



ISO 9001:2015 Certificate



PNEUMATIC SOIL PICK

**V-5**

**OPERATION MANUAL**

TABLE OF CONTENTS ..... 1

LABOUR SAFETY - WARNINGS ..... 2

SAFETY INSTRUCTIONS ..... 3

TECHNICAL DESCRIPTION ..... 4

APPLICATION ..... 4

MODEL LABELLING ..... 5

MAINTENANCE PRINCIPLES ..... 6

LUBRICATION ..... 6

STORING ..... 7

DELIVERING ..... 7

PARTS LIST ..... 8

AXONOMETRIC VIEW ..... 10

## Equipment

Do not blindly follow the rules.



Read through the chapter to learn why personal protective equipment is important.

## LABOUR SAFETY - WARNINGS

Every person to work with or service the hammer must read or be familiarized with these instructions so as to understand them completely.

Always wear safety shoes, goggles, ear defenders, gloves and other safety equipment prescribed for the given task.

### ⚠️ WARNING Noise hazard

Prolonged exposure to noise produced by pick operation puts the operator at risk of health issues.

- ▶ Do not stay in a noisy environment without effective ear defenders.

### ⚠️ WARNING Vibrations

Frequent use of hand-held vibrating tools may trigger onset of the Hand-Arm Vibration Syndrome (HAVS).

- ▶ Take short breaks from work and always keep your hands warm.
- ▶ Immediately report any issues like numbness in fingers to your superior.

### ⚠️ WARNING Dust hazard

The pick operation may be accompanied by high dust nuisance.

- ▶ Use respirators where dust nuisance exceeds levels prescribed by relevant hygienic regulations.

### ⚠️ WARNING Flying debris

Rock chips and debris can be projected in at high velocities as the pick operates.

- ▶ Wear safety goggles.

## SAFETY INSTRUCTIONS

The priority of labour safety always prevails over any other operation demands.

As the following instructions cannot cover all possibly occurring cases, sound common sense must be employed when working with the pick and in the vicinity of the tool.

- ▶ Do not touch the trigger until you are ready to operate.
- ▶ Always hold the pick with both hands while operating.
- ▶ Stay on a safe and stable platform while operating.
- ▶ Do not put the pick close to your face.
- ▶ Compressed air is dangerous! Do not aim an air hose at yourself or other people. Do not use pressurized air to clean the site or your clothing.
- ▶ Make sure all hose connections are firm and airtight and secure hoses to prevent loss of air or injury if a hose gets loose or bursts.
- ▶ Secure hoses using the prescribed number of recommended hose clips and sockets prescribed for the type of hose.
- ▶ Do not release any joints that are under pressure. Always switch off the air supply and bleed hoses first.
- ▶ If you use a cleaning agent or a solvent to clean the pick, make sure it meets all relevant safety regulations and that its application does not cause environmental damage.
- ▶ When cleaning, observe instructions provided by the manufacturer of the cleaning agent.

- Do not get distracted – risk of accident is always present.
- Make sure other people are in safe distance or appropriately equipped and informed before operating the tool.
- If you come across a foreign object while operating, put the pick aside and uncover the object carefully to identify it.

## Air pressure

VL – 5 soil picks are constructed for operating air pressure of 0.4 – 1.2 MPa.



0.4 – 1 MPa

## TECHNICAL DESCRIPTION

After connecting the pick to a compressed air supply source, pressurized air can enter the pick body. When the control lever is pressed down, air enters piston space and is in turns distributed by the piston into the adjutage pipe. The airflow is sped up by an output nozzle at the end.

**NOTE – Air may blow through the pick lightly with the stopcock open.** Use the stopcock to stop airflow completely when not operating.

## APPLICATION

The soil pick is used for easy disruption of lesser strength materials. Depending on the amount and pressure of supplied air, (the airflow is dynamically accelerated in the body) it is possible to use the pick for:

- Disruption and loosening of compact soil
- Unveiling and releasing cables and wiring
- Blowing construction joints clear
- Removing dirt from street drains
- Aeration and liberation of tree roots
- Loosening rails and signalling devices
- Rough cleaning of cars
- Removing weathering plasters etc.

Technical data and main dimensions	ISO Unit	Mean value
Weight	kg	4.5
Impact rate	Hz	145
Air consumption	m <sup>3</sup> min <sup>-1</sup>	2
Operating air pressure	MPa	0.4 – 1
Effective value of weighted acceleration	m.s <sup>-2</sup>	1.9
Measured sound power level	dB	115.5
Guaranteed sound power level	dB	116
Breakdown voltage value with Laminate adjutage.	kV	80
Length (less adjutage)	mm	460
Length with adjutage	mm	960
Supply hose	mm	Js 16 (up to 15m) Js 20 (15m+)
Connecting thread	"	G 1/2" RS

Mean values (±10% tolerance) at 0.5 MPa air pressure.

## MODEL LABELLING

Picks are fitted with labels containing important information. Keep these labels clean and readable at all times and order new ones as necessary.



The main label should be found on the handle.

- Maximum permitted compressed air pressure is stated in the top left corner.
- The 'CE' symbol states that the product is EC-approved (see EC-Declaration of conformity).
- The opened book symbol states that user has to read and understand the manual before using the machine for the first time.
- The headset symbol reminds user to wear effective ear defenders.
- The last symbol reminds user to wear safety goggles.

The other label indicates guaranteed noise level.

See Technical data for more information.

Machine type and serial number are embossed on the main label on the handle.

## Low temperatures

Presence of condensate in air coupled with low temperatures can cause the pick to freeze up.



Add an AOV 6 water separator or a SOOR unit before the hammer and as far away from the compressor unit as possible.

## MAINTENANCE PRINCIPLES

Always observe all relevant hygiene and safety regulations.

Only personnel properly acquainted with the structure and function of the pick can service the tool.

All repairs are to be performed by the manufacturer or authorised trained personnel.

- ▶ Dry, clear air of appropriate overpressure (see Technical data) must be available in sufficient volumes.
- ▶ Supply hose must match the prescribed dimensions. To avoid excessive frictional pressure loss, do not use hoses of over 15 metres in length (in case of a Js13 hose).
- ▶ Protect the pick from dirt and other harmful particles getting in. Always keep the input and output openings clean.
- ▶ Blow the hose clear to get rid of potentially harmful particles before attaching it to the pick.
- ▶ Properly tighten all joints and re-tighten after 3-5 hours of first operation.
- ▶ Check-up on the state of the pick regularly.

## LUBRICATING

The pick must be in good condition and lubricated properly to provide maximum performance, service life and proper functionality. Ensure sufficient lubrication with an LR oiler or a SOOR unit.

The lubricant not only serves to slow down wear but also to properly seal the compressed air distribution system. Insufficient lubrication can lead to damage on piston and cylinder.

Alternatively, pour about 100 cm<sup>3</sup> of oil into the air supply hose (at the entry point) by the compressor unit and 5 cm<sup>3</sup> into the air inlet at the beginning of each work shift and repeat every 2-3 hours of operating.

- ◆ Do not use hydraulic oils or unstabilized colseeded oils for lubrication.
- ◆ Before storing the tool for over three weeks, conserve it using mineral oil (see Storing).
- ◆ Do not use ecological oils for conservation.

**Recommended ecological oils:**

BP BIOHYD SE 46, ÖMV BIOHYD M 32,  
TOTAL HYDROBIO 46, PERMON EKO-Pneu

**Recommended mineral oils:**

PARAMO PNEUMAT 46

**STORING**

Before storing the tool for over three weeks, it needs to be conserved.

- ◆ Conserve the pick by pouring cca. 50 cm<sup>3</sup> (0.5 dcl) of mineral oil into the air inlet and running it shortly to coat its internal parts with oil.
- ◆ Store the pick in dry conditions – protected from weather factors and relative humidity below 75%.
- ◆ Do not store the pick close to corrosive chemicals or gases.

In proper storage conditions, the pick can be stored for a year and spare parts for a year and a half without re-conservation.

**DELIVERING**

The pick is delivered separately, including this manual and a certificate of warranty.

Following items are also for sale:

- tools
- oils, water separators
- recommended ecological oils
- hoses and hose ends, adapters, nuts, sockets, clips
- sandblaster (Item no. 9501-020)

**Ordering spare parts**

All hammers are manufactured in accordance with drawing documentation to ensure interchangeability of all components.

Please state the hammer type, name, quantity and item no. of the desired component in your order form.



Pos.	Item No.	Name	Qty	Standard
	9505 011	VL-5 Soil pick\		
1	8042 320	Body Assy.	1	J
2	1511 290	Valve body	1	J
3	1510 040	Cover	1	J
4	0784 020	Nut	1	J
5	0911 640	Valve head	1	J
6	5027 060	Piston	1	J
7	0800 030	Plug	1	J
8	0401 110	Plug	1	J
9	1270 010	Trigger holder	1	J
10	0911 650	Ring	1	J
11	1318 100	Handle	1	J
12	4341 240	Pipe	1	J
13	0600 360	Nut	1	J
14	1260 120	Cover	1	J
15	1418 190	Triger welded assy.	1	J
16	3038 440	Trigger rod	1	J
17	4341 231	Pipe	1	J
18	8087 031	Pipe welded assy.	1	J
19	8087 042	Pipe adjutage	1	J
20	8087 051	Bent pipe assy.	1	J
21	0123 041	Nozzle 9	2	J
21*	0123 051	Nozzle 7	1	J
21**	0123 060	Nozzle	1	J
22	315 123	Spring 4501-851	1	J
23	4501-110	Spring	1	J
24	324 388	Ball 7	1	J
25	311 108	Spring pin 5x40	1	J
26	311 219	Cylindrical pin 5x14	1	J
27	311 197	Cylindrical pin 3x8	1	J
28	273 152	Ring 52x2	1	J
29	273 350	Deflector 4973-010 Long	1	J
29	4973-011	Deflector Short	1	J
30	273 068	Plug	1	J
31	273 035	O-Ring 35x27	1	J
32	414 209	Claw coupling 1/2" D	1	J
33	422 015	Stopcock 1/2" D – d	1	J
34	8095 080	Laminate adjutage	1	N

J = Standard    N = On demand

## VL-5 Soil pick

