Skull Base Surgery

Visualization

4K

HD

3D

Lens Irrigation System
ENDOMAT® SELECT

SKULL STORZ 96311026 ENT 2019 1.0 03/2019/YHL-E
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**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>7230 AA</td>
<td><strong>HOPKINS® Straight Forward Telescope 0°</strong>, enlarged view, diameter 4 mm, length 18 cm, autoclavable, fiber optic light transmission incorporated, color code: green</td>
<td></td>
</tr>
<tr>
<td>7230 BA</td>
<td><strong>HOPKINS® Forward-Oblique Telescope 30°</strong>, enlarged view, diameter 4 mm, length 18 cm, autoclavable, fiber optic light transmission incorporated, color code: red</td>
<td></td>
</tr>
<tr>
<td>7230 FA</td>
<td><strong>HOPKINS® Forward-Oblique Telescope 45°</strong>, enlarged view, diameter 4 mm, length 18 cm, autoclavable, fiber optic light transmission incorporated, color code: black</td>
<td></td>
</tr>
<tr>
<td>7230 CA</td>
<td><strong>HOPKINS® Lateral Telescope 70°</strong>, enlarged view, diameter 4 mm, length 18 cm, autoclavable, fiber optic light transmission incorporated, color code: yellow</td>
<td></td>
</tr>
</tbody>
</table>

### Access, Fine Dissection and Decompression

**Osteotome, Mallet, Elevator and Knife**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>486103</td>
<td><strong>WALTER Osteotome</strong>, flat, double-edged grinding, width 3 mm, length 19 cm</td>
<td></td>
</tr>
<tr>
<td>174200</td>
<td><strong>COTTLE Metal Mallet</strong>, length 18 cm</td>
<td></td>
</tr>
<tr>
<td>479000</td>
<td><strong>MASING Elevator</strong>, double-ended, graduated, sharp and blunt, length 22.5 cm</td>
<td></td>
</tr>
<tr>
<td>628001</td>
<td><strong>Sickle Knife</strong>, pointed, length 19 cm</td>
<td></td>
</tr>
</tbody>
</table>
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
- Dermatome
40 701601-1  **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

**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
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.
### Optional Accessories

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

#### Sinus Burr 35k, with integrated irrigation, length 12 cm, sterile, for single use, package of 5, color code: red

<table>
<thead>
<tr>
<th>Detail</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>41335 W</td>
<td>curved 40°, cylindrical, burr diameter 3 mm, shaft diameter 4 mm</td>
</tr>
<tr>
<td>41335 RN</td>
<td>curved 15°, bud drill, burr diameter 4 mm, shaft diameter 4 mm</td>
</tr>
<tr>
<td>41335 DW</td>
<td>curved 40°, diamond head, burr diameter 5 mm, shaft diameter 4 mm</td>
</tr>
<tr>
<td>41335 DT</td>
<td>curved 70°, diamond head, burr diameter 3.6 mm, shaft diameter 4 mm</td>
</tr>
<tr>
<td>41335 DS</td>
<td>curved 40°, diamond head, burr diameter 4 mm, shaft diameter 4 mm</td>
</tr>
</tbody>
</table>

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
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

High-Speed Micro Motor, max. speed 60,000 rpm, including connecting cable, for use with UNIDRIVE® S III ENT/NEURO

High-Speed Handpiece, short, angled, 100,000 rpm
High-Speed Handpiece, medium, angled, 100,000 rpm
High-Speed Handpiece, long, angled, 100,000 rpm
High-Speed Handpiece, extra short, angled, 60,000 rpm
High-Speed Handpiece, short, angled, 60,000 rpm
High-Speed Handpiece, medium, angled, 60,000 rpm
High-Speed Handpiece, long, angled, 60,000 rpm
High-Speed Handpiece, extra short, straight, 60,000 rpm
High-Speed Handpiece, short, straight, 60,000 rpm
High-Speed Handpiece, medium, straight, 60,000 rpm
High-Speed Handpiece, extra long, malleable, slim, angled, 60,000 rpm
High-Speed Handpiece, super long, malleable, slim, angled, 60,000 rpm

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* **IMAGE1 S CONNECT® II**, 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 **IMAGE1 S™ 4U-LINK**, 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 **IMAGE1 S™ 4U One-Chip 4K UHD Camera Head**, S-Technologies available, progressive scan, soakable, EO sterilization, H₂O₂ (hydrogen peroxide), focal length f = 18 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™ 4U-LINK

TM 440 **58" 4K Monitor**, 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 **32" 4K 3D Monitor**, 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** **31" 4K Monitor**, 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 **Cold Light Fountain POWER LED 300 SCB**, 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 **Fiber Optic Light Cable**, 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 **Fiber Optic Light Cable**, with straight connector, extremely heat-resistant, enhanced light transmission, with safety lock, diameter 4.8 mm, length 250 cm

495 TIP **Fiber Optic Light Cable**, 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:

Standard image | CLARA

Standard image | CHROMA

Standard image | SPECTRA
TC 201EN* IMAGE1 S CONNECT® II, 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 IMAGE1 S™ 4U-LINK, 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 IMAGE1 S D3-LINK®, link module, for use with TIPCAM® 1 S 3D and VITOM® 3D power supply 100-240 VAC/200-240 VAC, 50/60 Hz, for use with IMAGE1 S CONNECT® TC 200 or IMAGE1 S CONNECT® II TC 201

TC 301 IMAGE1 S™ X-LINK, 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 IMAGE1 S™ H3-LINK, 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 IMAGE1 S™ 4U One-Chip 4K UHD Camera Head, S-Technologies available, progressive scan, soakable, EU sterilization, H₂O₂ (hydrogen peroxide), focal length f = 18 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™ 4U-LINK

TH 113 IMAGE1 S™ HX-P FI One-Chip FULL HD Pendulum Camera Head, S-Technologies (CHROMA, SPECTRA*** A and B) available, OPAL® 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, H₂O₂ (hydrogen peroxide), focal length f = 16 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™ X-LINK

TH 110 IMAGE1 S™ HX One-Chip FULL HD Camera Head, 50/60 Hz, fixed focus, progressive scan, soakable, EU sterilization, H₂O₂ (hydrogen peroxide), focal length f = 16 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™

TH 102 IMAGE1 S™ H3-Z FI Three-Chip FULL HD Camera Head, 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 IMAGE1 S™ H3-Z Three-Chip FULL HD Camera Head, 50/60 Hz, S-Technologies available, progressive scan, soakable, EU sterilization, H₂O₂ (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 TIPCAM® S 3D ORL, direction of view 0°, diameter 4 mm, length 18 cm, two FULL HD image sensors, autoclavable, S-Technologies available, freely programmable camera head buttons, including video connecting cable, for use with IMAGE1 S™

26605 BA Same, direction of view 30°

7240 FA3D Same, direction of view 45°

TH 200 VITOM® 3D, 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  **IMAGE1 PILOT**, 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  **58” 4K Monitor**, screen resolution 3840 x 2160, image format 16:9

TM 350  **32” 4K/3D Monitor**, screen resolution 3840 x 2160, image format 16:9

TM 342**  **31” 4K Monitor**, screen resolution 3840 x 2160, image format 16:9

TM 220  **27” FULL HD Monitor**, screen resolution 1920 x 1080, image format 16:9

TL 300  **Cold Light Fountain POWER LED 300 SCB**, with integrated KARL STORZ-SCB, high-performance LED module and one KARL STORZ light outlet

495 NCSC  **Fiber Optic Light Cable**, with straight connector, extremely heat-resistant, enhanced light transmission, with safety lock, diameter 4.8 mm, length 250 cm

495 NAC  **Fiber Optic Light Cable**, 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
** TM 342 not available in USA, Japan & China
*** 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
The document contains information about skull base surgery equipment and software. It lists various products and their features, including:

- **ENDOMAT® SELECT SCB**, a suction and irrigation pump with mains cord, power supply 100-240 VAC, 50/60 Hz.

- **SURGERY Software**, a license that allows selection of procedures “LAP”, “THOR” and “PROCTO”, for use with ENDOMAT® SELECT UP 210.

- **HYSTEROSCOPY Software**, a license that allows selection of the procedure “HYS”, for use with ENDOMAT® SELECT UP 210.

- **IBS® Shaver Software**, a license that allows selection of the procedure “IBS®”, for use with ENDOMAT® SELECT UP 210.


- **ARTHROSCOPY Software**, a license that allows selection of procedures “KNEE”, “HIP”, “SHOULDER” and “SMALL JOINTS”, for use with ENDOMAT® SELECT UP 210.

- **ENT/NEURO Software**, a license that allows selection of the procedure “CLEARVISION®”, for use with ENDOMAT® SELECT UP 210.

- **SPINE Software**, a license that allows selection of procedures “LUMBAR” and “THORACAL”, for use with ENDOMAT® SELECT UP 210.

- **ADVANCED Package**, software and license that extends functions of installed software packages, for use with ENDOMAT® SELECT UP 210.

- Various tubing sets and irrigation sets are available, including flow-controlled, pressure-controlled, direct suction, and bottle suction sets for single use.

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

40820001 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

40820105 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

40820110 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

40820112 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

40820111 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

40820145 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

40820165 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

40820163 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

40820175 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
Skull Base Surgery

Electromagnetic Navigated Instruments for Ear Surgery

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**, withatraumatic 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**, withatraumatic 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
40 8106 00 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

KARL STORZ OR1™
Future-oriented integration meets innovative data management

KARL STORZ SE & Co. KG, Dr.-Karl-Storz-Straße 34, 78532 Tuttlingen/Germany
www.karlstorz.com
Further information and an overview of Otorhinolaryngology from KARL STORZ can be viewed on 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.