## Get more access for LESS

Access Systems - for minimal invasive surgery.

(15D



The GEISTER ${ }^{\oplus}$ LAPPROTECTOR ${ }^{\text {TM }}$ is a surgical wound retractor/protector made from a silicon rubber membrane with a flexible shape-memory frame. With the optional GEISTER ${ }^{\oplus}$ LAPPROTECTORTM E-Z ACCESS ${ }^{\text {TM }}$ silicone rubber cap a tight seal can be created for LESS single port laparoscopic surgery.

As the GEISTER ${ }^{\oplus}$ LAPPROTECTOR™ E-Z ACCESSTM device has no fixed channel, surgeons can select the best trocar placement to maintain maximum trocar separation for each surgery.

A typical placement for the rotatable devices would be for example through a single 25 mm umbilical incision with the scope trocar being introduced at the caudal side of the device center and two other trocars for working instruments inserted through both sides of the device while another straight grasper could be directly inserted into the peritoneal cavity through the device for cephalad retraction of the gallbladder.

Instrument changes or trocar exchanges can be performed during the surgery easily and frequently without air leakage and affecting the seal. The removable cap also allows for a safe and quick retrieval of the gallbladder with pneumoperitoneum easily restorable by recapping the device.
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LapProtector ${ }^{\text {TM }}$ Access Device, sterile, single use, latex-free, pack of 2 pcs.

## Art.No.

37-0002 OD $150 \times 150 \mathrm{~mm}$, ID $80 \mathrm{~mm}, 20 \mathrm{~mm}$ depth 37-0004
37-0004 37-0008 OD $120 \times 100 \mathrm{~mm}$, ID $60 \mathrm{~mm}, 20 \mathrm{~mm}$ depth OD $120 \times 100 \mathrm{~mm}$, ID $60 \mathrm{~mm}, 40 \mathrm{~mm}$ depth OD $120 \times 120 \mathrm{~mm}$, ID $60 \mathrm{~mm}, 20 \mathrm{~mm}$ depth OD $120 \times 120 \mathrm{~mm}$, ID $60 \mathrm{~mm}, 40 \mathrm{~mm}$ depth OD $120 \times 120 \mathrm{~mm}$, ID $60 \mathrm{~mm}, 70 \mathrm{~mm}$ depth OD $100 \times 100 \mathrm{~mm}$, ID $60 \mathrm{~mm}, 40 \mathrm{~mm}$ depth OD $70 \times 70 \mathrm{~mm}$, ID $35 \mathrm{~mm}, 20 \mathrm{~mm}$ depth OD $70 \times 70 \mathrm{~mm}$, ID $35 \mathrm{~mm}, 40 \mathrm{~mm}$ depth OD $50 \times 40 \mathrm{~mm}$, ID $25 \mathrm{~mm}, 20 \mathrm{~mm}$ depth OD $50 \times 40 \mathrm{~mm}$, ID $15 \mathrm{~mm}, 20 \mathrm{~mm}$ depth ovale, ID $45 \times 30 \mathrm{~mm}, 20 \mathrm{~mm}$ depth ovale, ID $45 \times 30 \mathrm{~mm}, 40 \mathrm{~mm}$ depth

LapProtector ${ }^{\text {TM }} \mathrm{E}-\mathrm{Z}$ Access ${ }^{\text {TM }}$ Cap, sterile, single use, latex-free, pack of 2 pcs. Art.No.

37-0011 100 mm $37-0015 \quad 70 \mathrm{~mm}$ 37-0015 70 mm 37-0017 50 mm 37-0017 50 mm 37-0021 ovale 37-0021 ovale

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34-0952.VV

Trocar $\varnothing 5,8 \mathrm{~mm}$, sterile, single use suitable for 5 mm forceps, pack of 5 pcs.

## Art.No.

37-0030.L working length 95 mm , with 2-way-stopcock 37-0030.S working length 70 mm , with 2-way-stopcock
37-0035.L working lenght 95 mm
37-0035.S working lenght 70 mm

Twin Trocar $\varnothing 5,8 \mathrm{~mm}$, sterile, single use suitable for 5 mm forceps, pack of 5 pcs.
Art.No.
37-0040.L working lenght 95 mm , with 2 outer cylinders 37-0040.S working lenght 70 mm , with 2 outer cylinders

Introducer Sleeves
Art.No.
34-0952 Metall shaft, smooth $\quad \varnothing 5,5 \mathrm{~mm}, 103 \mathrm{~mm}$
34-0952.PL Plastic shaft, smooth
34-0952.WC White seal
34-0952.W Silicone valve, Pack of 5 pieces Trocar for Indroducer Sleeves, metal, smooth Art.No.

| 34-0956 | pyramidal point | $\varnothing 5,5 \mathrm{~mm}, 160 \mathrm{~mm}$ |
| :--- | :--- | :--- |
| 34-0957 | conical point | $\varnothing 5,5 \mathrm{~mm}, 160 \mathrm{~mm}$ | conical point

$\varnothing 5,5 \mathrm{~mm}, 92 \mathrm{~mm}$
for Ø $3,5-8 \mathrm{~mm}$
for Ø 3,5-8 mm
$\varnothing 5,5 \mathrm{~mm}, 160 \mathrm{~mm}$
$\varnothing 5,5 \mathrm{~mm}, 160 \mathrm{~mm}$

* Smart discs included 1 piece each package.

By 37-0040.S and 37-0040.L 2 pieces each package.

1. Trocar placement for pneumoperitoneum

Insert a trocar into the inside of "boundary line of trocar insertion"(Picture1).
To avoid damaging organs by trocar tip, measure the depth from upper ring of the LAPPROTECTORTM to the organs before inserting.

## \#Caution!

Only use plastic-blade type trocars (otherwise, broken pieces may drop off to damage the patient.)

## 2. Fixing

Take out the inner needle from the outer cylinder. Make sure that the inserted trocar tip does not touch the LAPPROTECTOR ${ }^{\text {TM }}$ and organs. Attach this product to the upper ring of the LAPPROTECTOR ${ }^{\text {TM }}$ which is already set to the abdominal wall, to fit the inner groove (picture 2 and 3 ).
When using the LAPPROTECTOR ${ }^{\text {TM }}$, select the proper size to fit the depth of the abdominal wall; please read the attached IFU before use.

## !Caution!

When attaching this product to the LAPPROTECTOR ${ }^{\text {TM }}$, make sure that it fully covers the LAPPROTECTOR ${ }^{\text {TM }}$ to fit the inner groove (to avoid pneumoperitoneum gas leakage and also to avoid the product from falling off.)

## 3. Pneumoperitoneum

Start pneumoperitoneum from the inserted trocar and check for any gas leakage. If any gas leakage, detach and fix again to certain that there is no leakage.


picture 4

picture 5


## INFORMATION

This is a disposable product. Its specifications and appearance are subject to change for improvement without notice.

## 4. Additional placement of 5 mm trocars

When adding trocars, make sure that the trocar tips do not scratch and damage the LAPPROTECTOR ${ }^{T M}$. Deepen the insertion to reach into the abdominal cavity for operation (picture 4 and 5).
!Yaution!
To insert $10 \mathrm{~mm} / 12 \mathrm{~mm}$ trocars, eject the abdominal air pressure, and then carefully remove this product from the LAPPROTECTOR ${ }^{\text {TM }}$; avoid the trocar tip from touching the LAPPROTECTOR ${ }^{\text {TM }}$ or organs when removing. Pull out the 5 mm trocar and place $10 \mathrm{~mm} / 12 \mathrm{~mm}$ trocars.

## INFORMATION

E-Z Access ${ }^{\text {TM }}$ is a special device to attach to LAPPROTECTOR ${ }^{T M}$ used for single-port endoscopic surgery. (LAPPROTECTOR ${ }^{\text {TM }}$ does not come with this product, please select the proper size of LAPPROTECTOR ${ }^{\text {TM }}$.)


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