Materiał przeznaczony wyłącznie dla profesjonalistów Material for professional users only

# Quality and Experience

# Post-operative wound drainage > High-vacuum drainage > Low-vacuum drainage > Gravity drainage

The product portfolio for post-operative wound drainage from pfm medical ag offers a variety of systems for drainage by high-vacuum, low-vacuum and gravity for many clinical applications.

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#### OR-system / Ward-system

The **OR** system is a pre-evacuated reservoir with connecting tube for post-operative high-vacuum Redon wound drainage and is suitable for initial placement during surgery.

#### View



Details

- Plug connection or Luer-Lock connection
- Crystal-clear material for reliable qualitative assessment of secretions
- Rough and fine graduation for at-a-glance information about current fill levels

The **ward system** is a pre-evacuated reservoir for post-operative high-vacuum Redon wound drainage and is intended for replacement during patients treatment.

#### Benefits

#### High initial vacuum The Redon bottle has a high initial vacuum of max. 98,000 Pa.

Several system sizes 200 ml and 400 ml systems

provide a 50 ml safety volume.

## **Redon connection tube**

The tube with transparent universal Redon connector CH 06 - CH 18 for connection to the drain is pre-attached.

- Integrated vacuum indicator with qualitative min. / max. indication
- Quick-release fasteners included
- Single packed, sterile
- Latex-free
- Redon bottle DEHP-free

#### **Technical Data**

Bottle volume: 200 ml - 600 ml

#### **Ordering Information**

OR system				
REF	Volume	Connection	PU	
20201	200 ml	Plug	40	
20204	200 ml	Luer-Lock	40	
20301	400 ml	Plug	40	
20304	400 ml	Luer-Lock	40	
20401	600 ml	Plug	30	
20404	600 ml	Luer-Lock	30	

#### Ward system

REF	Volume	Connection	PU
20200	200 ml	Plug	50
20203	200 ml	Luer-Lock	50
20300	400 ml	Plug	40
20303	400 ml	Luer-Lock	40
20400	600 ml	Plug	30
20403	600 ml	Luer-Lock	30

#### **Redon Sets**

The **Redon Sets** for post-operative high vacuum wound drainage consist of a Redon bottle, a connection tube, a Redon drain and a single-use needle. The Redon Sets are suitable for initial placement during surgery and contain all for the drainage needed components.

#### View



#### Details

- Luer-Lock connection
- Crystal-clear material for reliable qualitative assessment of secretions
- Rough and fine graduation for at-a-glance information about current fill levels
- Integrated vacuum indicator with qualitative min. / max. indication
- Quick-release fasteners included
- Single packed, sterile
- Latex-free
- Redon bottle and Redon drain DEHP-free

#### **Ordering Information**

#### Benefits

#### Complete set

In addition to the Redon bottle with connecting tube, the set also contains a drain and a suitable disposable needle.

#### High initial vacuum

The Redon bottle has a high initial vacuum of max. 98,000 Pa.

#### **Redon connection tube**

The tube with transparent universal Redon connector CH 06 - CH 18 for connection to the drain is pre-attached.

#### Several system sizes

200 ml and 400 ml systems provide a 50 ml safety volume.

#### Technical Data

- **Bottle volume:** 200 ml 600 ml
- Drain size: CH 10 CH 18
- Drain length: 75 cm
- Drain perforation length: 15 cm

REF	Volume	Connection	Drain size	PU	
21502 *	600 ml	Luer-Lock	CH 10	25	
20569	600 ml	Luer-Lock	CH 12	25	
20567	600 ml	Luer-Lock	CH 14	25	
20568	600 ml	Luer-Lock	CH 16	25	
20918	600 ml	Luer-Lock	CH 18	25	

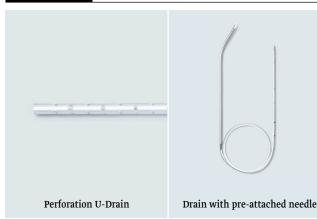
For requests on availability and minimum order quantity of the products please refer to our Customer Service: T +49 (0)2236 9641-220; service@pfmmedical.com \* White strip on bottle for lettering.

#### **Redon drains / U-Drains**

The cross-perforated **Redon drains and U-Drains** are suitable for post-operative high vacuum wound drainage.

Views

**Detail Views** 



#### **Ordering Information**

**Redon drains** REF Size Perforation Length PU 20027 CH 06 15 cm 100 50 cm 20020 CH 08 15 cm 50 cm 100 20026 CH 09 15 cm 50 cm 100 CH 10 20021 15 cm 50 cm 100 20022 CH 12 15 cm 50 cm 100 20023 CH 14 15 cm 100 50 cm 20024 CH 16 15 cm 50 cm 100 20025 CH 18 15 cm 50 cm 50

<sup>[1]</sup> Enneker C., Fleischmann E., Lange Th.: Klinische Anwendung und vergleichende Untersuchung der Ulmer Drainage und der herkömmlichen Gewebssaugdrainage nach Redon. Der Chirurg 50, 626-630 (1979)

The special cross-perforated **U-Drains** improve drainage performance by 1.5 to 2.5 times compared with conventional Redon drains. <sup>[1]</sup>

#### Benefits

#### Improved drainage performance with U-Drains

The gently rounded drainage holes with a linear increase in diameter towards the distal end direction enable a higher drainage performance.

#### **Easy to reposition**

The triple ring marking makes repositioning easy.

#### **Configuration with pre-attached needle**

The pre-attached needle, made from high-quality stainless steel always provides a perfectly sharp needle for optimal placement.

#### Details

- Made from medical PVC, DEHP-free
- Precision-manufactured drainage holes
- Radiopaque
- Single packed, sterile
- Latex-free

#### **Technical Data**

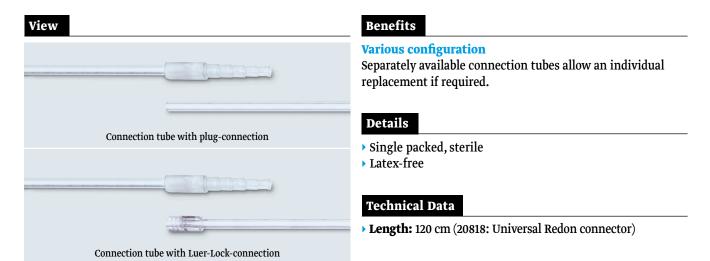
• Length: 50 cm / 75 cm

REF	Size	Perforation	Length	PU
20067	CH 08	15 cm	75 cm	10
20068	CH 10	15 cm	75 cm	10
20087	CH 12	15 cm	75 cm	10
20097	CH 14	15 cm	75 cm	10
U-Drains				
REF	Size	Perforation	Length	PU
20122	CH 08	6 cm	50 cm	100
20120	CH 10	5 cm	50 cm	100
20123	CH 10	8 cm	50 cm	100
20121	CH 12	5 cm	50 cm	100
20124	CH 12	10 cm	50 cm	100
20125	CH 14	12 cm	50 cm	100
20126	CH 16	12 cm	50 cm	100
U-Drains with pre-atta	ched needle			
REF	Size	Perforation	Length	PU
20128	CH 10	8 cm	50 cm	10
20129	CH 12	10 cm	50 cm	10
20131	CH 14	12 cm	50 cm	10

#### Redon drains with pre-attached needle

#### **Redon connection tube**

The **Redon connection tube** is used for connection of Redon or U-Drains to the pre-evacuated Redon bottle for post-operative high vacuum wound drainage.



REF	Version	PU
20814	Connection tube with plug connection and universal Redon connector CH 06 - CH 18	25
20824	Connection tube with Luer-Lock connection and universal Redon connector CH 06 – CH 18	25
20818	Universal Redon connector CH 06 – CH 18 (no tube)	100

#### **Redon-Mini Set**

The manually compressible bellows of the **Redon-Mini Set** uses a low vacuum (approx. 10,000 Pa initially) for post-operative wound drainage. The Redon-Mini Set includes a drain and a pre-attached stainless steel needle.



# Details

- ▶ Initial low vacuum approx. 10,000 Pa
- Redon drain DEHP-free
- Seamless transition to needle
- Fully radiopaque
- Single packed, sterile
- Latex-free

#### **Ordering Information**

# Benefits

**Quick qualitative assessment of secretion** By using transparent material the drained fluid can be quickly assessed.

#### Safe drain connection

The plug or screw connection is used for quick and safe drain fitting.

Technical Data

- Volume: 30 ml/150 ml
- Drain size: CH 06/CH 08
- **Length:** Redon drain: 30 cm, cross-perforation: 5 cm

REFConnectionDrain sizeVolumePU20604ScrewCH 0630 ml2020608ScrewCH 0830 ml2020651PlugCH 06150 ml1020652PlugCH 08150 ml1020653ScrewCH 08150 ml1020654ScrewCH 06150 ml1020657ScrewNo Drain30 ml2020657NewNo Drain150 ml10	0				
20608ScrewCH 0830 ml2020651PlugCH 06150 ml1020652PlugCH 08150 ml1020653ScrewCH 08150 ml1020654ScrewCH 06150 ml1020611ScrewNo Drain30 ml2020657ScrewNo Drain150 ml10	REF	Connection	Drain size	Volume	PU
20651         Plug         CH 06         150 ml         10           20652         Plug         CH 08         150 ml         10           20653         Screw         CH 08         150 ml         10           20654         Screw         CH 06         150 ml         10           20611         Screw         CH 06         150 ml         10           20657         Screw         No Drain         30 ml         20	20604	Screw	СН 06	30 ml	20
20652         Plug         CH 08         150 ml         10           20653         Screw         CH 08         150 ml         10           20654         Screw         CH 06         150 ml         10           20611         Screw         No Drain         30 ml         20           20657         Screw         No Drain         150 ml         10	20608	Screw	CH 08	30 ml	20
20653         Screw         CH 08         150 ml         10           20654         Screw         CH 06         150 ml         10           20611         Screw         No Drain         30 ml         20           20657         Screw         No Drain         150 ml         10	20651	Plug	CH 06	150 ml	10
20654         Screw         CH 06         150 ml         10           20611         Screw         No Drain         30 ml         20           20657         Screw         No Drain         150 ml         10	20652	Plug	CH 08	150 ml	10
20611ScrewNo Drain30 ml2020657ScrewNo Drain150 ml10	20653	Screw	CH 08	150 ml	10
20657 Screw No Drain 150 ml 10	20654	Screw	CH 06	150 ml	10
	20611	Screw	No Drain	30 ml	20
acces Diver No Devin 150 ml 10	20657	Screw	No Drain	150 ml	10
20650 Plug No Drain 150 mi 10	20650	Plug	No Drain	150 ml	10

#### Low Vacuum System

The Low Vacuum System is a large capacity wound drainage system for manual evacuation in sensitive tissue using a constant low vacuum.

View	Benefits	
	Gentle application With its large capacity - compared to other low vacuum systems - this sys- tem for manual evacuation with low suction ensures gentle* wound drainage in sensitive tissue.	Minimised risk of cross-contamination Cost-effective replacement bags with one-way valve minimise the risk of cross- contamination.
	Improved patient and user protection Two one-way valves efficiently prevent backflow thus mini- mising the risk of retrograde wound infections.	<b>Pre-configured sets</b> The pre-configured set consists of bellow, connec- tion tube, Y-connector, Redon drains and optionally a disposable guide needle.
		Assembly with silicone drains also optionally available.
Details		
<ul> <li>Large capacity 250 ml bellows to increase the time intervals between re-evacuations and to reduce the total number of</li> </ul>	<ul> <li>Hydrophobically coated filter hygienic pressure equalisatio</li> </ul>	

- re-evacuations required Pre-attached Y-connectors with closed distal ends allow the optional use of one or two Redon drains (CH 08 - CH 18) without the need for additional connectors, adaptors or clamps
- act with the secretion
- > Safety cap at the bottom outlet of the bellows to prevent spillage of residual fluid
- Ease of use
- Redon drains DEHP-free
- Latex-free

#### **Technical Data**

• Length: Redon drain: 50 cm, perforation: 15 cm

• Volume: Bellows: 250 ml, Drainage bag: 700 ml

REF	Version	Size	PU
20760	2 Redon drains	CH 10	25
20761	2 Redon drains	CH 14	25
20762	2 Redon drains	CH 18	25
20770	2 Redon drains, trocar	CH 10	25
20771	2 Redon drains, trocar	CH 14	25
20772	2 Redon drains, trocar	CH 18	25
20780	Exchange bag	700 ml	25

#### **Soft-Drain Flat Active**

The Soft-Drain Flat Active consists of a flat silicone drain and a low-vacuum reservoir for suction-assisted wound drainage.

# View

#### Benefits

#### Active assistance of suction

The included reservoir creates a negative pressure and assists actively the suction of the drainage.

#### **Outstanding safety**

The inner ribbing of the flat drain prevents it from collapsing even at higher pressures or when a vacuum is applied.

#### **Easy drain removal**

The seamless soft coupling between the drain and tube enables the safe and gentle removal of inserted drains.

#### **Technical Data**

- **Full length:** 80 cm
- > Drain length: 20 cm

#### Details

- Transparent 150 ml low-vacuum silicone reservoir with anti-reflux valve and universal hanger
- Graduation of the reservoir for at-a-glance information about current fill levels
- Perforated at full length with gently rounded atraumatic holes
- Flat drain made from 100 % medical silicone
- Central opening
- Fully radiopaque drain tube
- Double packed, sterile
- Latex-free

#### **Ordering Information**

REF	Height x width	Perforation	Volume reservoir	PU
0615-0072	3 x 7 mm	20 cm (full)	150 ml	10
0615-0102	4 x 10 mm	20 cm (full)	150 ml	10

#### Soft-Drain Flat Reservoir

The Soft-Drain Flat Reservoir is a transparent low-vacuum silicone reservoir with an anti-reflux valve and a universal hanger.

#### View



## Benefits

#### Graduation

The graduation provides an at-a-glance information about current fill levels of the reservoir.

#### Anti-reflux valve

The Anti-reflux-valve prohibits a backflow of collected wound fluid into the drainage.

#### **Universal hanger**

By use of the universal hanger the system can easily be attached at any bed position.

#### Details

- Reservoir made from 100 % silicone
- Sterile
- Latex-free

#### **Technical Data**

**Volume:** 100 ml - 400 ml

<b>Ordering Information</b>				
REF	Volume	PU		
2013-0610	100 ml	10		
2013-0615	150 ml	10		
2013-0620	200 ml	10		
2013-0640	400 ml	5		

#### Soft-Drain Flat

View

The **Soft-Drain Flat Single** is a flat silicone drain for open or half-open wound drainage by gravity.

The **Soft-Drain Flat System** consists of a flat silicone drain and a collection bag.

#### Benefits

#### **Outstanding safety**

The inner ribbing of the flat drain prevents it from collapsing even at higher pressures or when a vacuum is applied.

#### **Easy drain removal**

The seamless soft coupling between the drain and tube enables the safe and gentle removal of completely inserted drains.

#### **System configuration**

The pre-attached collection bag allows the usage as closed system instantly.

#### **Technical Data**

- Full length: 80 cm
- Drain length: 20 cm

- Details
- Flat drain made from 100 % medical silicone

Soft-Drain Flat System

- Perforated at 3/4 length or full length with gently rounded atraumatic holes
- Central opening
- Fully radiopaque drain tube
- Double packed, sterile
- Latex-free

#### **Ordering Information**

#### Soft-Drain Flat Single

REF	Height x width	Perforation	Volume collection bag	PU
2014-0071	3 x 7 mm	15 cm (3/4)	-	10
2014-0072	3 x 7 mm	20 cm (full)	-	10
2014-0101	4 x 10 mm	15 cm (3/4)	-	10
2014-0102	4 x 10 mm	20 cm (full)	-	10

#### Soft-Drain Flat System

REF	Height x width	Perforation	Volume collection bag	PU
22580	3 x 7 mm	20 cm (full)	350 ml	10
22581	4 x 10 mm	20 cm (full)	350 ml	10

#### Soft-Drain

The **Soft-Drain Single** is a round silicone drain for open or half-open wound drainage by gravity.

View



**Ordering Information** 

The **Soft-Drain System** consists of a round silicone drain and a collection bag with outlet.

#### Benefits

#### **Gentle drainage**

Five laterally offset atraumatic holes and a gently rounded central opening ensure gentle drainage.

#### **System configuration**

The pre-attached collection bag allows the usage as closed system instantly.

#### Details

- Round drain made from 100 % medical silicone
- Fully radiopaque
- Double packed, sterile
- Latex-free

#### **Technical Data**

- Drain length: 50 cm
- System configuration drain length: 100 cm
- Volume collection bag: 350 ml

ordering information							
Soft-Drain Single			Soft-Drain System				
REF	Size	PU		REF	Size	Volume collection bag	PU
21930	CH 09	20		-	-	-	-
21931	CH 12	20		22120	CH 12	350 ml	10
21932	CH 14	20		22121	CH 14	350 ml	10
21933	CH 16	20		22122	CH 16	350 ml	10
21945	CH 18	20		22123	CH 18	350 ml	10
21934	CH 20	15		22124	CH 20	350 ml	10
21935	CH 24	15		22125	CH 24	350 ml	10
21936	CH 26	15		22126	CH 26	350 ml	10
21937	CH 30	10		22127	CH 30	350 ml	10
21938	CH 33	10		22128	CH 33	350 ml	10
21939	CH 36	10		22129	CH 36	350 ml	10

#### **Dispo-Flow**

The **Dispo-Flow** is a capillary drain made from silicone with inner ribbing for gentle wound drainage by means of capillary suction and gravity.



#### Benefits

#### Gentle drainage

The Dispo-Flow is an alternative to conventional latex penrose drainage. It is suitable for wound drainage in indications when the application of a vacuum is contraindicated but sufficient drainage performance is required.

#### Details

- Capillary drain made from 100 % medical silicone
- Central opening
- Fully radiopaque
- Double packed, sterile
- Latex-free
- DEHP-free

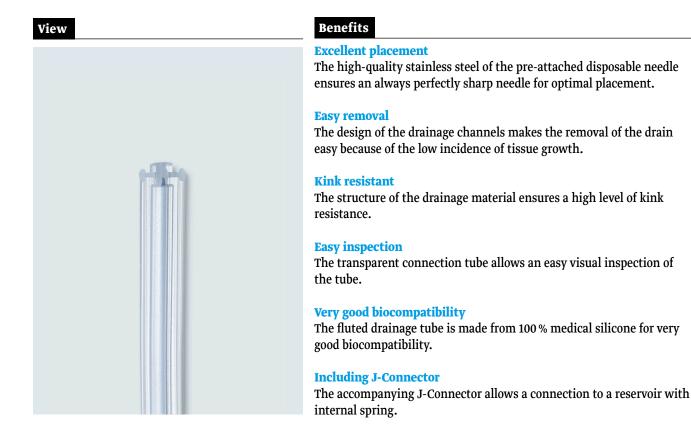
#### **Technical Data**

- Width: 8 mm 12 mm
- Length: 30 cm / 50 cm

REF	Width	Length	PU	
22533	8 mm	30 cm	25	
22535	8 mm	50 cm	25	
22553	10 mm	30 cm	25	
22555	10 mm	50 cm	25	
22573	12 mm	30 cm	25	
22575	12 mm	50 cm	25	

#### **Endo-Drain**

The Endo-Drain is a fluted silicone drain for gravity application or for usage with low-vacuum-suction systems. The Endo-Drain Set contains a pre-attached needle and a J-Connector



#### Details

- Fully radiopaque
- Double packed, sterile
- Latex-free

2015-9721J

Drainage can be shortened

21 FR

#### **Ordering Information**

#### Needle/Connector PU REF Size 2015-9710J 10 FR Yes 10 2015-9715J 15 FR Yes 10 2015-9719J 19 FR Yes 10

Yes

# **Technical Data**

- Drain length: 120 cm
- Drainchannel length: 30 cm

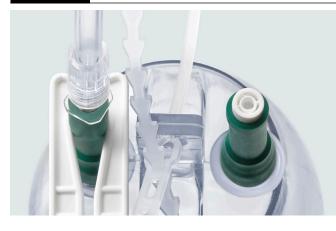
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# Koelner Drainage

The **Koelner Drainage** is a reservoir for post-operative wound drainage without suction. It allows the drainage of wound areas in which Redon drains are used without negative pressure.



#### **Detail View**



#### Benefits

#### Hygienic 3 µm-outlet filter

When used as a gravity drainage the 3  $\mu$ m-outlet filter allows easy escape of excess air in the reservoir.

#### **OR-Version with universal Redon connector**

The tube with transparent universal Redon connector CH 06 - CH 18 for connection to the drain is pre-attached.

#### Details

- Luer-Lock connection
- Crystal-clear material for reliable qualitative assessment of secretions
- Rough and fine graduation for at-a-glance information about current fill levels
- > Quick-release fasteners included
- Double packed, sterile
- Latex-free
- Redon bottle DEHP-free

#### **Technical Data**

**Bottle volume:** 400 ml

REF	Version	Connection	PU
20384	Ward	Luer-Lock	40
20385	OR	Luer-Lock	40

#### **Biliary drainage bag**

The biliary drainage bag is a collection bag for secretions from the drainage of post-operative wounds using gravity drainage.



#### Benefits

#### Simple control of fill level

The graduation of the bag provides an at-a-glance information about current fill levels.

#### **Various configurations**

Multiple versions offer a wide range of connection options as needed.

#### **Detail View**



#### Details

- Made from medical PVC, DEHP-free
- With outlet depending on configuration

#### **Technical Data**

- **Volume:** 500 ml 2000 ml
- **Tubing length:** 800 mm

REF	Picture	Version	Bag	Volume	PU
24008	1	Luer-Lock, male	No outlet	1500 ml	25
24017	2	Luer, male / connector for T-Drain	No outlet	1500 ml	25
24016	3	Luer-Lock, male / tubing adapter Luer, male / connector for T-Drain	No outlet	1500 ml	25
24022	3	Luer-Lock, male / tubing adapter Luer, male / connector for T-Drain	Bottom outlet	2000 ml	25
24028	4	3-way-stopcock (Luer-Lock, male/female)	Bottom outlet	500 ml	10

# For your notes

#### Contact

Should you have any questions our Customer Solutions Team is happy to advise you.

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