PAJUNK[®]

Dispo Balloon Systems

The disposable solution ready for immediate use



PAJUNK® Dispo balloon systems

Solutions for extraperitoneal and abdominal surgery

PAJUNK® has made a name for itself with its balloon systems for extraperitoneal and abdominal surgery. These proven system solutions combine two core competences of PAJUNK®: The know-how from many years of production of laparoscopic instruments and the development competence for balloon systems in a very wide range of fields of application. Optimum production conditions that satisfy the highest demands on clean room technology form the basis of the quality guarantee for the high-grade products "Made in Germany".

The PAJUNK® Dispo balloon system offers the surgeon sterile packed disposable solutions for a wide range of applications that are ready for immediate use.

There are two distinct types: "space-creating balloons" and "balloons to secure working access".

- **→** Cost-effective system
- **→** Complete disposable solution
- **→** Can be used immediately
- **→** Sterile packed
- **→** *Latex-free material*

Space-creating balloons

Mono balloon systems

with standard seal



Bilateral dilation balloon

Unilateral dilation balloon, extra large

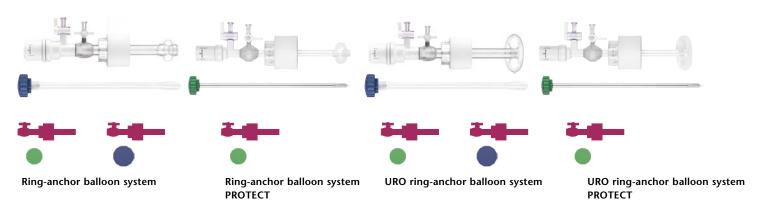
Balloons to secure working access

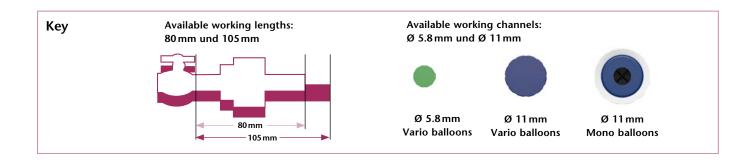
Mono balloon system



Vario balloon system

with universal double seal

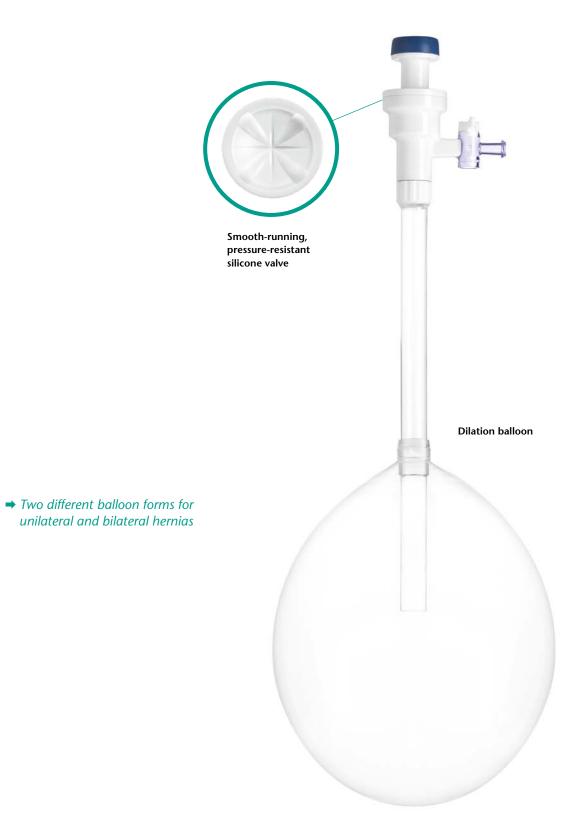


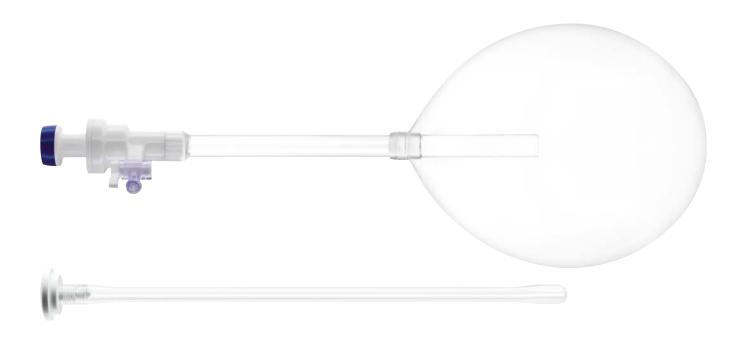


The whole spectrum

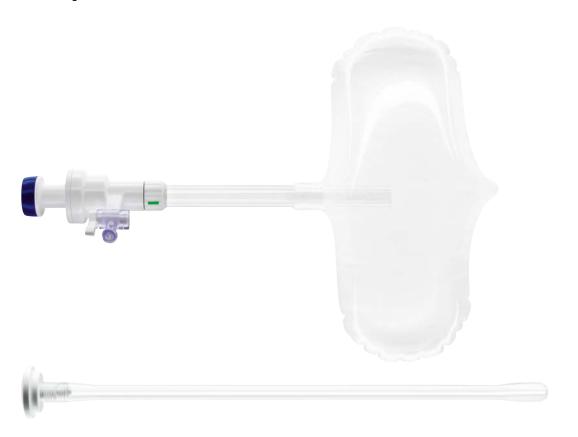
Space-creating balloons

The PAJUNK® space-creating balloon systems permit optimum, fast and effective dissection of the preperitoneal space with direct visualisation. They make orientation much easier. Two different balloon forms are available for unilateral and bilateral hernias.





Unilateral dilation balloon, extra large



Bilateral dilation balloon

Mono and Vario balloon systems

To secure working access

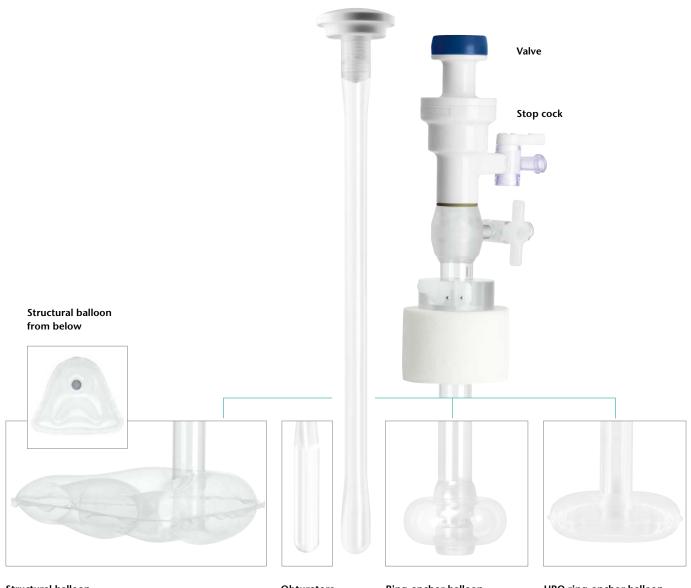
PAJUNK® offers two different balloon systems to secure working access: the structural balloon system and the ring-anchor balloon system that in addition to the extraperitoneal field can also be used in abdominal surgery. Mono balloons have a tried and tested standard seal system with a silicone valve, and Vario balloon systems have a universal double seal system.

Benefits of PAJUNK® balloons:

- **→** Atraumatic geometry
- **→** Considerate gas-tight sealing
- → Stability, minimised risk of collapsing balloon

Mono balloon system

with standard seal



Structural balloon

Obturators (structural and ring-anchor balloon system)

Ring-anchor balloon

URO ring-anchor balloon



Lockable obturator
A bayonet lock connects the obturator securely to the valve housing when it is fully inserted. Easy to unlock, it just needs a twist.



Universal seal
All instruments with
diameters between
5 and 11 mm can
be inserted so that
they are completely
gas-tight.



PROTECT tip
The obturator is also available with the
PROTECT tip. This allows the balloon system to be placed and dilated without causing trauma as the tip is blunt.

Securing working access in abdominal surgery



Simultaneous anchoring and sealing thanks to the interplay of the balloon and the foam stopper.

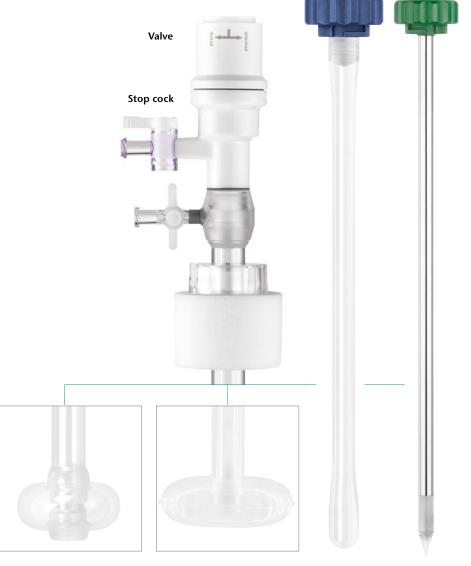


The foam stopper allows the balloon to be securely positioned quickly and easily

- → Large pivot radius
- → Quick and easy fixation
- → Material that is gentle to the skin
- → Large support area
- → Well secured, thanks to the balloon and foam stopper
- → Large sealable accesses
- → Adapts to different abdominal wall thicknesses

Vario balloon system

with universal double seal



Ring-anchor balloon

URO ring-anchor balloon

Obturator Ø 5.8 mm and Ø 11 mm

PROTECTobturator Ø 5.8 mm

Uses

PAJUNK® Dispo balloon systems

PAJUNK® balloon systems can be used in a wide range of procedures, from endoscopic totally extraperitoneal hernioplasty (TEP) through laparoscopic extraperitoneal radical nephrectomy (LERN) to laparoscopic extraperitoneal prostatectomy (LERP). They can also be used in spinal surgery and lymph gland removal. Their use is presented below, taking TEP as an example.

- → No peritoneal opening
- → Small incision and wound area, minimising the risk of infection
- → Less need for post-surgical pain medication compared to endoscopic dissection¹
- **→** Low rate of complications²

Totally extraperitoneal hernioplasty

With this method, the preperitoneal space is dilated by inserting and inflating a balloon, and the point of rupture is reinforced with a plastic mesh.

Exemplary presentation of retroperitoneal dissection of tissue layers with the PAJUNK® Dispo balloon system:



The dilation balloon is introduced by means of a blunt obturator parallel to the peritoneum.



The obturator is retracted and can be replaced by a laparoscope.



Practitioners are advised to place a structural or ring-anchor balloon system to ensure working space access. Carbon dioxide is then injected to maintain the preperitoneal space during the operation.

¹ Misra, Kumar, Bansal, Total extraperitoneal (TEP) mesh repair of inguinal hernia ..., 2008; 1

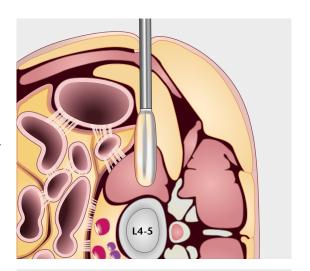
² Misra, Kumar, Bansal, Total extraperitoneal (TEP) mesh repair of inguinal hernia ..., 2008; 7

³ Hannon et al., Comparison of insufflation vs retractional technique ..., 2000; 14: 304

⁴ Brunt et al., Endoscopic Axillary Lymph Node Dissection ..., 1998; 10(4): 162

Spinal surgery

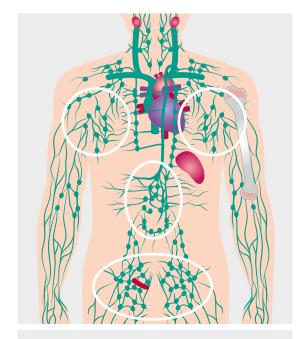
In spinal surgery, PAJUNK® balloon systems are used in laparoscopically assisted procedures. This technique can be used supportively in lumbar spine procedures with anterior access. The balloons can be used to dilate the operating space between two access points.³



Creation of retroperitoneal space for spinal surgery.

Lymph node removal

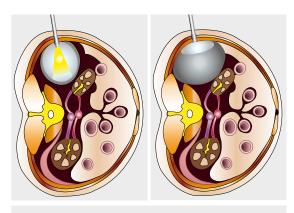
Here, the balloon creates space for minimally invasive instruments. This allows the benefits of minimally invasive access techniques to be transferred to lymph node removal procedures.⁴



Examples of uses.

Urology

Balloon dilation is also useful in surgery on the kidneys, ureters and other organs located in the retroperitoneal area, as it allows space to be created for the procedure.



Creation of retroperitoneal space for urological kidney surgery.

Balloon systems

All the information at a glance

Balloon systems

all prim

Space-cre	eating	balloons	s



Product	Size	Item no.	PU	
MonoBalloon DIL-XL				
Sterile disposable kit with unilateral dilation balloon	Ø 11 mm	1284-60-11	5	•
(round, extra large)				
MonoBalloon DIL-BI				
Sterile disposable kit with bilateral dilation balloon (ova	Ø 11 mm	1284-50-11	5	•

Size

Ø 11 mm

Item no.

1284-20-115

1284-30-115

1284-40-115

1284-70-115

1284-75-11\$

Balloons to secure working access

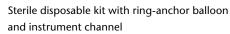


MonoBalloon SB
Sterile disposable kit with structural balloon
and instrument channel



MonoBalloon RA

Product





MonoBalloon RA-S

Sterile disposable kit with ring-anchor balloon and instrument channel



MonoBalloon URO

Sterile disposable kit with flat ring-anchor balloon and instrument channel



MonoBalloon URO-S

Sterile disposable kit with flat ring-anchor balloon and instrument channel

all pump

ΡU

5

svringe 30 ml

10

Balloon systems – kits

vringe 30 ml

Double balloon kits

М	I D - II D DII VI - DA					
	IonoBalloonDuo DIL-XL + RA					
	terile disposable kit with unilateral	Ø 11 mm	1284-60-20\$	5	•	•
The second secon	ilation balloon (round, extra large), ng-anchor balloon and instrument channel					
м	IonoBalloonDuo DIL-XL + SB					
dil	terile disposable kit with unilateral ilation balloon (round, extra large), ructural balloon and instrument channel	Ø 11 mm	1284-60-24S	5	•	
м	IonoBalloonDuo DIL-XL + URO					
Ste	terile disposable kit with unilateral	Ø 11 mm	1284-60-28\$	5	•	•
	ilation balloon (round, extra large), RO ring-anchor balloon and instrument channel					
M	ionoBalloonDuo DIL-BI + RA					
dil	terile disposable kit with bilateral ilation balloon (oval), ring-anchor balloon nd instrument channel	Ø 11 mm	1284-50-20\$	5	•	•
M	lonoBalloonDuo DIL-BI + SB					
dil	terile disposable kit with bilateral ilation balloon (oval), structural balloon nd instrument channel	Ø 11 mm	1284-50-24\$	5	•	
	IonoBalloonDuo DIL-BI + URO					
dil	terile disposable kit with bilateral ilation balloon (oval), URO ring-anchor balloon nd instrument channel	Ø 11 mm	1284-50-28\$	5	•	•

Balloon systems

All the information at a glance

Vario balloon systems with universal double seal

	Balloons to secure working access				Syringe	Syringe	Syringe
п. П.	Product	Size	Item no.	PU			
5 T	VarioBalloon RA						
-0	Sterile disposable kit with ring-anchor balloon,	Ø 11 mm	1283-30-115	5	•		
	instrument channel and obturator	Ø 5.8 mm	1283-30-58\$	5			•
II	VarioBalloon RA PROTECT						
	Sterile disposable kit with ring-anchor balloon,	Ø 5.8 mm	1283-31-58\$	5			•
9	instrument channel and PROTECT-obturator						
1	VarioBalloon URO						
0	Sterile disposable kit with flat ring-anchor balloon,	Ø 11 mm	1283-70-115	5	•		
	instrument channel and obturator	Ø 5.8 mm	1283-70-58\$	5		•	
11	VarioBalloon URO PROTECT						
	Sterile disposable kit with flat ring-anchor balloon,	Ø 5.8 mm	1283-71-58\$	5		•	

Studies

- Brunt M., Jones D.B., Wu J.S., Brunt E.M., Radford D.M. Endoscopic Axillary Lymph Node Dissection: An Experimental Study in Human Cadavers, J. Am. Coll. Surg. 1998 August Vol. 187, No. 2; 10(4): 158–163
- Hannon J. K., Faircloth W.B., Lane D.R., Ronderos J.F., Snow L.L., Weinstein L.S., West J.L. Comparison of insufflation vs retractional technique for laparoscopic-assisted intervertebral fusion of the lumbar spine, Surg. Endosc. 2000; 14: 300–304
- Misra M.C., Kumar S., Bansal V.K. Total extraperitoneal (TEP)
 mesh repair of inguinal hernia in the developing world: comparison of low-cost indigenous balloon dissection versus direct telescopic dissection: a prospective randomized controlled study,
 Surg. Endosc. 2008, Springer Science+Business Media
- Nahm C., Free J., Gananadha S., Hugh T.J., Samra J.S. Suction test to demonstrate the peritoneal edge during laparoscopic extraperitoneal inguinal hernia repair, Surg. Endosc. 2013 Nov; 27(11): 4360–4363
- Regan J.P., Cattey R.P., Henry L.G., Robbins S. Laparoscopically assisted retroperitoneal spinal surgery, J. S. L. S. 2006 Oct–Dec; 10(4): 493–495
- Schmidt P., Antal A. The totally extraperitoneal (TEP) laparoscopic hernia repair, Acta Chir. Hung. 1997; 36(1–4): 320–322

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instrument channel and PROTECT-obturator

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