MINOP® InVent

Offering more for patients through less invasive techniques
Advanced Intraventricular Neuroendoscopy

MINOP® InVent – Offering more for patients through less invasive techniques

Our newest addition to the MINOP® family pushes the boundaries of Neurosurgical techniques in offering a unique solution for bi-manual resection of solid tumors and cysts. The unparalleled flexibility experienced through our large working channel coupled with our customized instrumentation expand the possibilities for advanced neuroendoscopy.

See Indications for Use on back cover.
Advanced Intraventricular Neuroendoscopy

MINOP® InVent Ordering Guide

1. Holding Arm and Accessories
2. Tube Shaft Instruments
3. Shaft Instruments
4. Obturators
5. Trocar
6. 30° Scope
7. Dissectors, Hook, Knife
8. Flexible Instruments
9. Bipolar Electrodes
10. Monopolar Electrodes
MINOP® InVent – Trocar and Scope

FH620R

MINOP® InVent trocar
Outer diameter: 8.3 mm
3(4) channels
- Scope channel: diam. 2.8 mm
- Irrigation channel: diam. 1.0 mm

Two merging channels:
- Large working/overflow channel: 3.7 mm x 6.5 mm
- Small working/overflow channel: 2.2 mm
including 2 obturators for scope channel and working channel

RT068R

MINOP® InVent holding arm adapter for Aesculap holding arms

PE204A

MINOP® endoscope
Direction of view 30°, upwards (red ring)
Shaft diameter: 2.7 mm
Shaft length: 180 mm
MINOP® InVent – Instruments

MINOP® InVent dissector, tip width 2.2 mm

MINOP® InVent dissector, tip width 1.7 mm

MINOP® InVent dissector, tip width 1.0 mm

MINOP® InVent hook, 90° blunt, hook deflection width 3.5 mm

MINOP® InVent knife, backwards cutting, knife deflection width 3.0 mm
MINOP® InVent – Instruments

MINOP® InVent forceps straight
MINOP® InVent scissors straight
MINOP® InVent forceps right
MINOP® InVent scissors left
MINOP® InVent forceps left
MINOP® InVent grasping forceps straight
MINOP® InVent forceps right
MINOP® InVent scissors upwards

FH621R
FH622R
FH623R
FH624R
FH625R
FH626R
FH627R
FH628R
Advanced Intraventricular Neuroendoscopy

MINOP® InVent - Instruments | Complete Instruments

MINOP® InVent scissors

- Sharp/sharp

MINOP® InVent scissors

- Blunt/blunt

MINOP® InVent biopsy forceps

MINOP® InVent grasping and dissecting forceps

MINOP® InVent surgical forceps

Complete instrument:

- Handle
- Outer tube
- Jaw with inner tube

Ø 2 mm

Length: 265 mm, 10"
MINOP® InVent - Instruments | Replacement Parts

MINOP® InVent scissors
- sharp/sharp (FF435R)
- blunt/blunt (FF436R)

MINOP® InVent biopsy forceps (FF437R)

MINOP® InVent grasping and dissecting forceps (FF438R)

MINOP® InVent surgical forceps (FF439R)

MINOP® InVent instrument handle (FF633R)

Ø 2 mm Jaw with inner tube
Advanced Intraventricular Neuroendoscopy

MINOP® InVent - Bipolar Electrodes

- MINOP® InVent bipolar electrode 0° (GK343R)
- MINOP® InVent bipolar electrode 30° (GK345R)
- MINOP® InVent bipolar electrode 40° (GK344R)
- Bipolar cable, 12 ft (US359)

Width/Height: 3.2 mm x 2.1 mm

Dimensions:
- 310 mm, 12¼"
- 255 mm, 10"
- 2.1 mm
MINOP® InVent - Monopolar Electrodes

- **GK361R**
  - Blunt electrode, diam. 1.1 mm

- **GK363R**
  - Needle electrode, diam. 1.1 mm

- **GK364R**
  - Hook electrode, 45°, diam. 2.2 mm

- **GK365R**
  - Hook electrode, 70°, diam. 2.2 mm

- **GK362R**
  - Hook electrode, 90°, diam. 2.2 mm

- **GK366R**
  - Hook electrode, 180°, diam. 2.2 mm

- **GK246**
  - Monopolar cable, 12 ft
Advanced Intraventricular Neuroendoscopy

MINOP® InVent - Flexible Instruments & Suction Cannula

1.0 mm

2.0 mm

Micro scissors

Micro grasping and dissecting forceps

Micro biopsy forceps

Suction cannula, blunt tip 0°, diam. 2.0 mm

Suction cannula, sharp tip 45°, diam. 2.0 mm

Indications for Use: The MINOP Disposable Introducer is indicated to obtain and maintain a temporary pathway into the ventricular system of the brain. The purpose of the MINOP Disposable Introducer is to obtain and maintain a temporary pathway to the ventricular system of the patient. The MINOP Disposable Introducer is designed to be split lengthwise and peeled down to the skull level of the patient, accommodating different depth requirements. See Instructions for Use for additional information including Warnings and Precautions. Rx Only.

MINOP InVent Disposable Introducer

- 26 Fr disposable introducer set including obturator and sheath
- Especially for MINOP trocar FH620R
- Introducer sheath protects the brain while inserting and removing the endoscope/trocar
- Round & blunt obturator tip for atraumatic insertion into the ventricles
- Depth scale for precise positioning and perfect control
- Easy to peel with side handles
MINOP® InVent – Storage

**FH358R**
For MINOP® InVent trocars and scope
Storage rack with silicone protection and cushioning bottom and lid
L/W/H 540 x 253 x 56 mm

**FH359R**
For MINOP® InVent instruments and electrodes
Storage rack with silicone protection and cushioning bottom and lid
L/W/H 540 x 253 x 166 mm

**JN446**  **JK489**
Full-Size container  Full-Size lid
for FF358R and FF359R
Outside dimensions with lid:
L/W/H 592 x 285 x 265 mm
Advanced Intraventricular Neuroendoscopy

Holding Arm - M-Trac Mechanical Holding Arm

**M-TRAC**
- Flexible holding device with mechanical fixation
- Assembly: flexible holding arm with integrated fixation bar
- Total length: 107 cm
- Length of fixation bar: 46 cm
- Diameter of fixation bar: 20 mm
- Total weight: 0.7 kg
- Holding force: 4 kg
- Easy mechanical fixation by clamping handle
- Small, flexible joints for fine positioning
- Autoclavable 134°C, 5 minutes
- Full range of accessories/adapters for connecting Aesculap endoscopes, trocars and instruments
- Holding arm fits into container: JN445

**FF168R**
Flexible fixing element with ball joint suitable for RT040R and FF168R

**FF280R**
Flexible fixing element with sprocket suitable for RT040R and FF168R

**RT090R**
Rigid fixation element suitable for RT040R and FF168R

**RT068R**
MINOP® InVent holding arm adapter for Aesculap holding arms
## MINOP® InVent Ordering Information

<table>
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<th>Group</th>
<th>Item No.</th>
<th>Description</th>
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<tbody>
<tr>
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<td>PE204A</td>
<td>MINOP Angled Endoscope 30°, D: 180 mm, L: 2.7 mm</td>
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<td>Holding Arm</td>
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<td>MINOP InVent Adapter for Holding Arm</td>
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<td>FF168R</td>
<td>Holding Arm MECH 3 Joints Right Adapter</td>
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<td>FF280R</td>
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<tr>
<td>Trocar</td>
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<td>MINOP InVent 30° Trocar, D: 8.3 mm, L: 150 mm</td>
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<td>FH621R</td>
<td>MINOP InVent Forceps Straight, L: 290 mm</td>
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<td>FH622R</td>
<td>MINOP InVent Forceps Right, L: 290 mm</td>
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<td>FH623R</td>
<td>MINOP InVent Forceps Left, L: 290 mm</td>
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<td>FH624R</td>
<td>MINOP InVent Grasping Forceps, L: 290 mm</td>
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<td>FH625R</td>
<td>MINOP InVent Scissors Straight, L: 290 mm</td>
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<td>FH626R</td>
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<td>FH627R</td>
<td>MINOP InVent Scissors Right, L: 290 mm</td>
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<td>FH628R</td>
<td>MINOP InVent Scissors Upwards, L: 290 mm</td>
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<td>FH629R</td>
<td>MINOP InVent Dissector Large, L: 356 mm</td>
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<td>FH630R</td>
<td>MINOP InVent Dissector Medium, L: 356 mm</td>
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<td>FH631R</td>
<td>MINOP InVent Dissector Small, L: 356 mm</td>
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<td>FH632R</td>
<td>MINOP InVent Hook 90° Blunt, L: 356 mm</td>
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<td>FH634R</td>
<td>MINOP InVent Knife Backwards Cutting, L: 356 mm</td>
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<td>FH635R</td>
<td>MINOP InVent Microscissors Sharp</td>
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<td>MINOP InVent Microscissors Blunt</td>
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<td>MINOP InVent Micro Biopsy Forceps</td>
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<td>FH638R</td>
<td>MINOP InVent Micro Grasping Forceps</td>
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<td>FH639R</td>
<td>MINOP InVent Surgical Micro Grasping Forceps</td>
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<td>GK343R</td>
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<td>GK344R</td>
<td>MINOP InVent Bipolar 40°, D: 2.7 mm, L: 310 mm</td>
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<td>GK345R</td>
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<td>US359</td>
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<td>GK360R</td>
<td>MINOP Bipolar Fork Electrode, 2.1 mm</td>
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<td>GK361R</td>
<td>MONOPOLAR Blunt Electrode, 1.1 mm, D: 255 mm</td>
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<td>GK362R</td>
<td>MINOP Monopolar Hook Electrode, 2.1 mm, D: 255 mm</td>
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<td>GK363R</td>
<td>MINOP Monopolar Needle Electrode, 1.1 mm, D: 255 mm</td>
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<td>GK364R</td>
<td>MINOP Monopolar Hook Electrode 45°, 2.2 mm DIA 255</td>
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<td>GK365R</td>
<td>MINOP Monopolar Hook Electrode 70°, 2.2 mm D: 255</td>
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<td>GK366R</td>
<td>MINOP Monopolar J-Hook Electrode, 2.2 mm, D: 255 mm</td>
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<td>GK246</td>
<td>Monopolar Cable, 12 ft</td>
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<td>FF373R</td>
<td>PaediScope® Scissors Flexible, 250 mm</td>
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<td>FF374R</td>
<td>PaediScope® Grasping Forceps Flexible, 250 mm</td>
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<td></td>
<td>FF378R</td>
<td>PaediScope® Biopsy Flexible, 250 mm</td>
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<td>FH641SU</td>
<td>MINOP InVent 26F Disposable Introducer</td>
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<td>FH606SU</td>
<td>MINOP Suction Cannula 0°, D: 2.0 mm</td>
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<td>FH607SU</td>
<td>MINOP Suction Cannula 45°, D: 2.0 mm</td>
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<td>FH358R</td>
<td>MINOP InVent Storage Rack</td>
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<tr>
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<td>FH359R</td>
<td>MINOP InVent Storage Rack for Instruments &amp; Electrodes</td>
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<td></td>
<td>JK489</td>
<td>Full-Size Lid with Retention Plate, silver</td>
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<td></td>
<td>JN446</td>
<td>Full-Size Solid Bottom, 10½&quot;</td>
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</table>

* Items additionally available
INDICATIONS FOR USE
The Aesculap MINOP System is intended for use in endoscope-assisted microneurosurgery and pure neuroendoscopy (i.e. ventriculoscopy) for direct visualization, diagnostic and/or therapeutic procedures, such as ventriculostomies, biopsies and removal of cysts, tumors and other obstructions.

See Instructions for Use for additional information including Warnings and Precautions.

Rx Only.