

● Fine blasting unit Puna



● USER MANUAL

Dear customer,

Thank you for choosing a product from the Wassermann range. Wassermann Dental-Maschinen incorporates the highest standards of quality and the latest technology.

In order to enjoy maximum performance and years of trouble-free operation, please read this instruction manual carefully before you connect this device and start work, and operate the device according to the recommended guidelines. The operation safety and the functionality of this device can only be guaranteed if you follow both the general safety guidelines and the applying laws to prevent accidents as well as the precautions given in this instruction manual. We are not liable for any damages which occur due to inappropriate usage or faulty operation of this device.



Make sure that anyone using this device has read and understood this instruction manual.

Keep this instruction manual in a safe place where it can be referred to as required at any time.

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1 Features

This precision fine blasting unit of the WASSERMANN-brand offers you the highest quality and most advanced technology.

This 2-chamber-unit is perfect for blasting, roughing as well as blasting with specially fused alumina. The unit works precise and has low maintenance. The entire system is continuously under pressure and is therefore always ready for use. The relation between air and the blasting medium is set at the factory. It is determined by the size of the drillings. However, the discharge velocity can be varied by the built-in pressure reducer. The discharge velocity determines the outflowing amount of blasting media (while the relation is kept optimal and constant). This unit is equipped with a socket (power consumption: max 8 A).

- cost-effective and compact fine blasting unit with two tanks
- easy operation by foot pedal
- precise working pressure of 1–6 bar with pressure gauge control
- optimum illumination, protected fluorescent lamp
- special, particularly durable hoses
- convenient colour coding system and comfortably to handle with ergonomically shaped handpieces
- hygienic changeable sleeves
- possibility to connect to suction unit
- long durability, high flexibility
- low consumption of blasting material
- specially coated protection screen for ideal visibility

2 Safety guidelines

2.1 Safety symbols used in this manual



Warning!

This is a warning of risk situations and dangers.

Failure to observe this warning could be life-threatening. These warnings has to be observed.



Information!

This symbol draws your attention to specific features that has to be observed.

2.2 Safety guidelines

Configuring and operating this equipment requires ***precise knowledge*** and ***observance*** of the instructions in this ***user manual***. The equipment is designed only for its intended application.



This unit is designed for AC 220-240 V / 50/60 Hz only. Make sure that the unit is always operated with the correct voltage.

Disconnect the power plug before carrying out any service or repairs.



WARNING:

Servicing and repairs should be carried out only by authorised specialists.

2.3 Reliability for functionality and damages

The reliability for the functionality of the unit depends on the owner or operator, whether the unit will be serviced, repaired or altered improperly by persons not belonging to an authorized service company or whether it is used for other than the described purpose.

The unit must be operated and serviced according to these operating instructions. For damages **incurred due to negligence** of these notes, Wassermann Dental-Maschinen GmbH **cannot** be held responsible.

Warranty and reliability conditions of the terms of sale and delivery of the Wassermann Dental-Maschinen GmbH are not extended by the above mentioned notes.

 **Please keep these operating instructions in an easily accessible place and make sure they are read and understood.**

3 Application

This 2-chamber-blasting unit is designed for blasting, roughing as well as blasting with specially fused alumina.

Only use the device for this type of application.

4 Before starting

4.1 Transport

Before transporting the unit, ensure that it has been unplugged from the power socket. Make sure that it is packed correctly in order to avoid accidental damage.

 Be sure to check for any transport damage when unpacking the goods. Note down any damage if found.

4.2 Installation

Open the box, remove the packing materials, and carefully lift out the device and accessories. Check the included accessories.

The unit has to stand horizontally on a steady and even surface.



Install the device in a place where it will not block the working area and the functionality (take the dimensions into account). Make sure that there are about 10 cm of free space on each side to guarantee air circulation (heat dissipation).



Do not install the unit outdoors or in places without proper ventilation.

Before start-up, be sure the device reaches room temperature.

Prepare an electric- and compressed air connection.

Furthermore an external dust-extractor should be connected. The connectors are accessible from the back.



Attention: Never connect to an oxygen bottle. Risk of dust explosion.

4.3 Storage

If the unit is to be stored for an extended period, protect it from moisture and dust.

5 Installation / Start-up

 **Before using the unit for the first time, let it stand with open chambers until it has reached room temperature.**

- It is absolutely necessary to switch the unit off before filling.
- The chambers can first be screwed on when they are completely pressureless. Chambers are vented by hoses.
- The chamber at the right (red) will be filled with 110-250 my material as standard.
- The chamber at the left (blue) will be filled with 50-110 my material as standard.
- The chambers are only allowed to be filled up to 2.5 cm from the upper chamber edge. Please pay attention to the maximum filling capacity of the chambers which is marked inside the chamber.

 **Before setting on the containers you have to assure that the threads and sealing surfaces are free of blasting media grains.**

- Screw on the screwed-on cover (hand-screwed). When all chambers have been screwed on the unit is ready for use and can be switched on.
- Insert the power plug firmly into the power outlet (220-240 V / 50/60 Hz).
- Switch on the main switch (green toggle switch).
- Set the pressure reducer to working pressure. There must be no hissing noise. Otherwise, please retighten the screwed-on cover by hand.

6 Operation

6.1 General operating instructions

 **All instructions for using the unit, whether in verbal or written form, are based on our own experience and experimentation and can only be regarded as guidelines.**

6.2 Operation

- Turn on main switch (green toggle switch).
- Set the working pressure at the desired level on the reducing valve.
- Designate the blasting material container by using the selection switch built-in in the work room.
- According to the colour selected, take the appropriate stylus in your hand.
- Trigger the blasting process with the foot control.



Working is only allowed with the blasting chambers closed!



Please wear safety goggles!



Due to the operating condition, the amount of blasting media flow may change when the blasting media amount decreases. By shortly tilting the unit it is possible to continue working for a short time. However, this is an indication that you have to refill blasting media.



Female connector power consumption max.: 8 A

7 Troubleshooting

Fault	Cause	Remedy
irregular flow of blasting material	too little blasting material in container	re-fill the container
	nozzle on stylus too small	use larger nozzle
	blasting material is moist	use blasting material of correct dryness
no flow of blasting material	container empty	re-fill the container
	main nozzle and/or steel hose blocked	<ul style="list-style-type: none"> • use recommended, dry blasting material • unscrew nozzle on the stylus trigger blasting process blasting material should flow • notfalls durch kurzes Zuhalten des Schlauches Gegendruck aufbauen
	Wrong blasting container	please switch to the correct blasting container
	ancillary nozzle blocked	refer above
	too little pressurised air < 3 bar	increase pressure
decreasing and/or to low blasting pressure	filter blocked and/or buckled closed	change filter element



If the above recommendations do not solve the problem, contact your dental depot or our service department.

8 Care and maintenance

8.1 Cleaning



Disconnect the power plug before starting any maintenance work.

The identification plate has always to be kept in easily legible condition and has not to be removed.



Remove external dirt from time to time with some form of cold cleaner.

Use only cold cleaners to avoid damaging the paintwork or removing the lettering.

The equipment should be cleaned at regular intervals to ensure trouble-free operation. It requires only normal cleaning (sponge, damp cloth, mild detergent) and no further chemical additives.

- The inside of the chambers and the protection screens can be cleaned with compressed air. Fine-dust will be sucked out by the dust-extractor.
- Never use strong and abrasive solvents for cleaning the screens.
- Coarse-grained sand, which cannot be sucked out by the dust-extractor can be removed through the discharge opening.

8.2 Maintenance

The unit does not require any servicing. Just make sure that the device is kept clean. However, after using the unit a certain time, it will be necessary to replace some parts. Please take care of the following parts:

8.2.1 Grip-cuff replacement

Cuffs can also be replaced with gloves. The procedure is the same.

- Loosen the connector with pliers and unscrew the throughgrip (4 screws).
- Pull off the old cuff and put on the new one so that it completely covers the opening.
- Attach the new connector. Take care that the closing of the connector is placed inside the notch of the opening.
- Tighten the opening.

8.2.2 Specially coated protection screen replacement

- Open the flap and loosen the five knurled nuts.
- Remove the guide rails
- Fold the screen to the front and pull it out. **Please take care of the spacer reels.**
- Replace the screens and reassemble everything in reverse order.

8.2.3 Conducting hose replacement

Before changing, the mains plug must be disconnected and the pressurised air connection detached.

The pressure of all the tanks must be released (see 5 Start-up).

- Take sieve unit out of the chamber.
- Lay the unit on its side so that you have access to the bottom of the unit.
- To detach the desired hose from the tank, solve the black hose clamp with a pliers, remove the hose from the nipple and pull it into the interior.
- Remove hose protection.

- In principle the installation takes place exactly in the reverse manner. First, put the protective hose over the blasting hose. Then insert the hose from the interior through the hole in the rear and put the hose on the nipple. The fabric must be completely pulled over the rubber. Should this be difficult to achieve then push the fabric outwards from the stylus right to the end until enough fabric is available.
- Put the hose clamp around the nipple of the tank and compress with the pliers.
- Put the unit back in an upright position and re-install the sieve grille. Please take care that the blasting hoses run along under the sieve grille.

8.2.4 Lamp replacement

Before changing it you must pull out the mains plug. The lamp is behind the indicator window.

- Loosen knurled nuts and take off the lamp protection.
- Pull the lamp towards the right out of its socket and in re-placing make sure that the new lamp fits correctly back into the socket.
- Put back the lamp protection and tighten the knurled nuts.

8.2.5 Nozzle replacement

Take care that the nozzle always corresponds to the size of the used blasting medium. The replacement is very easy. Simply unscrew the old nozzle and screw on a new one.

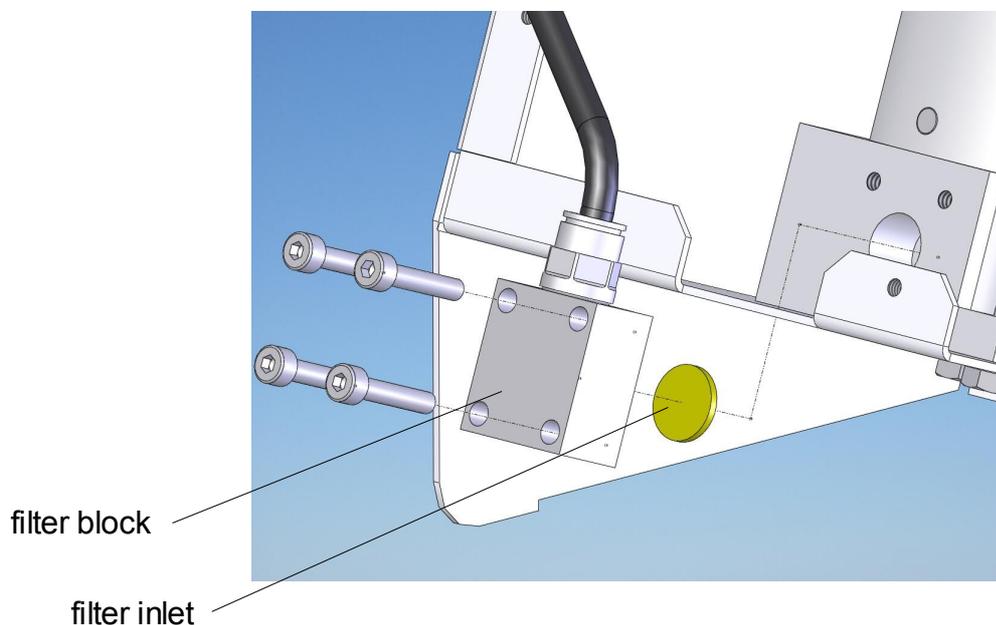


Important!: Before setting up a new nozzle, shortly operate the unit and blow away old blasting medium which may remain inside the hose.

8.2.6 Protection filter replacement

After some time of usage the filter inlet may become clogged. This filter inlet is situated directly behind the filter block onto the blasting material container.

- Unscrew and remove the rear panel.
- Unscrew the screws of the filter block with the help of a 3-Allen key.
- Change the filter inlet inside the filter block (just press lightly) and screw it back onto the blasting material container.



8.2.7 Water separator

A water separator, that absorbs any condensation coming out of the compressor, is situated at the back of the unit. It must be checked regularly and at the latest when the max. level is reached, it must be emptied. To do this, press the yellow discharge lever up so that the water can flow into the container you have placed under the unit.

Remarks:

Obstructions normally occur from soiled or lumpy blasting medium. If the sand draws moisture, check the condensator.

Most obstructions occur inside the nozzle. To remove such obstructions unscrew the nozzle and clean it. In general this would be sufficient to make the stuck grains come loose. If the obstruction persists, use a needle and push it through the hole.

8.3 Warranty

 The warranty period for our equipment is 12 months. If faults occur within the warranty period, contact your dental depot or get in touch directly with our service department.

Your equipment should only be operated in perfect condition. If faults occur which could harm operators or third parties, the unit should not be used until it has been fixed.

This warranty does not cover damage caused by improper use, external mechanical causes, transport damage or interference with the unit by unauthorized persons.

8.4 Spare parts

If necessary please contact our service hotline phone:

0049 (0)40 / 730 92 6-0

8.5 Scope of delivery / Accessories

<u>Incl. in delivery</u>	<u>Item no.:</u>
PVC hose Ø 8x6 textile (blue) 2 m	320026
Supply line	592012
Puna incl. 2 fine blasting nozzles, 0.8 (blue), 1.2 (red)	190897

<u>Accessories</u>	<u>Item no.:</u>
PVC hose Ø 8x6 textile (blue) per meter	320026
Spare fine blasting nozzle 0.6 mm	190550
Spare fine blasting nozzle 0.8 mm	190551
Spare fine blasting nozzle 1.2 mm	190552

We recommend the use of Wassermann blasting materials.

As **extraction** we strongly recommend our super-silent unit **SG-10** with the finest filter. This unit works effectively and provides large filtering capacity.

8.6 Repairs



Servicing or repairs to the unit has only to be carried out by qualified technicians. Only original spare parts are to be used. Responsibility for the product is voided if unauthorised persons alter it or if inappropriate components are installed.

9 Technical data

Puna	Item no.: 190897
Voltage*	220–240 V / 50/60 Hz
Power consumption	0.2 A
Female connector power consumption max.	8 A
Output	50 W
W x H x D	400 x 335 x 455 mm
Weight	10.5 kg
Sound level	≤ 70 dB (A)
Tank capacity	420 cm ³
Compressed air connection	3–6 bar
Working pressure	1–6 bar
Extractor nozzle	Ø 75 mm exterior

*Other voltages upon enquiry

The noise level of the unit amounts to ≤ 70 dB(A).



The technical data are subject to change without prior notice.

10 EC Conformity Certificate

in accordance with 2006/95/EG (low-voltage guidelines) and 2004/108/EG (EMV guidelines) and 2006/42/EG (machinery guidelines)

Manufacturer: W A S S E R M A N N Product description: Fine blasting unit
Dental-Maschinen GmbH for dental
Rudorffweg 15 - 17 application
D-21031 Hamburg

Model: Fine blasting unit Puna Item no.: 190897

Applicable standards: DIN EN 61010-1
DIN EN 61000-6-3
DIN EN 61000-6-1
DIN 45635-1
DIN EN 60335-1

Hiermit wird bestätigt, dass die oben bezeichnete Maschine den genannten EG-Richtlinien entspricht. Diese Erklärung wird ungültig, falls die Maschine ohne unsere Zustimmung verändert wird.

This is to confirm that the above mentioned machine complies with the described EC rules. This declaration becomes invalid if the machine is modified without our approval.

Cette machine est conforme aux normes en vigueur de la Communauté Européene. Cet avis est nul et non avenant si cette machine est modifiée sans notre accord.

Esta máquina, anteriormente mencionada, cumple con los límites requeridos por el reglamento EC. Ahora bien, esta declaración quedará invalidada en caso de realizar modificaciones al aparato sin nuestra aprobación.

Hiermee wordt bevestigd dat bovengenoemde machine voldoet aan de voorgeschreven EU normen. Deze verklaring verliest geldigheid als er zonder onze uitdrukkelijke toestemming wijzigen aan de machine worden aangebracht.

Place, date: Hamburg, 19.12.2012

Company stamp:



Signature : _____

Wilfried Wassermann
(Managing Director)

Notes:



WASSERMANN
DENTAL-MASCHINEN

● Die Basis für Ihr Labor

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