

Instructions for Use



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W&H symbols

Symbols displayed on the product and/or used in this manual:



WARNING!

(in the event of risk of injury to persons)



CAUTION!

(in the event of risk of damage to property)

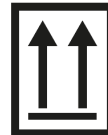


General comments,
with no risk to persons or property

Symbols on the device:



Observe the instructions for use



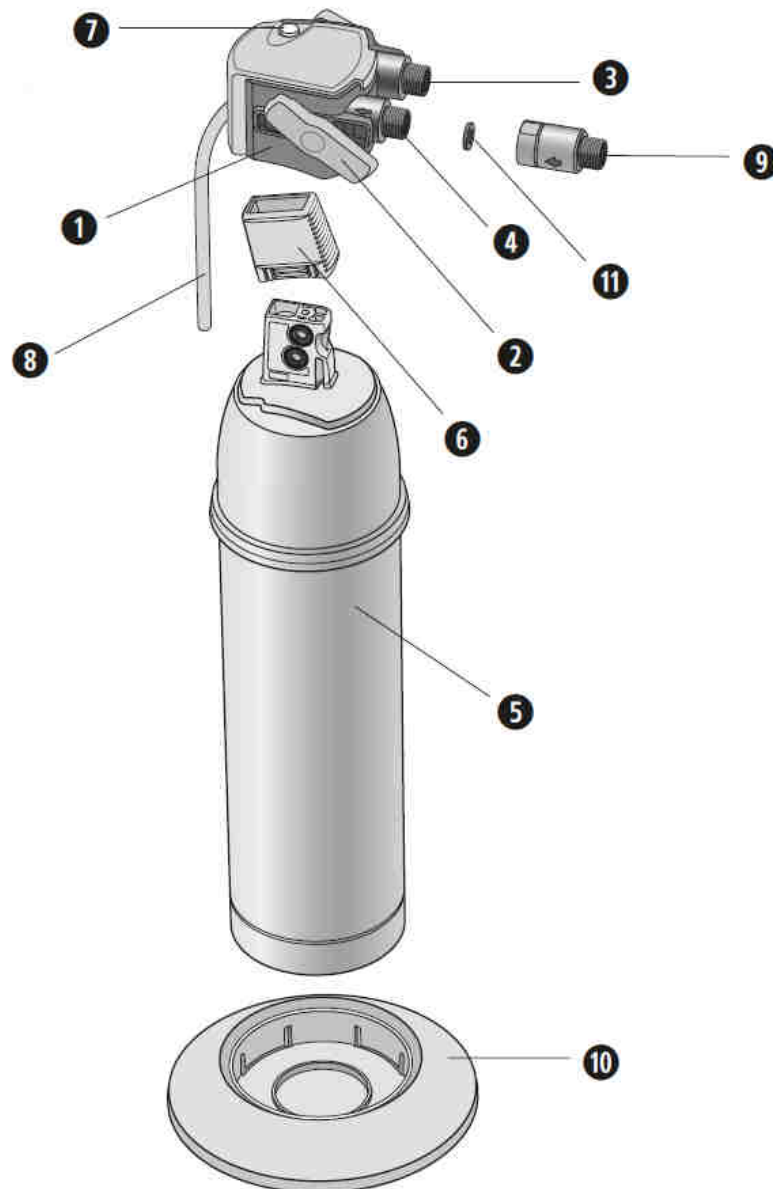
Top



Not drinking water

1. Definition of Terms

- ① Filter head
- ② Locking handle
- ③ Water outlet (G3/8")
- ④ Water inlet (G3/8")
- ⑤ Filter cartridge
- ⑥ Protective cap
- ⑦ Flush valve
- ⑧ Flush hose
- ⑨ Non-return valve
- ⑩ Base
- ⑪ Flat seals



2. General Information

Function and Application

Multidem is a pressurized system connected to the water installation that completely demineralizes drinking water for individual customer applications.

By reliably locking the filter cartridge in the filter head and controlling the water flow, the innovative locking handle ensures simple and reliable operation. The quality of the filter system has been inspected and confirmed by independent institutes.

Multidem

Multidem filter cartridges reduce the overall mineral content of drinking water, thereby preventing deposits from forming in downstream terminal devices. The flow method is used to remove the minerals, including heavy metal ions such as lead and copper, from the drinking water, which is filtered through an ion exchanger.

The head set (filter head, non-return valve) contains a DVGW-tested non-return valve, which also acts as a suitable protection device (for compliance to the EN 1717, please refer to the Declaration of Conformity).

Typical areas of application for the Multidem include:

> **Laboratories and medicine:**

Steam sterilization (see EN 13060, Appendix C), cleaning and disinfection devices, washing technology.

> **Industrial:**

Steam sterilization, heat and energy technology, cleaning and washing technology.

General Information

Guarantee Provisions

The Multidem filter system is subject to the statutory guarantee of 1 years. A guarantee claim may be asserted only if all instructions in this Handbook are followed and observed.

Storage/Transport

Adhere to the ambient conditions in the Technical Data (Chapter 9) for storage and transport. The instructions for use should be seen as part of the product and kept for the entire service life of the filter system, and also passed on to subsequent owners.

Recycling/Disposal

The packaging material of this product is suitable for recycling and can be reused. Please dispose of all materials in accordance with local regulations.

3. Operating and Safety Instructions

Qualified personnel

Installation and maintenance of the filter system may be carried out only by trained and authorized personnel.

Correct Use

Perfect and safe operation of the product is subject to the installation, use and maintenance outlined in this document. Only use filter cartridges designed for this filter system.

Liability Exclusion

The system must be installed and the cartridge changed in exact accordance with the information in these instructions for use. W&H, the manufacturer and its subsidiaries accept no liability for any damage, including consequential damage, arising from the incorrect installation or use of the product.

Specific Safety Instructions

- > Only water of drinking water quality may be used as intake water for the Multidem water filter system.
- > The Multidem water filter system is only suitable for cold water use within the water intake temperature range specified in Chapter 9.
- > Under no circumstances may microbiologically impaired water or water of unknown quality be used.
- > In the event of official instructions to boil tap water, the filter system must be decommissioned.
- > When the requirement to boil water comes to an end, the filter cartridge must be replaced and the connections cleaned.
- > The water filtrate is classified in category 2, in accordance with EN 1717.

Operating and Safety Instructions

W&H recommends that the filter system not be decommissioned for a long period of time. Following stagnation times of over a week, the filter should be flushed in accordance with the table below using at least the flushing volumes specified. Following stagnation times of over four weeks, the filter should be replaced. Please also note the maximum usage period of 12 months for the filter cartridge (Chapter 5).

Table of flushing volumes following stagnation

Filter cartridge	Flushing volume following stagnation
C27	6 litres

The filter system must not be opened or dismantled during operation. The filter cartridge must not be opened.

Production date

Filter head production code, e.g. H 1252 11882

1	Production year, here: 2011
25	Production week, here: calendar week 25
2	Production day from Monday (1) to Friday (5), here: Tuesday
11882	Serial identification number

Operating and Safety Instructions

Filter cartridge production code, e.g. B1252310475

1	Production year, here: 2011
25	Production week, here: calendar week 25
2	Production day from Monday (1) to Friday (5), here: Tuesday
31	Number of the mix variant, here: no. 31
0475	Consecutive number of the filter cartridge, here the 475 cartridge; reset when the day changes

Technical Safety Assembly Instructions

- > The terminal device operated using the filter must be suitable for operation with desalinated and/or demineralized water.
- > Protect the filter system from sunlight and mechanical damage.
- > Do not assemble near sources of heat or open flames.
- > A stop valve must be installed before the filter system inlet hose.
- > If the water pressure is greater than 8.6 bar, a pressure reducer must be installed before the filter system.
- > When selecting the materials for parts that come into contact with water after passing through the filter system, it must be remembered that, due to the filtrate, this water is now demineralized.
- > All parts must be installed in accordance with country-specific regulations on the installation of drinking water facilities.
Ensure the relevant protection against return flows is present on downstream appliances in accordance with country-specific regulations, standards and specifications.



The filter head is not suitable for wall mounting.

4. Installation



Prior to installation, read the technical data (Chapter 9) and the operating and safety information (Chapter 3).
Following storage and transportation below 0 °C, the product must be stored in the open original packaging for at least 24 hours prior to commissioning at the ambient temperatures for operation specified (Chapter 9).

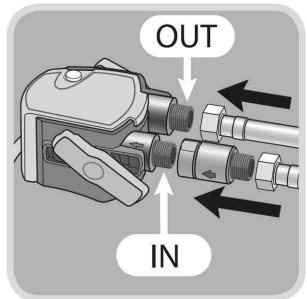
Assembly the Filter Head, Water Connection



Ensure that the locking handle on the head is open.



Close water intake and switch off the power supply to the terminal device.



Fit the hoses to the water inlet >>IN<< ④ and outlet >>OUT<< ③ on the filter head ①.
Do not install the intake hose if there is no non-return valve on the water inlet >>IN<<.



Ensure that the flat seals supplied are used.



The max. tightening torque at the G3/8" connections must not exceed 14 Nm! Only hose connections with flat seals may be used, as hoses with conical connections damage the filter head connections and invalidate any guarantee claims!

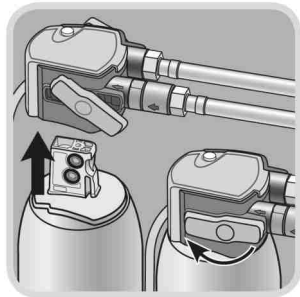
Installation

Inserting the Filter Cartridge



Remove the protective cap ⑥.

Note the next exchange date in the date field on the filter cartridge ⑤.



Insert the filter cartridge ⑤ vertically into the filter head ①.



The filter cartridge can only be inserted when the locking handle is open. Make sure that the filter cartridge is positioned correctly. Turn the locking handle ② until you feel it engage.

Installation

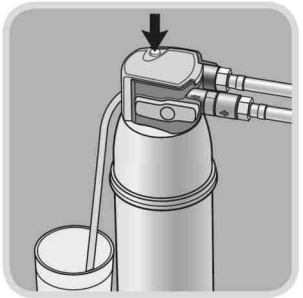
Commissioning



Open the water intake and switch on the power supply to the terminal device.
Operate the flush valve ⑦ and flush the filter system until the filtered water runs clear and without bubbles.
At least two bed volumes must be flushed (Chapter 9).



Ensure the filter system is aligned vertically during operation!



When bleeding/flushing, catch any water leaking from the flush hose ⑧ in an appropriate container.
Check system for any leaks.

5. Changing the Filter Cartridge

The Multidem filter cartridge must be replaced when depleted. In the event that the maximum permissible conductivities are reached in the filtrate, always refer to information from the manufacturer of the relevant downstream machine or system. For small sterilizers in accordance with EN 13060, we recommend changing the filter cartridge from a conductivity of 15–20 $\mu\text{S}/\text{cm}$. Use a suitable measuring device for determining the conductivity in the filtrate (e.g. Primo 5 REF A800500X). Remove the water from the flush hose ③ for measuring purposes by actuating the flush valve ⑦.

In all cases, the filter cartridge must be replaced 12 months after commissioning at the very latest.



Carefully examine all remaining parts when replacing the cartridge! Faulty parts must be exchanged and dirty parts should be cleaned. Read the operating and safety information (Chapter 3) prior to replacement. Following storage and transportation below 0 °C, the product must be stored in the open original packaging for at least 24 hours prior to commissioning at the ambient temperatures for operation specified (Chapter 9).



If the locking handle is open, the water intake to the cartridge is interrupted and it is not possible to take water from the water outlet ③. Switch off the power supply to the terminal device when replacing the filter cartridge.

- > Open the locking handle ②.
- > Actuate the flush valve ⑦ and depressurize the system.
- > Remove the depleted filter cartridge ⑤ from the filter head ①. In doing so, be aware of the weight of the cartridge.
- > Follow the steps listed on pages 11-12 (Inserting the Filter Cartridge, Commissioning).

6. Capacity Tables

Conductivity in the intake water in $\mu\text{S}/\text{cm}$	Multidem C27 Filter capacity in litres
50	2250
100	1130
200	565
300	375
400	280
500	225

The stated capacities have been tested and calculated on the basis of common application and machine conditions. External factors (e.g. varying crude water quality and/or machine type) may cause deviations from this information (+/- 10%).

7. Repair

- > Regularly check the filter system for leaks.
- > Regularly check the hoses for kinks.
Kinked hoses must be replaced.

The complete filter system must be replaced in rotation after 10 years.
The non-return valve supplied must be replaced every 5 years.



Before replacing, read the technical data (Chapter 9) and the operating and safety information (Chapter 3).

Regularly clean the outside of the filter system with a soft, damp cloth.



Do not use any abrasive chemicals, cleaning solutions or astringent cleaning agents.

8. Troubleshooting

No water flow	
Cause:	Water intake closed.
Troubleshooting:	Open the water intake at the upstream stop valve or close the locking handle ❷ on the filter head ❶.
Cause:	Non-return valve was fitted on the outlet side.
Troubleshooting:	Please fit the non-return valve on the inlet side.

No or low water flow despite open water intake	
Cause:	Mains pressure too low.
Troubleshooting:	Check mains pressure. If the fault persists, check the filter system and filter cartridge and replace if necessary.
Cause:	Filter head not mounted in direction of water flow.
Troubleshooting:	Dismantle the filter head and install in direction of water flow (Chapter 4).

Leak	
Cause:	Screwed connections not fitted correctly.
Troubleshooting:	Check mains pressure. Check all screwed connections and mount according to Chapter 4. If the fault persists, replace the filter system.

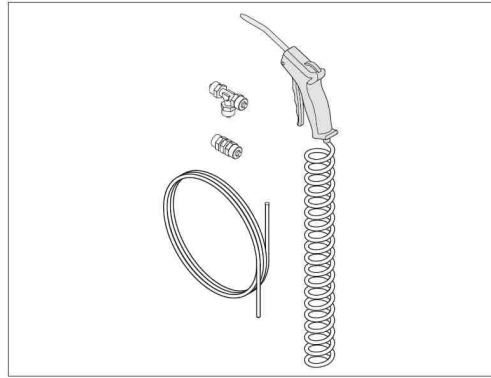
9. Technical data

		Multidem C27
Operating pressure		2 bar to max. 8.6 bar
Water inlet temperature		4 °C to 40 °C
Ambient temperature during	operation	4 °C to 30 °C
	storage	-20 °C to 50 °C
Nominal flow		60 l/h
Pressure loss at nominal flow		0.2 bar
Bed volume		2.7 l
Weight (dry / wet)		2.7 / 3.9 kg
Dimensions (width / depth / height)	Filter system (Filter head with filter cartridge)	124 mm 123 mm 476 mm
	Filter cartridge	123 mm 123 mm 469 mm
Operating position		Vertical
Water inlet connection		G 3/8"
Water outlet connection		G 3/8"

10. Order Numbers



A812016X
Multidem C27
filter cartridge



A812018X
Water dispenser kit

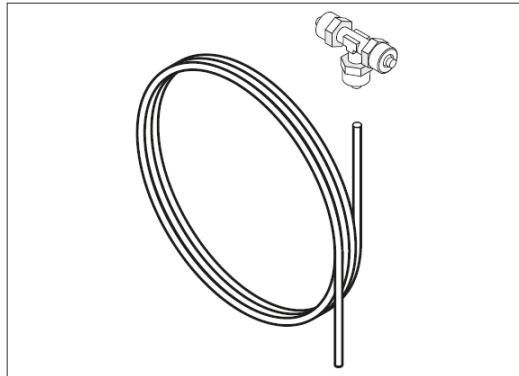


A800502X
Primo 5

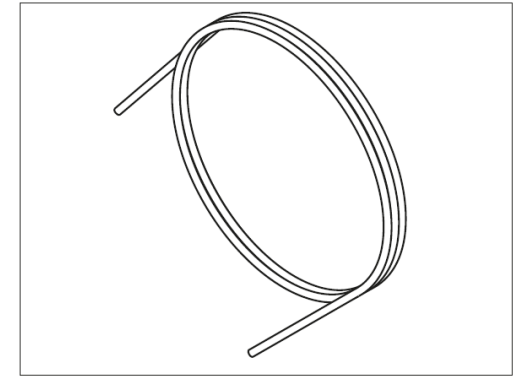
Order Numbers



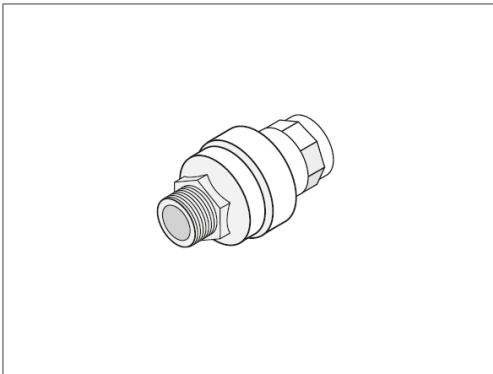
19723110
SAT



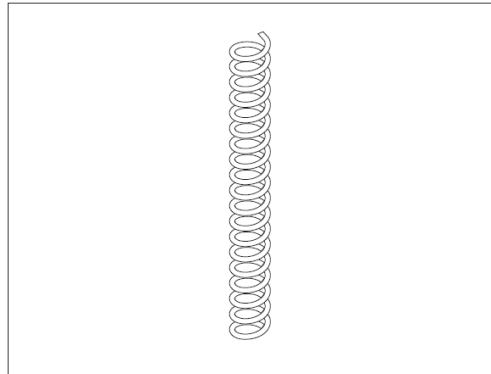
A812020X
Connection kit 2nd sterilizer



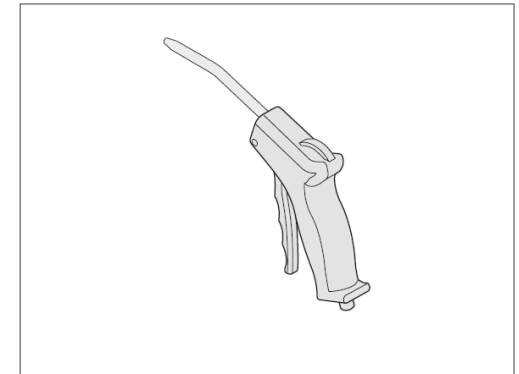
A812019X
3m - 6x4 mm PTFE tubing



A812005X
Water block[®] safety valve
W320504X
Water block[®] safety valve (US & CA)

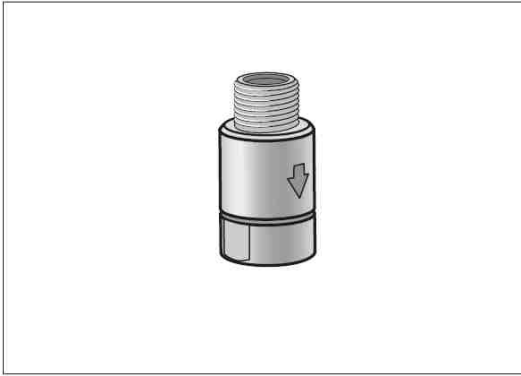


A812105X
Spiral tubing

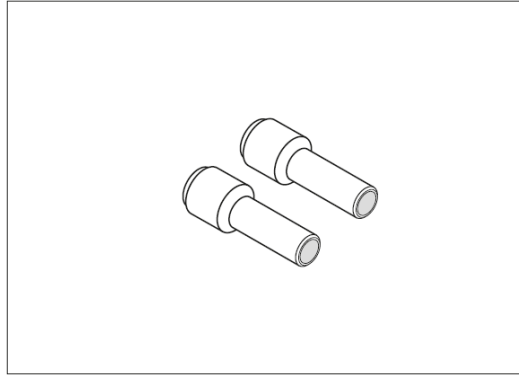


A812106X
Water dispenser

Order Numbers



A812022X
3/8" Non-return valve



A812021X
Adaptors 6 to 8 mm tubings

Disposal of used filter cartridges

The products must be disposed in accordance with current local, regional and country regulations; see the disposal considerations (Section 11) contained in the Product Safety Information Sheet available at wh.com / med.wh.com.

Authorized W&H service partners

Find your nearest W&H service partner at <http://wh.com> - <http://med.wh.com>
Simply go to the menu option »Service« for full details. Alternatively please contact:

W&H UK LIMITED, 6 Stroud Wood Business Centre, Park Street, St.Albans, Herts AL2 2NJ
t +44 1727 874990 f +44 1727 874628 technical.uk@wh.com

Ivoclar Vivadent NZ, P.O.Box 5243, Wellesley Street, 12 Omega Street, Auckland,
t +64 9 914 9999 f +64 9 914 9958 ivoclarvivadent@ivoclarvivadent.co.nz

Distributor

W&H Sterilization S.r.l.

Italy, I-24060 Brusaporto (Bg), via Bolgara, 2

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wh.com

med.wh.com

vet.wh.com

Multidem ENG Instructions for Use - Rev 09

Subject to alterations

30/05/2023