

# User Manual

## MELAJet®

### Spray pistol



EN

Dear customer,

We thank you for your confidence demonstrated by the purchase of this MELAG product. As an owner-run and operated family concern founded in 1951, we have a long history of successful specialization in hygiene products for practice-based use. Our focus on innovation, quality and the highest standards of operational reliability has established MELAG as the world's leading manufacturer in the instrument reprocessing and hygiene field.

You, our customer are justified in your demand for the best products, quality and reliability. Providing **“competence in hygiene”** and **“Quality – made in Germany”**, we guarantee that these demands will be met. Our certified quality management system is subject to close monitoring: one instrument to this end is our annual multi-day audit conducted in accordance with EN ISO 13485. This guarantees that all MELAG products are manufactured and tested in accordance with strict quality criteria.

The MELAG management and team.



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# 1 General guidelines




Please read this user manual carefully before commissioning the product. The manual includes important safety instructions. Make sure that you always have access to digital or printed version of the user manual.

Should the manual no longer be legible, is damaged or has been lost, you can download a new copy from MELAG download centre at [www.melag.com](http://www.melag.com).

## Symbols used

Symbol	Explanation
	Indicates a dangerous situation, which if not avoided, could entail slight to life-threatening injuries.
	Draws your attention to a situation, which if not avoided, could result in damage to the instruments, the practice fittings or the device.
	Draws your attention to important information.

## Formatting rules

Symbol	Explanation
	Prerequisites for the following handling instruction.
	Refer to the glossary or another text section.
	Information for safe handling.

## Disposal

MELAG products are synonymous for long-term quality. When you eventually need to decommission your MELAG product after many years of operation, dispose of it and any spare parts that are no longer used, such as seals, properly. Comply with all relevant disposal specification in terms of possibly contaminated waste.

The packaging protects the product against transport damage. The packaging materials have been selected for their environmentally-friendly and recycling properties and can be recycled. Returning the packaging to the material flow reduces the amount of waste and saves raw materials.

## 2 Product description

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### Intended use

The MELAjet spray pistol is either connected to the building's fixed water connection (cold water pipe) or to a water treatment unit and is used for spraying down and/or spraying through medical instruments with a point or cone jet. Furthermore, the MELAjet spray pistol enables convenient drawing of water.

The MELAjet spray pistol is intended for use in the medical sector, e.g. in clinics, in general dental practices and other medical care facilities outside the patient environment.



#### PLEASE NOTE

**Spraying down or through with the help of the MELAjet spray pistol does not replace cleaning as part of proper reprocessing of instruments for disinfection or sterilisation.**

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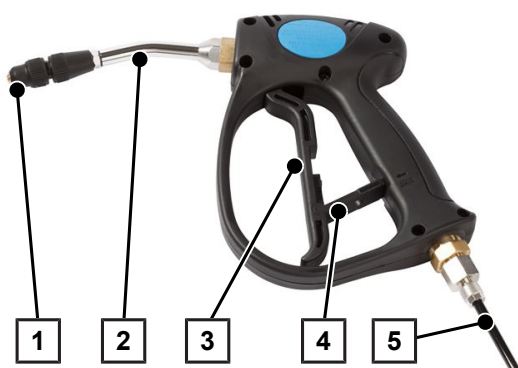
### Scope of delivery

Please check the scope of delivery before using the product.

#### Standard scope of delivery

- MELAjet spray pistol
- User manual
- Inlet hose of the spray pistol, Hose PUR (black) 6/4 mm, 1.5 m
- Holder for MELAjet
- Seal for spray nozzle adapter MELAjet, 10 mm, black (spare seal for the spray nozzle or adapter)
- Feed water inlet connection (swivel screw connection) MELAjet (T-piece) for connection of the MELAjet spray pistol to a MELAG steam sterilizer with MELAdem 40 water treatment unit
- Wrench for adapters (AF10)

### Product view



- 1 Adjustable spray nozzle for setting the point or cone jet
- 2 Spray pipe
- 3 Lever
- 4 Locking lever
- 5 Inlet hose (PUR hose) with fitting

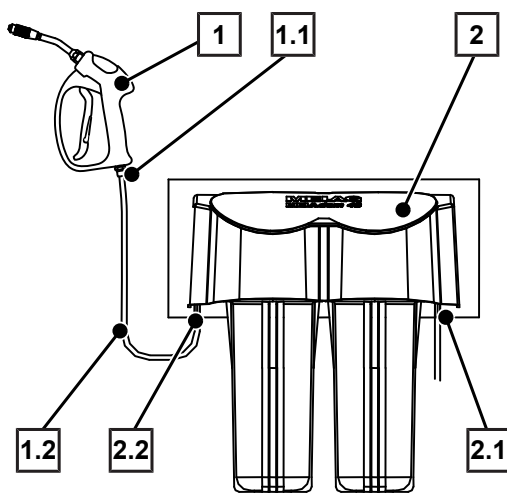
## 3 Installation

Note the following:

- MELAG recommends that you only allow technicians ►authorised by MELAG to connect the MELAjet spray pistol.
- When installing the inlet hose of the spray pistol, ensure that the temperature along the hose cannot rise to above 40 °C.
- If the inlet hose of the spray pistol is to be cut to the right length, use a hose cutter.

### Connection to a water treatment unit

The connection of the MELAjet spray pistol to a water treatment unit is described in the following.



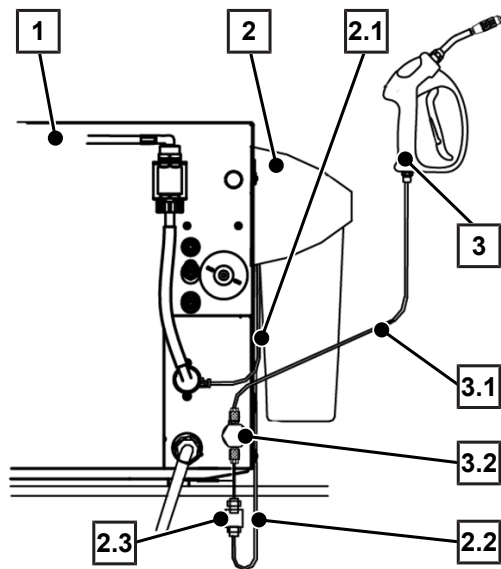
1. Turn off the water tap of the water inlet line.
2. Depressurise the water treatment unit (pos. 2) as described in the corresponding user manual so that the residual water pressure in the water treatment unit is dissipated.
3. Remove the black inlet hose (pos. 1.2) from the spray pistol (pos. 1).
4. Connect the hose (pos. 2.2) from the output side of the water treatment unit (pos. 2) to the quick-release fitting (pos. 1.1) of the spray pistol.

Optionally, the spray pistol can be connected to the MELAdem 40 water treatment unit with a swivel screw connection, so that connection to a further device is possible.

Pos.	Description	Art. no.	contained in
1	MELAjet spray pistol	--	--
1.1	Quick-release fitting, Connector 1/4" for PTFE hose 6/4 mm	ME39650	MELAjet
1.2	Inlet hose, Hose PUR (black) 6/4 mm	ME28820	MELAjet
2	MELAdem 40 ion exchanger	ME01049	--
2.1	Input side, tap water inlet	--	--
2.2	Output side for ►demineralised water	--	--

## Connection to the feed water supply of a MELAG steam sterilizer

The connection of the MELAjet spray pistol to a steam sterilizer with the already installed MELAdem 40 water treatment unit is described in the following.

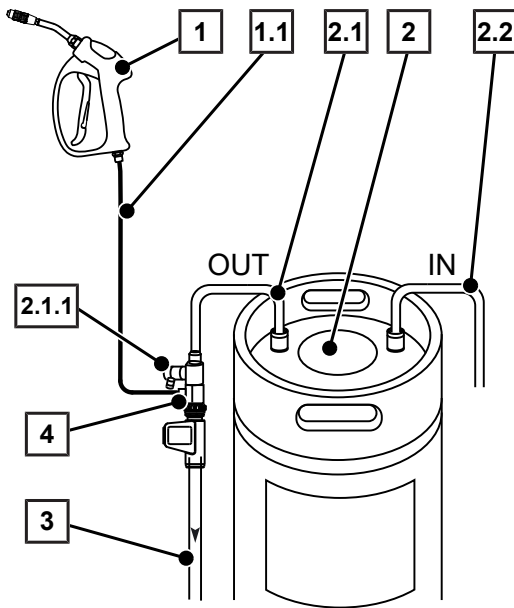


1. Replace the existing swivel screw connection to the **feed water** inflow of the steam sterilizer (pos. 1) with the optionally available swivel screw connection (pos. 3.2).
2. Connect the hose (pos. 2.2) from the output side of the water treatment unit (pos. 2) to the bottom connection of the swivel screw connection (pos. 3.2).
3. Connect the inlet hose (pos. 3.1) to the spray pistol (pos. 3) to the top connection of the swivel screw connection (pos. 3.2).

Pos.	Description	Art. no.	contained in
1	Steam sterilizer	--	--
2	MELAdem 40 ion exchanger	--	--
2.1	MELAdem 40 inlet hose, Hose PUR (black) 6/4 mm	ME28820	MELAdem 40
2.2	Inlet hose to the feed water of the steam sterilizer, Hose PUR (black) 6/4 mm	ME28820	MELAdem 40
2.3	Filter for MELAdem	ME48240	MELAdem 40
3	MELAjet spray pistol	--	--
3.1	Inlet hose, Hose PUR (black) 6/4 mm	ME28820	MELAjet
3.2	Feed water inlet connection (swivel screw connection) MELAjet (T-piece)	ME53465	MELAjet

## Connection to MELAdem 53/53 C in combination with MELAtherm 10

The connection of the MELAjet spray pistol to the MELAdem 53/MELAdem 53 C water treatment unit in combination with MELAtherm 10/MELAtherm 10 Evolution is described in the following.



1. Fit a water branch (pos. 4) to the pipe elbow (pos. 2.1) on the output side of the MELAdem 53/53 C (pos. 2).
2. Connect the inlet hose (pos. 1.1) of the spray pistol (pos. 1) to the 1/4" connection.
3. Connect the ▶DI water inlet hose (pos. 3) of the MELAtherm 10 to the 3/4" connection.

Pos.	Description	Art. no.	contained in
1	MELAjet spray pistol	--	--
1.1	Inlet hose, Hose PUR (black) 6/4 mm	ME28820	MELAjet
2	MELAdem 53/MELAdem 53 C ion exchanger	--	--
2.1	Pipe elbow with drain valve	ME70405	MELAdem 53/53 C
2.1.1	Drain valve for pressure relief	--	ME70405
2.2	Tap water supply hose EN 1717, 0.8 m	ME24932	MELAdem 53/53 C
3	Aqua dem water supply hose 2 m, DI water	ME69540	MELAtherm
4	Water branch	ME37241	--

## Connection to the cold water pipe



### PLEASE NOTE

To prevent water damage, MELAG recommends the use of a leakage water detector e.g. the MELAG water stop.

If the MELAjet spray pistol is connected to the cold water pipe, a check valve (backflow preventer) with 3/4" external thread connection must be on site near the connection site.



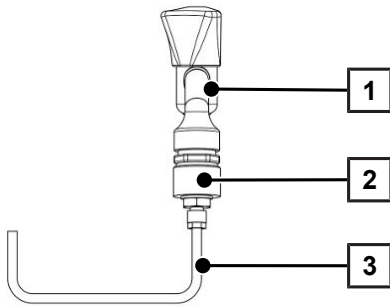
### PLEASE NOTE

The alternative connections shown in the following apply to Germany. The requirements in other countries can differ.

To ensure ▶standard-compliant connection with check valve (backflow preventer) and anti-vacuum valve pipe aerator independent of the installation in the building, we recommend one of the following alternative connections.

**Alternative 1 - connection to a separate cold water pipe**

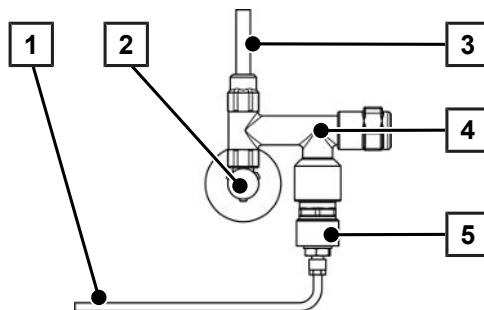
If a separate cold water pipe (DN15 with 1/2" socket) is present or is installed, a water tap with safety combination (check valve and anti-vacuum valve) is required.



- 1 Hose to the MELAjet spray pistol (Ø 6 mm)
- 2 Cold water adapter 3/4" to 1/4" (direct connection water hose) (art. no. ME09037)
- 3 Water tap 3/4" with safety combination (art. no. ME37310)

**Alternative 2 - connection to an angle valve**

If a cold water pipe (e.g. of a sink) with angle valve and a pipe Ø 10 mm is present or is installed, an additional water tap with safety combination (check valve and anti-vacuum valve) is required for direct mounting on an existing angle valve.



- 1 Hose to the MELAjet spray pistol (Ø 6 mm)
- 2 Existing angle valve
- 3 Cold water pipe (to the mixer tap, Ø 10 mm)
- 4 Cold water adapter 3/4" to 1/4" (direct connection water hose) (art. no. ME09037)
- 5 Additional water tap with unit combination (art. no. ME58130)

**Connection elements for spraying through hollow-body instruments**

To spray through instruments/cannulas with Luer or Luer-Lock connection or hoses with inside diameter 6 mm, the spray nozzle can be replaced with various adapters from the MELAtherm accessories.

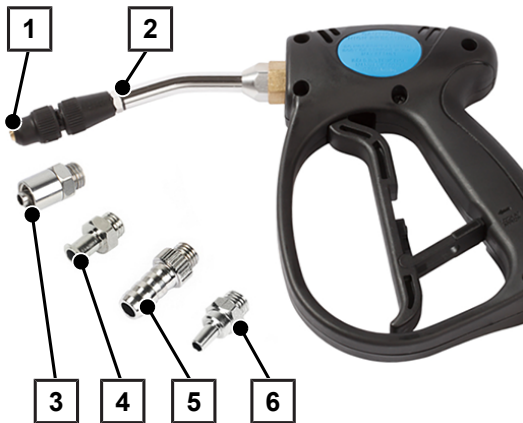
Note the following:

- Do not place instruments loosely on the adapters and do not insert small parts into the adapters.
- Only use the adapters available from MELAG.



**PLEASE NOTE**

When spraying through the instruments, ensure correct connection of the adapters and proper use of the instruments to be sprayed through.



- 1 Spray nozzle (included in the standard scope of delivery)
- 2 Seal (included in the standard scope of delivery)
- 3 Adapter (male) for Luer-Lock (available option)
- 4 Adapter (female) for Luer/Luer-Lock (available option)
- 5 Hose connection with external thread for hose with inside diameter 6 mm (available option)
- 6 Adapter (male) for Luer (available option)

#### ***Fit the adapter on the spray pistol***

The following must be fulfilled or present:

- ✓ Wrench for adapters (10 mm)
1. Completely unscrew the black spray nozzle (pos. 1).
  2. Use the open-ended wrench to screw the adapter, including the seal (pos. 2), finger-tight on the spray pipe.

## **Holder for the suspension**

The scope of delivery includes a holder for suspending the MELAjet spray pistol on the side of the steam sterilizer or on the wall.

#### ***Suspension on the steam sterilizer***

The following must be fulfilled or present:

- ✓ Torx key (TX20)
  - ✓ Plain washer (not included in the scope of delivery)
  - ✓ Screw (included in the scope of delivery)
1. Loosen the front top screw on the right side of the steam sterilizer (viewed from the front) for fixing the device hood and remove the device hood.
  2. Stick the double-sided adhesive strip on the back of the holder and pull off the film.
  3. Place the plain washer between the device hood and holder and fix the holder with the longer screw.

#### ***Suspension on the wall***

Alternatively, the holder can also be mounted on on the wall with suitable fixing material.

## 4 Application

### Commissioning



#### CAUTION

The MELAjet spray pistol is pressurised. Loosely inserted instruments can become loose.

- Do not aim the spray pistol at persons.



#### PLEASE NOTE

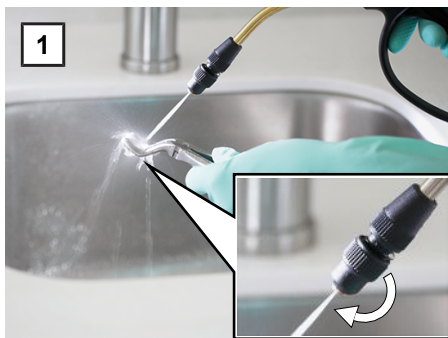
When spraying down or spraying through the instruments with tap water before reprocessing, stains can form on the instruments.

- Before reprocessing, always spray down or spray through the instruments with ►demineralised water to prevent stains formed due to the deposit of minerals from the tap water.

1. Turn off the water tap of the inlet line.
2. Check all hose connections to the water treatment unit (MELAdem 40, MELAdem 53/53 C) and to the water tap for leaks.
  - ➔ The first fill of the MELAdem 40 and MELAdem 53/53 C takes approx. 1-2 min, depending on the building's water pressure. Only then can water be drawn from the spray pistol.
3. Operate the lever of the MELAjet spray pistol to remove water from the spray pistol.

### Adjusting the spray jet

- Turn the adjustable spray nozzle on the head of the MELAjet spray pistol and choose between point jet (pos. 1) and cone jet (pos. 2).



### Routine check

Check the hoses regularly, at least every six months, for kinks, crushing or age-related embrittlement.

Check all hose connections and fittings of the adapters and spray nozzle for leaks.

### Operating pauses

*If using with a water treatment unit or a direct connection to the cold water pipe*

1. Close the water inlet tap or the central water shut-off during longer breaks in operation (e.g. overnight, at the weekend or on holiday).
2. Briefly operate the lever of the spray pistol to release pressure and allow the residual water to flow away.

## 5 Technical data

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<b>Product type</b>	<b>MELAjet spray pistol</b>
<b>Product dimensions</b>	
Length of the spray pistol	32 cm
Weight	450 g
Length of inlet hose	1.5 m
<b>Cold water</b>	
Flow rate (point jet)	max. 0.9 l/min (at 3 bar) max. 1.7 l/min (at 9 bar)
Min. water pressure	2 bar
Max. water pressure	10 bar

## 6 Accessories and spare parts

You can obtain the specified articles and an overview of further accessories from your stockist.

Category	Article	Art. no.
Accessories and consumables	Water stop valve	ME01056
	Conductivity meter	ME01060
Connecting parts	Cold water adapter 3/4" to 1/4" (direct connection water hose)	ME09037
	Water branch	ME37241
	Water tap 3/4" with safety combination	ME37310
	T-piece for hoses	ME38600
	Additional water tap with unit combination (for connection to an existing angle valve)	ME58130
Accessories for use with MELAtherm	Luer/Luer-Lock adapter (female)	ME67250
	Luer adapter (male)	ME73880
	Luer-Lock adapter (male)	ME74130
	Hose connector (6 mm) with external thread	ME80150
Spare parts	Holder for MELAjet	ME26340
	Hose PUR (black) 6/4 mm (10 m)	ME28820
	Connector 1/4" for PTFE hose 6/4 mm (for connection of the inlet hose to the spray pistol)	ME39650
	Jet (nozzle) for MELAjet complete	ME49010
	Feed water inlet connection (swivel screw connection) MELAjet	ME53465
	Wrench for adapters	ME69600
	Seal for spray nozzle adapter MELAjet, 10 mm, black	ME79360

## Glossary

**Authorised technician**

The term “authorised technician” refers to an employee of a customer service provider or stockist who has been trained and authorised by MELAG to perform maintenance and installation work on MELAG devices. Only they may carry out this work.

**Demineralised water**

Water without the minerals usually found in normal spring or tap water; is produced through ion exchange of normal tap water. It is used here as feed water.

**DI water**

Demineralised water (DI water) is water (H<sub>2</sub>O) without the salts found in normal spring and tap water, which are dissolved as anions and cations.

**Feed water**

Feed water is required to produce steam for sterilization. Guide values for water quality in accordance with EN 285 / EN 13060 – Appendix C

**Standard-compliant**

Satisfies all relevant standards





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Original instructions

Responsible for content: MELAG Medizintechnik GmbH & Co. KG  
We reserve the right to technical alterations

Your stockist