

Wound drainage / Surgery

PRODUCT CATALOG



Primed[®] Medizintechnik GmbH is a highly experienced manufacturer of medical devices.

For many years, we have been supplying our customers with high-quality products "MADE IN GERMANY".

Primed[®] both develops and manufactures all its products in-house employing a development process certified in accordance with DIN EN 13485.

From with the initial product idea to material tests and tool construction right up to the product launch, we produce innovative medical devices from a single source. Our production spans the entire manufacturing process (injection moulding/extrusion/assembly) up to sterilisation.

These conditions enable us to react extremely flexibly to market requirements and to ensure the continuous development of our products.

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High-vacuum systems PRIVAC®

High-vacuum systems

Systems for postoperative wound drainage and routine use in operating theatres.



HIGH-VACUUM SYSTEMS PRIVAC[®]

PRIVAC[®] Redon systems for postoperative wound drainage are available as complete sets, OR systems and ward systems.







Redon bottle

- Pre-evacuated reservoir with a high initial vacuum of max. 900 mbar
- With integrated vacuum indicator
- Available with Large lock or Luer lock connector
- Easy activation of suction via quick release of slide clamp
- 200 ml and 400 ml bottles Include an additional safety volume of 50 ml
- Large and small scales for exact determination of filling quantity



Material: PVC

Connecting tube

- Length = 125 cm
- Available with Large lock or Luer lock connector for safe connection/ disconnection of bottle and tube
- Universal connector for attachment of 6-18 Ch. Redon drains
- With slide clamp

Redon drain

- Redon drain with trocar (guide needle)
- Perforations along 150 mm

Technical data

- High initial vacuum
- Bottle volume: 200 ml/ 400 m/ 600 ml
- Drain size: 6-18 Ch.
- Length of drain with perforations: 150 mm
- Luer lock & large lock connector

HIGH-VACUUM SYSTEMS Use of PRIVAC[®]



Insert the drain into the open wound and route it out with the help of the trocar (guide needle) from the surface near the wound, leaving the perforated end in the wound..



Remove the trocar using sterile scissors.



Length markings help to place the drain in the correct position. Fix the drain at approx. 3-5 cm from the point where it exits the wound.



Connect the connecting tube to the PRIVAC[®] high-vacuum bottle. Cut the graduated connector to the required drain size and then connect the drain.

(The vacuum indicator must be compressed. If it is open, there is no vacuum and the bottle must be replaced.)



Establish the vacuum suction by opening the slide clamp on the green fitting of the bottle.



The drainage fluid now runs into the PRIVAC[®] high-vacuum bottle.



To change the bottle, close the slide clamp on the connecting tube and detach the tube (there is no more vacuum once the vacuum indicator has opened up). Then connect a new PRI-VAC[®] bottle to the connecting tube (continue with point 5).

HIGH-VACUUM SYSTEMS PRIVAC[®] 200ml



PRIVAC[®] 200 ml complete set

• Redon bottle, connecting tube, Redon drain with trocar (guide needle)

Ch.	Drain length	Connector	PU/SU	REF
8	500 mm	Large lock	60/60	22005
10	800 mm	Large lock	60/60	22006
12	800 mm	Large lock	60/60	22007
14	800 mm	Large lock	60/60	22008



PRIVAC[®] 200 ml OR system

• Redon bottle, connecting tube

Connector	PU/SU	REF
Large lock	60/60	24500
Luer lock	60/60	22003

<u>PRIVAC[®] 200 ml ward system</u> (replacement bottle)

• Redon bottle

STERILE EO

PU/SU	REF
60/60	24501
60/60	22004
	60/60





Luer lock

CONNECTION

OPTIONS

8

HIGH-VACUUM SYSTEMS PRIVAC[®] 400ml





PRIVAC[®] 400 ml complete set

• Redon bottle, connecting tube, Redon drain with trocar (guide needle)

Ch.	Drain length	Connector	PU/SU	REF
8	500 mm	Large lock	50/50	22020
10	800 mm	Large lock	50/50	22021
12	800 mm	Large lock	50/50	22022
14	800 mm	Large lock	50/50	22023
16	800 mm	Large lock	50/50	22024
18	800 mm	Large lock	50/50	22025

PRIVAC[®]_400 ml OR system

• Redon bottle, connecting tube

Connector	PU/SU	REF
Large lock	50/50	24502
Luer lock	50/50	21949

<u>PRIVAC[®] 400 ml ward system</u> (replacement bottle)

• Redon bottle

Connector	PU/SU	REF
Large lock	50/50	24503
Luer lock	50/50	21948







CONNECTION OPTIONS

HIGH-VACUUM SYSTEMS PRIVAC[®] 600ml





• Redon bottle connecting tube

• Redon bottle, connecting tube, Redon drain with trocar (guide needle)

Ch.	Drain length	Connector	PU/SU	REF
8	500 mm	Large lock	35/35	22400
10	800 mm	Large lock	35/35	22401
12	800 mm	Large lock	35/35	22402
14	800 mm	Large lock	35/35	22403
16	800 mm	Large lock	35/35	22404
18	800 mm	Large lock	35/35	22405

PRIVAC[®]_600 ml OR system

• Redon bottle, connecting tube

Connector	PU/SU	REF
Large lock	35/35	24504
Luer lock	35/35	22407

PRIVAC[®] 600 ml ward system (replacement bottle)

• Redon bottle

STERILE EO

Connector	PU/SU	REF
Large lock	35/35	24505
Luer lock	35/35	22406





CONNECTION OPTIONS

Luer lock

HIGH-VACUUM SYSTEMS PRIVAC[®] Special variant 400ml



PRIVAC[®] 400 ml complete set

• Redon bottle (PVC), connecting tube, Redon drain without trocar (PU)

Ch.	Drain length	Connector	PU/SU	REF
10	500 mm	Large-Lock	50/50	21958
12	500 mm	Large-Lock	50/50	21959
14	500 mm	Large-Lock	50/50	21957
16	500 mm	Large-Lock	50/50	21956
18	500 mm	Large-Lock	50/50	21955



CONNECTING TUBE PRIVAC®

Connecting tube for PRIVAC® high-vacuum systems

The connecting tube can be ordered separately and is used to connect the Redon drains to the pre-evacuated Redon bottle.

Connecting tube with large lock connector and universal connector



REDON DRAINS

REDON DRAINS

Redon drains are suitable for use with high-vacuum systems and low-vacuum systems for postoperative wound drainage.



REDON DRAINS (PVC) without trocar

Redon drains (PVC) without trocar

Redon drains are suitable for use with high-vacuum systems and low-vacuum systems for postoperative wound drainage.



- Made of soft, flexible polyvinyl chloride (PVC)
- With radiopaque stripe
- Alternating perforation to avoid ingrowth of tissue
 Rounded drainage openings for removal of secretion
- Length markings allow simple repositioning

Ch.	Length	PU/SU	REF
6	500 mm	100/300	21860
8	500 mm	100/300	21861
10	500 mm	100/300	21862
12	500 mm	100/300	21863
14	500 mm	100/300	21864
16	500 mm	100/300	21865
18	500 mm	100/300	21866
Ch.	Length	PU/SU	REF
6	800 mm	100/300	21880
8	800 mm	100/300	21881
10	800 mm	100/300	21882
12	800 mm	100/300	21883
14	800 mm	100/300	21884
14 16	800 mm 800 mm	100/300 100/300	21884 21885

REDON DRAINS (PVC)

with trocar

Redon drains (PVC) with trocar

Redon drains are suitable for use with high-vacuum systems and low-vacuum systems for postoperative wound drainage.



- Made of soft, flexible polyvinyl chloride (PVC) and a trocar (preconnected guide needle) made of medical grade stainless steel
- Sharp trocar enables ideal positioning of the drain
- With radiopaque stripe
- Alternating perforation to avoid ingrowth of tissue
- Rounded drainage openings for removal of secretion
- Length markings allow simple repositioning

Guide needle (trocar)	Ch.	Length	PU/SU	REF
Lancet tip	6	500 mm	100/300	21890
Lancet tip	8	500 mm	100/300	21891
Lancet tip	10	800 mm	100/200	21892
Blade tip	12	800 mm	100/200	21893
Blade tip	14	800 mm	100/200	21894
Blade tip	16	800 mm	100/200	21846
Blade tip	18	800 mm	100/200	21847

REDON DRAINS (PU)

without trocar

Redon drains (PU) without trocar

Redon drains are suitable for use with high-vacuum systems and low-vacuum systems for postoperative wound drainage.



- Made of soft, flexible polyurethane (PU)
- PVC-free
- The drain boasts particularly good flow properties thanks to its material characteristics
- With radiopaque stripe
- Alternating perforation to avoid ingrowth of tissue
- Rounded drainage openings for removal of secretion
- Length markings allow simple repositioning

Ch.	Length	PU/SU	REF
	-		
6	500 mm	100/300	24850
8	500 mm	100/300	24851
10	500 mm	100/300	24852
12	500 mm	100/300	24853
14	500 mm	100/300	24854
16	500 mm	100/300	24855
18	500 mm	100/300	24856
Ch.	Length	PU/SU	REF
6	800 mm	100/300	24860
8	800 mm	100/300	24861
10	800 mm	100/300	24862
12	800 mm	100/300	24863
14	800 mm	100/300	24864
16	800 mm	100/300	24865
18	800 mm	100/300	24866

REDON DRAINS (PU) with trocar

Redon drains (PU) with trocar

Redon drains are suitable for use with high-vacuum systems and low-vacuum systems for postoperative wound drainage.



- Made of soft, flexible polyurethane (PU) and a trocar (preconnected guide needle) made of medical grade stainless steel
- PVC-free
- Sharp trocar enables ideal positioning of the drain
- The drain boasts particularly good flow properties thanks to its material characteristics
- With radiopaque stripe
- Alternating perforation to avoid ingrowth of tissue
- Rounded drainage openings for removal of secretion
- Length markings allow simple repositioning

Guide needle (trocar)	Ch.	Length	PU/SU	REF
Lancet tip	6	500 mm	100/300	24870
Lancet tip	8	500 mm	100/300	24871
Lancet tip	10	800 mm	100/200	24872
Blade tip	12	800 mm	100/200	24873
Blade tip	14	800 mm	100/200	24874
Blade tip	16	800 mm	100/200	24875
Blade tip	18	800 mm	100/200	24876

Low-vacuum systems

Low-vacuum systems are used for gentle wound drainage. They drain wound secretions using a considerably lower vacuum than their high-vacuum counterparts and can either be adjusted manually via bellows or pump systems or function passively by means of gravity drainage.



LOW-VACUUM SYSTEMS PRI-LOW-VAC[®] MINI

PRI-LOW-VAC® MINI low-vacuum systems

PRI-LOW-VAC[®] MINI low-vacuum systems are suitable for gentle wound drainage in sensitive tissue. A manually compressible bellows is used to generate a low vacuum, which allows intra- and postoperative wound drainage. The mini low-vacuum set is completely free of PVC and comprises a small bellows and a polyurethane Redon drain with trocar.





Low-vacuum system Mini 20 ml

- Mini Redon bellows (20 ml) with universal screw connector for safe connection of 6 Ch. or 8 Ch. Redon drains
- With soft Redon drain made of polyurethane (PU) with trocar (preconnected guide needle)

	PU/SU	REF
6 Ch.	20/160	21614
8 Ch.	20/160	21615

Low-vacuum system Mini 50 ml

- Mini Redon bellows (50 ml) with universal screw connector for safe connection of 6 Ch. or 8 Ch. Redon drains
- With soft Redon drain made of polyurethane (PU) with trocar (preconnected guide needle)

	PU/SU	REF
6 Ch.	10/80	21635
8 Ch.	10/80	21636



Mini Redon bellows

- With universal screw connector for safe connection of 6 Ch. or 8 Ch. Redon drains
- Transparent material allows visual control of drained fluid
- By compressing the bellows a negative pressure in the low vacuum range is generated

	PU/SU	REF
20 ml	20/160	21612
50 ml	10/80	21637

Technical data

- Bellows volume: 20 ml / 50 ml
- Drain size: 6 Ch. / 8 Ch.
- Drain length = 500 mm (150 mm of perforations)

① can also be used in combination with Redon drains made of PVC

LOW-VACUUM SYSTEMS PRI-LOW-VAC®

PRI-LOW-VAC® low-vacuum systems

PRI-LOW-VAC[®] low-vacuum systems are suitable for gentle wound drainage in sensitive tissue.

A manually compressible bellows is used to build up a low vacuum for conservative wound drainage. The low-vacuum system comprises a bellows, a connecting tube and a Redon drain with trocar.



Redon bellows

- By compressing the bellows a negative pressure in the low vacuum range is generated
- 200 ml / 500 ml
- Including scale on underside
- Round design





Connecting tube

- 125 cm long
- With universal connector for safe connection of 6-18 Ch. Redon drains
- Including grid clamp



Redon drain (PVC) with trocar

- 150 mm of perforations
- With radiopaque stripe
- Alternating perforation
- With length markings

Technical data

- Bellows volume: 200 ml/ 500 ml
- Drain size: 8-18 Ch. (150 mm of perforations)

LOW-VACUUM SYSTEMS PRI-LOW-VAC® 200 ml



PRI-LOW-VAC[®] 200 ml complete set

• Redon bellows with connecting tube, Redon drain (PVC) with trocar

Ch.	Drain length	PU/SU	REF
8	500 mm	60/60	21581
10	800 mm	60/60	22086
12	800 mm	60/ 60	22087





PRI-LOW-VAC[®] 200 ml OR system

• Redon bellows with connecting tube

PU/SU	REF
60/60	21632

PRI-LOW-VAC[®] 200 ml ward system (replacement bellows)

• Redon bellows



LOW-VACUUM SYSTEMS PRI-LOW-VAC® 500 ml



PRI-LOW-VAC[®] 500 ml complete set

• Redon bellows with connecting tube, Redon drain (PVC) with trocar

Ch.	Drain length	PU/SU	REF
10	800 mm	35/35	21605
12	800 mm	35/35	21601
14	800 mm	35/35	21599





PRI-LOW-VAC[®] 500 ml OR system

• Redon bellows with connecting tube

PU/SU	REF
35/35	21631

PRI-LOW-VAC[®] 500 ml ward system (replacement bellows)

• Redon bellows with closed lid attachment

PU/SU	REF
35/35	21621

LOW-VACUUM SYSTEMS PRI-LOW-VAC® 500 ml



PRI-LOW-VAC[®] 500 ml complete set with 2 drains

• Redon bellows with Y-connecting tube, Redon drain (PVC) with trocar, Redon drain (PVC) without trocar

Ch.	Drain length	PU/SU	REF
12	800 mm	35/35	21592
14	800 mm	35/35	21593
16	800 mm	35/35	21594
18	800 mm	35/35	21595

LOW-VACUUM SYSTEMS PRI-LOW-VAC® SAVE

PRI-LOW-VAC® SAVE low-vacuum systems

PRI-LOW-VAC[®] SAVE low-vacuum systems are suitable for gentle wound drainage in sensitive tissue.

A manually compressible bellows is used to build up a low vacuum for conservative wound drainage. The low-vacuum system comprises a bellows, a connecting tube and a Redon drain with trocar. In the SAVE versions, a non-return valve prevents the secretions from flowing back into the Redon bellows.



Redon bellows

- By compressing the bellows a negative pressure in the low vacuum range is generated
- 250 ml / 500 ml
- Including scale on under side
- With non-return valve
- Flat, oval form







Connecting tube

- 125 cm long
- With universal connector for safe connection of 6-18 Ch. Redon drains
- Including slide clamp
- With plug connection

Redon drain (PVC) with trocar

- 150 mm of perforations
- With radiopaque stripe
- Alternating perforation
- With length markings

Technical data

- Bellows volume: 250 ml/ 500 ml
- Drain size: 10-18 Ch. (150 mm of perforations)
- SAVE: With non-return valve

LOW-VACUUM SYSTEMS PRI-LOW-VAC® SAVE 250 ml



PRI-LOW-VAC® SAVE 250 ml complete set

• Redon bellows with connecting tube, Redon drain (PVC) with trocar

Ch.	Drain length	PU/SU	REF
10	800 mm	35/35	22091
12	800 mm	35/35	22092
14	800 mm	35/35	22093
16	800 mm	35/35	22094
18	800 mm	35/35	22095



PRI-LOW-VAC[®] SAVE 250 ml OR system

• Redon bellows with connecting tube

PU/SU	REF
35/35	21962



• Redon bellows

PU/SU	REF
35/35	21961

STERILE EO

LOW-VACUUM SYSTEMS PRI-LOW-VAC® SAVE 500 ml



PRI-LOW-VAC® SAVE 500 ml complete set

• Redon bellows with connecting tube, Redon drain (PVC) with trocar

Ch.	Drain length	PU/SU	REF
10	800 mm	35/35	21981
12	800 mm	35/35	21987
14	800 mm	35/35	21988
16	800 mm	35/35	21989
18	800 mm	35/35	21980

TERLE EQ

PRI-LOW-VAC[®] SAVE 500 ml OR system

• Redon bellows with connecting tube

PU/SU	REF
35/35	21972

PRI-LOW-VAC[®] SAVE 500 ml ward system

(replacement bellows)

• Redon bellows

STERILE EO



CONNECTING TUBE PRI-LOW-VAC® SAVE

Connecting tube for PRI-LOW-VAC[®] SAVE Low-vacuum systems

This connecting tube can be ordered separately and is used to connect a Redon drain to a PRI-LOW-VAC[®] SAVE Redon bellow.

Connecting tube with SAVE plug connection and universal connector



- With plug connection for easy connection to PRI-LOW-VAC[®] SAVE Redon bellows
- Universal connector enables safe connection of 6-18 Ch. Redon drains

LOW-VACUUM SYSTEMS PRI-ACTIVE-PASSIVE DRAINS

PRI-ACTIVE-PASSIVE DRAINS

Pri-Active-Passive drains are suitable for gentle wound drainage in sensitive tissue.



A manually compressible **bellows** is used to generate a low vacuum, which allows postoperative wound drainage.

The system can also function by means of gravity drainage.

The drained fluids are collected in a drainage bag, which can be exchanged when necessary by simply unscrewing it.

Technical data

- Bellows volume: 100 ml
- Drainage bag volume: 500 ml
- Suitable for 10-18 Ch. drains
- SAVE: With non-return valve

LOW-VACUUM SYSTEMS PRI-ACTIVE-PASSIVE DRAINS

Pri-Active-Passive drain with silicone soft drain with trocar

Pri-Active-Passive drains are suitable for gentle wound drainage in sensitive tissue. A manually compressible bellows is used to generate a low vacuum, which allows postoperative wound drainage.

In addition to this active drainage, the system can also function by means of passive (gravity) drainage.



- Drainage bag 500 ml
 - With non-return valve to avoid secretion backflow
 - With large-lumen tap
 - With scale
 - Patient information can be entered in pre-printed fields
- Bellows 100 ml
 - With integrated non-return valve to avoid secretion backflow
 - With plug connection
- Connecting tube (length = 700 mm)
 - With universal connector
 - With blue slide clamp
- Silicone soft drain with trocar
 - Soft, medical grade silicone ensures good tissue compatibility
 - Rounded, atraumatic tip
 - With Redon perforation
 - With radiopaque stripe
 - Alternating perforation to avoid ingrowth of tissue

Ch.	Drain length	PU/SU	REF
10	800 mm	25/25	21749
12	800 mm	25/25	21760
14	800 mm	25/25	21761



PRI-ACTIVE-PASSIVE DRAINS

Pri-Active-Passive drain with Redon drain with trocar

Pri-Active-Passive drains are suitable for gentle wound drainage in sensitive tissue. A manually compressible bellows is used to generate a low vacuum, which allows postoperative wound drainage.

In addition to this active drainage, the system can also function by means of passive (gravity) drainage.



Product features

- Drainage bag 500 ml
 - With non-return valve to avoid secretion backflow
 - With large-lumen tap
 - With scale
 - Patient information can be entered in pre-printed fields
- Bellows 250 ml
 - Initial vacuum = 120 mbar
 - With integrated non-return valve to avoid secretion backflow
 - With plug connection
- Connecting tube (length = 1250 mm)
 - With universal connector
 - With slide clamp
- Redon drain (PVC) with trocar
 - 150 mm of perforations
 - With radiopaque stripe
 - Alternating perforation to avoid ingrowth of tissue
 - With length markings

Ch.	Drain length	PU/SU	REF
10	800 mm	25/25	24464
12	800 mm	25/25	24465
14	800 mm	25/25	24466



Redon-Drain

LOW-VACUUM SYSTEMS PUMP DRAIN

PUMP DRAIN with silicone soft drain

This Pump chamber drain is used for gentle wound drainage in sensitive tissues. The secretion pump above the drainage bag can be used to create a low vacuum, which allows wound drainage. In addition to this active drainage, the system can also function by means of passive (gravity) drainage.



- Drainage bag 500 ml
 - With non-return valve to avoid secretion backflow
 - With large-lumen tap
 - With scale
 - Patient information can be entered in pre-printed fields
- Secretion pump
 Can be activated by squeezing slightly
- Preconnected silicone soft drain
 - Soft, medical grade silicone ensures good tissue compatibility
 - Rounded, atraumatic tip
 - 6 side openings
 - With radiopaque stripe

Ch.	Drain length	PU/SU	REF
12	1000 mm	10/20	22060
15	1000 mm	10/20	22061
18	1000 mm	10/20	22062
21	1000 mm	10/20	22063
24	1000 mm	10/20	22064
27	1000 mm	10/20	22065
30	1000 mm	10/20	22066



LOW-VACUUM SYSTEMS PASSIVE DRAINAGE

Passive Drainage (Gravity drainage) with silicone soft drain

Passive drainage is used for for open for half-open wound drainage by gravity. This drainage system consists of a drainage bag with non-return valve, a connecting tube and a silicone soft drain.



- Drainage bag 500 ml
 - With non-return valve to avoid secretion backflow
 - With large-lumen tap
 - With scale
 - Patient information can be entered in pre-printed fields
- Silicone soft drain
 - Soft, medical grade silicone ensures good tissue compatibility
 - Rounded, atraumatic tip
 - 6 side openings
 - With radiopaque stripe

Ch.	Drain length	PU/SU	REF
Ch. 10	1000 mm	25/50	22051
Ch. 12	1000 mm	25/ 50	21910
Ch. 14	1000 mm	25/ 50	21898
Ch. 15	1000 mm	25/50	21911
Ch. 16	1000 mm	25/ 50	21845
Ch. 18	1000 mm	25/50	21912
Ch. 20	1000 mm	25/50	21888
Ch. 21	1000 mm	25/ 50	21913
Ch. 24	1000 mm	25/ 50	21914
Ch. 26	1000 mm	25/ 50	21134
Ch. 27	1000 mm	25/ 50	21915
Ch. 30	1000 mm	25/ 50	21916
Ch. 33	1000 mm	25/ 50	21917
Ch. 36	1000 mm	25/50	21918



LOW-VACUUM SYSTEMS PASSIVE DRAINAGE

Passive Drainage (Gravity drainage) with silicone capillary drain

Passive drainage is used for for open for half-open wound drainage by gravity. This drainage system consists of a drainage bag with non-return valve, a connecting tube and a silicone capillary drain.



- Drainage bag 500 ml
 - With non-return valve to avoid secretion backflow
 - With large-lumen tap
 - With scale
 - Patient information can be entered in pre-printed fields
- Capillary drain
 - Soft, medical grade silicone ensures good tissue compatibility
 - Inner ribbing enables continuous secretion flow and avoids incrustrations
 - The asymmetric ribbing structure ensures a high level of kink resistance.
 - With radiopaque stripe

Ch.	Drain length	PU/SU	REF
6	300 mm	25/50	21119
8	300 mm	25/50	21120



DRAINAGE SET with flat drain

Closed wound drainage set with flat drain

Low-vacuum drains with flat drains are used for suction-assisted, postoperative drainage of wound secretions. The comprise a silicone collecting bulb, which can be compressed to generate a vacuum for active suction support and a J.P. flat drain made of silicone.

In addition to this active drainage, the system can also function by means of passive (gravity) drainage.



<u>Closed wound drainage set with flat drain</u>

- Silicone collecting bulb 100 cm³
 - Volume = 100 ml
 - Transparent material allows visual control of drained fluid
 - With universal hanger
 - With non-return valve
 - With scale to provide an at-a-glance information about current fill levels
 - Stepless plug connection for safe and gentle connection/ removal of the drain
- Flat drain
 - Soft, medical grade silicone ensures good tissue compatibility
 - Total length = 600 mm, of which 200 mm are a fully perforated flat drain
 - Fully radiopaque
 - Inner ribbing prevents the drain from collapsing (even at higher pressures or when a vacuum is applied)
 - With rounded, atraumatic holes

	Flat dra	in	Drair	n body	PU/SU	REF
Width	Height	Length	Ch.	Length		
4 mm	3mm	200mm	Ch. 15	600 mm	10/40	24840
7 mm	3mm	200mm	Ch. 15	600 mm	10/40	24841
10 mm	4mm	200mm	Ch. 15	600 mm	10/40	24842



Drainage bags & Collecting bulbs

Drainage bag for capillary drains

This drainage bag can be used in combination with a capillary drain for gentle wound drainage by means of capillary suction.

Drainagebeutel für Kapillardrains Patient name Time Collection bagen 100	
Notes 75 50 30 10	
	STERILE EO

- With skin-friendly, adhesive ring
- Suitable for 6-12 Ch. capillary drains
- Volume = 150 ml
- With outlet



Drainage bags & Collecting bulbs

Biliary drainage bag

This biliary drainage bag can used in conjunction with a T-drain for external discharge of bile by gravity.



- Volume = 500 ml
- With secretion tube (length = 80 cm)
- With different connectors for safe connection of 8-24 Ch. T-drains and Soft drains (see page 43)
- With non-return valve to avoid secretion backflow
- With large-lumen tap
- With scale
- Patient information can be entered in preprinted fields
- Safe mounting of bag by means of doublewelded eyelets and quick-tying device

PU/SU	REF
25/25	21999
Drainage bags & Collecting bulbs

Biliary drainage bag

This biliary drainage bag can used in conjunction with a T-drain for external discharge of bile by gravity.



- Volume = 500 ml
- With secretion tube (length = 80 cm)
- With different connectors for safe connection of 8-24 Ch. T-drains and Soft drains (see page 43)
- With non-return valve to avoid secretion back-flow
- With large-lumen tap
- With scale
- Patient information can be entered in preprinted fields
- Safe mounting of bag by means of doublewelded eyelets and quick-tying device

PU/SU	REF
25/25	21030

Drainage bags & Collecting bulbs

Drainage bag with secretion pump

A pump drain can be used in combination with different types of silicone drains for gentle wound drainage in sensitive tissue. Depressing the secretion pump creates a low vacuum for wound drainage.



- Volume = 500 ml
- With non-return valve to avoid secretion backflow
- With large-lumen tap
- With scale
- Patient information can be entered in pre-printed fields
- Suitable for 15-21 Ch. drains

PU/SU	REF
10/ 20	22069

Drainage bags & Collecting bulbs

Drainage bag

This drainage bag can be used in combination with a drain for gentle wound drainage



- Volume = <u>500 ml</u>
- With non-return valve to avoid secretion backflow
- With large-lumen tap
- With scale
- Patient information can be entered in preprinted fields
- With Large lock connection

PU/SU	REF
50/ 100	21941

Drainage bags & Collecting bulbs

Drainage bag

This drainage bag can be used in combination with pleural puncture sets and als universal drainage bag for gentle wound drainage.



- Volume = 500 ml
- With non-return valve to avoid secretion back-flow
- With scale
- With hose connection (with Luer lock connector)

PU/SU	REF
50/50	21106

Drainage bags & Collecting bulbs

Drainage bag

This drainage bag can be used in combination with pleural puncture sets and als universal drainage bag for gentle wound drainage.



- Volume = 500 ml
- With non-return valve to avoid secretion back-flow
- With scale
- With hose connection (with Luer lock connector)

PU/SU	REF
50/ 50	27041

Drainage bags & Collecting bulbs

Silicone reservoirs

These silicone collection reservoirs can be used in combination with a silicone drain for suction-assisted, postoperative drainage of wound secretions. They function by means of passive (gravity) drainage, but can also be compressed to generate a negative pressure and support active suction.







Silicone collecting bulb 100 cm³

- Transparent material allows for visual control
- With universal hanger
- With non-return valve
- With scale
- Stepless plug connection for safe and gentle removal of silicone drains
- Suitable for 8-39 Ch. drains
- Including 1 adapter

	PU/ SU	REF.
100 cm ³	10/40	21078

Silicone collecting bulb 150 cm³

- Transparent material allows for visual control
- With universal hanger
- With non-return valve
- With scale
- Stepless plug connection for safe and gentle removal of silicone drains
- Suitable for. 8-39 Ch. drains
- Including 3 adapters

	PU/ SU	REF.
150 cm ³	10/40	21085

Silicone collecting bulb 400 cm³

- Transparent material allows for visual control
- With universal hanger
- With non-return valve
- With scale
- Stepless plug connection for safe and gentle removal of silicone drains
- Suitable for 8-24 Ch. drains
- Including 1 adapter

	PU/ SU	REF.	
400 cm ³	5/15	21086	

Drainage bags & Collecting bulbs

Silicone reservoir with Luer lock connection

This collection reservoir can be used in combination with a drain for suctionassisted, postoperative drainage of wound secretions. The Silicone collection reservoir functions by means of passive (gravity) drainage, but can also be compressed to generate a negative pressure and support active suction. It features an additional venting filter.



- Silicone collecting bulb 400 cm³
 - Volume = 400 ml
 - Transparent material allows visual control of drained fluid
 - With universal hanger
 - With non-return valve
 - With scale to provide an at-a-glance information about current fill levels
 - With Luer lock connection
 - Stepless plug connection for safe and gentle removal of silicone drains
- Venting filter (for filtration of released air)

	PU/SU	REF
400 cm ³	15/15	21203

SILICONE DRAINS

SILICONE DRAINS



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SILICONE DRAINS Soft drains

Soft drains

Soft drains are round drains made of medical grade silicone and used for open or half-open wound drainage via gravity.



Product features:

- Soft, medical grade silicone ensures good tissue compatibility
- Rounded, atraumatic tip
- 6 side openings
- With radiopaque stripe
- Length = 500 mm

Ch.	PU/SU	REF
8	25/100	21899
10	25/100	21900
12	25/100	21901
14	25/100	21130
15	25/100	21902
18	25/100	21903
20	25/100	21131
21	25/100	21904
24	25/100	21905
26	25/100	21132
27	25/100	21906
30	25/100	21907
33	25/100	21908
36	25/100	21909
39	25/100	21133



Soft drain

SILICONE DRAINS Capillary drains

Capillary drains

Capillary drains are made of medical grade silicone and feature an inner ribbing. They are suitable for gentle wound drainage by means of capillary suction and gravity, particularly in indications where the application of a lowvacuum is contraindicated, but sufficient drainage performance is required.



- Soft, medical grade silicone ensures good tissue compatibility
- With radiopaque stripe
- Available in 2 lengths (300 mm / 500 mm)
- Inner ribbing enables continuous secretion flow and avoids incrustrations
- The asymmetric ribbing structure ensures a high level of kink resistance.

Ø	Flat width	Length	PU/SU	REF
6 mm	10 mm	300 mm	25/200	21452
8 mm	12 mm	300 mm	25/200	21453
10 mm	16 mm	300 mm	25/200	21454
12 mm	19 mm	300 mm	25/200	21455
Ø	Flat width	Length	PU/SU	REF
6 mm	10 mm	500 mm	25/200	21150
8 mm	12 mm	500 mm	25/200	21151
10 mm	16 mm	500 mm	25/200	21152
12 mm	19 mm	500 mm	25/200	21153



SILICONE DRAINS

Perforated capillary drains

Perforated capillary drains

Capillary drains are made of medical grade silicone and feature an inner ribbing. They are suitable for gentle wound drainage by means of capillary suction and gravity, particularly in indications where the application of a lowvacuum is contraindicated, but sufficient drainage performance is required.



Product features:

- Soft, medical grade silicone ensures good tissue compatibility
- 180 mm of alternating perforations to avoid ingrowth of tissue
- With radiopaque stripe
- Length = 300 mm (special length of 500 mm available upon request)
- Inner ribbing enables continuous secretion flow and avoids incrustrations
- The asymmetric ribbing structure ensures a high level of kink resistance.

Ø	Flat width	Length	PU/SU	REF
6 mm	10 mm	300 mm	10/360	21456
8 mm	12 mm	300 mm	10/360	21457
10 mm	16 mm	300 mm	10/360	21458
12 mm	19 mm	300 mm	10/360	21459



47

Perforated capillary drain

SILICONE DRAINS Flat capillary drains

Flat capillary drains

Capillary drains are made of medical grade silicone and feature an inner ribbing. They are suitable for gentle wound drainage by means of capillary suction and gravity, particularly in indications where the application of a lowvacuum is contraindicated, but sufficient drainage performance is required.



Product features:

- Soft, medical grade silicone ensures good tissue compatibility
- With radiopaque stripe
- Available in 2 lengths (300 mm / 500 mm)
- Inner ribbing enables continuous secretion flow and avoids incrustrations
- The asymmetric ribbing structure ensures a high level of kink resistance.

Dia.	Flat width	Length	PU/SU	REF
6 mm	10 mm	300 mm	10/360	24450
8 mm	12 mm	300 mm	10/360	24451
10 mm	16 mm	300 mm	10/360	24452
12 mm	19 mm	300 mm	10/360	24453
Dia.	Flat width	Length	PU/SU	REF
6 mm	10 mm	500 mm	10/200	24454
8 mm	12 mm	500 mm	10/200	24455
10 mm	16 mm	500 mm	10/200	24456
12 mm	19 mm	500 mm	10/200	24457



Flat capillary drain

SILICONE DRAINS Drainage strip

Drainage strip

Drainage strip with capillary ribbing for gentle wound drainage by means of capillary suction or gravity. The drainage strip is used to hold the wound open and drain secretions. It is ideal for use in the fields of plastic surgery, hand and foot surgery, ENT surgery and oral and maxillofacial surgery.



- Soft, medical grade silicone ensures good tissue compatibility
- With radiopaque stripe
- With inner ribbing for effective drainage
- Helps to keep wounds open and to evacuate secretion

Width	Length	PU/SU	REF
8 mm	100 mm	25/25	21060



SILICONE DRAINS

Channel drains without trocar

Channel drains without trocar

Cross-profile drain made of silicone with cross-shaped, slotted drain profile for open or half-open drainage of wound secretion.



- Soft, medical grade silicone ensures good tissue compatibility
- With radiopaque stripe
- Kink resistant thanks to channel structure
- 4 drainage channels ensure continuous secretion flow and avoid incrustrations
- Easy to remove thanks to low incidence of tissue ingrowth
- Length markings facilitate repositioning
- Transparent drain tube allows for easy visual inspection

Ch.	Total length	Length of drainage channels	PU/SU	REF
10	1100 mm	300 mm	10/10	24458
15	1100 mm	300 mm	10/10	24468
19	1100 mm	300 mm	10/10	24472
21	1100 mm	300 mm	10/10	24469
24	1100 mm	300 mm	10/10	24470
27	1100 mm	300 mm	10/10	24471



SILICONE DRAINS Channel drains with trocar

Channel drains with trocar

Channel drain made of silicone with cross-shaped, slotted drain profile and preconnected single-use guide needle (trocar) for optimal positioning. These drains are used for open and half-open drainage of wound secretion.



- Made of soft medical grade silicone and a preconnected guiding needle (trocar) made of medical grade stainless steel
- Sharp trocar enables ideal positioning of the drain
- With radiopaque stripe
- Kink resistant thanks to channel structure
- 4 drainage channels ensure continuous secretion flow and avoid incrustrations
- Easy to remove thanks to low incidence of tissue ingrowth
- Length markings facilitate repositioning
- Transparent drain tube allows for easy visual inspection

Ch.	Total length	Length of drainage channels	PU/SU	REF
10	1100 mm	300 mm	20/40	24384
15	1100 mm	300 mm	20/40	24385
19	1100 mm	300 mm	20/40	24386
21	1100 mm	300 mm	20/40	24387
24	1100 mm	300 mm	20/40	24388
27	1100 mm	300 mm	20/40	24389



SILICONE DRAINS Flat drains

Flat drains

Flat drains made of medical grade silicone are used for open and half-open wound drainage by means of gravity and allow a small wound opening thanks to their flat shape.



- Soft, medical grade silicone ensures good tissue compatibility
- Fully perforated, with atraumatic openingsFully radiopaque
- Flat drain length: 200 mm
- Drain body: 15 Ch., length = 600 mm
- Inner ribbing prevents it from collapsing even at higher pressures or when a vacuum is applied

	Flat drai	n	Drair	n body		
Width	Height	Length	Ch.	Length	PU/SU	REF
4 mm	3 mm	200 mm	15	600 mm	10/70	21080
7 mm	3 mm	200 mm	15	600 mm	10/70	21081
10 mm	4 mm	200 mm	15	600 mm	10/70	21082
13 mm	5 mm	200 mm	15	600 mm	10/70	21083



PRIMEDILOOP® Vessel loops

PRIMEDILOOP®

PRIMEDILOOP[®] vessel loops made of silicone are an efficient aid during surgery. They allow rapid tying off, snaring and marking of arteries, veins, ure-ters and tendons.



<u>COLOUR-CODED:</u>	PRIMEDILOOP [®] vascular loops are available in four different colours (blue, red, yellow and white), which ensure simple identification during the intervention.
MATERIAL QUALITY:	PRIMEDILOOPS [®] are biocompatible, latex-free and radio- paque. The smooth surface does not react with the tissue and stretches evenly.
GENTLE CROSS-SECTION DESIGN	The oval cross-section of the loops is particularly gentle as it distributes the pressure across a larger surface area. This allows it to rest sleekly against the snared tissue.
AREAS OF APPLICATION:	General vascular surgery, cardiothoracic surgery, neurosurgery and urology.

PRIMEDILOOP® Vessel loops



PRIMEDILOOP[®] vessel loops, white

- Used for marking nerves and tendons
- Radiopaque
- Oval cross-section shape ensures optimal distribution of pressure
- Tissue-compatible material
- Stretches evenly

Size	Measurements	Length	PU	REF
Super-Maxi	5.0 x 1.5 mm	47.5 cm	10 x 2 pieces	20408
Maxi	2.5 x 1.2 mm	47 cm	10 x 2 pieces	20404
Mini	1.5 x 1.0 mm	48 cm	10 x 2 pieces	20400



PRIMEDILOOP® vessel loops, blue

- Used to mark veins
- Radiopaque
- Oval cross-section shape ensures optimal distribution of pressure
- Tissue-compatible material
- Stretches evenly

Measurements	Length	PU	REF
5.0 x 1.5 mm	47.5 cm	10 x 2 pieces	20411
2.5 x 1.2 mm	47 cm	10 x 2 pieces	20407
1.5 x 1.0 mm	48 cm	10 x 2 pieces	20403
	5.0 x 1.5 mm 2.5 x 1.2 mm	2.5 x 1.2 mm 47 cm	5.0 x 1.5 mm47.5 cm10 x 2 pieces2.5 x 1.2 mm47 cm10 x 2 pieces



PRIMEDILOOP® Vessel loops



PRIMEDILOOP® vessel loops, red

- Used to mark arteries
- Radiopaque
- Oval cross-section shape ensures optimal distribution of pressure
- Tissue-compatible material
 Stretches evenly

Size	Measurements	Length	PU	REF
Super-Maxi	5.0 x 1.5 mm	47.5 cm	10 x 2 pieces	20410
Maxi	2.5 x 1.2 mm	47 cm	10 x 2 pieces	20406
Mini	1.5 x 1.0 mm	48 cm	10 x 2 pieces	20402



PRIMEDILOOP[®] vessel loops, yellow

- Used to mark ureters
- Radiopaque
- Oval cross-section shape ensures optimal distribution of pressure
- Tissue-compatible material
- Stretches evenly

Size	Measurements	Length	PU	REF
Super-Maxi	5.0 x 1.5 mm	47.5 cm	10 x 2 pieces	20409
Maxi	2.5 x 1.2 mm	47 cm	10 x 2 pieces	20405
Mini	1.5 x 1.0 mm	48 cm	10 x 2 pieces	20401



PLV wound products

Negative pressure or vacuum therapy is an established treatment method. The PLV range offers a wide range of products for different forms of this treatment method and different areas of application.



PLV ProVac

PLV ProVac wound drainage systems combine vacuum sealing and wound closure. This closed vacuum therapy offers several advantages:

- Accelerated wound healing
- Early mobilisation of patients
- Minimisation of skin complaints
- Easy implementation of delayed wound closure via pretensioning of the skin
- Simplified application of the vacuum therapy in difficult locations, e.g., the anal region
- Minimisation of superficial scarring as far as possible

We offer systems for two different fields of application:

for abdominal treatment (PLV ProVac Abdomen) for treatment of soft tissue wound (PLV ProVac / PLV ProVac S)

Abdomen

PLV ProVac Abdomen

Peritonitis is one of the most common infections in abdominal surgery. It may be the result of perforation of a hollow organ like the stomach, small intestine or bowel during surgery or, in other cases, it may develop postoperatively.

Its treatment is based on three steps:

- Removal the source of infection
- Reduction of the bacterial burden
- Prevention of persistence or recurrence of infection

Negative pressure wound therapy (NPWT) is an established method in the treatment of abdominal sepsis. However, prolonged use of NPWT may lead to non-closure of the abdominal fascia and development of further complications such as ventral hernias.

This led to the development of the innovative ProVac closed cavity vacuum sealing method, a modified version of the standard NPWT approach.

A combination with every commercially available NPWT device is enabled via the **ProVac universal adapter.**

Application of **ProVac systems** is a promising alternative for the treatment of peritonitis using NPWT. The main advantage is the prevention of fascial retraction during therapy compared to conventional open abdomen management or classic NPWT in abdominal sepsis.

PLV ProVac Abdomen

PLV ProVac Abdomen

Negative pressure or vacuum therapy is an established method for treatment of the open abdomen and is employed as a temporary abdominal wall closure. In cases of peritonitis in particular, it allows thorough cleaning of the wound cavity and thus a reduction of the intestinal oedema. Compared with standard open abdominal treatment, it offers two considerable advantages:

- The fascia closure rate has been improved significantly (57–84% vs 18–34%)¹
- Reduction in the development of intestinal fistulae

Despite these advantages, the number of patients for which it is not possible to close the abdominal wall completely is still too high.

This results in:

- Extended stays in hospital
- Considerable patient stress
- Development of variety of complications
- Formation of incisional hernia
- Follow-up operations

A lack of abdominal wall closure is also associated with higher patient morbidity.

The combination of vacuum sealing and programmed lavage offers several advantages:

- Fascial and skin closure within the course of every programmed lavage
- Prevention of abdominal fascia retraction
- Early mobilisation of patients
- Minimisation of skin complaints
- Effective cleaning of the abdominal cavity
- Removal of redundant liquid and reduction of bowel oedema

This idea was expanded to develop closed vacuum therapy in the abdominal cavity, a modified version of traditional vacuum therapy.

1 Heller L, Levin SL, Butler CE. Management of abdominal wound dehiscence using vacuum assisted closure in patients with compromised healing. Am J Surg 2006; 191: 165-172; Perez D, Wildi S, Demartines N, Bramkamp M, Koehler C, Clavien PA. Prospective evaluation of vacuum-assisted closure in abdominal compartment syndrome and severe abdominalsepsis. J Am Coll Surg 2007; 205: 586-592; **Quyn** AJ, Johnston C, Hall D, Chambers A, Arapova N, Ogston S, Amin AI. The open abdomen and temporary abdominal closure systems historical evolution and systematic review. Colorectal Dis 2012; 14: e429-438. doi: 10.1111/ j.1463-1318.2012.03045.x.; **Tremblay** LN, Feliciano DV, Schmidt J, Cava RA, Tchorz KM, Ingram WL, Salomone JP, Nicholas JM, Rozycki GS. Skin only or silo closure in the critically ill patient with an open abdomen. Am J Surg 2001; 182: 670-675; **Miller** RS, Morris JA Jr, Diaz JJ Jr, Herring MB, May AK. Complications after 344 damage-control open celiotomies. J Trauma 2005; 59: 1365-1374

PLV WOUND PRODUCTS PLV ProVac Abdomen

Application:



1. Cleaning of the abdominal cavity (lavage)



2. Adaptation of wound foams to suit findings, removal of protective films and positioning of drains on adhesive meshes.



3. Application of intestinal protective film and positioning of folded wound foams in abdominal cavity. Lateral routing out of drain with help of trocar.



5. Closed abdominal wall with laterally routed out drain. Closed tight with foil, hydrocolloid or foam dressings. Removal of trocar from drain.



4. In contrast to "traditional" vacuum therapy, the fascia and skin of the abdominal wall are now closed over the foam.



6. Connection of drain to PLV universal adapter, opening of front side of universal adapter for connection of suction connector and then activation of vacuum.

<u>Further treatment:</u> The closed vacuum therapy system should be replaced after 3-4 days. Depending on the findings in the abdominal cavity, the treatment can be continued with fresh foam or the wound closed without foam.

PLV ProVac Abdomen

PLV ProVac Abdomen

PLV ProVac Abdomen is suitable for abdominal treatment with closed cavity vacuum sealing (treatment of peritonitis).



PLV ProVac Abdomen

- 2 PLV ProVac Abdomen wound foams (oval, with adhesive grid), 380 x 250 x 15 mm)
- 2 Redon drains with trocar, 18 Ch. (total length = 2,000 mm, length of cross perforation = 900 mm)
- 1 PLV universal adapter
- 1 PLV Y-connector
- 1 intestinal protective film (600 x 800 mm)
- 3 PLV sealing film

PU/SU	REF
1 set	24446

PLV ProVac

Skin and soft tissue infection and formation of an abscess is a common surgical problem.

The treatment of choice is incision of the abscess and open wound treatment. This often results in long periods of wound treatment, leaving patients uncomfortable and unable to work. Negative pressure wound therapy (NPWT) is an established method in wound conditioning. However, NPWT still results in long periods until skin closure, particularly in case of large wounds.

This led to the development of the innovative ProVac closed cavity vacuum sealing method, a modified version of the standard NPWT approach.

Combination with every commercially available NPWT device is enabled via the **ProVac universal adapter.**

Application of **ProVac systems** is a promising alternative for open wound treatment of large soft tissue infections using NPWT. The main advantage is early skin closure and reduction of treatment time compared to conventional open wound management or classic NPWT.

The combination of vacuum sealing and primary wound closure offers several advantages:

- Accelerated wound healing
- Minimisation of superficial scarring as far as possible
- Easy implementation of delayed wound closure via pretensioning of the skin
- Simplified application of the vacuum therapy in difficult locations, e.g., the anal region

Sealing films for classic vacuum therapy often do not have enough sufficient adhesive effect, especially in the anal region. **PLV ProVac** avoids this by closing the skin over the foam. The connection via the **ProVac universal adapter** enables fixation of the connector on easily accessible body areas.

Application:



1. Adaptation of PLV ProVac wound foams with adhesive meshes to the respective findings and removal of protective films.



2. Positioning of the drain(s) on the adhesive mesh.



3. Folding of the foams and introduction of the set into the wound cavity. Lateral routing out of drain with help of trocar.



4. Closure of wound and sealing with film, hydrocolloid or foam dressings. Removal of trocar from drain.



5. Connection of drain to PLV universal adapter, opening of front side of universal adapter for connection of suction connector and then activation of vacuum.

<u>Further treatment:</u> The closed vacuum therapy system should be replaced after 3-5 days. Depending on the findings in the wound cavity, the treatment can be continued with fresh foam or the wound closed without foam.

PLV ProVac

PLV ProVac is suitable for the treatment of soft tissue wounds and abscesses with closed cavity vacuum sealing.





PLV ProVac

- 2 PLV ProVac wound foams (square, with adhesive grid, 310 x 240 x 10 mm)
- 2 Redon drains with trocar, 18 Ch. (total length = 2,000 mm, length of cross perforation = 900 mm)
- 1 PLV universal adapter
- 1 PLV Y-connector
- 1 intestinal protective film (600 x 800 mm)

PU/SU	REF
1 set	24448



PLV ProVac S

PLV ProVac S is suitable for the treatment of small soft tissue wounds and abscesses with closed cavity vacuum sealing.







- 2 PLV ProVac wound foams (square, with adhesive grid, 100 x 150 x 10 mm)
- 1 Redon drain with trocar, 14 Ch. (total length = 1,000 mm, length of cross perforation = 400 mm)
- 1 PLV universal adapter
- 1 PLV Y-connector
- 1 intestinal protective film (600 x 800 mm)

PU/SU	REF
1 set	24447



STERILE EO

PLV universal adapter

PLV universal adapter

The PLV universal adapter is a specially developed product in the PLV range which enables a combination of primary wound closure with the different market-relevant vacuum therapies.



PLV universal adapter

• With universal connector for safe connection of a 6-18 Ch. drain

PU/SU	REF
5 pieces	24394

PLV WOUND PRODUCTS PLV Y-connector

PLV Y-connector

PLV Y-connector for connection of 2 drains.



PLV Y-connector

• With 2 universal connectors for safe connection of two 6-18 Ch. drains

PU/SU	REF
5 pieces	24437

PLV WOUND PRODUCTS PLV fistula adapter sets

PLV fistula adapter sets

The introduction of negative pressure wound therapy has improved **open abdomen** treatment in a wide range of ways. Unfortunately, the handling of **intestinal fistulae** remains a serious problem. Suction, applied via a sponge to the wound surface, often results in enlargement of the fistula or eventration of the mucosa. In addition, viscous stool can obstruct the sponge, resulting in separation of the sponge and wound surface. The suction becomes insufficient and may lead to contamination or infection of the wound.

Although several drainage systems using negative pressure wound therapy have been published, none has yet proven universally reliable. In the majority of cases, time-consuming customisations are required.

This was the reason for our development of four new types of fistula adapters for the management of enteroatmospheric fistulae in cooperation with doctors at University Hospital Magdeburg.



The original adapter with a height of 30 mm has an inner diameter of 15 mm. The lower brim transfers the negative pressure to the wound preventing slippage. The upper brim serves for fixation of an ostomy bag. The height of the adapter is adjusted to the usual thickness of the negative pressure wound therapy sponge.

There is also now a 60-mm-high adapter with an inner diameter of 15 mm available for the treatment of deep fistulae.

An adapter with a height of 30 mm and an inner diameter of 30 or 45 mm can be used for the management of large individual fistulae or multiple small fistulae in close vicinity. Thanks to its flexibility, it can also be fixed in an oval shape.

PLV WOUND PRODUCTS PLV fistula adapter sets

Application:



1. Multiple small intestine fistulae in a "Frozen abdomen"



2. Following cleaning of the wound surface, the size of the fistula and its distance from the wound margin are determined. A silicone dressing and wound foam are then cut to size and furnished with an opening at the measured position for the fistula adapter (narrow rim upwards, broad rim downwards).



3. The components are introduced into the wound together with the opening directly above the fistula. The wound foam should not come into direct contact with the intestines (which is why the silicone dressing and wide edge of the adapter are positioned on the underside).



5. Verification of the correct position over the fistula, application of the stoma set and activation of the vacuum.

Disconnecting the suction permits simple emptying and changing of the stoma bag.



4. After a PLV film is stuck over the wound foam, a suction connector (PLV port) is applied and the film cut out over the adapter. This images shows a negative pressure bandage employing the bridge technique.

PLV fistula adapter sets 3/15

PLV fistula adapter set 3/15 & 3/15 Plus

In combination with vacuum therapy, use of the fistula adapter presents a practicable and time-saving option for treating enteroatmospheric fistulae.



PLV fistula adapter set 3/15

- 2 PLV fistulae adapters 3/15 (height = 30 mm, inner diameter = <u>15 mm</u>)
- 1 PLV wound foam (large-pored, anthracite, 240 x 310 x 30 mm)
- 3 PLV films (290 x 216 mm)

PU/SU	REF
1 set	24440



PLV fistula adapter set 3/15 Plus

- 2 PLV fistulae adapters 3/15 (height = 30 mm, inner diameter = 15 mm)
- 1 PLV wound foam (large-pored, anthracite, 240 x 310 x 30 mm)
- 3 PLV films (290 x 216 mm)

Plus additionally:

PU/SU	REF
,	
1 set	24443

PLV fistula adapter sets 3/30

PLV fistula adapter set 3/30 & 3/30 Plus

In combination with the vacuum therapy, the use of the fistula adapter presents a practicable and time-saving option for treating enteroatmospheric fistulae.



PLV fistula adapter set 3/30

- 2 PLV fistulae adapters 3/30
- (height = 30 mm, inner diameter = 30 mm)1 PLV wound foam (large-pored, anthracite,
- $240 \times 310 \times 30 \text{ mm}$
- 3 PLV films (290 x 216 mm)

PU/SU	REF
1 set	24399



PLV fistula adapter set 3/30 Plus

- 2 PLV fistulae adapters 3/30 (height = 30 mm, inner diameter = 30 mm)
- 1 PLV wound foam (large-pored, anthracite, 240 x 310 x 30 mm)
- 3 PLV films (290 x 216 mm)

Plus additionally:

PU/SU	REF
1 set	24449

PLV fistula adapter sets 3/45

PLV fistula adapter set 3/45 & 3/45 Plus

In combination with the vacuum therapy, the use of the fistula adapter presents a practicable and time-saving option for treating enteroatmospheric fistulae.



PLV fistula adapter set 3/45

- 2 PLV fistulae adapters 3/45
- (height = 30 mm, inner diameter = 45 mm)1 PLV wound foam (large-pored, anthracite,
- 240 x 310 x 30 mm)
- 3 PLV films (290 x 216 mm)

PU/SU	REF	
1 set	24442	



PLV fistula adapter set 3/45 Plus

- 2 PLV fistulae adapters 3/45 (height = 30 mm, inner diameter = 45 mm)
- 1 PLV wound foam (large-pored, anthracite, 240 x 310 x 30 mm)
- 3 PLV films (290 x 216 mm)

Plus additionally:

PU/SU	REF
1 set	24445

PLV fistula adapter sets 6/15

PLV fistula adapter set 6/15 & 6/15 Plus

In combination with the vacuum therapy, the use of the fistula adapter presents a practicable and time-saving option for treating enteroatmospheric fistulae.



PLV fistula adapter set 6/15

- 2 PLV fistulae adapters 6/15 (height = 60 mm, inner diameter = 15 mm)
- 1 PLV wound foam (large-pored, anthracite, 240 x 310 x 30 mm)
- 3 PLV films (290 x 216 mm)

PU/SU	REF
1 set	24441



PLV fistula adapter set 6/15 Plus

- 2 PLV fistulae adapters 6/15 (height = 60 mm, inner diameter = 15 mm)
- 1 PLV wound foam (large-pored, anthracite, 240 x 310 x 30 mm)
- 3 PLV films (290 x 216 mm)

Plus additionally:

PU/SU	REF
1 set	24444

PLV WOUND PRODUCTS PLV wound foams

PLV wound foams

PLV wound foams are special foams for the medical treatment of large wounds. They are available in different sizes.



STERILE EO

PLV wound foam, large-pored

- Anthracite
- Large-pored
- Square shape

Measurements	PU/SU	REF
260 x 160 x 10 mm	10/10	24401
260 x 160 x 30 mm	10/10	24403
240 x 310 x 10 mm	10/10	24405
240 x 310 x 30 mm	10/10	24407
120 x 160 x 10 mm	10/10	24431
120 x 160 x 30 mm	10/10	24432
120 x 80 x 10 mm	10/10	24435
120 x 80 x 30 mm	10/10	24436



PLV abdominal wound foam, large-pored

- Especially suited to use in the abdomen
- Anthracite
- Large-pored
- Oval shape
- With prepunched incisions for rapid cutting to sizes

Measurements	PU/SU	REF
400 x 260 x 15 mm	2/2	24434

PLV WOUND PRODUCTS PLV ports

PLV ports

PLV ports should be used in combination with a PLV fistula adapter set , a PLV ProVac set or PLV wound foams. They allow connection to a vacuum pump and generation of a vacuum.



PLV PORT SOFT

- Especially soft drainage port
- With connecting tube without connector (length= 1250 mm)

PU/SU	REF
1/10	24420



PLV PORT SOFT

- Especially soft drainage port
- With connecting tube without connector (length = 2000 mm)
- With grid clamp
- With large lock connector

PU/SU	REF	
1/10	24430	

PLV WOUND PRODUCTS PLV film

PLV film

PLV films can be used in conjunction with PLV fistula adapter sets, PLV ProVac sets or PLV wound foams.



PLV film

- 330 x 260 mm
- Transparent

PU/SU	REF
1/10	24421

PRI-AUTOTRANS Autologous blood transfusion

PRI-AUTOTRANS

PRI-AUTOTRANS is a closed system for autologous blood transfusions. With the help of PRI-AUTOTRANS, the blood collected during aseptic operations may be reinfused directly back to the patient.

Technical data

- Bellows 100 ml with non-return valve
- Autotransfusion bag: 700 ml
- Blood filter: 40 µm
- Universal connector for 8-18 Ch. drains

PRI-AUTOTRANS

Autologous blood transfusion systems

Autologous blood transfusion system

Closed low-vacuum system for the postoperative direct autologous transfusion (ABT) of blood.



- Connecting tube with slide clamp, injection port and 2 universal connectors
- bellows
 - Volume = 100 ml
 - With non-return valve to avoid secretion backflow
- Autotransfusion bag 700 ml
- Blood filter 40 µm
- Connecting tube with Large lock connector

Blood filter	Connections	PU/SU	REF
40 µm	2 universal connectors	1/10	21996

PRI-AUTOTRANS

Autologous blood transfusion Accessories

Accessories



Blood collection bag

- 700 ml
- With integrated non-return valveWith large lock connector

Size	PU/SU	REF
700 ml	1/10	21992

Pictograms /explanations

STERILE EO	Sterilised with ethylene oxide
PU/SU	Packaging unit / shipping unit
REF	Reference number
Ch.	French scale = Unit indicating the external diameter of drains (1 Ch. = $\frac{1}{3}$ mm)
Ø	Diameter

Manufacturer

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MAT 90301

Revision status: 05/2024-01-23