

battery-operated irrigation pump for bowel irrigation

instruction manual





www.schaefers-medizintechnik.de



content

1. intended use of the irrimed classic Rectal	3
3. unit overview	5
4. Functional description	6
5. Initial start-up and charging of the battery	ϵ
6. Carrying out irrigation	7
7. care, maintenance and durability	8
9. Notes on use	12
10. Warranty	13
11. Repair and maintenance	13
12. Technical data	14
13. Order information	15
14. EMV-information for irrimed classic Rectal	17

Thank you for choosing irrimed classic Rectal.

Read these instructions for use carefully and follow the directions before using the *irrimed classic stoma*. Always consult these instructions for use if you have any questions about the operation and troubleshooting of your *irrimed classic stoma*. If you have any further questions, please contact the specialist staff at your specialist dealer.

1. intended use of the irrimed classic Rectal

General precautions:

Your *irrimed classic Rectal* is a medical device and has been developed exclusively for intestinal irrigation (colostomy or rectal irrigation). Before you start using the device, have the medical safety of the bowel irrigation confirmed. Your doctor or nurse trained in stoma therapy will be happy to advise you. It is essential that irrigation is learned and taught under expert supervision, if possible by stoma therapists.

Intended patient group (patient is intended user):

- Age: Children from 3 years up to geriatric patients.
- Gender: No restriction
- Weight range: for children 3 years and older from normal range, otherwise no restrictions
- Patient condition: alert, sane

Irrimed classic Rectal (set) is supplied with the following accessories:

- Hose system with irrigation cone rectal
- Rectal catheter set
- Quick charger

Indications:

- Bowel paralysis in paraplegia
- Children with spina bifida
- all indications that make it impossible for the patient to defecate independently and under control.

Contraindications:

- concurrent radiotherapy and chemotherapy
- Chronic intestinal inflammation

2. safety instructions, explanation of symbols



Follow operating instructions



Disposal - hand in the old appliance at a municipal disposal point!



Conformity marking according to the European Directive for medical devices 93/42/EEC with the number of the notified body.



One-way valve. The transfer hose contains a non-return valve that allows water to flow in one direction only



Caution



Manufacturer



Date of manufacture



Protect from light



Protect from moisture



Temperature limit



Caution fragile

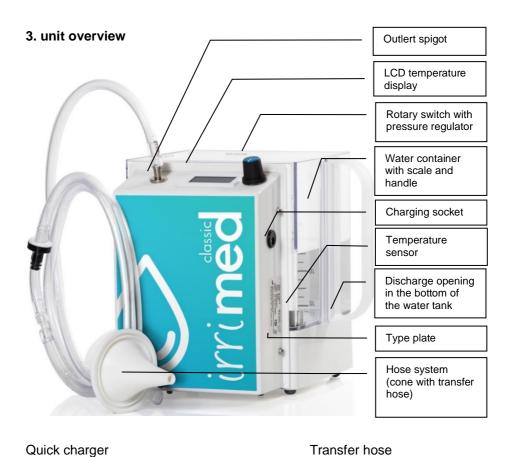


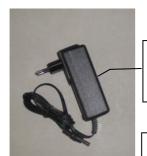
Classification BF according to standard EN 60601-1



Protection class II according to standard EN 60601-1

- Only the supplied quick charger may be used to charge the battery (see 8.3). For safety reasons, the pump function is automatically interrupted during the charging process.
- Do not use any external heat sources to heat the water, e.g. immersion heaters.
- Only fill with clear tap water.
- Never place the *irrimed classic Rectal* in a bowl or in a wash basin with a closed drainage opening, as this can cause water to enter the operating housing and the pump chamber. Penetrated water destroys the electrical components.





LED display: charging / charging completed

Backstop, never connect to the outlet spigot.





4. Functional description

irrimed classic Rectal is an irrigation pump for intestinal irrigation that automatically builds up the required irrigation pressure irrespective of the installation height, as the built-in centrifugal pump is supplied with energy by a built-in rechargeable battery.

The flushing pressure can be adjusted continuously from 0 to 0.5 bar using the rotary switch. The adjustable pressure values are medically safe.

The battery is dimensioned in such a way that even extensive or multiple rinses can be carried out. After each use, the battery must be recharged with the corresponding quick charger. The trolley lamp on the quick charger indicates when the charging process is finished. During the charging process, the pump function is automatically interrupted for safety reasons.



If the battery is not re-charged after each use, the deep discharge protection may switch off the pumping process without warning. The unit cannot be switched on again until the battery is recharged.

The digital LCD temperature display, which is switched on with the rotary switch, shows the water temperature in the water tank. For the colonic irrigation, only tap water that is body-warm and in the temperature range of 35°C to 38°C should be filled into the water container. Always check the water temperature with a commercially available thermometer.

The device is not capable of heating water. Do not use an immersion heater to heat water.

5. Initial start-up and charging of the battery

5.1 Please check the packaging and contents for any visible transport damage or defects of any kind. If so, please contact us and do not put the unit into operation. The unit has not been tested according to IEC 60068-2-27 and 60068-2-64.

Furthermore, check that all the parts stated on the packaging are included.

5.2 The battery is not fully charged when delivered. You must therefore charge the battery before use. Only the supplied quick charger may be used for this purpose. The charging process lasts less than 8 hours

To charge, first insert the charging plug into the charging socket on the unit and then plug the quick charger into the power socket. The charging indicator lamp on the quick charger indicates the charging status.

Indicator lamp red: Charging in progress

Indicator lamp green: Charging process completed or sufficient capacity

available.

During the charging process, the rotary switch must be in the 0 position. The pump function is automatically interrupted during the charging process. When charging is complete, disconnect the quick charger from the power supply and remove the charging plug from the charging socket. The unit can be used again.

5.3 After switching on and increasing the flushing pressure, the running noise of the centrifugal pump is well perceptible. The noise corresponds to a low room volume and depends on the resonance conditions of the surroundings (approx. 50 to 55 dBA).

6. Carrying out irrigation

- 6. Irrigation must be learned and taught under expert guidance, preferably by a stomatherapist, in order to achieve an optimal effect. If you are already performing and mastering irrigation, you can now proceed
- 6.2 Whether you perform irrigation with the rectal catheter or the tube system with rectal irrigation cone, must be discussed with the specialist or doctor in every case.

Both variants are described in the following sections

- 6.3 Fill the water container with approx. 1.5 litres of clear, body-warm tap water. The water temperature should be 35°C to 38°C at the beginning. Always check the water temperature with a commercially available thermometer. After you have switched on the rotary switch, the digital temperature display shows you the water temperature.
- 6.4 Place the appliance on a flat, dry surface, e.g. a stool or floor, never in a bowl, wash basin or on a radiator.
- 6.5 To establish the connection to the *irrimed classic Rectal* attach the 1.30 m long transfer tube of the tube system if it has been separated from the cone to the cone by turning it $\frac{1}{4}$ turn to the right. Make sure that the backstop is connected to the cone.

Then connect the transfer tube of the tubing system to the outlet nozzle of the *irrimed classic rectal* also by turning it ¼ turn to the right.

If you perform irrigation with the rectal catheter, please follow the instructions for use of the rectal catheter system exactly.

Important note!



Make sure that the opening of the cone is above the water level of the device to prevent water from leaking out of the water container even if *irrimed classic stoma* is not switched on (physical: siphon principle)..

7. care, maintenance and durability



Do not carry out service and maintenance acts when the device is in use, otherwise the functionality will be impaired.

7.1 After irrigation, remove the remaining water from the water tank and wipe it dry with a lint-free cloth (microfiber cloth).

Any contamination of the housing should only be wiped off with a damp cloth, do not use any solvents or disinfectants. Make sure that no moisture gets into the interior of the unit, the charging socket or the housing while cleaning. Furthermore, make sure not to push the temperature sensor to the side while cleaning, since this would cause leakage

7.2 *irrimed classic Rectal* does not need to be maintained at certain intervals.

The tube system (transfer tube and cone) should be cleaned with water after using and changed monthly for hygienic reasons, but at the latest when a dark, blotchy biofilm forms inside the tube, see point 9.

7.3 Durability

The service life of the *irrimed classic Stoma* is approx. 150 to 180 operating hours, which corresponds to approx. 2.5 to 3 years at a daily use of 10 minutes.

A repair after the expiration of the service life is usually hardly justifiable from an economic point of view.

.

Troubleshooting

8.1 Before sending in the *irrimed classic Rectal* for repair, please note the following, as it is often unnecessary to send in the device.

The following malfunctions are due to wear and tear or incorrect operation, but do not necessarily require repair.

Before reading the section on remedying malfunctions, answer the following questions:

- 1. Does the quick charger light up when the quick charger is connected (charging plug in the charging socket and quick charger in the mains socket)? 2. is the device removed from the charging socket on the *irrimed classic Rectal* before use?
- 2. Has the charging plug been removed from the charging socket on the *irrimed classic Rectal* before using the device?
- 3. Does the pure pumping time per application not exceed 15 minutes?
- 4. Is the battery charged after each use until the green control lamp on the quick charger lights up?
- 5. Has the transfer hose been connected correctly (non-return valve on the cone)?
- 6. Is the transfer hose permeable? This can be checked by blowing air through the end that is connected to your *irrimed classic Rectal*.
- 7. Is the hose system screwed on after the water container has been filled?
- 8. Has at least 1 litre of water been filled into the device?
- 9. Does the temperature indicator light up after switching the unit on?
- 10. Can you hear a clear cracking sound when switching the unit on?

If you have answered all questions with Yes, this means You can now proceed to the point of *eliminating malfunctions*.

8.2 Troubleshooting and elimination of malfunctions

Error description	Possible cause	Troubleshooting
After both plug connections of the quick charger are properly plugged in, the LED does not light up.	1. Quick charger faulty	1.Renew quick charger.
Flow rate or flushing	1. Air bubble in the	1. Bleed the centrifugal
pressure decreases.	centrifugal pump	pump, see 8.4 Bleeding instructions.
	2. The battery is not properly charged.	2 The battery must be charged after each use until the green LED on the quick charger lights up.
	3. Battery capacity exhausted.	3. Send in the unit and have the battery replaced
Battery is very quickly exhausted.	1. Battery insufficiently charged	1. The battery must be charged after each use until the green LED on the quick charger lights up
	2. Battery capacity exhausted.	2. Send in the unit and have the battery replaced
Pump does not transport water, although the pump is pumping.	Transfer hose of the hose system incorrectly connected.	1. The crystal-clear fitting must be connected to the unit and the backstop (connection with union nut) to the cone or catheter.
	2. Backstop stuck	2. Test the backstop by trying to blow through the tube from the crystal-clear fitting. If you cannot do this, a

Error description	Possible cause	Troubleshooting
		new hose system must be ordered.
	3. Was the hose system screwed onto the outlet connection before filling the water tank?	
	4. Is at least 1 litre of water in the water container?	4. Fill with more than 1 litre of water

8.3 Battery replacement

Rechargeable, cylindrical Li-Ion cells are installed in this device. The battery of the *irrimed classic Rectal* is not suited for replacement by the customer. If necessary, the battery can only be replaced in our service workshop.

8.4 Bleeding instruction

If the device has been completely emptied, i.e. *irrimed classic Rectal* has been held upside down or turned upside down so that all water has drained from the device (also from the inner centrifugal pump and the inner hose system), it may happen that an air bubble forms in the inner centrifugal pump during the next filling. This air bubble reduces the pressure so that the pressure regulator must be set higher and higher. This can also happen with tap water that is heavily saturated with air.

Fill the unit with approx. 1.5 litres of water. Then screw the transfer hose onto the outlet connection. Close the opening of the backstop on the transfer hose tightly with your thumb. Now quickly turn the pressure regulator up and back again. If air bubbles appear from the outlet opening in the bottom of the water tank (see 3. Unit overview), the procedure should be repeated until no more air appears. Then, no more disturbing air is in the system.

9. Notes on use

Only use clear tap water.

Caution!



Do not use water with additives or medicine.

The hose system is an expendable item and becomes unappealing after prolonged use due to a biofilm. The germs are not toxic, but the normal bacteria that are present in all drinking water. This effect is usually first seen in the transfer tube at the attachment to the *irrimed classic Rectal*. For hygienic reasons, the transfer tube and cone should therefore be changed monthly, but at the latest when the biofilm begins to develop (for ordering data, see 13 Spare parts - Accessories).

The tubing system is exclusively intended for use on one patient only.

To prevent a defect in the unit, make sure that the charging plug and the charging socket **never** get into touch with water.

The wire of the quick charger should not be wound too tightly, as this will cause the wire to break and the unit can no longer be used. A broken wire is not covered by the warranty.

Whether the flow rate or the flushing pressure are still sufficient can be tested by filling the water tank with 1 litre of water, screwing on the hose system and pumping out the contents of the water tank. The pressure regulator must be at the highest pressure. If the water is pumped out in approx. 1 minute or less, the flow rate is still satisfactory.

Important note!

Repairs and spare parts can be prescribed. The costs are usually covered by public health insurances or your provider.

Important notice! All serious incidents related to the product must be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is registered.

10. Warranty

- 10.1 Should *irrimed classic Rectal* be faulty during the first 24 months following the date of purchase from the dealer due to proven manufacturing or material faults, we will repair this defect without charge in accordance to the following conditions.
- 10.2 We decide whether the defect is to be eliminated by repair or replacement.
- 10.3 If the unit is shipped for the purpose of troubleshooting, this is done at the risk of the sender. The sender bears the costs for the shipments to us.
- 10.4 Excluded from free troubleshooting are:
 - Parts subject to wear such as batteries, transfer hose and cone.
 - Defects due to water penetration, e.g. due to improper filling of the water tank.
 - Electrical components such as the centrifugal pump, control electronics and accessories that have been damaged by water.
 - Breakage of the wire of the quick charger.
 - Devices on which the manufacturing number has been removed or destroyed.
 - Devices with mechanically destroyed housing parts.
 - Failure of the built-in centrifugal pump due to penetrated foreign bodies (fluff from cleaning cloths, hair and dust flakes).
 - Error indication: irrimed classic Rectal too loud (see 5.3).

The proof of purchase must be presented in order to be eligible for free troubleshooting.

11. Repair and maintenance

Should repair or maintenance become necessary in the course of time, return your *irrimed classic Rectal* to your dealer with the request that everything else be arranged.

Address for sending in a repair unit

In Hand Werkstatt Industriestr. 4 D-46342 Velen

If you are insured by a public health insurance, the repair can be prescribed.

12. Technical data

12.1 Irrigator irrimed classic Rectal

Device type: irrimed classic Rectal

Protection class: II
Protection type: IP 21
Classification: BF

Internal power supply: 7,4 Volt Block Li-Ion 2600 mAh

Operating mode: Continuous operation until the battery is

exhausted.

Durability: < 8 hours

Flushing pressure: 0 to 0,5 bar, infinitely variable

Dimensions, weight: height = 180 mm, width = 180 mm, depth

= 180 mm, 900 g

Operating conditions:

Ambient temperature: + 10° C to + 40° C

Relative humidity: 30% to 80%

Transport and storage conditions under normal ambient conditions:

12.2 Quick charger

Manufacturer: Mascot N-1601 Fredrikstad, Norway
Device type: Plug-in charger with type G plug

Protection class:

Protection type: IP 21

Supply voltage: 100 V to 240 V AC, 50 – 60 Hz

Output voltage: 8,4 V DC Charging current: max. 1,3 A

Control-LED Charging orange; charging finished green;

Charging wire 175 cm long

NV-Plug 5,5 x 2,1 x 11 mm

Dimensions, weight: height=103,5 mm width=46,8 mm

depth=38,7 mm,170 g

Operating conditions:

Ambient temperature: + 10° C to + 40° C

Relative humidity: 30% to 80%

Transport and storage conditions under normal ambient conditions:

12.3 LCD-thermometer

Accuracy +/- 1°C Measuring interval < 3sek.

Temperature range -50 °C to +70°C

13. Order information

irrimed classic rectal for colonic irrigation (as a set)

Order no.: 445000

irrimed classic Rectal for intestinal irrigation via a colostoma (set)

- Quick charger
- Tubing system with irrigation cone rectal
- Rectal catheter set
- Instruction manual

Spare parts - Accessories	Order no.:
Transfer tube (1.30 m) with non-return valve and Luer Lock connection on both ends	445003
Hose system Consisting of transfer tube (1.30 m), with non-return valve and Irrigation cone rectal	445100
Quick charger	445004

Important note! *irrimed classic rectal* may only be used with the accessories intended for this purpose.

14. EMV-information for irrimed classic Rectal

Medical electrical equipment is subject to special precautions regarding EMC and must be installed and commissioned in accordance with the guidelines given below. Portable and mobile RF devices (e.g. mobile phones) can affect medical electrical equipment. The use of third-party accessories may result in increased emissions or reduced immunity of the device.

Guidelines and manufacturer's declaration- Electromagnetic emission				
The irrimed classic	The irrimed classic Rectal irrigator is intended for use in the			
	electromagnetic environment specified below. The customer or the user of			
irrimed classic Rec	irrimed classic Rectal should ensure that it is used in such an environment.			
Aussendungs-	Übereinstim-	Elektromagnetische Umgebung-		
messungen	mung	Leitlinien		
HF-Emission	group 1	irrimed classic Rectal uses RF energy		
according to		exclusively for its internal function.		
CISPR 11		Therefore, its RF emission is very low		
		and it is unlikely to interfere with		
		neighbouring electronic devices		
HF-Emission	class B	irrimed classic Rectal is suitable for use		
according to		under all conditions, including public		
CISPR 11		low-voltage power supply networks.		
Harmonic	No	Harmonic emissions, voltage		
Emissions	specifications	fluctuations and flicker emissions have		
ICE61000 3-2		no influence because irrimed classic		
Voltage	No	Rectal is powered by batteries.		
fluctuations/	specifications			
flicker emissions				
ICE 61000-3-3				

Interference	Test	Adherence	Electromagnetic
immunity			Conditions Directives
Electrostatic	8 kV contact	8 kV	The floor should be
Discharge (ESD)	16 kV air	contact	made of wood, concrete
IEC 61000-4-2		16 kV air	or ceramic tiles. If the
			floor is covered with a
			synthetic material, the
			relative humidity should
			be at least 30%

Interference immunity	Test	Adherence	Electromagnetic Conditions Directives
radiated HF disturbance quantities according toIEC 61000-4-3	3 V/m 80 MHz to 2,5 GHz	3 V/m	The field strength of static radio transmitters is lower than the compliance level at all frequencies according to an on-site investigation. Interference is possible in the presence of equipment bearing these symbols.
Fast transient electrical disturbances/burs t IEC 61000-4-4		No specifica- tions	Not applyable because irrimed classic Rectal is battery operated and has no external wires.
Overvoltage IEC 61000-4-5		No specifica- tions	Not applyable because irrimed classic Rectal is battery operated and has no external wires.
Voltage dips, short interruptions and voltage fluctuations in supply lines IEC 61000-4-11		No specifica- tions	Not applyable, because irrimed classic Rectal is battery operated.
Mains frequency (50/60 Hz.) Magnetic field IEC 61000-4-8	3 A/m	3 A/m	Network frequency magnetic fields should match the characteristics of a typical exhibition site in a commercial or clinical environment.