long, malleable, slim, angled, 60,000 rpm

#### Optional Accessories

- 39130 AR **Cleaning Adaptor**, LUER-Lock connector, for use with INTRA and High-Speed Handpieces 2525xx, 2526xx

Suitable burr inserts can be found in the ENT catalog.



**NEW**

## IMAGE1 S™ 4U – mORe than a camera

The IMAGE1 S™ 4U camera system allows the operating surgeon to make optimal use of the benefits offered by 4K technology. A notable feature is the image quality: High image brightness, impressive colors, greater richness of detail and a significantly improved depth effect characterize this system. Thanks to the system's modularity, 4U components can be easily integrated into the existing IMAGE1 S™ camera platform. Consequently, the system is still compatible with existing technologies (e.g., rigid, flexible, fluorescence and 3D endoscopy) and can be adapted to meet individual customer needs.

- IMAGE1 S™ 4U impresses with outstanding, razor-sharp images
  - Excellent image brightness
  - First-rate color rendition
  - Greater richness of detail
- Three innovative visualization technologies for tissue differentiation:
  - CLARA: Homogeneous illumination
  - CHROMA: Contrast enhancement
  - SPECTRA\*: Spectral color shift and switch
- Easy integration into the IMAGE1 S™ camera platform

\* not for sale in the U.S.

TC 201EN*	<b>IMAGE1 S CONNECT® II</b> , connect module, for use with up to 3 link modules, 4K technology, resolution 3840 x 2160 and 1920 x 1080 pixels, with integrated KARL STORZ-SCB and digital Image Processing Module, power supply 100-240 VAC, 50/60 Hz
TC 304	<b>IMAGE1 S™ 4U-LINK</b> , link module, for use with IMAGE1 S™ 4U camera heads, power supply 100-240 VAC, 50/60 Hz, for use with IMAGE1 S CONNECT® TC 200 or IMAGE1 S CONNECT® II TC 201
TH 120	<b>IMAGE1 S™ 4U One-Chip 4K UHD Camera Head</b> , S-Technologies available, progressive scan, soakable, EO sterilization, H <sub>2</sub> O <sub>2</sub> (hydrogen peroxide), focal length f = 18 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™ 4U-LINK
TM 440	<b>58" 4K Monitor</b> , screen resolution 3840 x 2160, image format 16:9, power supply 100-240 VAC, 50/60 Hz, wall mount with VESA 400 x 400 and VESA 400 x 200 adaptors
TM 350	<b>32" 4K 3D Monitor</b> , screen resolution 3840 x 2160, image format 16:9, power supply 100-240 VAC, 50/60 Hz, 5V DC output (1 A), wall mount with VESA 100 adaptor
TM 342**	<b>31" 4K Monitor</b> , screen resolution 3840 x 2160, image format 16:9, power supply 100-240 VAC, 50/60 Hz, wall mount with VESA 100 and VESA 200 adaptors
TL 300	<b>Cold Light Fountain POWER LED 300 SCB</b> , with integrated KARL STORZ-SCB, high-performance LED module and one KARL STORZ light outlet, power supply 100-240 VAC, 50/60 Hz
495 NAC	<b>Fiber Optic Light Cable</b> , with straight connector, extremely heat-resistant, with safety lock, enhanced light transmission, can be used for ICG applications, diameter 3.5 mm, length 230 cm
495 NCSC	<b>Fiber Optic Light Cable</b> , with straight connector, extremely heat-resistant, enhanced light transmission, with safety lock, diameter 4.8 mm, length 250 cm
495 TIP	<b>Fiber Optic Light Cable</b> , with straight connector, extremely heat-resistant, enhanced light transmission, diameter 4.8 mm, length 300 cm

\* Also available in the following languages: DE, ES, FR, IT, PT, RU

\*\* TM 342 not available in USA, Japan & China



## IMAGE1 S™ – As Individual as Your Requirements

The IMAGE1 S™ camera platform offers surgeons a single system for all applications. As a modular camera platform, IMAGE1 S™ combines various technologies (e.g., rigid, flexible and 3D endoscopy) in one system and can therefore be adapted to individual customer needs. Furthermore, near infrared (NIR/ICG) for fluorescence imaging, the integration of operating microscopes and the use of VITOM® 3D is possible via the camera platform.

- Individual modules can be selected according to user requirements, e.g., for rigid, flexible and 3D technology
- Three innovative visualization technologies for easy tissue differentiation in 2D and 3D:
  - CLARA: Homogeneous illumination
  - CHROMA: Contrast enhancement
  - SPECTRA\*: Color shift and exchange
- Automatic light source control
- Natural color rendition

\* not for sale in the U.S.

Comparison of S-Technologies:



TC 201EN*	<b>IMAGE1 S CONNECT® II</b> , connect module, for use with up to 3 link modules, 4K technology, resolution 3840 x 2160 and 1920 x 1080 pixels, with integrated KARL STORZ-SCB and digital Image Processing Module, power supply 100-240 VAC, 50/60 Hz
TC 304	<b>IMAGE1 S™ 4U-LINK</b> , link module, for use with IMAGE1 S™ 4U camera heads, power supply 100-240 VAC, 50/60 Hz, for use with IMAGE1 S CONNECT® TC 200 or IMAGE1 S CONNECT® II TC 201
TC 302	<b>IMAGE1 S D3-LINK®</b> , link module, for use with TIPCAM®1 S 3D and VITOM® 3D power supply 100-120 VAC/200-240 VAC, 50/60 Hz, for use with IMAGE1 S CONNECT® TC 200 or IMAGE1 S CONNECT® II TC 201
TC 301	<b>IMAGE1 S™ X-LINK</b> , link module, for use with flexible video endoscopes and one-chip camera heads (up to FULL HD), power supply 100-120 VAC/200-240 VAC, 50/60 Hz, for use with IMAGE1 S CONNECT® TC 200 or IMAGE1 S CONNECT® II TC 201
TC 300	<b>IMAGE1 S™ H3-LINK</b> , link module, for use with IMAGE1 FULL HD three-chip camera heads, power supply 100-120 VAC/200-240 VAC, 50/60 Hz, for use with IMAGE1 S CONNECT® TC 200 or IMAGE1 S CONNECT® II TC 201
TH 120	<b>IMAGE1 S™ 4U One-Chip 4K UHD Camera Head</b> , S-Technologies available, progressive scan, soakable, EU sterilization, H <sub>2</sub> O <sub>2</sub> (hydrogen peroxide), focal length f = 18 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™ 4U-LINK
TH 113	<b>IMAGE1 S™ HX-P FI One-Chip FULL HD Pendulum Camera Head</b> , S-Technologies (CHROMA, SPECTRA*** A and B) available, OPAL1® technologies (PDD) in conjunction with light source D-LIGHT C or D-LIGHT C/AF, with pendulum system and fixed focus, progressive scan, soakable, EU sterilization, H <sub>2</sub> O <sub>2</sub> (hydrogen peroxide), focal length f = 16 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™ X-LINK
TH 110	<b>IMAGE1 S™ HX One-Chip FULL HD Camera Head</b> , 50/60 Hz, fixed focus, progressive scan, soakable, EU sterilization, H <sub>2</sub> O <sub>2</sub> (hydrogen peroxide), focal length f = 16 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™
TH 102	<b>IMAGE1 S™ H3-Z FI Three-Chip FULL HD Camera Head</b> , S-Technologies available, for perfusion diagnosis of tissues and organs with indocyanine green (ICG) in conjunction with light source D-LIGHT P, progressive scan, with integrated Parfocal Zoom Lens, focal length f = 15-31 mm (2x), 2 freely programmable camera head buttons, for use with IMAGE1 S™ H3-LINK and IMAGE 1 HUB™ HD/IMAGE1 HD
TH 100	<b>IMAGE1 S™ H3-Z Three-Chip FULL HD Camera Head</b> , 50/60 Hz, S-Technologies available, progressive scan, soakable, EU sterilization, H <sub>2</sub> O <sub>2</sub> (hydrogen peroxide), with integrated Parfocal Zoom Lens, focal length f = 15-31 mm (2x), 2 freely programmable camera head buttons, for use with IMAGE1 S™ H3-LINK TC 300 and IMAGE 1 HUB™ HD/IMAGE1 HD
7240 AA3D	<b>TIPCAM®1 S 3D ORL</b> , direction of view 0°, diameter 4 mm, length 18 cm, two FULL HD image sensors, <b>autoclavable</b> , S-Technologies available, freely programmable camera head buttons, including video connecting cable, for use with IMAGE1 S™
26605 BA	<b>Same</b> , direction of view 30°
7240 FA3D	<b>Same</b> , direction of view 45°
TH 200	<b>VITOM® 3D</b> , with zoom and focus function, integrated illumination and horizontal alignment, working distance 20-50 cm, fiber optic light transmission incorporated, suitable for wipe disinfection, for use with IMAGE1 S D3-LINK® TC 302 and IMAGE1 PILOT TC 014

TC 014	<b>IMAGE1 PILOT</b> , control unit with 3D wheel, 4 programmable function keys and USB port, for intuitive control of camera systems and connected units, for use with IMAGE1 S™ and VITOM® 3D TH 200
TM 440	<b>58" 4K Monitor</b> , screen resolution 3840 x 2160, image format 16:9
TM 350	<b>32" 4K/3D Monitor</b> , screen resolution 3840 x 2160, image format 16:9
TM 342**	<b>31" 4K Monitor</b> , screen resolution 3840 x 2160, image format 16:9
TM 220	<b>27" FULL HD Monitor</b> , screen resolution 1920 x 1080, image format 16:9
TL 300	<b>Cold Light Fountain POWER LED 300 SCB</b> , with integrated KARL STORZ-SCB, high-performance LED module and one KARL STORZ light outlet
495 NCSC	<b>Fiber Optic Light Cable</b> , with straight connector, extremely heat-resistant, enhanced light transmission, with safety lock, diameter 4.8 mm, length 250 cm
495 NAC	<b>Fiber Optic Light Cable</b> , with straight connector, extremely heat-resistant, with safety lock, enhanced light transmission, can be used for ICG applications, diameter 3.5 mm, length 230 cm

\* Also available in the following languages: DE, ES, FR, IT, PT, RU

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\*\*\* not for sale in the U.S.



## ENDOMAT® SELECT – The Choice is Yours

ENDOMAT® SELECT is an interdisciplinary roller pump for the irrigation or suction of fluids during surgical and diagnostic procedures. Depending on customer preferences, the pump can be equipped with various software packages so that it can be used for either individual or multiple disciplines.

Benefits at a glance:

- Cost-efficient pump as modular design supports basic functionality across various fields of application
- Extremely simple handling thanks to tubing set for single hand control
- Safe use thanks to tubing set recognition
- Seamless integration into existing systems
- Software allows fields of application to be expanded at any time



UP 210	<b>ENDOMAT® SELECT SCB,</b> suction and irrigation pump, incl. mains cord, power supply 100-240 VAC, 50/60 Hz	
UP 601	<b>SURGERY Software,</b> license, allows selection of the procedures "LAP", "THOR" and "PROCTO", for use with ENDOMAT® SELECT UP 210	
UP 602	<b>HYSTEROSCOPY Software,</b> license, allows selection of the procedure "HYS", for use with ENDOMAT® SELECT UP 210	
UP 603	<b>IBS® Shaver Software,</b> license, allows selection of the procedure "IBS®", for use with ENDOMAT® SELECT UP 210	
UP 604	<b>UROLOGY Software,</b> license, allows selection of the procedures "CYST", "RES", "URS", "CALCUSON" and "PCN", for use with ENDOMAT® SELECT UP 210	
UP 605	<b>ARTHROSCOPY Software,</b> license, allows selection of the procedures "KNEE", "HIP", "SHOULDER" and "SMALL JOINTS", for use with ENDOMAT® SELECT UP 210	
UP 606	<b>ENT/NEURO Software,</b> license, allows selection of the procedure "CLEARVISION®", for use with ENDOMAT® SELECT UP 210	
UP 607	<b>SPINE Software,</b> license, allows selection of the procedures "LUMBAR" and "THORACAL", for use with ENDOMAT® SELECT UP 210	
UP 610	<b>ADVANCED Package,</b> software, license, extends functions of installed software packages, for use with ENDOMAT® SELECT UP 210	
031524-10*	<b>Tubing Set, irrigation, flow-controlled,</b> sterile, for single use, package of 10, for use with HAMOU® ENDOMAT® 26 3311 20 and ENDOMAT® SELECT UP 210	STERILE 
031523-10*	<b>Tubing Set, irrigation, pressure-controlled,</b> sterile, for single use, package of 10, for use with HAMOU® ENDOMAT® 26 3311 20 and ENDOMAT® SELECT UP 210	STERILE 
030647-10*	<b>Tubing Set, suction, direct suction,</b> sterile, for single use, package of 10, for use with ENDOMAT® SELECT UP 210	STERILE 
031647-10*	<b>Tubing Set, suction, bottle suction,</b> sterile, for single use, package of 10, for use with ENDOMAT® SELECT UP 210	STERILE 
031529-10*	<b>Tubing Set, irrigation, CLEARVISION®,</b> sterile, for single use, package of 10, for use with ENDOMAT® SELECT UP 210	STERILE 



**Day sets and reusable tubing sets are also available. Please contact your KARL STORZ representative for further information.**



## NAV1® electromagnetic

For precise navigation in FESS and ear surgery

- Low follow-up costs thanks to reusable EM instruments in proven KARL STORZ quality\*
- High precision thanks to sensors in the instrument tips
- Compact design for easy integration into the OR
- Customized enhancement possible thanks to optical measurement technology
- User-friendly control concept with few interaction steps
- Possible to update NAV1® SINUSTRACKER™ planning software, the navigated endoscope and the navigated shaver tracker
- Planning and monitoring of risk structures with intraoperative Distance Control
- Automatic and reliable documentation of the navigated procedure

\* Up to 30 applications guaranteed

Benefits of electromagnetic instruments as compared to optical navigation:

- No restrictions as no clear line of sight to the instruments is required unlike optical measurement systems
- All electromagnetic instruments can therefore be rotated and utilized according to the surgeon's preferences (particularly advantageous for endoscopically assisted bimanual operating techniques)
- Electromagnetic instruments can be manually manipulated to allow intraoperative adjustment to a specific anatomical surgical field
- Less space required through the omission of an optical camera with a videocart and/or mobile stand

**40 820001 NAV1® ELECTROMAGNETIC**  
including:  
**NAV1® Module**  
**NAV1® ELECTROMAGNETIC Module**  
**NAV1® ELECTROMAGNETIC Field Generator**  
**Headband**, for navigation, for single use  
**EM Patient Tracker**  
**EM Probe**  
2x **Mains Cord**, length 300 cm  
**Module Connecting Cable**  
**Optical Mouse**

**Electromagnetic Navigated Instruments for FESS Surgery, reusable 30 times**



**40 8201 05 EM Navigation Probe**, with atraumatic tip, bayonet-shaped, for patient registration, tip diameter 1.9 mm, cable length 250 cm, working length 10.5 cm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC



**40 8201 10 EM Navigation Probe**, with atraumatic tip, malleable, straight, tip diameter 1.7 mm, cable length 250 cm, working length 8.5 cm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC



**40 8201 12 EM Navigation Probe**, with atraumatic tip, malleable, curved 63°, tip diameter 1.7 mm, cable length 250 cm, working length 8.5 cm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC



**40 8201 11 EM Frontal Sinus Probe**, with atraumatic tip, curved 77°, tip diameter 1.2 mm, cable length 250 cm, working length 7 cm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC



**40 8201 45 EM Suction Tube**, with cut-off hole, straight, LUER, outer diameter 3.5 mm, cable length 250 cm, working length 10 cm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC



**40 8201 65 EM Suction Tube**, with cut-off hole, curved 60°, LUER, outer diameter 3.5 mm, cable length 250 cm, working length 10 cm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC

**NEW**



**40 8201 63 EM Navigated Suction Tube**, curved, outer diameter 3 mm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC

**Benefits:**

- Slim diameter of 3 mm
- Lateral suction hole for regulating suction power

**NEW**



**40 8201 75 EM Navigated Suction Tube**, double curved, outer diameter 3 mm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC

**Benefits:**

- Slim diameter of 3 mm
- Improved access to the frontal sinuses thanks to double curve that is adapted to the anatomy
- Probe tip allows tissue to be mobilized or removed during suction



- 40 8201 31 EM Antrum Curette**, small, oblong, cable length 250 cm, length 19 cm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC



- 40 8201 32 EM Frontal Sinus Curette**, forward cutting, curved 55°, oval, cable length 250 cm, length 18 cm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC



- 40 8201 30 EM Frontal Sinus Curette**, forward cutting, curved 90°, oval, cable length 250 cm, length 18 cm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC

#### Electromagnetic Navigated Instruments for Ear Surgery



- 40 8001 00 Bone Anchor**, for KARL STORZ navigation, **autoclavable**, for use with Patient Tracker, Patient Tracker II, Patient Tracker III or EM Patient Tracker



- 40 8200 86 EM Patient Tracker**, with verification adaptor and fixation screw, dimensions 55 x 30 x 8 mm, cable length 250 cm, **autoclavable**, for use with NAV1® ELECTROMAGNETIC

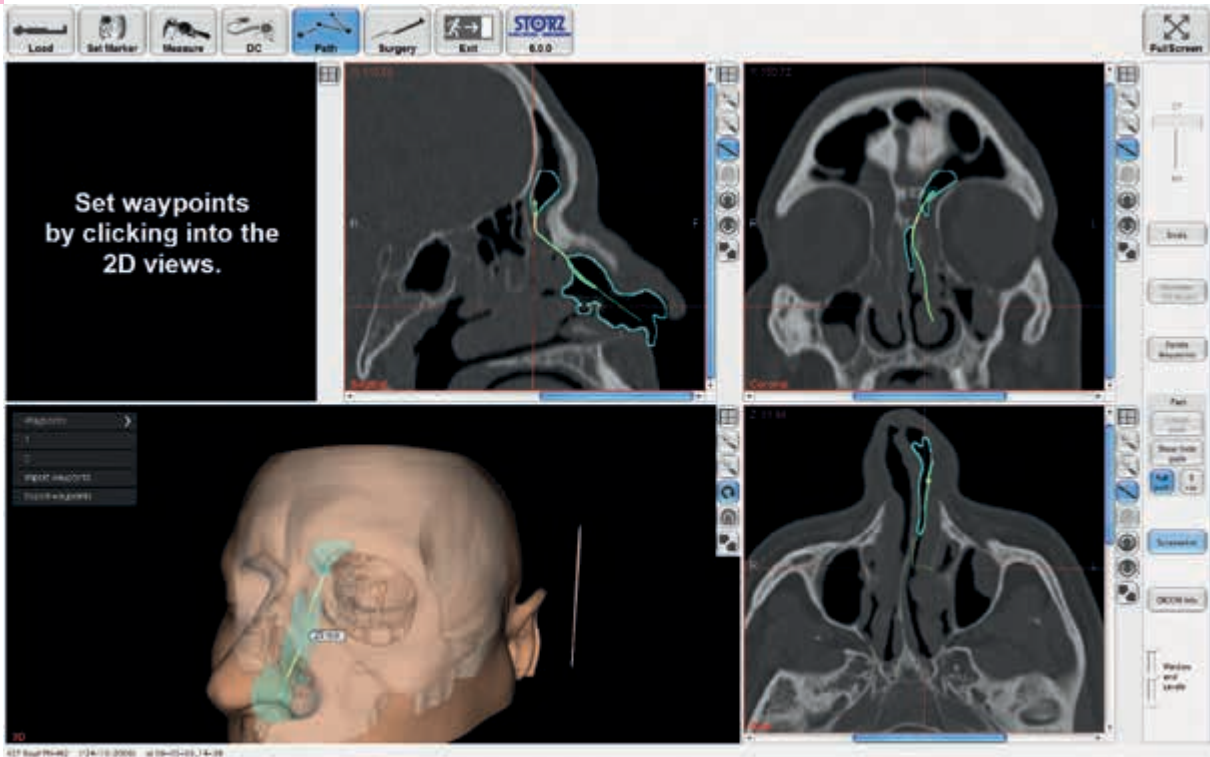


- 40 8201 05 EM Navigation Probe**, with atraumatic tip, bayonet-shaped, for patient registration, tip diameter 1.9 mm, cable length 250 cm, working length 10.5 cm, **autoclavable**, reusable 30 times, for use with NAV1® ELECTROMAGNETIC



- 40 8201 12 EM Navigation Probe**, with atraumatic tip, malleable, curved 63°, tip diameter 1.7 mm, cable length 250 cm, working length 8.5 cm, **autoclavable**, reusable 30 times, for use with NAV1® ELECTROMAGNETIC

- 39556 A Wire Tray**, provides safe storage of up to 4 EM navigation instruments (**40 8201 xx**) and one EM patient tracker during cleaning and sterilization, external dimensions (w x d x h): 460 x 150 x 80 mm



## NAV1® SinusTracker™

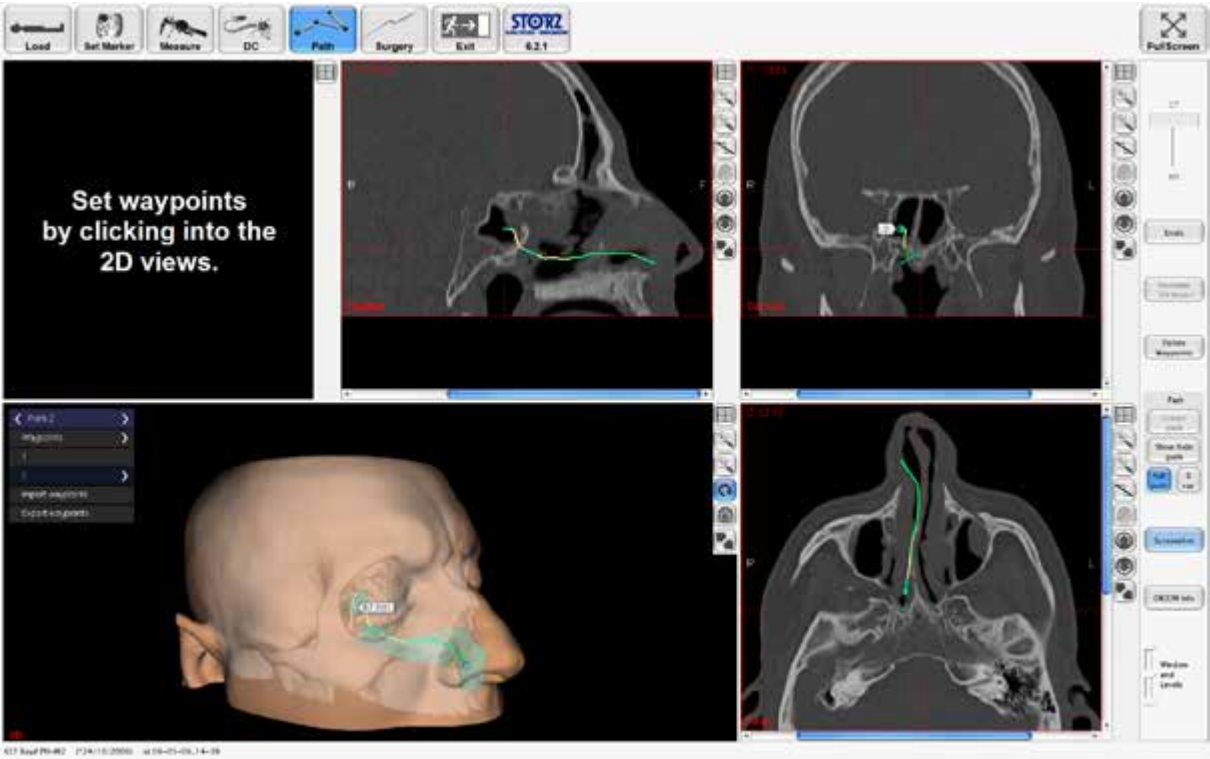
### The innovative planning software for new routes in FESS surgery

The NAV1® SINUSTRACKER™ planning software enhances the KARL STORZ NAV1® ELECTROMAGNETIC system with the automatic planning of access paths in paranasal sinus and skull base surgery. On the basis of a preoperatively set starting and destination point in the patient's radiological data, the software allows the surgeon to determine a precise access path that is specially adapted to the individual anatomic structures of the patient.

The physician then reviews and modifies the suggested access path at their discretion. Intraoperatively, the selected route is visualized on the navigation screen so that the actual position in the site is under constant control.

#### Benefits of the NAV1® SINUSTRACKER™

- Multiple Path Planning enables the preoperative planning and naming of up to eight access paths and alternatives
- Intraoperative visualization and control of access paths
- Less preoperative planning required thanks to automatic preplanning
- Flexible, pre- and intraoperative adaptation of the access path possible



40810600 **SINUSTRACKER™**, additional software module for the NAV1® family, compatible with software version 6.0.0 or higher





## NAV1® optical

The optical navigation system for FESS and ear surgery  
without any single-use products

### Benefits of NAV1® OPTICAL

- Seamless integration as the basic unit can be attached to a ceiling supply unit or equipment cart
- Very economic thanks to patented autoclavable and therefore reusable glass spheres and instruments
- User-friendly interface – short learning curve thanks to clearly defined control elements and menu navigation
- Wide range of conventional as well as motor-driven navigation instruments in the proven KARL STORZ quality
- NAV1® ELECTROMAGNETIC module enables customized enhancement thanks to optical measurement technology



- 40810001 NAV1® OPTICAL**  
including:  
**NAV1® Module**  
**Navigation Camera**  
**Stand, mobile**  
**Module Connecting Cable**, length 750 cm  
**Headband for Navigation**, for single use  
**Patient Tracker III**  
**Navigation Probe**  
**Mains Cord**  
**Optical Mouse**

#### Optical Navigated Instruments for FESS Surgery



- 40800088 Patient Tracker III**,  
with verification adaptor, 3 incorporated glass marker  
spheres and fixation screw, **autoclavable**,  
dimensions: 80 x 60 x 12 mm, for use with NAV1® PICO  
and NAV1® OPTICAL



- 40800110 Navigation Probe**,  
with 3 fixed glass marker spheres, **autoclavable**,  
dimensions: 295 x 15 x 30 mm, for use with  
NAV1® PICO and NAV1® OPTICAL



- 40800111 Optical Navigated Frontal Sinus Probe**,  
for use with NAV1® PICO, NAV1® OPTICAL and Tool  
Tracker **40800120**

## Imaging and OR Integration



Storage and  
administration of image  
and video data



SCENARA® .store

Flexible support for  
image sources

3D

IMAGE  
HD 1

4K

Centralized communication  
interface



SCENARA® .connect

# KARL STORZ OR1™

Future-oriented integration meets innovative  
data management

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KARL STORZ — ENDOSKOPE  
THE DIAMOND STANDARD

KARL STORZ SE & Co. KG, Dr.-Karl-Storz-Straße 34, 78532 Tuttlingen/Germany  
[www.karlstorz.com](http://www.karlstorz.com)

Further information and an overview of  
Otorhinolaryngology from  
KARL STORZ can be viewed on



[www.karlstorz.com](http://www.karlstorz.com)  
in the Human Medicine section,  
Otorhinolaryngology

**Please note that the described products in this medium may not be available yet in all countries  
due to different regulatory requirements.**

**It is recommended to check the suitability of the product for the intended procedure prior to use.**

