

WARRANTY CARD

1. KH Trading machines and tools are covered by 6/24 months warranty, starting on the date of purchase, as described in the Civil Code (proof of purchase or invoice receipt must be enclosed with the warranty card when making a claim).
2. This warranty does not cover defects caused by unprofessional handling, machine overloads, not complying with instructions contained in this manual, using accessories that are not approved, unauthorized repair, regular wear and tear and damages occurred during transport. Further, this warranty does not cover parts and accessories such as the motor, carbon brushes, seals and hot-air operated parts and parts that need to be changed regularly.
3. If the repair is to be found as not covered by the warranty policy, all costs including the repair and shipping to and from the repair centre will be paid by the customer, according to valid price list. See www.
4. When making a claim, you must present the warranty card, showing the date of the purchase, the serial number of the machine, vendor stamp and signature of sales clerk, as well as the proof of purchase receipt.
5. Warranty claim shall be made at the vendor shop where you bought your machine or you may mail it to a service centre. The vendor is obligated to fill out the warranty card (date of sale, serial number, vendor stamp and signature). All these information must be filled in at the time of sale.
6. The warranty period will be extended for the period of time for which the machine has been in the service centre possession. If the repair or defect is not covered by the warranty policy, all costs including the repair and shipping will be paid by the owner of the machine / tool. We recommend sending the machine in its original packaging. Please, also enclose brief description of the defect with the packaging.
7. Before sending the machine for repair, clean it thoroughly. If the received machine is dirty, it may be rejected by the service shop or you may be charged a cleaning fee.

SERVICE

Logistic centre Klecany

Topolová 483

250 67 Klecany

Czech Republic

Claim department phone number: 266 190 156

T-mobile: 603 414 975

266 190 111

O2: 601 218 255

Fax:

260 190 100

Vodafone: 608 227 255

<http://www.KHnet.cz>

Email: servis@KHnet.cz

Product: SANDBLASTING GUN "SANDER TURBO" - (SET)	
Type: turbo - briefcase	Serial number (product series):
Date of manufacture:	Repair centre notes:
Date of sale, stamp, signature:	

Without the correctly filled warranty card or without proof of purchase receipt, including the product type (invoice, purchase receipt) no warranty claim will be processed.

uni-max

USER'S MANUAL

SANDBLASTING GUN "SANDER" TURBO (SET)



turbo - briefcase

Dear customer. Thank you for purchasing equipment from KH Trading, s.r.o.
Our company is ready to offer you our services - before, during and after you buy our product.
If you have any question, comment or idea, please contact our business centre. We will do our best to address your comment or question in timely matter.

Before first use, please read this manual carefully. It is your responsibility to study all instructions, necessary for safe use and operation and to understand all risks that may be involved during the use of power machines.

WARNING! Do not try to use this machine before reading this entire manual and before you know how to handle it. Keep this manual for future reference.
Pay special attention to safety instructions. Not complying with safety rules may cause injury to the operating person or to people standing by or it may cause damage to the machine or to the work piece.
Pay special attention to safety notes and safety labels on the machine.
Never remove or damage them.

Please, write information such as the invoice number and the number of the sale receipt here in this box.

DESCRIPTION

The set is used for sandblasting of various ornaments, graphical work, rust removal, old paint removal etc.
The gun includes collection bag for worn-out abrasive pellets that can be taken to the recycling facility.
The set includes sanding gun, 3 nozzles, wrench for nozzle change and abrasive material P090.
The product design and construction is protected by the Industrial property office in Prague, as a USEABLE SAMPLE.

TECHNICAL SPECIFICATIONS

Working pressure	.0.5 - 0.8 MPa
Air consumption	.cca 200 l.min. ⁻¹
Pellet size	.max. 1 mm
Abrasive reservoir volume	.2 - 5 cm ³
Pellet characteristics	.dry, sharp with sharp edges
Grain classification (P040 the most abrasive - large grain)	.P040 - P220
Packaging dimensions (l x w x h)	.265 × 95 × 290 mm
Gross weight	.2.5 kg

The accuracy of instructions, graphs and information contained herein, depends on the printing date. Due to continuous product improvement, the manufacturer reserves the right to change technical parameters of the product, without prior customer notification.

SAFETY PRECAUTIONS

- **This device may be used by a qualified person, 18 years or older who has been trained in work and environmental safety procedures.**
- **Any person using this equipment must possess a medical certificate demonstrating his eligibility to operate this equipment.**

Symbols used in this manual



Warning!

This symbol informs you about the risk of personal injury or damage to the machine or materials.



Warning!

Danger of damage.



Note:

Additional information.



Use personal safety protection gear.



General instructions

- Plastic bags and packaging materials pose danger for small children and animals.
- Make sure you know your machine and you are familiar with its operating procedure. Know the hazards if not used correctly.
- Person using this tool must be properly trained and must know how to safely operate this equipment. He must be also aware of the hazards and risks that may occur during use.
- Maintain your working area clean. Disorganized and dirty working area may cause accidents.
- Never work in narrow or poorly lit rooms. Make sure that the floor is stable and that your work may be done comfortably. Maintain stable posture during work.
- Stay focused and use all your senses. Pay attention to the working procedure. Do not continue to work if you cannot pay attention.
- Maintain your tools clean.
- Handles must be kept free of grease and dirt.
- Make sure no children, unauthorized persons or animals have access to your workshop.
- Never put your hands or legs inside the working area.
- Never leave your tool unattended during operation.
- Use only for purposes for which it has been designed.
- Use personal protective gear during work (working shoes etc.).
- Do not overreach and use both hands.
- Never work under the influence of alcohol or other drugs.
- Do not use the machine/tool if you feel dizzy or weak.

- Any modifications or improvements to the machine are strictly prohibited. DO NOT USE if you discover any cracks or damages to the machine.
- Never perform any maintenance while the machine is in use.
- If you see any unusual sign or hear any strange sound, stop working immediately.
- Do not forget to remove all wrenches and screwdrivers from the tool after use.
- Before use, make sure all screws are tighten securely.
- Perform appropriate maintenance regularly. Before use, make sure the machine is in good working conditions and without any damage.
- Use only original spare parts during repairs.
- Using non-original spare parts or other parts not approved by the manufacturer may cause injury to the operating personnel.
- Use this machine only for work that it is capable of handling. Do not overload your machine or accessories. Do not attempt to use machine with insufficient power to perform heavy duty work.
- Do not expose to extremely high temperature or direct sunlight.
- if you are not using your device, store it in a dry and safe place, out of reach of children.
- Before use make sure that all safety elements work correctly and efficiently.
Make sure all moving parts are in good working conditions.
- Before use make sure that no part is cracked or stuck. Make sure all parts are attached and assembled as designed. Beware of all other conditions that may have a negative effect on the proper functioning of your equipment.
- If not stated otherwise in this manual, all damaged parts must be repaired or changed.



Fine mechanics

- Never use a vise to hold your tool.
- Protect you tool from impact and fall. After you finish your work, place your machine back to the protective briefcase.



Assembly

- Do not use the machine unless completely assembled.



Compressed air

- Dry and compressed air must have a defined pressure at the tool's admission and must be supplied in sufficient quantity. Higher pressure shortens the service life of your machine and results in faster wear and tear and increases the risk of injuries.
- The coupling that connects the machine with the compressed air supply must have the correct dimensions.
- Pay special attention to water, which damages tools when present. Do not forget to release the condensed water from the pressure tank of the compressor on a daily basis and to also dry the hose, which is used to supply the air into the tool.
- Make sure no dirt may enter your device. Keep outlet and inlet openings clean.
- Before uncoupling compressed air piping or hose, turn off the air pressure supply. Wait until the pressure equalizes.
- Before starting your work, inspect all couplings and piping for leakage. If a leak is found, repair it immediately. Leakage overloads the compressor and causes significant increase in operational loads.
- Inspect the pressure hoses and piping system regularly. If you discover damage or leak, stop working immediately and have the damaged part changed or repaired immediately. The pressure hose must not be burdened by twisting - watch the line on the surface of the hose, which must not be twisted.

DISPOSAL

When the operational life of your machine is over, dispose off it in accordance with valid rules and regulations. Your product is made of metal and plastic parts that may be recycled when separated.

1. Disassemble all parts.
2. Separate all parts according to the material they are made of (e.g. metals, rubber, plastics, etc.).
Take the separated parts to the recycling facility near you for further processing.

Information about the locations of recycling centres may be found at your local City office or throughout an Internet search.

CAUTION

If the machine breaks down, send it back to the vendor for quick repair.

Please, enclose brief description of the defect. That makes repair easier. If the machine is still covered by warranty, enclose the warranty card and proof of purchase receipt. After the warranty period expires, we repair your machine for a special price.

To prevent possible damages during shipping, packed the machine carefully or use the original packaging material. We are not liable for shipping damages due to incorrect packaging of your machine. When making a claim at the shipping company the level and method of packaging plays a major role during claim evaluation process.

Note: Pictures and contents in this manual may slightly differ form the actual product or accessories. It is due to continuous improvement of our products. Such small differences have no effect on the function of the product.

MAINTENANCE

- Do not use aggressive cleaning solution or paint thinners to clean your tool/machine.
- Clean plastic parts with soft cloth dipped in soapy water.
- If you are not using your machine, conserve it with lubricant and store it in dry place to prevent corrosion.
- When you finish work, clean the mixing chamber from abrasive remains. Abrasive remains lower the gun efficiency.
- Inspect the nozzle and the outlet regularly. If needed, change it for new one. Damages due to the use of defective nozzle or outlet are not covered by the warranty policy.
- The filter ability to clean depends on the filter conditions. We recommend changing the filter regularly.
- The sharp edges of the abrasive substance get worn out and mixed with particles of the work piece. Therefore it is necessary to change the abrasive material in timely manner.

Sandblasting

To keep your machine in good working conditions and to comply with safety rules do the following regularly:

- Inspect the gun and all parts that come in contact with abrasive material (nozzle) regularly. These parts get worn out quickly and must be changed regularly.
If you use worn out nozzles you may damage the pistol.
- Damages may not be visible at first sight.



In accordance with the applicable law, nozzles are considered as expendable parts and are not covered by the warranty policy.



Detailed description of the use of this device is not included in this manual, because the manufacturer / distributor assumes that the user is experienced in similar type of work. Also according to the applicable law, this device is considered as a commonly sold and used tool. If the user is unfamiliar with the use of this device, we recommend finding out more information about using this device at the Department of work safety.

- Pressure hoses must not be run through places where they may get damaged or cut.
- Blow compressed air through new hoses.
- When you have to run the hose through a various structures, use protective bushing and inspect them regularly.
- Use protective covers and plugs to prevent dirt from entering the machine.



Sandblasting

- Always use safety goggles, protective shield, gloves and suitable work clothing during work.
- You may use your machine inside or outside.
- We recommend using respirator during work.
- Even though the sandblasting process is done in enclosed compartment, the used abrasive material must comply with applicable hygiene requirements. Therefore, we do not recommend using any kind of river sand.
- When you finish work, disconnect the sandblasting gun from the compressed air supply hose.
- Never aim the gun on persons nearby. Use caution when handling the gun.
- Make sure that you know and follow all safety instructions regarding the air compressor that you will be using with your sandblasting gun. Also follow all safety instructions for other tools and machines you may be using. Also know whether the place where you will perform the sandblasting carries any special safety regulations. If so, make sure to study them carefully.
- Maintain your working area clean.
- Do not work if explosives, flammable gases or liquids are present at your workplace.
- Do not let children come close or stay at your workplace. Anybody who is staying at your workplace must wear the same personal protective gear as the operating person.
- Inspect the condition of your sandblaster regularly. WARNING - exposed parts get worn out quickly and you may not see the wear and tear at first sight. Failure of such parts may cause serious damages.
- Change dirty and worn out abrasive substance in timely manner.
- Inspect the blasting and the air nozzle. Change it for new one if needed.
If you use worn out nozzles you may damage the pistol.
- Inspect all parts of your machine that may be worn out due to abrasive substance impact.
- Use suitable clamps to hold securely small work pieces. That way you may use both hands during work.
- Disconnect the pressurized air inlet if you are not using your machine or if you are performing maintenance.
- Make sure that on one may switch your machine/tool on accidentally.
- If you are not using your gun, close all valves.
- Pay attention during work. Do not work if you are tired.
- Use only original spare parts during repairs.
- Protect the compressor from blasting damages. The compressor takes in a large air volume and the air filter cannot catch all particles or abrasive pellets that are floating in the air.
- If any abrasive pellets or sand grains enter the compressor, it usually means serious damage to the compressor. If possible, place the compressor in different room. Or if working outside, place the inlet of the compressor in the same direction as the wind blows.
- Use sufficient length of the supply hose with the correct inner diameter to support the airflow.
- Sandblasting process consumes huge amount of compressed air. The efficiency of the blasting process may be significantly reduced if you are using too long hose with insufficient inner diameter or low pressure.

Choosing the correct abrasive material

Used abrasive material has huge effect on the final quality and the sandblasting process itself. You may use more economical materials such as sand, for example. Nevertheless, these savings can cause number of other (technical) problems. Regular sand (even if cleaned thoroughly) contains dirt particles and organic particles that absorb humidity. Wet abrasive substance may clog or damage the nozzle or valves of your machine. Therefore, we recommend using synthetic blasting substances, which eliminate such problems.

- When you reusing blasting substance, keep in mind that sharp edges of the abrasive particles gets worn out (dulled) and thus reducing the efficiency of the blasting process.
 - To keep your machine in good working conditions and to comply with safety rules do the following regularly:
 - Change dirty and worn out abrasive substance in timely manner.
 - Inspect the blasting and the air nozzle. Change it for new one if needed.
- If you use worn out nozzles you may damage the pistol.
- Inspect all parts of your machine that may be worn out due to abrasive substance impact.

ASSEMBLY

- Before throwing the packaging material out, make sure no part is left inside. If so, take it out and install it. Use the part listing for check-up and the installation drawing for guidance.

Compressed air requirements

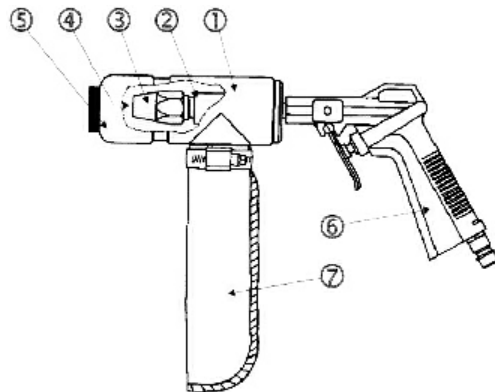
- The output parameters for the compressed air apply to the inlet of the gun.
Be aware of loses in air pressure that occur in the supply hose.
- Make sure the supplied compressed air is free of condensed water and oil. It is necessary to place a filtering device before the gun, otherwise the mixing chamber and filter may get clogged.

OPERATION

Check the conditions and settings of the gun before work. (nozzle and filter condition and fastening, valve function and outlet). The manufacturer is not liable for damages due to improper use or lack of inspection before work.

Description

1. gun's body
2. mixing chamber
3. pull-over nut
4. nozzle
5. outlet
6. trigger valve with speed coupling
7. abrasive material reservoir and filter



Setting the gun

- The shape of the outlet should be chosen according to the shape of the surface that will be sandblasted.
- Before changing the nozzle, always disconnect the gun from the compressed air supply.
- Then remove the outlet. Use pipe wrench No. 19, loosen the pull-over nut and remove the nozzle. Make sure the O-ring is in place and in good conditions. If needed change it for new one.
- Place the nozzle with the inner cone inside the mixing chamber until it touches the O-ring. Secure in place with the pull-over nut.
- The filter may be changed easily by releasing the hose clamp. Make sure the filter is securely fasten in place to prevent unwanted filter movement or slipping.

Using you gun

- Press the gun outlet to the work piece surface to achieve air-tight seal. No air is allowed to get between the surface and the outlet. Make sure the reservoir is pointed downwards.
- Do not full the abrasive reservoir too much. Fill it so the suction pipe is only slightly submerged under the abrasive level (you may feel it with you finger).
- You may move the gun to each individual spot or move it around the surface.
- In this case you must hold the gun with both hands. One hand controls the trigger and the other hand controls good seal and moves the gun around.

Changing the abrasive material

- The reservoir is filled through the outlet. Pour the abrasive substance inside and inspect the level of abrasive in the reservoir. Feel it with your finger.
- You may empty the reservoir by pouring out the abrasive through the gun's body. You must first remove the outlet. Or you may blast the sand out freely without work piece. If you blasting the sand out with no work piece, make sure to observe safety rules (dust, and flying abrasive pellets).

TROUBLESHOOTING

- If you gun does not work correctly, it is usually due to wet abrasive material and clogged mixing chamber/nozzle.
- In this case you must disassemble the gun and clean it thoroughly.
- At the same time check the water condenser and empty it regularly.
- Store the gun with the abrasive on dry and safe place.