



MICROSANDBLASTER

PRESSURE BLASTER

 **USER AND MAINTENANCE MANUAL**



DESCRIPTION OF THE MACHINE

PRESSURE BLASTER microblasting unit has been developed to carry out finishing operations on prosthesis in the dental field, or on small pieces used in the mechanic and restorative fields.

The blasting result will depend on the correct use of the microabrasives:

- Aluminium oxide has to be used for surface roughening and mechanic pickling operations which will increase bonding between ceramic, resin or composite on metal support bridges (dental);
- The use of glass microbeads for satin-finishing operations will allow to attain an excellent aesthetic effect which is a difficult procedure to be carried out manually;
- Cutting abrasives shall be used when removing investment at varying depth, according to the pressure used, on any type of surface.

The blasting unit has been studied to be used in conjunction with a working chamber (BOX or KASKO), where the treatment is carried out, thus availing of a protection against the rebound of the microabrasive grains.

<u>!/\ ATTENTION:</u>	It is absolutely forbidden to operate the machine in any way differing from the above mentioned procedure. In case it is not possible to carry out the blasting operation inside a working chamber (namely, restoration procedures), the use of individual safety protections, such as eye glasses and mask are compulsory to avoid inhalation of dust particles, irritations or serious eye damages caused by the microabrasive grains propelled outwards.
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The filter/pressure reducer, the pressure gauge and the connections to the foot-control have been conveniently located inside the metallic body of the machine.

The pen-shape microprojector is very ergonomic and can be easily handheld; the spraying nozzle is extremely small in size, thus avoiding to hide unintentionally the part to be treated.

Nozzles with different spraying holes are available, allowing to use a variety of abrasives in different grainsizes.

USE AND INSTALLATION INSTRUCTIONS

To operate the PRESSURE BLASTER an air compressor with high air storing capacity is sufficient; then proceed as follows:

1. connect both pipes of the electric foot control (in = blue colour, out = transparent colour)
2. put PRESSURE BLASTER close to KASKO
3. detach the microprojector pipe from the blue pipe-fitting located under the container; then insert it into the corresponding hole located just beside the hand opening.
4. connect pneumatic supply to the corresponding pipe-fitting (27) mounted on filter (29) – the pipe-fitting is suitable to be connected to 8x6 polyethylene or rilsan pipes - adjust working pressure by means of the pressure regulator (2,5 -6 bar) – screw to increase, unscrew to decrease pressure.
5. with empty tank, test the installation by pressing the foot control (26): the air should get into the tank and come out of the nozzle (20)
6. fill the tank with either Aluminium Oxide or glass beads of suitable grainsize: unscrew the cap (1), pour the abrasive product and close firmly.

NOTE	Be careful to comply with the parameters worked out according to the section of the spraying nozzle hole, referring to the following table; for any different product, please contact our Technical Service.
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TREATMENT	RECOMMENDED PRODUCT	NOZZLE DIAMETER	PRESSURE
Surface roughness on metals for composites	AP-120 Pink label (AL2O3120 - 105μ)	1,2 mm (RMN043)	3/4 BAR
Surface roughness on metals for ceramic or resin	AP-150 Green label (AL2O3150 - 95μ)	0,8 mm (RMN044)	3/5 BAR
Surface roughness on metals for ceramic	AP-180 Red label (AL2O3180 - 80μ)	0,8 mm (RMN044)	3/5 BAR
Satin-finishing on any type of metal	AP-090 MICROBLAST White label	Higher precision 0,8mm (RMN044)	3/4 BAR
		Higher speed 1,2 mm (RMN043)	4/5 BAR

A longer nozzle in \varnothing 0,8 mm size (RMN044L) is available on request to carry out cleaning operations on ceramic prosthesis without metal support.

Whenever you need to use abrasive of a different grainsize from what stated above, it will be necessary to replace the feeding rod (4) and the nozzle of position 20), We therefore kindly invite to get in touch with the Technical Service.

<u>!/\ WARNING:</u>	Very fine abrasives are highly sensitive to moisture and must be stored in a dry place, after the can has been accurately sealed and the antimoisture packet has been duly introduced into the can (if needed, replace them periodically). When filling the abrasive containers, check the condition of the abrasive product; if the moisture rate is too high (bad flowability and presence of clots) it is recommended to heat the abrasive in order to allow it to dry up completely. It is also of utmost importance to check the condition of the compressed air which in no way must contain evidence of moisture or of any polluting agents (oil, grease or rust).
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MAINTENANCE

Sandblasting machines are equipped with lots of parts subject to wear, caused by the steady passage of abrasive products; the replacement procedures for worn out or damaged parts are specified herewith.

<u>!/\ ATTENTION:</u>	Before carrying out any maintenance operation inside the connections, disconnect the pneumatic feeding. If you have any doubts, difficulties or possibility of mistake, contact our Technical Service to avoid any risk or damage.
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Nozzle replacement

The pencil-blaster nozzle (20) will inevitably wear out and needs to be replaced. To do this, unscrew the ring nut (21) and put the new nozzle in place.

Replacement of parts subject to wear (pipe, pipe-fittings and microprojector body)

The soft polyurethane pipe (15) and the stainless steel body (18), where abrasive flows, will inevitably wear out and need to be replaced; it is sufficient to unscrew the connection ring nut and remove them from their seat.

Replacement of MODULO inside components

Should you need to replace inside components of the PRESSURE BLASTER like joints, air injectors, metallic pipe with calibrated hole, please contact our Technical Service.

TECHNICAL REFERENCE REGULATIONS AND TEST PROCEDURES

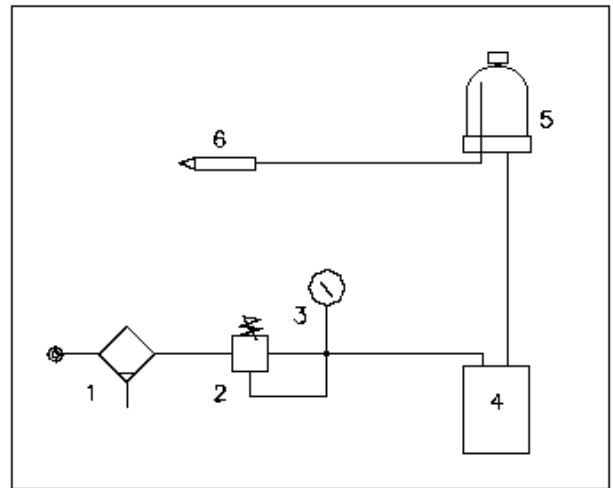
The sandblaster is mass-manufactured by DENTALFARM in compliance with technical and safety rules in force, as provided for by the 2006/42 EEC Community Directive on Machinery.

Careful inspection and full routine testing are carried out singularly on each machine.

This unit is not classified as AEE (electric and electronic device, whose correct operation depends on electric currents and electromagnetic fields); therefore, the Directive 2002/96 CE does not apply.

PNEUMATIC CIRCUIT

SYM.	DESCRIPTION
1/2	Filter-reducer group
3	Pressure gauge
4	Foot-control
5	Abrasive container
6	Microprojector

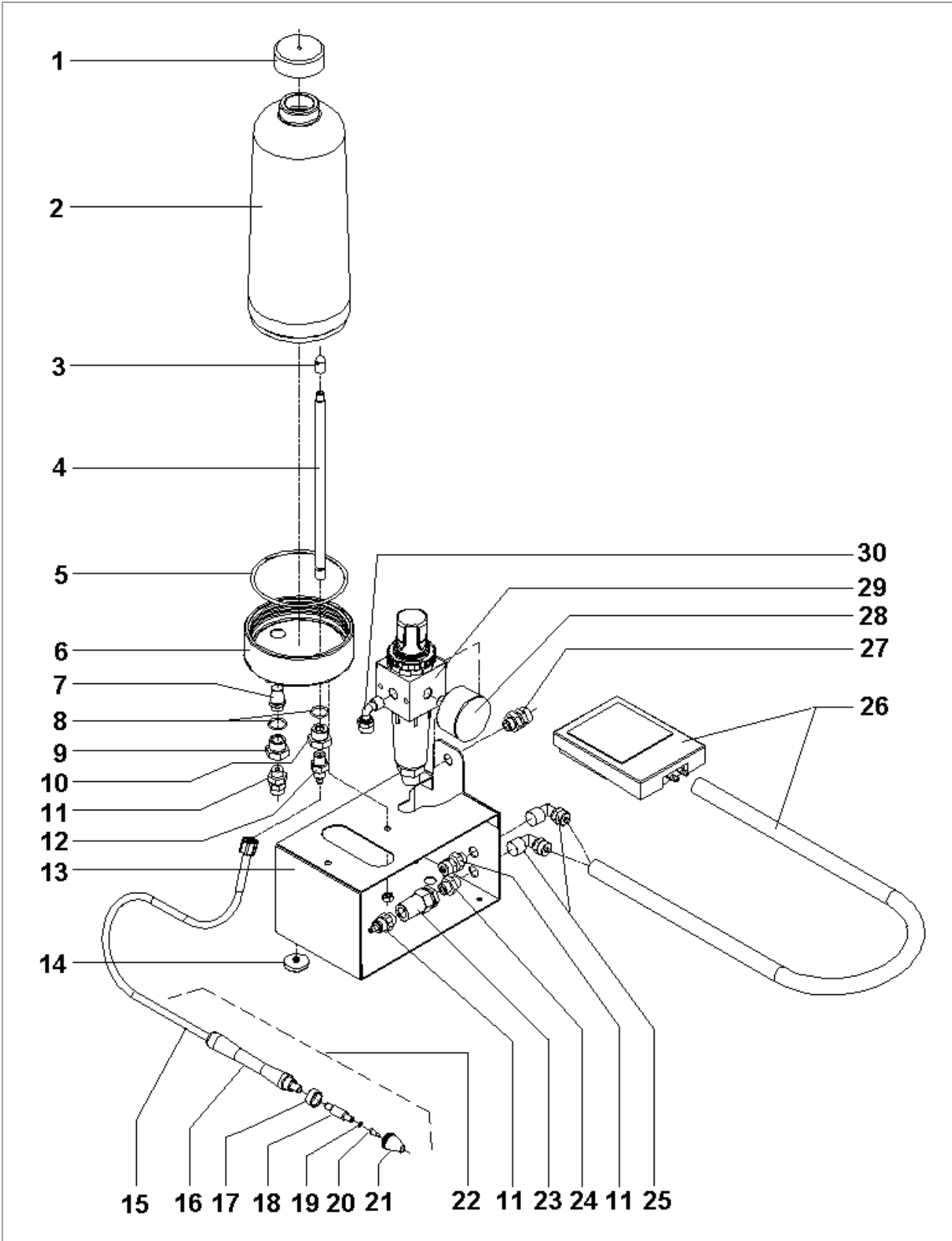


TECHNICAL SPECIFICATIONS

Width	190 mm
Depth	100 mm
Height	330 mm
Net and gross weight	1,6 Kg - 2,8 Kg
Standard nozzle	Tungsten carbide nozzle \varnothing 0,8 mm
Min pressure	2,5 BAR
Max pressure	6,0 BAR
Air consumption	38.5 l/min at 3 BAR with \varnothing 0,8 mm nozzle
Min Abrasive to be used	grainsize 280 - 50 μ
Max Abrasive to be used	grainsize 120 - 105 μ
Container capacity	800 g

EXPLODED DRAWING AND SPARE-PART LIST MICROBLASTER

No.	Code	Description
1	NVT165	F 1" CAP
2	1072003	POLYCARBONATE TANK
3	1072007	TERMINAL ON BRASS PIPE
4	1072006	ABRASIVE OUTLET PIPE WITH CALIBRATED HOLE (SPECIFY GRAINSIZE)
5	NPOR3300	OR JOINT 3300
6	1072002P	NYLON TANK BASE
7	NPV020	SINTERED INJECTOR 20 MY
8	NPOR2043	OR JOINT 2043
9	1072004	INJECTOR MOUNTING FITTING
10	1072005	ABRASIVE PIPE MOUNTING FITTING
11	NPR111	STRAIGHT MALE PIPE FITTING 6x4 - 1/8"
12	NPR011P	FAST MALE STRAIGHT FITTING 6-1/8
13	-	STAINLESS STEEL BODY
14	NVG055	BUMPER
15	NPV042	SOFT POLYURETHANE PIPE 6x4
16	1067005	MICROPROJECTOR HANDLE
17	1067022	IDENTIFIYING WASHER (SPECIFY COLOUR)
18	1067006	MICROPROJECTOR PIPE
19	NPOR2012	OR JOINT 2012
20	RMN044	TUNGSTEN NOZZLE D.=0.8mm
-	RMN045	TUNGSTEN NOZZLE D.=0.5mm
-	RMN043	TUNGSTEN NOZZLE D.=1.2mm
-	RMN047	TUNGSTEN NOZZLE D.=1.5mm
-	RMN046	TUNGSTEN NOZZLE D.=2.0mm
21	1067007	NOZZLE LOCKING RING
22	1000605	COMPLETE MICROPROJECTOR (SPECIFY COLOR AND NOZZLE)
23	NPV025	FILTER
24	NPR202	NIPPLE FITTING M/M 1/8"
25	NPR105	FEMALE 90° FEMALE FITTING 6x4 - 1/8"
26	RCM503	PNEUMATIC FOOT CONTROL
27	NPR119	STRAIGHT MALE PIPE-FITTING 8x6 - 1/8"
28	NPS040	PRESSURE GAUGE
29	NPS029	PRESSURE FILTER AND REDUCER
30	NPR106	90° MALE PIPE-FITTING 6x4 - 1/8"



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