

Instructions for Use

Translation of the German original version

VELUSJET®



VELUSJET®

CE
0123

Imprint

Document type:	Instructions for Use
Product:	VELUSJET®
Language:	English (Translation of the German original)
Creation date:	2022-12-14

Publisher/Manufacturer

Böckelt GmbH
Ludwig-Erhard-Straße 6
57482 Wenden

Copyright

This documentation contains proprietary information protected by copyright. It may not be photocopied, reproduced, translated or recorded on data carriers, either in full or in part, without permission.

We reserve all further rights.

All product designations mentioned in this manual are trademarks of the respective companies.

Document control

This documentation is not subject to document control by Böckelt GmbH. Changes in this documentation may be made without further notice.

We reserve the right to make technical changes.

1	General	5
1.1	Notes regarding this operating manual	5
1.2	Symbols used	5
1.3	Copyright	6
2	Safety	7
2.1	Intended use	7
2.2	Use not in accordance with the intended purpose	7
2.3	Basic dangers	7
2.4	Danger due to electrical shock	7
2.5	Responsibility of the operator	8
2.6	Personnel requirements	8
2.7	Maintenance and repair work	8
2.8	Warning and information signs	9
3	Structure and function	10
3.1	Scope of delivery	10
3.2	Set-up	10
3.3	Function	10
4	Transport and storage	11
4.1	Safety instructions for transport and storage	11
4.2	Delivery of the massage table	11
4.3	Ambient conditions during transport and storage	11
5	Installation and commissioning	12
5.1	Safety instructions for installation and wiring	12
5.2	Setting up the massage table	12
6	Operation	14
6.1	Safety instructions for operation	14
6.2	Contraindications	14
6.3	Side effects	15
6.4	Preparation for operation	15
6.5	Operation	15
6.5.1	Selecting application programs on the touchscreen display	16
6.5.2	Select application program with NFC card	22
6.6	Start, change and end massage	23
6.7	Stop massage (emergency stop)	23
6.8	Decommissioning the device	24

7	Maintenance	25
7.1	Safety instructions for maintenance	25
7.2	Maintenance plan	25
7.3	Cleaning and care	26
8	Faults	27
8.1	Safety instructions for troubleshooting	27
8.2	Error causes and their elimination	27
8.3	Restart	30
9	Disassembly and disposal	31
9.1	Disassembly	31
9.2	Disposal	31
10	Technical specifications	32

1 General

1.1 Notes regarding this operating manual

This operating manual provides you with information on how to use your product safely and efficiently.

The manual is part of the scope of delivery and must be kept accessible to operating personnel at all times. It must be transferred to the new owner upon resale.

Due to technical developments, illustrations and descriptions in this operating manual may differ slightly from the actual product delivered.

We assume no liability for damage caused by non-observance of this operating manual.

1.2 Symbols used

All safety instructions in this operating manual are identified by corresponding symbols. The signal words at the beginning of the safety instruction express the extent of the hazard.



DANGER!

Risk of serious to fatal injuries

- ▶ *This combination of symbol and signal word indicates an imminently dangerous situation which will result in death or serious injury if not avoided.*



WARNING!

Warning of possible serious to fatal injuries

- ▶ *This combination of symbol and signal word indicates a potentially dangerous situation which could result in death or serious injury if not avoided.*



CAUTION!

Risk of minor injuries

- ▶ *This combination of symbol and signal word indicates a dangerous situation which may result in minor or moderate injury.*



Note!

Reference to possible damage to property or the environment

- ▶ *This combination of symbol and signal word stands for important information that helps to avoid damage to property or the environment.*

1.3 Copyright

This manual and all documents supplied with this equipment are protected by copyright and remain the property of Böckelt GmbH.

Their use is permitted within the scope of the use of the equipment.

These documents may not be reproduced or made accessible to third parties, in particular competitor companies, without the express permission of Böckelt GmbH.

2 Safety

2.1 Intended use

The VELUSJET® is a self-contained underwater pressure jet device for full or partial body massage in continuous, daily operation. The device is designed for one person lying down and clothed on the natural rubber mat.

The VELUSJET® is intended exclusively for commercial use!

Any use of the machine for a purpose other than the intended is deemed improper. The operator is liable for any damage resulting from improper use.

Intended use also includes observance of the operating manual. In particular, the specific installation instructions as well as the safety and operating instructions in this manual must be observed.

The device may only be operated with an installed all-current-sensitive RCD circuit breaker (and fuse 16 A slow-blow / 30 mA)!

2.2 Use not in accordance with the intended purpose

Do not stand on the mat with your feet.

2.3 Basic dangers

In principle, hazards can arise when handling electrically operated devices and systems.

Therefore, please observe the statutory regulations for safety and health protection as well as the other generally recognized safety and occupational health rules and the accident prevention regulations.

Do not make any electrical modifications to the system. The manufacturer is not liable for damage caused by improper conversions.

2.4 Danger due to electrical shock

Observe the specified values for voltage and amperage during installation.

Work on electrical equipment may only be carried out by qualified electricians.

Check the power plug and power cord regularly and have them replaced by qualified electricians if damaged.

2.5 Responsibility of the operator

The operator is responsible for:

- The safe installation of the product,
- Regularly checking the functional condition and the effectiveness of the protective devices,
- The intended use of the product,
- The accessible storage of the operating manual,
- Compliance with environmental regulations,
- Qualification of the operating, maintenance and repair personnel (knowledge of the operating manual, in particular the safety instructions contained therein, etc.),
- Carrying out a risk assessment,

The responsibilities for the various tasks on the product must be clearly defined and adhered to so that no unclear competencies arise from a safety point of view.

2.6 Personnel requirements

The product may only be set up, operated and maintained by authorized, trained and instructed specialists.

These persons must not be impaired in their ability to react (e.g. by drugs, alcohol, medications or similar).

Only authorized persons who are able to:












- perform the activities independently or
- carry out the work after prior instruction under the supervision of an authorized person may work on the product.

2.7 Maintenance and repair work

Maintenance and repair work may only be carried out by trained authorized personnel. These are persons who, on the basis of training, instruction or experience, have been authorized to carry out the activities required in each case and are able to recognize and avoid possible dangers in the process. They must have knowledge of the relevant safety standards, regulations and accident prevention rules and have read the operating manual.

2.8 Warning and information signs

The following information and warning signs are attached to the equipment.
Damaged or removed information or warning signs must be replaced immediately.

Warning or information sign	Meaning	Attachment location											
<div><div><p>BÖCKELT GmbH Entwicklung und Produktion Ludwig-Erhard-Straße 6 D-57482 Wenden Tel.: +49(0)2762/41993-0 Fax.: +49(0)2762/41993-1 www.boeckelt.de www.velusjet.de</p></div><table><tr><td colspan="2">VELUSJET®</td><td>CE 0123</td></tr><tr><td>230V /50Hz</td><td></td><td></td></tr><tr><td>3300VA</td><td colspan="2" rowspan="3"></td></tr><tr><td>IP21</td></tr><tr><td> = 210kg</td></tr></table><div><div>MD</div><p>Medical Device Medizinprodukt</p></div></div>	VELUSJET®		CE 0123	230V /50Hz			3300VA			IP21	 = 210kg	Type plate	Under the cover, on the right side of the head end
VELUSJET®		CE 0123											
230V /50Hz													
3300VA													
IP21													
 = 210kg													
	Read operating manual	On the type plate											
<div><div>MD</div><p>Medical Device Medizinprodukt</p></div>	Product is a medical device	On the type plate											

3 Structure and function

3.1 Scope of delivery

The scope of delivery of the massage table consists of:

- VELUSJET®
- Display (Professional only)
- Operating manual

3.2 Set-up



Fig 1: View of the VELUSJet®

- 1 Housing, mainly made of electrically non-conductive plastic
- 2 Foot end of the massage table
- 3 Natural rubber mat
- 4 Rotary knob control unit of the massage table with
rotary knob to start / stop the massage and adjust the intensity
Emergency stop button
Optional card reader
- 5 Head end of the massage table
- 6 Connection power cable
- 7 Type plate (on the head end, under the cover)
- 8 Reset button
- 9 Ethernet socket

3.3 Function

Under the natural rubber mat of the VelusJet water jet massage device, two massage heads, each equipped with a massage nozzle, move independently of one another. Two high-pressure pumps and the massage jets each direct a powerful jet of water under the mat. By using two pumps, the strength of the jet can be regulated separately for each nozzle. This allows various individual massage programs to be implemented.

4 Transport and storage

4.1 Safety instructions for transport and storage

The product may only be transported by authorized, trained and instructed personnel who have the appropriate knowledge (e.g. authorized forklift drivers). Suitable slings and lifting devices or conveying equipment must be used for transport, depending on the weight.



DANGER!

Danger due to lack of protective equipment!

- ▶ *Wear the prescribed personal protective equipment when transporting the product, such as:*
 - Safety shoes and
 - protective gloves



Note!

Note on possible material damage!

- ▶ *Always transport the product upright.*
- ▶ *Do not subject the equipment to shocks or impacts.*
- ▶ *Protect the system from moisture.*
- ▶ *Transport and store the device only when empty!*

4.2 Delivery of the massage table

The device must be checked immediately for any transport damage upon delivery and acceptance (by carrier or similar).

Transport damage must be reported immediately after delivery in writing or verbally with subsequent written confirmation from Böckelt GmbH. Any damage must be recorded in writing (if possible, documented by photo) and confirmed by the carrier (hauler).

4.3 Ambient conditions during transport and storage

The following environmental conditions must be observed during transport and storage:

- Temperature: -25 ... +40 °C
- Relative humidity: maximum 90 %
- Air pressure: 800 - 1060 hPa

5 Installation and commissioning

5.1 Safety instructions for installation and wiring

The installation and wiring of the entire system may only be carried out by authorized, trained and instructed personnel who have the appropriate knowledge.



DANGER!

Danger to life from electric current!

- ▶ *Do not touch any live parts. There is an immediate danger to life from electric shock.*
- ▶ *Lay the power supply lines professionally so that mechanical destruction is impossible.*
- ▶ *Replace damaged insulation or components immediately.*



Note!

Note on possible material damage due to improper installation!

- ▶ *Do not connect mains voltage to the low-voltage terminals. Mains voltage at wrong plug terminals of the device can destroy the electronics.*



Note!

Possible material damage due to short circuit!

- ▶ *Take care not to strip too much insulation from the cables, as this may lead to a short circuit. Connecting wires that have been stripped too long can lead to short circuits and damage to the electronics if a stranded wire is unintentionally pulled out.*
- ▶ *Lay the cables correctly.*
- ▶ *Use the strain reliefs.*



Note!

Possible material damage due to improper installation!

- ▶ *Never operate the device when empty!*

5.2 Setting up the massage table

The installation site must be dry and splash-proof.

The installation area should be almost horizontal (no more than 10 mm difference in height, relative to the installation surface).

The ambient temperature must be between 5 °C and 25 °C.

Make sure that the ceiling load-bearing capacity is sufficient, at least 3.5 kN/m²

- » Position the device at the place of use. The back of the device should have at least 15 cm distance from the wall.
- » The ventilation openings of the device must always be kept free. Towels or objects placed in front of them must not cover the opening.
- » Since the device sucks in air underneath the paneling (bottom), the massage table must not be placed on surfaces that can prevent the inflow of air, such as thick carpet.

- » At least 30 mm ground clearance must be maintained. The height can be adjusted using the adjustable wheels.
 - » The electrical connection must be made to a single 16 A line with slow-blow fuse via a 0.03 A universal current-sensitive RCD circuit breaker (on site). The on-site measures must be carried out by an approved specialist company. The protective measures according to VDE 0100 must be observed.
 - » The device must only be connected to a 230 V/16 A fused socket.
- The device is fully assembled and ready for use after filling with water.

6 Operation

6.1 Safety instructions for operation



CAUTION!

Be careful when using the massager!

- ▶ *Mechanical massage must not be used if it can lead to overstraining or damaging tense muscles and further tissue structure!*



CAUTION!

Be careful when using the massager with existing conditions or illnesses!

- ▶ *Contraindications to receiving a massage with the VELUSJET® are listed in the following section.*

6.2 Contraindications

- Compensated and decompensated heart failure.
- Fixed essential and renal hypertension.
- Infectious and weeping skin diseases.
- Severe arterial degenerative diseases (Fontaine III-IV), pronounced varicosis, thrombosis and phlebitis.
- All inflammations and ulcerations of the skin, muscles, tendons and fascia, bursa, vessels, nerves, bones and joints such as dermatitis, myositis, tendinitis, bursitis, phlebitis, lymphangitis, neuritis, osteitis, osteomyelitis.
- Arthritis thrombosis and thrombophlebitis.
- Severe arterial peripheral circulatory disorders (Fontaine III + IV) and advanced arteriosclerosis due to delayed oxygen deficit in the tissue.
- Injuries involving hematomas such as fractures; dislocations and distortions; joint effusions; muscle tears; recent bone, spine and joint surgery (e.g. osteosynthesis, arthroplasty, laminectomy).
- Febrile illnesses.
- Severe consumptive organ diseases, cachexia, especially carcinomas (risk of metastasis spread in malignant tumors!).
- Local benign tumors such as lipomas, myomas, fibromas, lymphomas, atheromas, hemangiomas, and warts should be excluded
- Users / patients who are taking anticoagulants (e.g., Marcumar), as extensive hematomas can occur due to greatly reduced blood clotting.
- Menstruation and pregnancy are conditional contraindications.
During menstruation, massages will not be given to the lumbar area and the lower extremities will be omitted. Even in the second half of pregnancy, these areas will not be addressed therapeutically, but only the thoracic and cervical area will be massaged.

In addition to the contraindications already mentioned, the same contraindications as for manual massage apply as exclusion criteria depending on the patient's condition.

Before using the VELUSJET® massager, it is recommended to consult suitable professionals and have a medical history taken. In case of doubt, always seek the advice of a physician!

Local contraindications: Freshly operated areas.

Zones to be left out: Face and genital area.

6.3 Side effects

In isolated cases, the following side effects may occur:

Cardiovascular stresses:

- Due to the thermal and mechanical effect, users with unstable circulation conditions should not use the device.

Increased bladder and bowel emptying:

- Patients / users should empty their bladder and, if necessary, bowels before treatment, as the temperature, hydrostatic pressure of the water and treatment jet could trigger a micturition or defecation stimulus.

Dastre-Moratsche reaction:

- VELUSJET® massages should not be performed on an empty stomach or immediately after a meal.

6.4 Preparation for operation

Massages should be done in light or normal clothes. Clothing dyes or hair dyes may cause discoloration of the rubber mat under certain circumstances.

For hygienic reasons and to avoid possible allergic reactions, use a paper mat that you can unroll from a commercially available paper roll for patients.

Make sure that the user does not have any sharp-edged parts on his/her clothing, which could damage the bed mat!

It is also recommended to take off the footwear to avoid discoloration or damage to the bed mat.

The maximum weight for using the product is 210 kg.

- » Check the product for external damage (e.g. leaks) and malfunctions before each start-up / use.
- » Explain to the user how the product works.
- » Put the product into operation.

6.5 Operation

The VELUSJET® massager is operated using the rotary knobs found on the rotary knob control unit (start, regulate intensity, stop).

The program selection and individual settings on the person to be massaged are made on the touch screen display or a customer PC.

The program settings can also be stored on NFC cards and then read into the rotary knob control unit.

6.5.1 Selecting application programs on the touchscreen display

VELUSJET® has 15 programs for medical massages and 15 programs for wellness massages.

To select the application program and individual settings, proceed as follows:

» Touch the screen.



Fig 2: Start settings

» Select "Medical" or "Wellness".

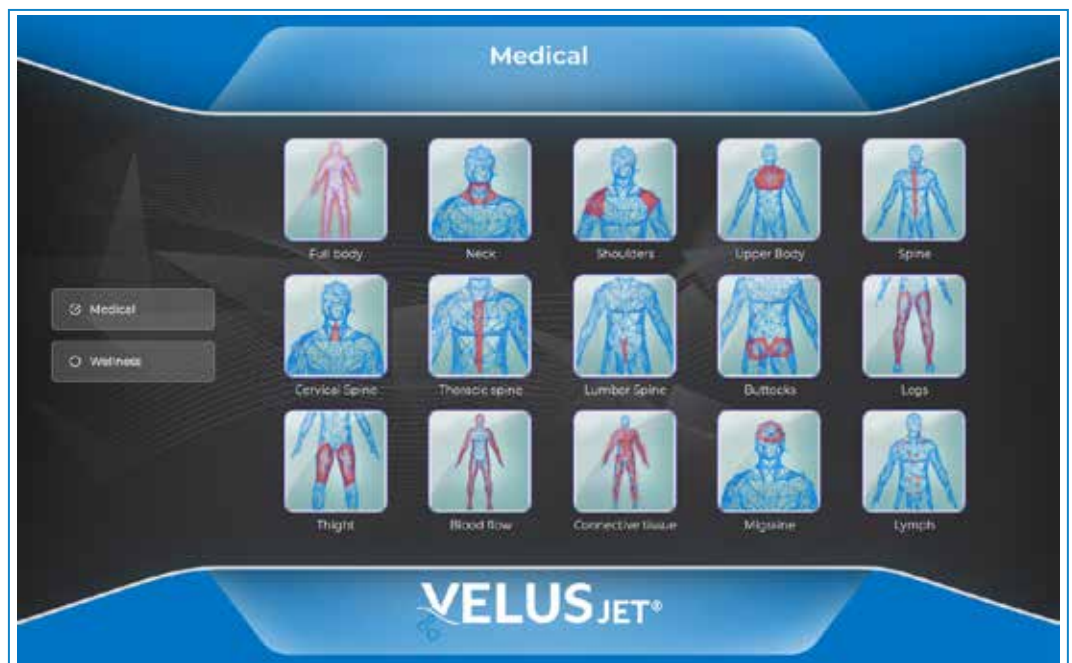







Fig 3: Choose massage types

6.5.1.1 Overview of medical massages






VELUSJET® offers 15 different massage programs.

Symbol	Program	Brief description
	Massage Full Body	Massage of the entire back of the body using combined massage techniques
	Massage Neck	Massage of the neck muscles using combined massage techniques
	Massage Shoulder	Massage of the shoulder muscles with sweeping zigzag and circular massage sequence
	Massage Upper Body	Massage of the upper body muscles with stroking and zigzagging massage sequence
	Massage Spine	Massage of the spinal muscles with zigzag and circular massage sequence
	Massage Cervical Spine	Massage of the cervical spine muscles with straight and pulsating massage sequence
	Massage Thoracic Spine	Massage of the thoracic spine muscles with sweeping and circular massage sequence
	Massage Lumbar Spine	Massage of the lumbar spine muscles with sweeping and circular massage sequence
	Massage Buttocks	Massage of the gluteal muscles with zigzag and circular massage sequence
	Massage Legs	Massage of the posterior leg muscles with straight, pulsating and circular massage sequence.

Symbol	Program	Brief description
	Massage Thigh	Massage of the posterior thigh musculature with straight, pulsating and circular massage sequence
	Massage Blood Circulation	Massage of the entire back of the body using combined massage techniques.
	Massage Connective Tissue	Massage with pulsating and zigzag massage sequence
	Massage Migraine	Massage of the neck muscles with straight and pulsating massage sequence
	Massage Lymph	Massage of leg lymph with inward sweeping and straight massage sequence

6.5.1.2 Overview of wellness massages

VELUSJET® offers 15 different wellness programs.

Symbol	Program	Brief description
	Fitness Preparation	Massage for warming up the muscles before exercise
	After Work Out	Massage to relax the muscles after exercise
	Aprés Ski	Massage of the muscles after skiing
	Bike Cool Down	Massage of the muscles after cycling
	Hiking Relax	Massage of the muscles after hiking

Symbol	Program	Brief description
	Jet Lag	Massage to revitalize the muscles
	Body, Mind and Soul	Massage for a mental and physical relaxation
	Life Work Balance	Massage for holistic relaxation and stress reduction
	Mental Empowerment	Massage of the head and neck muscles for quick mental relaxation
	Tired Legs	Massage to stimulate the muscles of the legs
	Pure Relaxation	Massage the entire back of the body
	Travel Stress	Massage for holistic relaxation after a long journey
	After Pregnancy	Massage to stimulate the connective tissue after pregnancy
	Back	Massage of the entire back to relax the muscles
	Neck and Shoulder	Massage to relax the muscles of the shoulders and neck
	Special Dr. Med	A special massage for Dr. Med.

- » Select the application program (e.g. full body) and confirm the selection with "Next".



Fig 4: Select massage program

- » Now select the individual settings for the person to be massaged. Start with height.

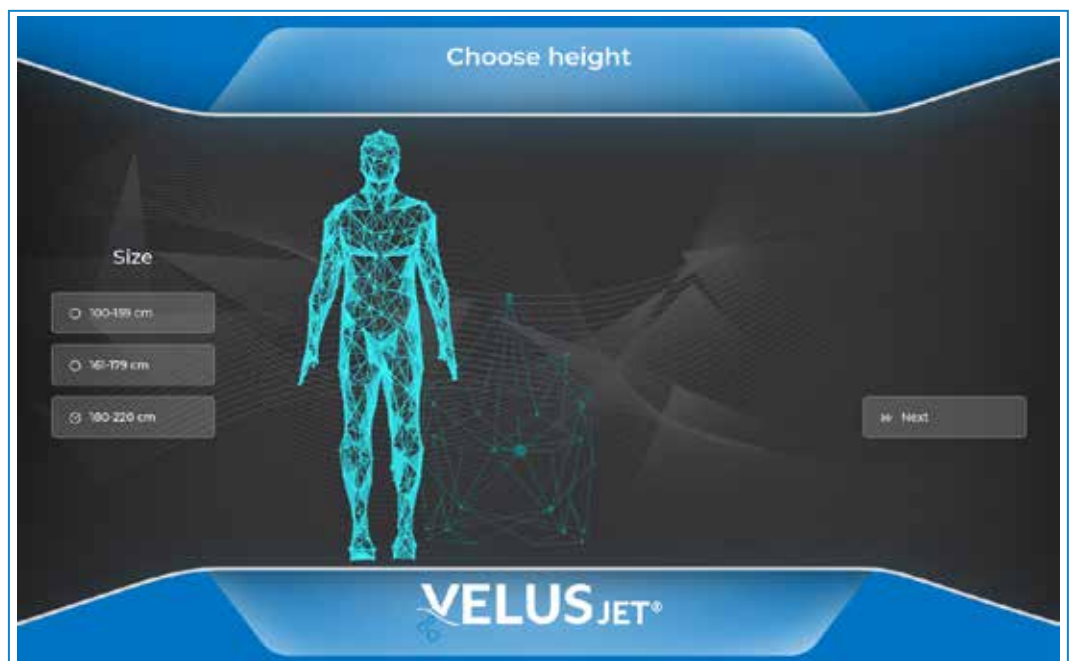


Fig 5: Choose height

- » Choose the stature of the person to be massaged. You can also preselect the intensity of the massage jets here, separately for left and right jets.



Fig 6: Pressure adjustment

» After you have made all the settings, the following display appears:



Fig 7: Start application program

6.5.2 Select application program with NFC card

Before an NFC card is placed onto the card reader, the rotary knob's LED strip will be solid yellow.

Place the NFC card on the card reader of the rotary knob operating unit.



Fig 8: Select application program with card

If the NFC card is still on the card reader after the massage has ended, the LED strip flashes yellow.

If the card has been removed, the LED strip will be solid yellow and the device is back in its initial state.

Notice: When the card's quota is used up, the LED strip flashes blue.

- Recharge the card or use another card.

6.6 Start, change and end massage

- » Start the massage by pressing the rotary knob (1).
The LED strip of the rotary knob is solid green (for the entire duration of the massage).



Fig 9: Start massage

- » If necessary, change the intensity of the massage by turning the knob (1).
- » You can also start a point massage by briefly pressing the rotary knob. The point massage lasts about 15 seconds. After that, the massage continues normally.
- » End the massage by pressing the rotary knob for 3 seconds. The LED strip then flashes yellow briefly.

6.7 Stop massage (emergency stop)

- » Stop the massage by pressing the red button (1).



Fig 10: Stop massage

After pressing the red button, the rotary knob and the LED strips in the lower area of the massage table flash red.

The message "Emergency stop" appears in the optional touchscreen display.

After eliminating the malfunction, the massage can be restarted by pressing the rotary knob for a few seconds (approx. 3 sec.).

6.8 Decommissioning the device

- » Switch off the device by disconnecting it from the mains (remove the circuit breaker).

The device is now out of service.

Notice: The device is equipped with a water cooling system and should be disconnected from the water supply when it is not in operation (in the evening, on weekends, holidays or out of service) to prevent water damage.

If the device is not operated for a longer period of time:

- » Disconnect the device from the mains by unplugging it.
- » Store the device in a frost-free area.
- » Cover the device with a film or cloth to protect it from dust and contamination.
- » Service the device thoroughly before putting it back into operation.

7 Maintenance

7.1 Safety instructions for maintenance

Maintenance and repair work on the product may only be carried out by qualified personnel specially trained for this purpose.

The supplier's specialist personnel are available for major repair work.



DANGER!

Danger to life from electric current!

- ▶ *Do not touch any live parts. There is an immediate danger to life from electric shock.*
- ▶ *Switch off the power supply.*
- ▶ *Secure the power supply against being switched on again.*

7.2 Maintenance plan

Maintenance inspections must be carried out in accordance with DGUV V3 and DIN EN 62353 (VDE 0751-1): 2008-08.

At each maintenance check the bed film, the toothed belt, the hoses and the cable of the nozzle carriage and replace them if damaged.

When changing water, only add preservatives approved by Böckelt GmbH.

Interval	Maintenance work	Personnel
daily	Clean the work area.	Operator
	Check all safety devices for function.	Operator, qualified personnel of the operator
Every 2 years or 2000 hours	Replace the bed film and the toothed belt.	Operator, qualified personnel of the operator
	Clean or replace the suction baskets.	Operator, qualified personnel of the operator
	Change the water in case of heavy contamination.	Operator, qualified personnel of the operator
	Perform a visual inspection of the cables and hoses of the nozzle carriage.	Operator, qualified personnel of the operator
Every 4 years or 4000 hours	Change the water.	Operator, qualified personnel of the operator
	Replace the cables and hoses of the nozzle carriage.	Operator, qualified personnel of the operator

7.3 Cleaning and care

The bed mat is made of natural rubber and should be cleaned and disinfected at regular intervals.

To ensure the durability and operational safety of your device, disinfectants approved for medical devices must be used. If necessary, compatibility with the bed film must be tested in a hidden area.



Note!

Note on possible material damage!

- ▶ *Never use hard fabric sponges or cleaning agents that will damage the natural rubber mat!*
 - ▶ *Never use a high-pressure steam cleaner to clean the device!*
-

The attachment parts of the device may be cleaned with a commercially available, solvent-free mild household cleaner. The user interface should be treated carefully with special screen cleaning cloths.

The necessary water additive is introduced by the service technician during installation. Changing the water is not provided.

8 Faults

8.1 Safety instructions for troubleshooting

Troubleshooting work on the system/device may only be carried out by qualified personnel specially trained for this purpose.

Faults must be reported as soon as they are detected. The system/device must be marked accordingly. Defects must be repaired immediately in order to keep the extent of damage to a minimum and not to impair the safety of the system/device. In case of non-compliance, the warranty claim expires.

After troubleshooting and before restarting, the system must be checked and cleared for use.

8.2 Error causes and their elimination

If a serious error occurs during the massage, the massage is stopped immediately and the touch panel changes to the emergency stop screen.

In addition, in the event of an error, the LED strip of the massage bed flashes in a certain color.



Fig 11: Emergency stop

All active errors are displayed in the emergency stop screen.

Faults

Error causes and their elimination



Fig 12: Active error messages

- The "Error ID" field contains a unique number assigned to an error.
- The "Description" and "Data" fields can contain additional information about the error.
- The "Created" and "Modified" fields contain the date when the error occurred.

Malfunction / Error number	Cause	LED strip color	Remedy
10001	Water temperature too hot	Orange	Allow the device to cool down. Check the cooling. To do this, hold down the reset button for at least 10 seconds.
10002	Leakage	Yellow	Contact BÖCKELT Service.
10003	Overcurrent M32	Green	Restart the device by pressing and holding the reset button for at least 10 seconds. If the error occurs again, contact BÖCKELT Service.
10004	Overcurrent M33	Green	
10005	Overcurrent M34	Green	
10006	Limit switch error M32	Blue	
10007	Step chain timeout	Purple	
10008	Checksums error (RS232)	Pink	
10009	Room temperature sensor error		
10010*	Frequency inverter error U2	Light blue	
10011*	Frequency inverter error U21	Light blue	
10012	Frequency inverter timeout	Light blue	

* For errors 10010 and 10011, the frequency inverter sends an error code in the "Data" field.

The following table lists all possible error codes and their meanings:

Error code	Meaning	FU display
H00	Alarm list empty (by reset)	--
H10	Overcurrent shutdown during acceleration	E.OC1
H11	Overcurrent shutdown during constant speed	E.OC2
H12	Overcurrent shutdown during braking or stop	E.OC3
H20	Overvoltage during acceleration	E.OV1
H21	Overvoltage during constant speed	E.OV2
H22	Overvoltage during braking or stop	E.OV3
H30	Overload protection (frequency inverter)	E.THT
H31	Motor overload protection (triggering of the electronic thermal motor protection)	E.THM
H40	Overheating of the heat sink	E.FIN
H52	Input phase error	E.ILF
H60	Shutdown protection motor tilt protection	E.OLT
H70	Faulty braking transistor/error in internal circuit	E.BE
H80	Overcurrent due to ground fault	E.GF
H81	Open output phase	E.LF
H90	Triggering of an external motor protection switch (thermal contact)	E.OHT
H91	PTC thermistor trip	E.PTC
HB0	Memory error	E.PE
HB1	Connection error to the rotary knob operating unit	E.PUE
HB2	Number of restart attempts exceeded	E.RET
HC0	CPU error	E.CPU
HC4	Exceeding the permissible output current	E.CDO
HC5	Overheating of the closing resistor	E.IOH
HC7	Faulty analog input	E.AIE
HC9	Error in the safety circuit	E.SAF
HF5	CPU error	E.5

8.3 Restart

In case of software malfunctions, the device can be restarted by pressing the reset button.

The reset button is located under the corner panel on the right side of the head of the device.



Fig 13: Reset button

- » Press and hold the reset button (1) for at least 10 seconds to bring all electronic parts to a safe initial state.

9 Disassembly and disposal



DANGER!

Danger to life from electric current!

- ▶ *Do not touch any live parts. There is an immediate danger to life from electric shock.*
- ▶ *Switch off the power supply.*
- ▶ *Secure the power supply against being switched on again.*

9.1 Disassembly

After the system has reached the end of its service life, it must be disassembled and disposed of in an environmentally friendly manner.

- » Disconnect the system from the power supply before disassembly.
- » Now you can disassemble all the parts.

9.2 Disposal

Unless a take-back or disposal agreement has been made, recycle the disassembled components:

- Scrap metals
- Give plastic elements for recycling.

10 Technical specifications

Technical specifications	Unit	VELUSJET®
Length	mm	2,130
Width	mm	1,073
Height	mm	530
Height including rotary knob operating unit	mm	580
Mains voltage	V	230
Mains frequency	Hz	50
Power consumption (with water connection)	VA	3,600
Fuse	A inert	16
Protection class		IP21
Applied part type		B
Protection class		I
Weight without water, approx.	kg	165
Water quantity, approx.	L	350
Max. person weight	kg	210
Sound pressure level at 100% power	dB (A)	69