EASYGO!® 2nd Generation
For Endoscopic Spinal Surgery
Dear Colleagues,

Thank you for your interest in the second generation of the EASYGO® system. Ever since the first generation of EASYGO® was developed and introduced 5 years ago by Prof. Dr. Michael Gaab and the present author in cooperation with KARL STORZ, there has been an increasing demand for minimally invasive endoscopic procedures in the field of spine surgery.

At the same time, technological advances have opened up a new range of possibilities. HD visualization with high resolution and high magnification is now a standard feature. Modern rod lens telescopes are far less sensitive due to improvements in mechanical stability. Thanks to enhanced illumination and large HD monitors, even the tiniest details can be visualized. Parallel to the increased demand for endoscopic procedures as well as advances in technology, the surgical spectrum for endoscopic spine surgery has undergone a transformation. Due to demographic developments and a population that is also increasingly active at an advanced age, today’s spine surgeon encounters more patients with massive or at least considerably advanced spinal degeneration. This places special demands on minimally invasive endoscopic surgical systems.

The new EASYGO® 2nd generation now provides an endoscopic system for minimally invasive spine surgery that, on the one hand, retains the proven benefits of the EASYGO® system and, on the other, takes the latest technological advances as well as the changing needs of the patient population into consideration. The EASYGO® system continues to combine the benefits of microsurgery and spinal endoscopy. Optimizing the endoscopic telescope and telescope holder succeeded in creating more space within the working area to make bimanual operation with EASYGO® even easier. It is expected that the familiarization period will be even shorter for most spine surgeons as many are already familiar with bimanual operative techniques in microsurgery.

The new EASYGO® 2nd generation offers an endoscopic system for a wide range of spine surgery indications. Both classic mediolateral lumbar disc herniation and classic lumbar stenosis are ideal indications for the EASYGO® system if an endoscopic procedure is desired. The EASYGO® 2nd generation is also extremely suitable for extraforaminal disc herniation surgery and for endoscopic decompression during TLIF or PLIF procedures. Moreover, cervical intraforaminal disc herniations and cervical foraminal stenosis as well as central stenosis can be treated in a very precise and minimally-invasive manner with the EASYGO® 2nd generation. I hope that you will be able to share my enthusiasm for this new system and that you will enjoy working with this technology which is ultimately in the best interest of our patients.

Prof. Dr. med. Joachim Oertel
Neurosurgery
Saarland University Medical Center
Homburg/Saar, Germany
The new EASYGO!® 2nd generation system includes 3 new telescopes whose length has been adapted to various trocar sizes.

With their 90° eyepiece deflection, the second–generation telescopes offer surgeons better system handling and more comfortable working conditions. Thanks to this new eyepiece deflection, the camera head and light cable are below the surgeon’s working field. This prevents any collision between the surgeon’s hands and system components.

Telescopes with a 25° viewing angle allow a far lateral view of the surgical site. Enhanced illumination and a higher resolution permits better differentiation of anatomical structures.
The three different color-coded trocar diameters (orange, green and black) are each available in three different lengths.

The different lengths allow working closer to the skin level and therefore offer more space for instruments.

The long trocars are primarily for obese patients, while the shorter trocars are largely used for the cervical Frykholm access.

<table>
<thead>
<tr>
<th>Orange Trocar (diameter 15 mm)</th>
<th>Green Trocar (diameter 19 mm)</th>
<th>Black Trocar (diameter 23 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short</td>
<td>28163 OTA</td>
<td>28163 OTB</td>
</tr>
<tr>
<td></td>
<td>working length 39 mm</td>
<td>working length 40 mm</td>
</tr>
<tr>
<td>Medium</td>
<td>28163 OTM</td>
<td>28163 OTK</td>
</tr>
<tr>
<td></td>
<td>working length 69 mm</td>
<td>working length 71 mm</td>
</tr>
<tr>
<td>Long</td>
<td>28163 OTW</td>
<td>28163 OTY</td>
</tr>
<tr>
<td></td>
<td>working length 89 mm</td>
<td>working length 91 mm</td>
</tr>
</tbody>
</table>

The trocars are secured to the holding arm with the KSLOCK®.
The telescope holder enables the telescope to be rotated up to 270°. It is possible to lock the telescope holder into position with a turn-screw. Should cleaning of the telescope lens be required during surgery, the telescope can easily be removed or re-inserted through the recess.

Thanks to the new attachments and telescope holder, the trocar’s working channel is now much larger in the EASYGO!® 2nd generation. The larger working channel not only permits better instrument handling and maneuverability, but with smaller trocar diameters, it is also suitable for a wider range of indications.

The new component design offers the following additional work space in the trocar:

<table>
<thead>
<tr>
<th>Value / Size</th>
<th>Orange Trocar (diameter 15 mm)</th>
<th>Green Trocar (diameter 19 mm)</th>
<th>Black Trocar (diameter 23 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Δ A [%]</td>
<td>+ 23.72</td>
<td>+ 18.18</td>
<td>+ 13.85</td>
</tr>
</tbody>
</table>

These new parts are the core components of second-generation EASYGO!® 2nd generation. Color coding simplifies the system assembly. The trocar length determines the choice of telescope.

### Assembling the EASYGO!® 2nd Generation – Compatibility Overview

<table>
<thead>
<tr>
<th>Trocar Attachment</th>
<th>Telescope Holder</th>
<th>Trocar</th>
<th>Endoscope</th>
</tr>
</thead>
<tbody>
<tr>
<td>28163 OAM diameter 15 mm</td>
<td>28163 OBM</td>
<td>28163 OTA working length 39 mm</td>
<td>28095 BAA Ø 4 mm length 6 cm</td>
</tr>
<tr>
<td>28163 OAK diameter 19 mm</td>
<td>28163 OBK</td>
<td>28163 OTB working length 40 mm</td>
<td>28095 BAB Ø 4 mm length 9 cm</td>
</tr>
<tr>
<td>28163 OAG diameter 23 mm</td>
<td>28163 OBG</td>
<td>28163 OTC working length 43 mm</td>
<td>28095 BAC Ø 4 mm length 11 cm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28163 OTM working length 69 mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>28163 OTK working length 71 mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>28163 OTG working length 73 mm</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>28163 OTW working length 89 mm</td>
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<td></td>
<td></td>
<td>28163 OTY working length 91 mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>28163 OTZ working length 94 mm</td>
<td></td>
</tr>
</tbody>
</table>
EASYGO!® 2nd Generation
OERTEL Recommended Set
1. 28163 CNS  Dilation Sleeve, graduated, inner diameter 1.5 mm, outer diameter 5.2 mm, length 23 cm, color code: white
2. 28163 COS  Dilation Sleeve, graduated, inner diameter 5.3 mm, outer diameter 8.9 mm, length 21 cm, color code: yellow
3. 28163 CPS  Dilation Sleeve, graduated, inner diameter 9 mm, outer diameter 12.7 mm, length 19 cm, color code: orange
4. 28163 CQS  Dilation Sleeve, graduated, inner diameter 12.9 mm, outer diameter 14.9 mm, length 17 cm, color code: red
5. 28163 CRS  Dilation Sleeve, graduated, inner diameter 15.1 mm, outer diameter 16.9 mm, length 15 cm, color code: green
6. 28163 CSS  Dilation Sleeve, graduated, inner diameter 17.1 mm, outer diameter 18.9 mm, length 14 cm, color code: blue
7. 28163 CTS  Dilation Sleeve, graduated, inner diameter 19 mm, outer diameter 20.9 mm, length 13 cm, color code: black
8. 28163 OAM  EASYGO® II Trocar Attachment, diameter 15 mm, for use with EASYGO® II Trocars 28163 OTA, 28163 OTM and 28163 OTW
9. 28163 OBM  EASYGO® II Telescope Holder, diameter 15 mm, for use with EASYGO® II Trocar Attachment 28163 OAM
10. 28163 OAK  EASYGO® II Trocar Attachment, diameter 19 mm, for use with EASYGO® II Trocars 28163 OTB, 28163 OTK and 28163 OTY
11. 28163 OBK  EASYGO® II Telescope Holder, diameter 19 mm, for use with EASYGO® II Trocar Attachment 28163 OAK
12. 28163 OAG  EASYGO® II Trocar Attachment, diameter 23 mm, for use with EASYGO® II Trocars 28163 OTC, 28163 OTG and 28163 OTZ
13. 28163 OBG  EASYGO® II Telescope Holder, diameter 23 mm, for use with EASYGO® II Trocar Attachment 28163 OAG
14. 28095 BAA  HOPKINS® Forward–Oblique Telescope 25°, eyepiece angled 90°, diameter 4 mm, length 6 cm, autoclavable, fiber optic light transmission incorporated, for use with 4 cm long EASYGO® II Trocars 28163 OTA, 28163 OTB and 28163 OTC, color code: red
15. 28095 BAB  HOPKINS® Forward–Oblique Telescope 25°, eyepiece angled 90°, diameter 4 mm, length 9 cm, autoclavable, fiber optic light transmission incorporated, for use with 7 cm long EASYGO® II Trocars 28163 OTM, 28163 OTK and 28163 OTG, color code: red
16. 28095 BAC  HOPKINS® Forward–Oblique Telescope 25°, eyepiece angled 90°, diameter 4 mm, length 11 cm, autoclavable, fiber optic light transmission incorporated, for use with 10 cm long EASYGO® II Trocars 28163 OTW, 28163 OTY and 28163 OTZ, color code: red
17. 28163 OTW  EASYGO® II Trocar, diameter 15 mm, working length 89 mm, for use with EASYGO® II Trocar Attachment 28163 OAM, EASYGO® II Telescope Holder 28163 OBM and HOPKINS® Forward–Oblique Telescope 25°, 4 mm, 11 cm 28095 BAC, color code: orange
18. 28163 OTM  EASYGO® II Trocar, diameter 15 mm, working length 69 mm, for use with EASYGO® II Trocar Attachment 28163 OAM, EASYGO® II Telescope Holder 28163 OBM and HOPKINS® Forward–Oblique Telescope 25°, 4 mm, 9 cm 28095 BAB, color code: orange
19. 28163 OTA  EASYGO® II Trocar, diameter 15 mm, working length 39 mm, for use with EASYGO® II Trocar Attachment 28163 OAM, EASYGO® II Telescope Holder 28163 OBM and HOPKINS® Forward–Oblique Telescope 25°, 4 mm, 6 cm 28095 BAA, color code: orange
**28163 OTY**  
**EASYGO!® II Trocar**, diameter 19 mm, working length 91 mm, for use with **EASYGO!® II Trocar Attachment 28163 OAK**, **EASYGO!® II Telescope Holder 28163 OBK** and **HOPKINS® Forward–Oblique Telescope 25°**, 4 mm, 11 cm 28095 BAC, color code: green

**28163 OTK**  
**EASYGO!® II Trocar**, diameter 19 mm, working length 71 mm, for use with **EASYGO!® II Trocar Attachment 28163 OAK**, **EASYGO!® II Telescope Holder 28163 OBK** and **HOPKINS® Forward–Oblique Telescope 25°**, 4 mm, 9 cm 28095 BAB, color code: green

**28163 OTB**  
**EASYGO!® II Trocar**, diameter 19 mm, working length 40 mm, for use with **EASYGO!® II Trocar Attachment 28163 OAK**, **EASYGO!® II Telescope Holder 28163 OBK** and **HOPKINS® Forward–Oblique Telescope 25°**, 4 mm, 6 cm 28095 BAA, color code: green

**28163 OTZ**  
**EASYGO!® II Trocar**, diameter 23 mm, working length 94 mm, for use with **EASYGO!® II Trocar Attachment 28163 OAG**, **EASYGO!® II Telescope Holder 28163 OBG** and **HOPKINS® Forward–Oblique Telescope 25°**, 4 mm, 11 cm 28095 BAC, color code: black

**28163 OTG**  
**EASYGO!® II Trocar**, diameter 23 mm, working length 73 mm, for use with **EASYGO!® II Trocar Attachment 28163 OAG**, **EASYGO!® II Telescope Holder 28163 OBG** and **HOPKINS® Forward–Oblique Telescope 25°**, 4 mm, 9 cm 28095 BAB, color code: black

**28163 OTC**  
**EASYGO!® II Trocar**, diameter 23 mm, working length 43 mm, for use with **EASYGO!® II Trocar Attachment 28163 OAG**, **EASYGO!® II Telescope Holder 28163 OBG** and **HOPKINS® Forward–Oblique Telescope 25°**, 4 mm, 6 cm 28095 BAA, color code: black

**28163 CFB**  
**KERRISON Bone Punch**, dismantling, 40° upbiting, not through–cutting, 4 mm, working length 24 cm

**28163 CFS**  
**KERRISON Bone Punch**, dismantling, 40° upbiting, not through–cutting, 2 mm, working length 24 cm

**28163 GX**  
**Suction Tube**, with cut–off hole, Luer, diameter 2.5 mm, working length 15 cm

**28163 GXN**  
**Suction Tube**, with distal nerve retractor, with cut–off hole, Luer–Lock connector, diameter 2.7 mm, working length 15 cm

**28163 BPL**  
**Bipolar Coagulation Forceps**, insulated, bayonet–shaped, tip 1.2 mm, length 23 cm, for use with Bipolar High Frequency Cord 847000 E or 847000 M/V/W

**28163 GRN**  
**Nerve Retractor**, angled 30°, distal width 5 mm, working length 17 cm

**28164 DS**  
**Dissector**, sharp, tip angled 15°, with round handle, size 2 mm, length 25 cm

**28163 GAH**  
**Palpation Hook**, straight, distally 10 mm long and angled 90°, with ball end, with round handle, working length 20 cm

**28163 CC**  
**Spoon Forceps**, dismantling, robust, oval, spoon size 3 x 10 mm, single action jaws, working length 20 cm

**28163 EC**  
**Spoon Forceps**, dismantling, curved 30°, robust, oval, spoon size 3 x 10 mm, single action jaws, working length 20 cm

**28163 EHK**  
**Hook Scissors**, single action jaws, diameter 2.5 mm, working length 25 cm

**28272 HB**  
**Articulated Stand**, reinforced version, L–shaped, with one mechanical central clamp for all five joint functions, height 48 cm, operating range 52 cm, with quick release coupling KSLOCK® (female)

**28172 HR**  
**Rotation Socket**, to clamp to the operating table, with one already mounted butterfly nut 28172 HRS, for use with European and US standard rails, with lateral clamp for height and angle adjustment of the articulated stand

**495 NA**  
**Fiber Optic Light Cable**, with straight connector, diameter 3.5 mm, length 230 cm
Additional Instruments for Stenoses

28163 PL  **Puncture Needle**, including stylet, diameter 1.8 mm, working length 18 cm, with 1.3 mm opening for guide wire

28163 KD  **Guide Wire**, unsterile, diameter 1.2 mm, length 31 mm, package of 10

28163 BKD  **KERRISON Punch**, dismantling, bayonet-shaped, fixed, downbiting 40° forward, 2 mm, working length 17 cm

28163 RN  **Nerve Retractor**, hook length 2 mm, diameter 4 mm, angled sheath, working length 20 cm

28163 NBB  **Nerve Hook**, distal width 5 mm, bayonet-shaped, working length 16 cm

28163 NSB  **Nerve Hook**, distal width 3 mm, bayonet-shaped, working length 16 cm

28163 GBH  **Palpation Hook**, bayonet-shaped, distally angled 90°, with ball end, with round handle, working length 20 cm

28163 FB  **BLAKESLEY Nucleus Cutting Forceps**, single action jaws, opening upwards, diameter 3.5 mm, working length 20 cm
IMAGE1 S Camera System

TC 200EN*  IMAGE1 S CONNECT, connect module, for use with up to 3 link modules, resolution 1920 x 1080 pixels, with integrated KARL STORZ–SCB and digital Image Processing Module, power supply 100–120 VAC/200–240 VAC, 50/60 Hz including:
- Mains Cord, length 300 cm
- DVI-D Connecting Cable, length 300 cm
- SCB Connecting Cable, length 100 cm
- USB Flash Drive, 32 GB
- USB Silicone Keyboard, with touchpad, US

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 200EN including:
- Mains Cord, length 300 cm
- Link Cable, length 20 cm

* Also available in the following languages: DE, ES, FR, IT, PT, RU
IMAGE1 S Camera Heads

TH 100  IMAGE1 S H3–Z Three–Chip FULL HD Camera Head, progressive scan, soakable, gas– and plasma–sterilizable, with integrated Parfocal Zoom Lens, focal length f = 15–31 mm (2x), 2 freely programmable camera head buttons, for use with IMAGE1 S and IMAGE1 HUB™ HD/HD

TH 104  IMAGE1 S H3–ZA Three–Chip FULL HD Camera Head, autoclavable, progressive scan, soakable, gas– and plasma–sterilizable, with integrated Parfocal Zoom Lens, focal length f = 15–31 mm (2x), 2 freely programmable camera head buttons, for use with IMAGE1 S and IMAGE1 HUB™ HD/HD
Monitors

9826 NB–US

26" FULL HD Monitor, color systems PAL/NTSC, max. screen resolution 1920 x 1080, image format 16:9, video inputs: DVI, 3G–SDI, VGA, S–Video, Composite, video outputs: DVI, 3G–SDI, Composite, power supply 100–240 VAC, 50/60 Hz, 5 V DC output (1 A), wall mount with VESA 100 adaptor including:
External 24 VDC Power Supply
Mains Cord
Light Sources

**Cold Light Fountain XENON 300 SCB**, with KARL STORZ–SCB, with integrated anti-fog pump, 300 Watt Xenon bulb and KARL STORZ light connection, power supply 100–125/220–240 VAC, 50/60 Hz
including:
- **Mains Cord**
- **SCB Connecting Cable**, length 100 cm

**XENON Spare Lamp Module**, 300 W, 15 V

**XENON Spare Lamp**, 300 W, 15 V

**Cold Light Fountain Power LED 175 SCB**, with integrated KARL STORZ-SCB, high-performance LED and one KARL STORZ light outlet, power supply 110–240 VAC, 50/60 Hz
including:
- **Mains Cord**
- **SCB Connecting Cable**, length 100 cm

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