OLYMPUS

Reprocessing of Endoscopic Components & Accessories

Hygiene & Reprocessing Training Material

Start

OLYMPUS CONTINUUM

Disclaimer

This training material is a summary of the steps necessary to properly reprocess endoscopic components & accessories. Always follow the detailed steps instructed in the latest ENDOSCOPE INSTRUCTION FOR USE (REPROCESSING MANUAL).

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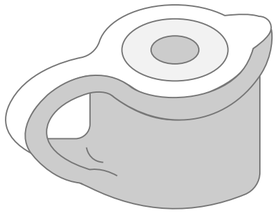
Reprocessing of Endoscopic Components & Accessories

During reprocessing, the inner and outer surfaces need to get in contact with cleaning & disinfection solutions and rinse water

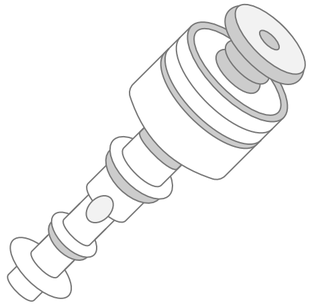
- Some components / accessories used for manual cleaning / disinfection must be reprocessed **separately** from the endoscope with exactly the same steps as the endoscope itself

- Some other accessories are manually cleaned / disinfected **with** the endoscope during the manual cleaning and disinfection of the endoscope

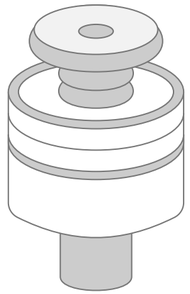
Examples*:



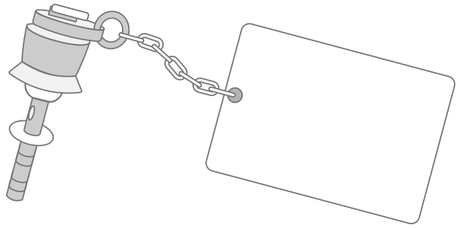
Biopsy valve (MB-358)



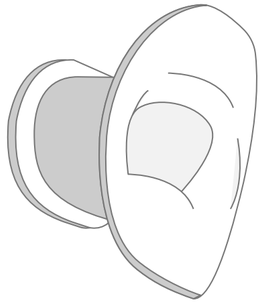
Air/water valve (MH-438)



Suction valve (MH-443)



AW channel cleaning adapter (MH-948)



Mouthpiece (MB-142)

*Source: Olympus

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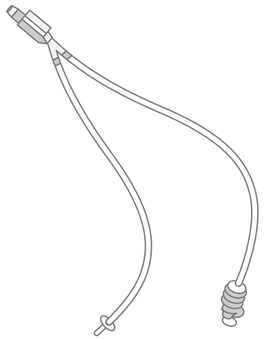
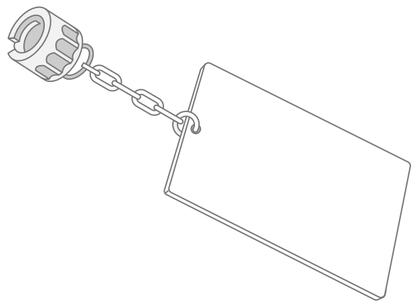
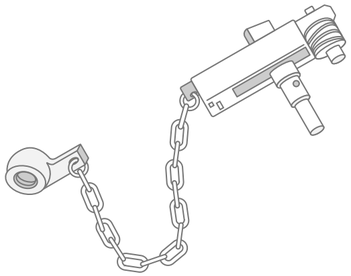


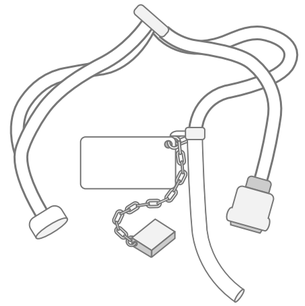
Suction cleaning adapter
(MH-856)



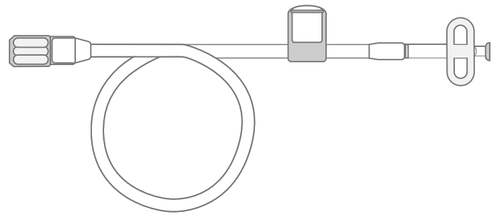
ETO cap
(MB-156)



Channel plug
(MH-944)



Injection tube
(MH-946)



Auxiliary water tube
(MAJ-855)

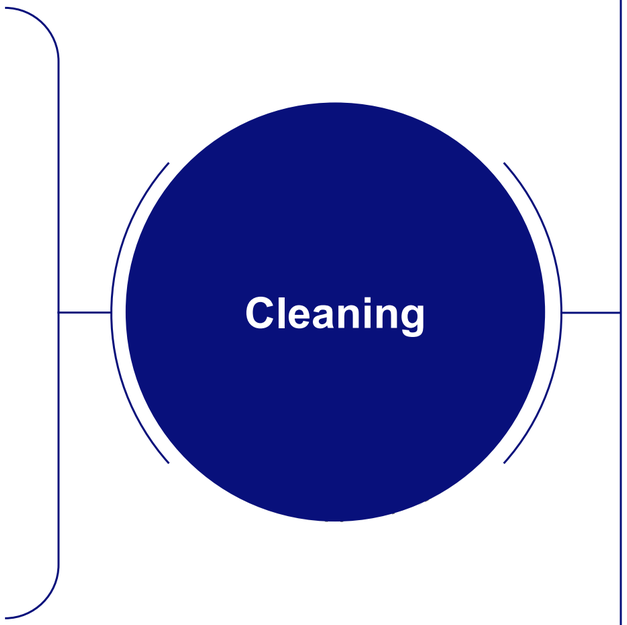
*Source: Olympus

Cleaning of Endoscopic Components & Accessories

Purpose

Remove any organic residues and other substances from the medical device

- Wash off
- Any following reprocessing step like disinfection and sterilization might be ineffective if there are any residues left on the device



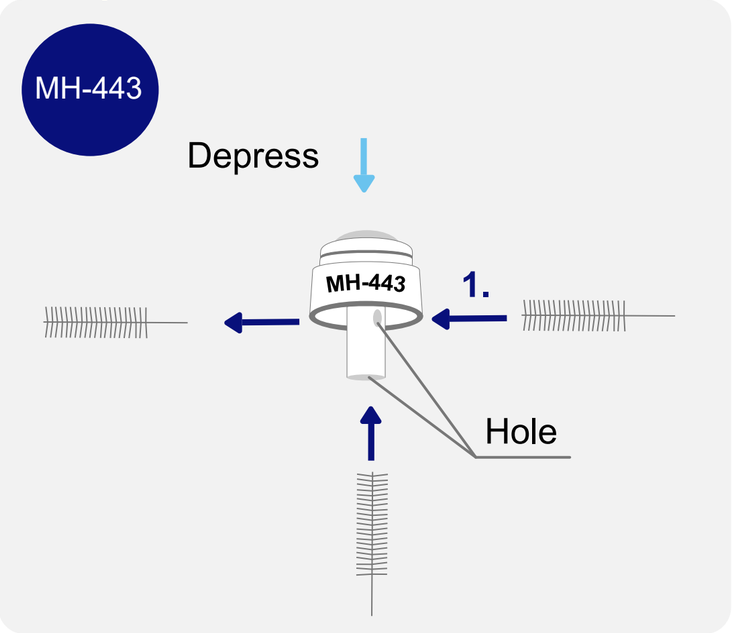
Methods

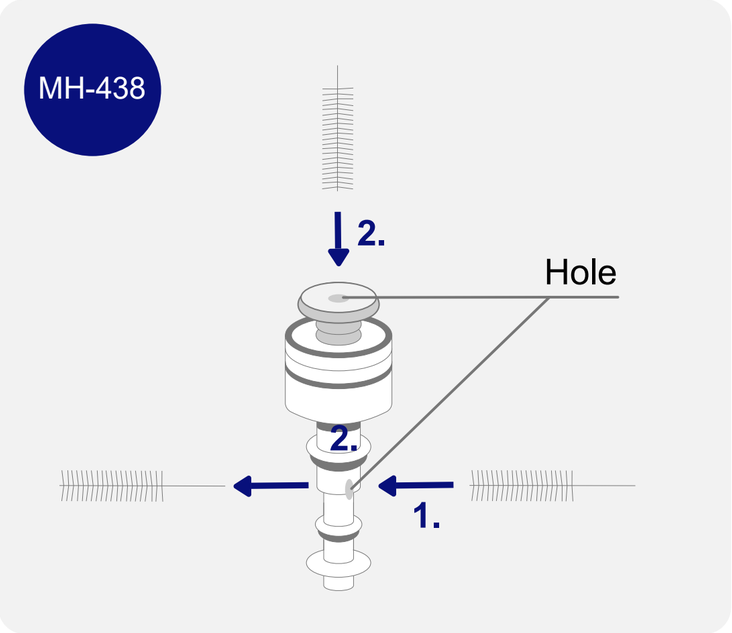
- Automated
  - In a washer-disinfector (WD) / endoscope washer-disinfector (EWD/AER) according to EN ISO 15883
- Manually
  - At room temperature with cleaning chemicals, e.g. enzymes, mild alcaline (pH < 10.8)
  - Always follow the cleaning chemical manufacturers‘ instructions in terms of concentration, exposure time, temperature
  - Eventually including ultrasound bath (IFU)

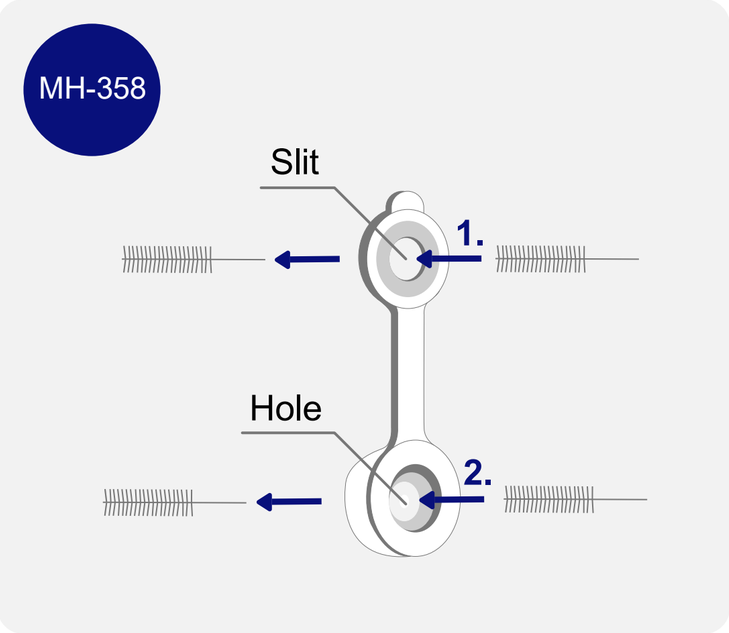
Whenever possible according to IFU:
Automated reprocessing is the preferred method!

Reprocessing of Endoscopic Components & Accessories (manually)

Examples*:







*Source: Olympus

All components as well as accessories used for cleaning must be reprocessed with exactly the same steps as the endoscope itself:

- Clean the **external** surfaces
- Valves have to be brushed as described in the IFU

Valves pose a high risk of cross-contamination if not reprocessed correctly

Click on the buttons for further information.

Reprocessing of Endoscopic Components & Accessories (manually)

Flush the components / accessories with detergent solution

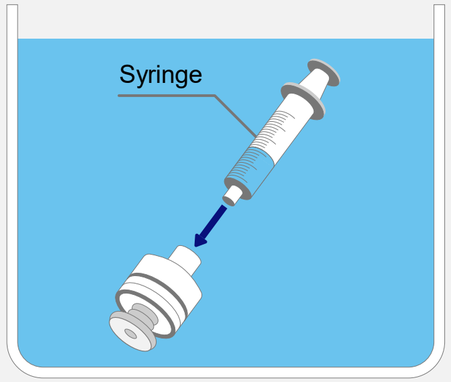
MH-443

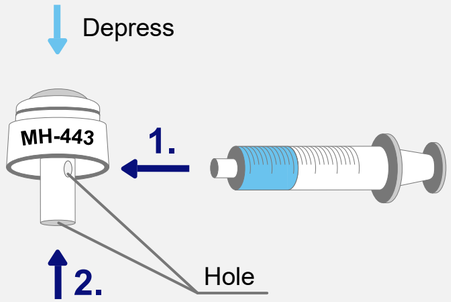
MH-438

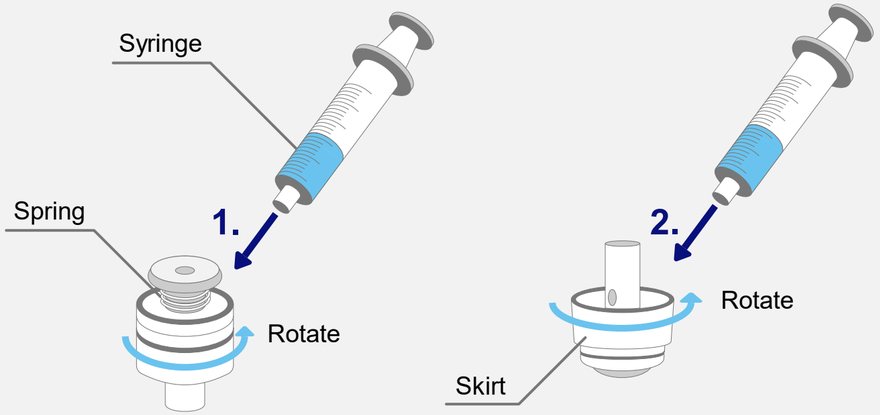
MH-948

MB-358

Examples*:







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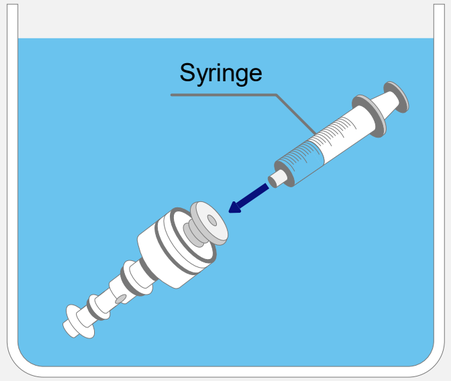

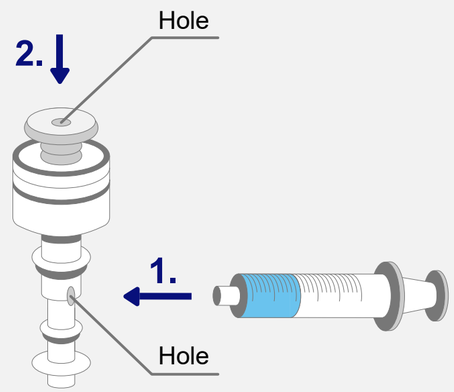

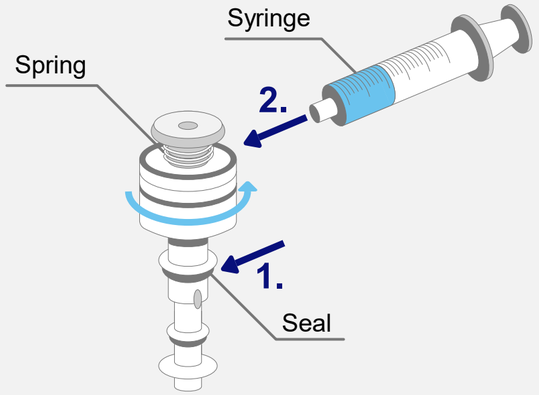

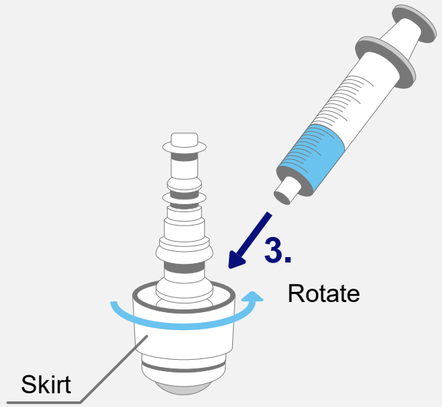

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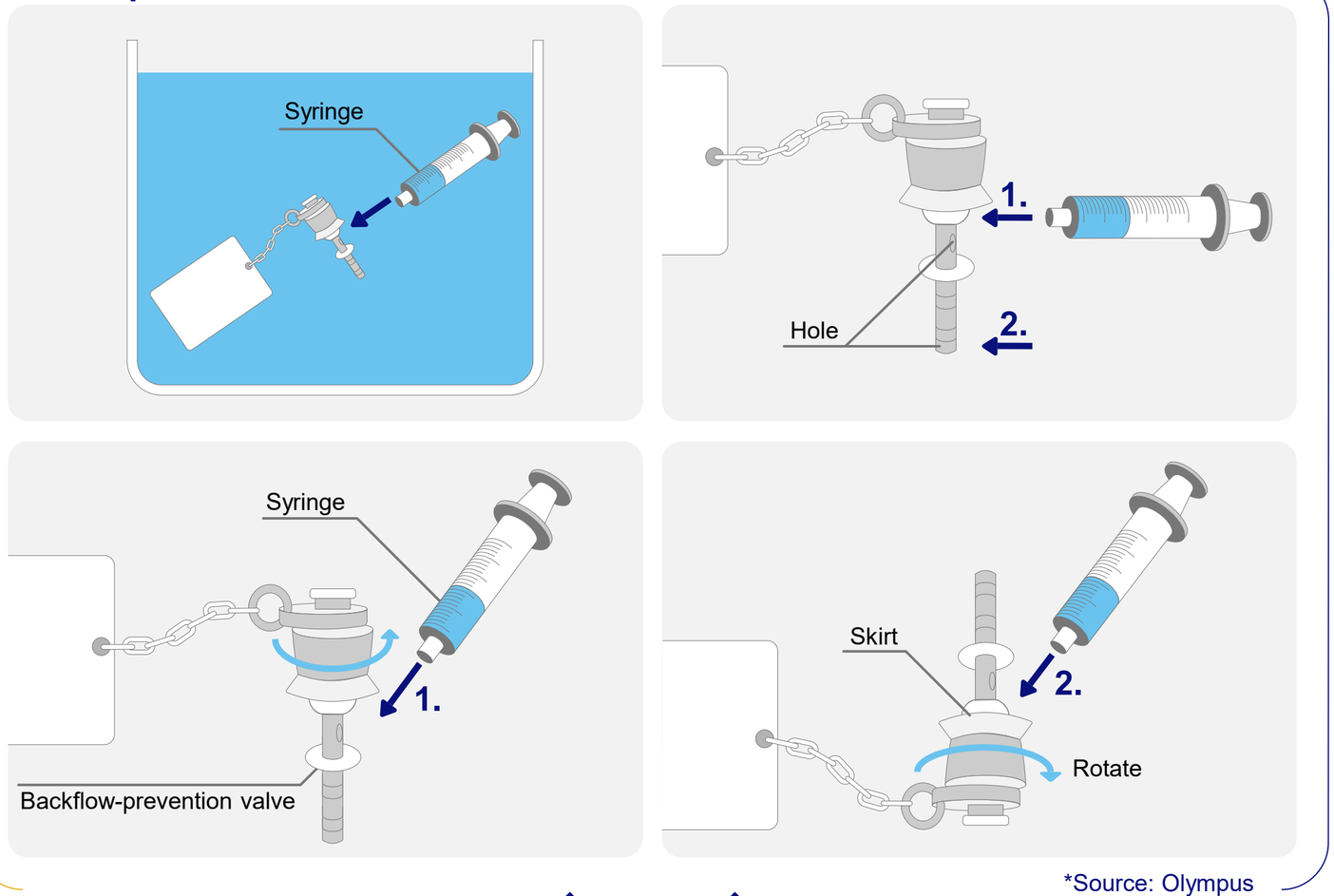

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Reprocessing of Endoscopic Components & Accessories (manually)

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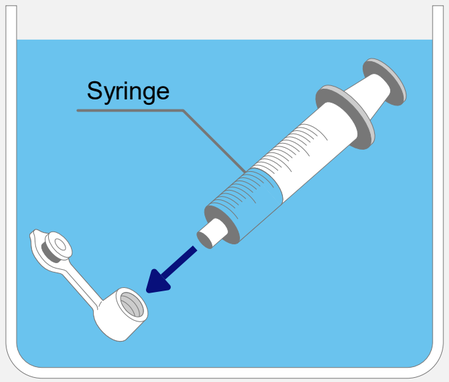

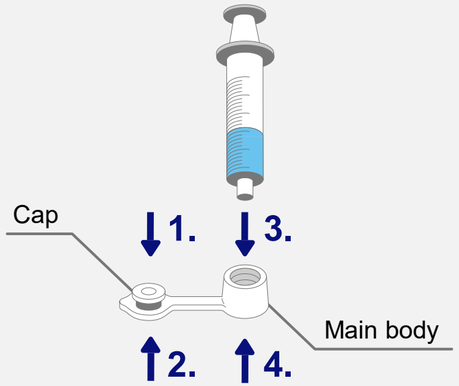

*Source: Olympus

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MH-946

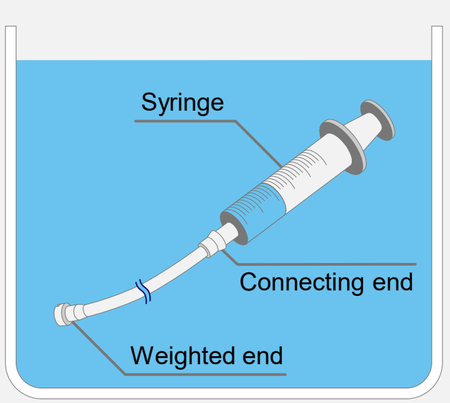
MH-944

Reprocessing of Endoscopic Components & Accessories (manually)

Flush the components / accessories with detergent solution

- MH-443
- MH-438
- MH-948
- MB-358

Examples*:



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- MH-946
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Reprocessing of Endoscopic Components & Accessories (manually)

Flush the components / accessories with detergent solution

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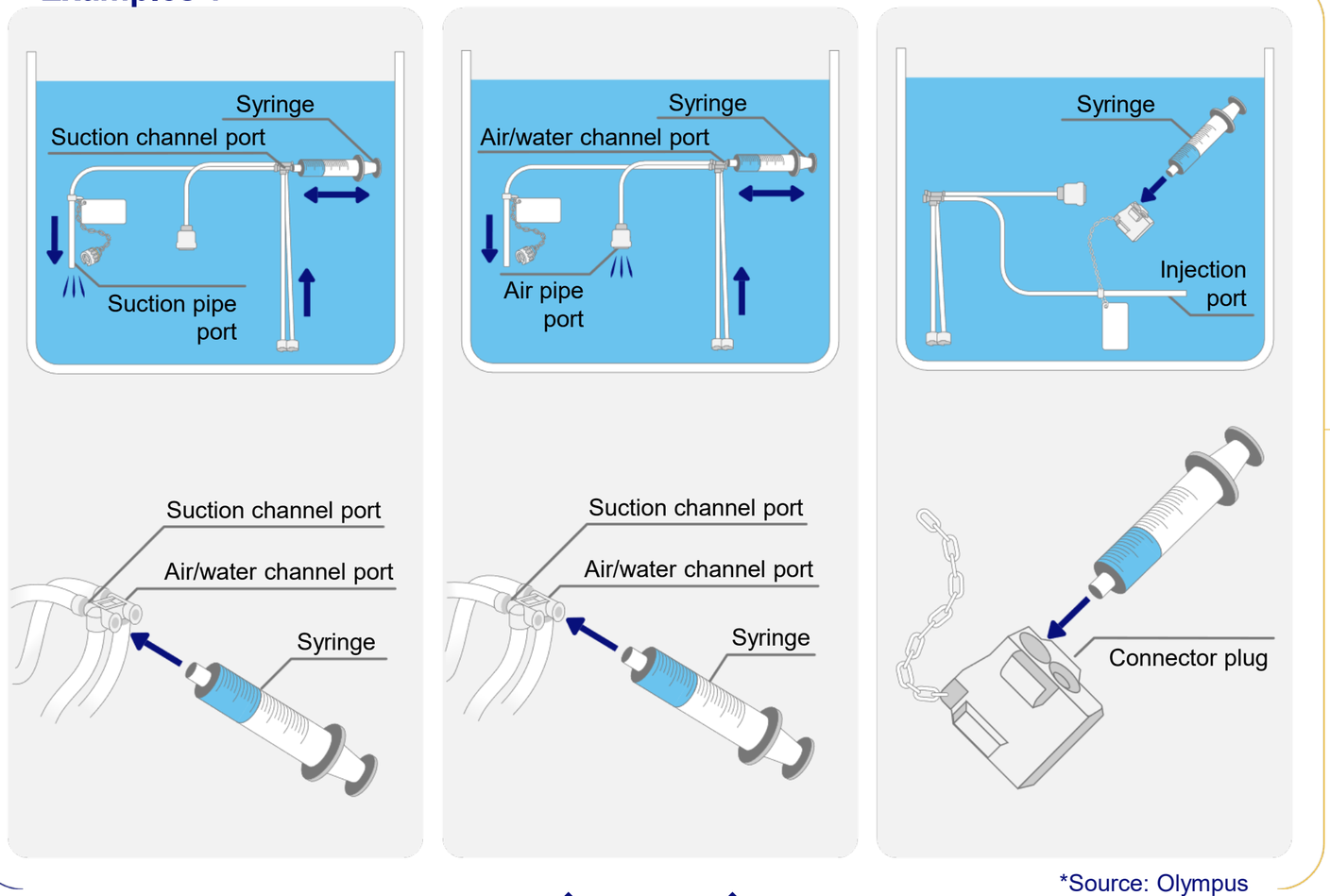


*Source: Olympus

MH-856

MH-946

MH-944

Reprocessing of Endoscopic Components & Accessories (manually)

Rinse the components / accessories to remove all detergent

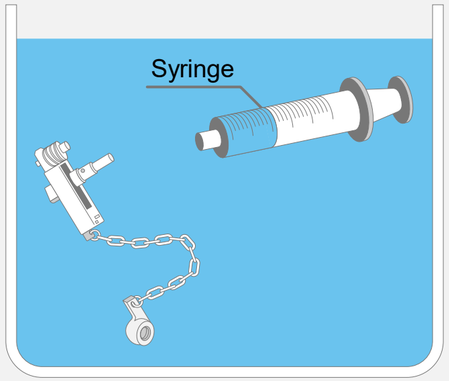
MH-443

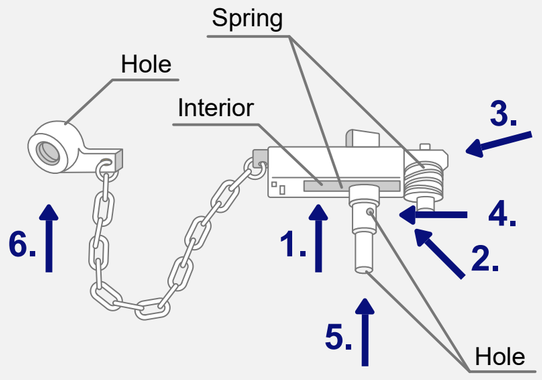
MH-438

MH-948

MB-358

Examples*:





*Source: Olympus

- Immerse the accessories in water
- Depress and release the valves
- Flush cleaning adapters
- Dry external surfaces

MH-856

MH-946

MH-944

Disinfection

Purpose

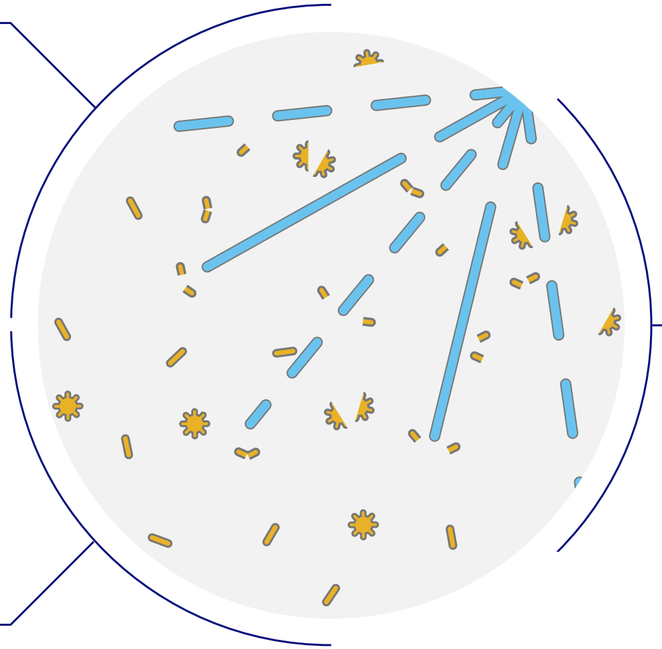
Killing / inactivation of microorganisms except for large numbers of bacterial spores

- Medical product does not pose a risk of infection

Methods

Automated in a WD and/or EWD/AER according to EN ISO 15883

- Chemo-thermal at max. temperature 60 °C
- Thermal without chemicals at approx. 90 °C (A_0 concept)



Manually at room temperature with minimum disinfectant activity:

- Bactericidal (incl. mycobactericidal)
- Fungicidal
- Virucidal (sporicidal)

Glutardialdehyde (GDA)

Peracetic acid (PAA)

Always follow the chemical manufacturers‘ instructions in terms of concentration, exposure time & temperature

Reprocessing of Heat Stable Endoscopic Components & Accessories in a WD

Thermal disinfection

- Preferred method for heat stable medical devices!

A_0 concept for thermal disinfection with moist heat in a WD

- A_0 is defined as time equivalent in seconds at 80 °C for microorganisms having a Z-value of 10
- According to EN ISO 15883-1 the minimum A_0 value of a WD should be 600 to a maximum of not less than 3000

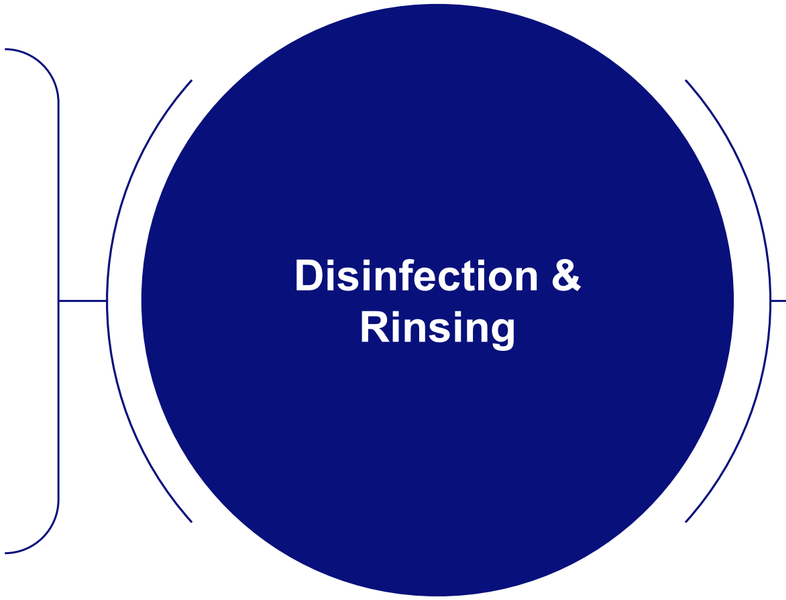
A_0 value	Temperature	Holding time
600	90 °C	1 min
600	80 °C	10 min
3000	90 °C	5 min

Reprocessing of Endoscopic Components & Accessories (manually)

Disinfection by

- Flushing all accessories with disinfectant solution
- Immersing all accessories
- Detaching all adapters

Take care on the exposure time



Rinsing two times with water of adequate water quality and air purge to expel residue water

Optional
(depending on local regulations):

- PLUS alcohol flush

Drying

Remove the accessories from the rinse basin and place them into a sterile basin

- **Purge** the channels with **air of a quality defined in local regulation**

Never touch the reprocessed accessories with the air gun

Wipe all accessories from outside with a lint-free, sterile cloth

Optional
(depending on local regulations):

- Potable water + 70 % isopropyl or ethyl alcohol

If accessories have to be sterilized:

- Prepare them for sterilization (wrapping, packaging)

Sterilization

Validated process used to render product free from viable microorganisms (Source: EN ISO 11139)
Required for **critical** medical devices (Spaulding classification)

Procedure	Method	
Thermal	By steam sterilization 134 °C – 137 °C, 3 bar, 3 - 18 min.	The most common method **for heat stable**, critical, surgical **instruments whenever possible**
Chemical	Ethylenoxide, Formaldehyde Low temperature < 60°C	EO used to be very common **for heat sensitive, critical instruments** ▪ But: EO is toxic and has to degas for a long time
Hydrogen peroxide	Low temperature < 60 °C	More and more common **for heat sensitive critical instruments**

At all times, please follow the IFUs.

OLYMPUS

Restart