



# PNEUMATIC AND HYDRAULIC TOOLS

DRIFTER AND DRILLING TOOLS FOR MINES,  
QUARRIES, CONSTRUCTION, AND FOUNDRY

# CONTENTS

**01**

**PICK HAMMERS ..... 4**

**02**

**BREAKING HAMMERS ..... 6**

**03**

**CHIPPING HAMMERS ..... 8**

**04**

**WEDGING HAMMERS ..... 10**

**05**

**RIVETING HAMMERS ..... 11**

**06**

**DOWN-THE-HOLE HAMMERS ..... 12**

**07**

**DRILLING HAMMERS ..... 14**

**08**

**SWAGE HAMMER, SHOVEL, AND OTHER ..... 16**



## COMPANY HISTORY

The beginning of the industry defining the current company PERMON dates back to the 19th century when industrial production boomed on the riverside of Berounka and historical milestones which played a significant role for the company development. Milestone year was 1824, when nobleman Karel Egon II. von Fürstenberg, built ironworks Marie – Anna in Rostoky for refining raw iron and later the sheet metal rolling mill. The production continued the works of duke's ironworks in Stará Huť (current Hýskov), Nová Huť (Nižbor) and Nový Jáchymov. At the time, Fürstenberg's ironwork facility ranked amongst the most modern companies in Central Europe and the products are still historically recognised.

Engineering production boomed during the period after WWII. The production was based in Rostoky under many names – e.g. TOK, TRANSPORTA, NÁŘADÍ, PERMON etc. During this period, the production program of PERMON started to be formed and based on high quality of products.

The success of Czech trademark PERMON is proven by its history and recently celebrated 60 years. It has also received awards for quality and particularly many satisfied customer on the domestic and foreign market.

The products are applied worldwide.



# 01

## PICK HAMMERS

Pick hammers PERMON are designed for disconnecting low and medium solidity ground and materials (e.g. concrete, bituminous roads, coal). They are used mostly in construction, in mining, and open operations.

- HIGH RATIO PERFORMANCE/WEIGHT ENABLE LOWER PHYSICAL WORK FOR THE OPERATORS
- LONG LASTING RESISTANCE OF MATERIALS
- SIMPLE CONSTRUCTION ENABLES EASY MAINTENANCE AND REPAIR WORKS
- MINIMUM NUMBER OF PARTS
- HIGH SERVICE LIFE AND RELIABILITY
- HIGH IMPACT ENERGY
- LARGE SELECTION OF TOOLS AND ACCESSORIES

### PICK HAMMERS / CLASSIC CONSTRUCTION

#### CHARACTERISTICS

The product construction is formed from materials compliant with the requirements for use in the environment with hazardous atmospheric conditions.

Type	Weight	Dimensions	Air consumption	Tool shank mm	Operating pressure	Connective thread	Noise	Vibrations
SK 9-5	9 kg	236 × 470 mm	0,9 m³/min	Ø 25 × 75	4 - 7 bar	R3/4"	104,2 dB	9,1 m/s²
SK 9-6	9 kg	236 × 470 mm	0,9 m³/min	# 22 × 82	4 - 7 bar	R3/4"	100,8 dB	9,1 m/s²
SK 9-6A	10 kg	236 × 470 mm	0,9 m³/min	# 22 × 82	4 - 7 bar	R3/4"	102,3 dB	9,1 m/s²
SK 13B	13 kg	236 × 612 mm	0,9 m³/min	Ø 25 × 75	4 - 7 bar	R3/4"	104,2 dB	13,32 m/s²
SK 13D	13 kg	236 × 612 mm	0,9 m³/min	# 22 × 82	4 - 7 bar	R3/4"	104,2 dB	13,32 m/s²
SK 13DZ	14 kg	236 × 612 mm	0,9 m³/min	# 22 × 82	4 - 7 bar	R3/4"	104,2 dB	13,32 m/s²

**SK 13B  
SK 13D**



**SK 13DZ**



**SK 9-6A**



**SK 9-5  
SK 9-6**



## PICK HAMMERS / WITH REDUCED VIBRATIONS

### CHARACTERISTICS

The drifter part (roller with the distribution and piston) is inserted in the hammer control part and it is not in contact with the operators' hands. Due to the roller location in the handle and the springs, the oscillation is not fully transferred, it is significantly reduced.

Type	Weight	Dimensions	Air consump.	Tool shank mm	Operating pressure	Connective thread	Noise	Vibrations
SKA 10B	11 kg	240 × 490 mm	0,9 m³/min	Ø 25 × 75	4 - 7 bar	R3/4"	97,7 dB	6,1 m/s²
SKA 10D	11 kg	240 × 490 mm	0,9 m³/min	# 22 × 82	4 - 7 bar	R3/4"	97,7 dB	6,1 m/s²
SKA 10DZ	12 kg	240 × 490 mm	0,9 m³/min	# 22 × 82	4 - 7 bar	R3/4"	97,7 dB	6,1 m/s²
SKA 12B	13 kg	240 × 650 mm	1,0 m³/min	Ø 25 × 75	4 - 7 bar	R3/4"	100,5 dB	5,6 m/s²
SKA 12D	13 kg	240 × 650 mm	1,0 m³/min	# 22 × 82	4 - 7 bar	R3/4"	100,5 dB	5,6 m/s²
SKA 12DZ	14,5 kg	240 × 650 mm	1,0 m³/min	# 22 × 82	4 - 7 bar	R3/4"	100,5 dB	5,6 m/s²

**SKA 10DZ**



**SKA 10B  
SKA 10D**



**SKA 12DZ**



**SKA 12B  
SKA 12D**



## PICK HAMMERS / SPADE PICK HAMMER

### CHARACTERISTICS

SKR 11CD is applied during various ground works particularly where it is impossible to apply heavy mechanisation tools, e.g. in locations with difficult accessibility, work in heavy clay, etc.

Type	Weight	Dimensions	Air consumption	Tool shank mm	Operating pressure	Connective thread	Noise	Vibrations
SKR 11 CD	11 kg	850 × 230 mm	0,9 m³/min	# 22 × 82	4 - 7 bar	R3/4"	104,2 dB	9,1 m/s²

**SKR 11 CD**



# 02

## BREAKING HAMMERS

Demolition hammers PERMON are designed for disconnecting low and medium solidity ground and materials (e.g. concrete, bituminous roads, coal). The layout and the weight is suitable for incline mining, i.e. vertically or aslant down.

- **HIGH RATIO PERFORMANCE/WEIGHT ENABLE LOWER PHYSICAL WORK FOR THE OPERATORS**
- **LONG LASTING RESISTANCE OF MATERIALS**
- **SIMPLE CONSTRUCTION ENABLES EASY MAINTENANCE AND REPAIR WORKS**
- **PISTON WITH AIR CUSHION**
- **HIGH IMPACT ENERGY**
- **HIGH SERVICE LIFE AND RELIABILITY**
- **LARGE SELECTION OF TOOLS AND ACCESSORIES**

### CHARACTERISTICS

Demolition hammers are available in two options – classic and with reduced vibrations. Hammer series BKA with sprung handle and enabling simpler work with lower vibrations. Solid, single piece handle is available for hammer series BK.

### BREAKING HAMMERS / CLASSIC



**BK 15**

**BK 20**

**BK 25**

**BK 30**

**BK 40**

Type	Weight	Dimension s	Air consump.	Tool shank mm	Operating pressure	Connective thread	Noise	Vibrations
BK 15	15 kg	435 × 670 mm	0,9 m³/min	# 22 × 82 (# 25 × 108)	4 - 7 bar	R3/4"	101,8 dB	9,1 m/s²
BK 20	21 kg	435 × 670 mm	1,4 m³/min	# 25 × 108 (# 28 × 160)	4 - 7 bar	R3/4"	98,1 dB	9,8 m/s²
BK 25	25 kg	435 × 670 mm	1,4 m³/min	# 25 × 108 (# 28 × 160) (# 32 × 160)	4 - 7 bar	R3/4"	100,8 dB	11,5 m/s²
BK 30	30 kg	435 × 750 mm	1,8 m³/min	# 32 × 160 (# 28 × 160)	4 - 7 bar	R3/4"	104,5 dB	11,1 m/s²
BK 40	40 kg	435 × 800 mm	2,0 m³/min	# 32 × 160 (# 28 × 160)	4 - 7 bar	R3/4"	104,8 dB	8,8 m/s²

## BREAKING HAMMERS / WITH REDUCED VIBRATIONS



**BKA 15**

**BKA 20**

**BKA 25**

**BKA 30**

**BKA 40**

Type	Weight	Dimensions	Air consump.	Tool shank mm	Operating pressure	Connective thread	Noise	Vibrations
BKA 15	15 kg	435 × 670 mm	0,9 m³/min	# 22 × 82 (# 25 × 108)	4 - 7 bar	R3/4"	101,8 dB	2,5 m/s²
BKA 20	21 kg	435 × 670 mm	1,4 m³/min	# 25 × 108 (# 28 × 160)	4 - 7 bar	R3/4"	98,1 dB	2,5 m/s²
BKA 25	25 kg	435 × 670 mm	1,4 m³/min	# 25 × 108 (# 28 × 160) (# 32 × 160)	4 - 7 bar	R3/4"	100,8 dB	3,4 m/s²
BKA 30	30 kg	435 × 750 mm	1,8 m³/min	# 32 × 160 (# 28 × 160)	4 - 7 bar	R3/4"	104,5 dB	3,5 m/s²
BKA 40	40 kg	435 × 800 mm	2,0 m³/min	# 32 × 160 (# 28 × 160)	4 - 7 bar	R3/4"	104,8 dB	3,6 m/s²

# 03

## CHIPPING HAMMERS

Pneumatic chipping hammers PERMON provides universal use. It is applied particularly in construction (light cutting and demolition works, grooving, cleaning), foundry (cleaning the casting, cutting riser) and stone working, and in sculpturing.

- **HIGH IMPACT INTENSITY**
- **REDUCED NOISE NUISANCE**
- **VERY SIMPLE OPERATION**
- **HANDLE FOR SIMPLE AND SAFE WORK**
- **GRADUAL PERFORMANCE REGULATION AND HAMMER OPERATION**
- **LARGE SELECTION OF TOOLS AND ACCESSORIES**

### CHARACTERISTICS

Compressed air is supplied via the start valve in the roller operation. Air supply to the lower and upper area is controlled with a piston which performs direct return movement. In the lower dead centre the piston hits the tools and passes power which performs work via the tools. Consumed air leaves via the exhaust openings in the damper.

#### SEK 2-2



Needle hammer for hammer types SEK 2-1, SEK 2-2, SEK 4-1, is used in engineering, stone working, foundry, particularly for cleaning and roughening the surfaces.

Type	Weight	Dimensions	Air consumption	Tool shank mm	Operating pressure	Connective thread
SEK 2-2	4,5	215 × 353 mm	0,2	# 19 × 50 1)	4 - 7 bar	G1/2"



**SEK 2-1 CP****SEK 4-1CA****SEK 6-3CA  
SEK 6-3BL****SEK 5-3CA  
SEK 5-3BL**

## THE MOST FREQUENTLY USED TYPES OF CHIPPING HAMMERS

Type	Weight	Dimensions	Air consump.	Tool shank mm	Operating pressure	Connective thread	Noise	Vibrations	Note
SEK 2-1CP	2,2 kg	155 × 220 mm	0,3 m <sup>3</sup> /min	Ø 12,7 #11×45	4 - 6 bar	G1/2"	4 - 6 bar	4 - 6 bar	damped vibrations
SEK 4-1CA	4,5 kg	215 × 353 mm	0,3 m <sup>3</sup> /min	# 19 × 50	4 - 7 bar	G1/2"	4 - 7 bar	4 - 7 bar	
SEK 5-3CA	5,5 kg	215 × 355 mm	0,7 m <sup>3</sup> /min	# 19 × 50	4 - 7 bar	G1/2"	4 - 7 bar	4 - 7 bar	with cylinder cover
SEK 5-3BL	5,5 kg	215 × 300 mm	0,7 m <sup>3</sup> /min	# 16,4 < 1:12	4 - 7 bar	G1/2"	4 - 7 bar	4 - 7 bar	without cylinder cover
SEK 6-3CA	5,8 kg	215 × 453 mm	0,6 m <sup>3</sup> /min	# 19 × 50	4 - 7 bar	G1/2"	4 - 7 bar	4 - 7 bar	with cylinder cover
SEK 6-3BL	5,8 kg	215 × 350 mm	0,6 m <sup>3</sup> /min	# 16,4 < 1:12	4 - 7 bar	G1/2"	4 - 7 bar	4 - 7 bar	without cylinder cover

## APPLIED TOOLS – STOPPER

SEK 6 mm	SEK 5 mm	SEK 4 mm	SEK 2 mm
# 15 < 1:12	# 15 < 1:12	# 16,4 < 1:12	Ø 12,6 × 50
# 16,4 < 1:12	# 16,4 < 1:12	# 15 < 1:12	# 10,6 × 50
# 15 < 1:10	# 15 < 1:10	# 15 < 1:10	Ø 12,7 × 45
# 19 × 50	# 19 × 50	# 19 × 50	# 11 × 45 (ISO)
Ø 20 × 60	Ø 20 × 60	Ø 17,3 × 60	
Ø 17,3 × 60	Ø 17,3 × 60	# 14,8 × 60	
# 14,8 × 60	# 14,8 × 60	Ø 20 × 60	
Ø 18 × 80			

# 04

## WEDGE HAMMERS

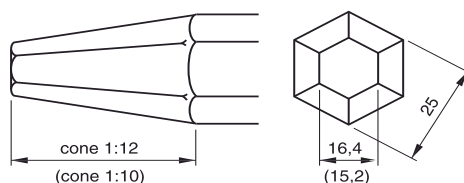
Pneumatic wedge hammers PERMON are used in stone working operations during the stone block division and for further stone working. It is applied mostly for breaking large pieces of rock for construction purposes or in the location where blast down is impossible (mining rock salt for food industry).

- **HIGH PERFORMANCE**
- **SIMPLE CONSTRUCTION ENABLES EASY MAINTENANCE AND REPAIR WORKS**
- **SIMPLE REPLACEMENT CASING FOR USING MULTIPLE TOOLS**

### CHARACTERISTICS

Wedge hammers operate on the same principle as the pick hammers. The difference is their work tool which is not fixed to the hammer. Compressed air is supplied via the start valve in the slide valve distribution which alternately fills the upper and lower area of the roller and provides the direct return movement of the piston. In the lower dead centre the piston hits the tools and passes power which performs work via the tools. Consumed air leaves via the air damper.

#### KK 9-1BL



Type	Weight	Dimensions	Air consumption	Tool shank	Operating pressure
KK 9-1 BL	9 kg	275 × 340 mm	1,1 m³/min	1:12	4 - 6 bar
KK 9-1 BN	9 kg	275 × 340 mm	1,1 m³/min	1:10	4 - 6 bar

# 05

## RIVETING HAMMERS

### CHARACTERISTICS

The riveting hammers are used for creating non-collapsible connections by means of rivets. The riveting set inserted in the riveting hammer and pneumatic riveting tool creates the rivet head.

Type	Weight	Dimensions	Air consump.	Tool shank	Operating pressure	Connective thread	Noise	Vibrations
SK 9-NK	9,8 kg	236 × 470 mm	0,9 m³/min	Ø 25 × 75	4 - 7 bar	R3/4"	104,2 dB	9,1 m/s²
SK 13-NK	13,8 kg	236 × 612 mm	0,9 m³/min	Ø 25 × 75	4 - 7 bar	R3/4"	104,2 dB	13,32 m/s²

Pneumatic riveting tool. The tool is used for pushing the riveting set to create the rivet head.



SK 13-NK



SK 9-NK



## JOLT HAMMERS

### CHARACTERISTICS

The jolt hammers are designed for use in foundry where they operate as a part of Jolt boxes. The vibrations release and divide the foundry sand from the casting.

Type	Tool	Adherence pressure	Number of impacts	Air consump.	Hammer length	Weight	Operating pressure	Connective thread	Impact power	Noise
VKK 29	Ø 30,8 × 108 mm	400-600 N	32,5 Hz	4,2 m³/min	665 mm	28 kg	4 - 6 bar	G3/4", RS	62 J	103 db
SKK 12-3	Ø 25 × 75 mm	150-200 N	18,3 Hz	1,1 m³/min	650 mm	15 kg	4 - 6 bar	G3/4", RS	35 J	105 db
SEKK 6	Ø 20 × 60 mm	150-200 N	35 Hz	0,6 m³/min	453 mm	9 kg	4 - 7 bar	G1/2", RS	10,8 J	105 db



# 06

## DOWN-THE-HOLE HAMMERS (DTH)

Down-the-hole hammers PERMON are technically perfect tools with high drilling performance. They are suitable for all types of rock and include long service life. The hammers contain the patent protected technical innovations increasing the operating reliability and they guarantee quality, resistance, and performance coupled with wide choice of accessories.

- PROVEN HIGH PERFORMANCE
- REDUCED AIR CONSUMPTION
- HIGHER SERVICE LIFE OF SPARE PARTS
- REDUCED COSTS FOR DRILLING
- LONG LASTING CONTINUAL AND DEFECT-FREE USE
- SIMPLE DESIGN
- SIMPLE REPAIRS WITHOUT SPECIAL TOOLS
- REACHING HIGHER LENGTHS OF THE DRILLS THAN IN COMPARABLE DRILLING HAMMERS
- GREAT RINSING PROPERTIES

### DOWN-THE-HOLE HAMMERS / HAMMERS



#### CHARACTERISTICS

DTH series VKP with drilling bit (hereinafter referred to as the drilling hammer) are designed for drilling long bores in rocks of various solidity, particularly in quarries for the purposes of blasting works. The length of the bore is limited by the capabilities of the particular drilling set, mainly by the ability to remove the debris from the bore, which depends on the bore's diameter, type of rock, operating air pressure and the type of drill bit used.

Type	Weight	Diameter	Length	Oper. pressure	Air consumption at			Connective thread	Recommended maximum diameter of bore
					6 bar	12 bar	18 bar		
VKP 70	10,3 kg	62 mm	670 mm	6-15 bar	1,8	3,8	-	Rd 50 inner	70-80 mm
VKP 80	15,4 kg	72 mm	716 mm	6-15 bar	2,1	4,6	-	Rd 50 inner	80-95 mm
VKP 3,5 DHD	22,7 kg	81 mm	839 mm	6-18 bar	2,5	6	-	API 2 3/8" inner	89-105 mm
VKP 3,5" N DHD W	22,7 kg	81 mm	839 mm	6-25 bar	2,5	6	9	API 2 3/8" external	89-105 mm
VKP 100 DHD	25 kg	87 mm	794 mm	6-18 bar	3,1	6,2	-	API 2 3/8" inner	95-135 mm
VKP 105K DHD	20 kg	97 mm	550 mm	6-12 bar	2,8	6,5	-	WIRT	110-152 mm
VKP 110-1 DHD	34,2 kg	97 mm	917 mm	6-25 bar	3,6	9	-	API 2 3/8" inner	110-152 mm
VKP 130-1 DHD	59,5 kg	120 mm	988 mm	6-18 bar	3,5	8,6	-	API 3 1/2" inner	145-225 mm
VKP 5" DHD W	66 kg	125 mm	1035 mm	6-25 bar	3,5	8,6	14	API 3 1/2" external	135-165 mm
VKP 150 QL6	78,5 kg	142 mm	1022 mm	6-18 bar	10	15	-	API 2 3/8" inner	160-205 mm



**VKP 105K**

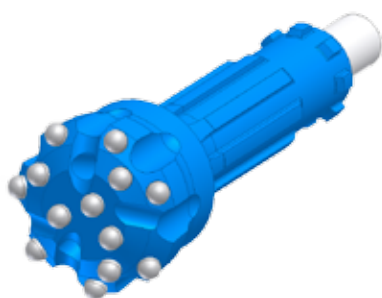
It can be used for drilling water-saturated bores or bores which are completely under water. In cases of foam or water based wash-out, the hammer drill can be used in confined areas such as inside an underground mine.

The basic design is intended for the use with Permon tops. Alternative version is designed solely for the use with DHD tops. Depending on the rock, it is necessary to select the type of pins and optimum bit rotation. The drilling in solid and rocks easy for drilling enables the use of bits with ballistic pins. The drilling in disturbed rocks is provided with bits with ball pins.

## DOWN-THE-HOLE HAMMERS / DRILL BITS

### CHARACTERISTICS

The drill bits are designed for DTH series VKP. They are used for the energy transfer of the hammer piston on the disturbed rock. The bits are used for drilling in rocks. Generally, the drill bits show longer service life and higher drilling performance in comparison to classic drilling bits with the plated edge.



### PRODUCT RANGE OF DRILL BITS

PERMON tool shank		QL6 tool shank
9550250	9550180	9550310
VKP 70	VKP 80	VKP 150 QL6
KR 70- 75JBBS	KR 80- 85DBBS	KR 150-225 SCAP-Z
KR 70- 80JBBS	KR 80- 90DBBS	

Note: marked green – manufactured upon request; in hammer VKP105K the bit to be shortened to 35 mm

DHD tool shank						QL6 (60)	
9550330	9550400	9550221	9550241	9550360	9550390	9550410	9550310
VKP 3,5 DHD	VKP 3,5" N DHD W	VKP 100 DHD	VKP 110-1 DHD	VKP 130-1 DHD	VKP 5" DHD W	VKP 105K DHD	VKP 150 QL6
KR 95 B DHD 3,5	KR 95 B DHD 3,5	KR 102 K DHD 3,5	KR 115 B DHD 340	KR 152 B DHD 350		KR 115 B DHD 340	KR 165 B QL6
KR 100 B DHD 3,5	KR 100 B DHD 3,5	KR 105 B DHD 3,5	KR 135 B DHD 340	KR 165 B DHD 350		KR 135 B DHD 340	KR 165 JBES QL6
KR 102 K DHD 3,5	KR 102 K DHD 3,5		KR 150 B DHD 340	KR 130-225 SCAP-Z		KR 150 B DHD 340	KR 165 K QL6
KR 105 B DHD 3,5	KR 105 B DHD 3,5		KR 110-180 SCAP-Z			KR 110-180 SCAP-Z	KR 171 JBES QL6
							KR 178 B QL6
							KR 203 JKES QL6
							KR 150-225 SCAP-Z

Note: shorten bit tube to 45 – 46 mm; hammer VKP3.5N DHD W – not equipped with hose; VKP100 DHD – shorten hose to 42 – 43 mm; VKP 5" DHD W – don't shorten bit tube.

# 07

## DRILLING HAMMERS

The drilling hammers PERMON are included in the weight category of light to medium heavy drilling hammers and they are used for drilling holes during secondary disconnection of rocks drilled with charge in quarry operations, during the construction of roads and railways, in construction.

- **ROBUST CONSTRUCTION**
- **SIMPLE MAINTENANCE**
- **HIGH FREQUENCY OF IMPACTS**
- **LONG LASTING SERVICE LIFE**
- **SUITABLE FOR EXPLOSIVE ENVIRONMENT**
- **SPRUNG HANDLE UPON REQUEST**

### DRILLING HAMMERS / DRILLING HAMMERS

**VKA 17-1**



**VK23-5**



**VK29-5**



**NVK 03**



Type	Weight	Dimensions	Air consumption	Tool stop mm	Air operating pressure	Noise	Vibrations
VKA 17	18 kg	450 × 643 mm	2,8 m³/min	#19 × 108, 22 × 108	4 - 7 bar	115,7 N (dB)	6,1 m/s²
VK23-5	26,5 kg	280 × 700 mm	4 m³/min	#22 × 108, 22 × 82, 25 × 108	4 - 6 bar	115,8 N (dB)	19 m/s²
VK29-5	29,2 kg	280 × 740 mm	4,5 m³/min	#22 × 108, 25 × 108	4 - 6 bar	117,2 N (dB)	24,5 m/s²
NVK 03	26 kg	290 × 685 mm	4,3 m³/min (0,3 MPa)	#22 × 108, 25 × 108	3 - 4,5 bar	102,7 N (dB)	

# DRILLING HAMMERS / SLIDE DRILLING HAMMERS

VKS 80



VKS 45



VK 35



Type	Weight	Dimension s	Air consumption	Tool shank	Operational air pressure
VK 35	36 kg	22 × 108 mm	5,2 m³/min	#22 × 108, 25 × 108	4 - 6 bar
VKS 45	45 kg	300 × 615 mm	6,4 m³/min	#25×159, 22×108, 25×108	4 - 6 bar
VKS 80	80 kg	300 × 840 mm	8,5 m³/min	32 (11/4")	4 - 6 bar

# DRILLING HAMMERS / HYDRAULIC SLIDE HAMMERS

Type	Weight	Dimensions	Rinsing	Start bar stopper	Total consumption	Impact power	Max. pressure in rotation	Max pressure in impact part	Rotation
HVKS 125-1	130 kg	950 × 295 × 266 mm	rinsing head	38 (11/2")	65 L/min	0-250 J	120-175 bar	130-200 bar	joint
HVHS 125-2	140 kg	1067 × 295 × 266 mm	rinsing head	38 (11/2")	65 L/min	0-250 J	120-175 bar	130-200 bar	separate

PV – solid washing head / VV – loose washing head

Operating oils		Volume speed	
Drifter gear	Separate rotation	Drifter gear	Separate rotation
18 MPa	12 MPa	65 l . min <sup>-1</sup>	5 l . min <sup>-1</sup>

HVKS 125-1



HVKS 125-2



# 08

## RAMMERS, AIR-SHOVEL, AND OTHER

### RAMMERS, AIR-SHOVEL, AND OTHER/ PNEUMATIC PUSHER LEGS

Type	Weight	Max extraction length	Max thrust force	Operating pressure
VP 600	14 kg	600 mm	1000 N	4 - 6 bar
VP 800	16 kg	800 mm	1000 N	4 - 6 bar
VP 1000	18 kg	1000 mm	1000 N	4 - 6 bar
VP 1200	19 kg	1200 mm	1000 N	4 - 6 bar

VP 600  
VP 800  
VP 1000  
VP 1200



### RAMMERS, AIR-SHOVEL, AND OTHER/ PNEUMATIC SCRAPER

- **MULTIPURPOSE USE**
- **ADJUSTED TUBES EXTEND THE TOOL REACH**
- **RESISTANCE TO THE EFFECTS OF CONTAMINATED ENVIRONMENT IN HEAVY OPERATIONS, LONG SERVICE LIFE OF TOOLS IN PERMANENT OPERATIONS**
- **SIMPLE OPERATORS AND MAINTENANCE**

#### CHARACTERISTICS

Pneumatic scraper PERMON, based on the selection of tools, is used on construction – light demolition works, grooving, aligning, puncture, removal of plaster, and all types of floor tiles, and also in other fields -bark removal from trees etc., removal of burrs in foundries and asphalt coating from the roads.

Type	Weight	Dimensions	Air consump.	Start bar stopper mm	Operating pressure
PS4-1CA	4,6 kg	113×775+420+420 mm	0,3	#19×50	4 - 7 bar

PS4-1



### RAMMERS, AIR-SHOVEL, AND OTHER/ RAMMERS

- **SIMPLE CONTROL**
- **LONG LASTING OPERATING RELIABILITY**
- **MULTIPURPOSE USE**
- **SIMPLE OPERATORS AND MAINTENANCE**
- **MATERIAL RESISTANCE**
- **REDUCED VIBRATION LEVEL TRANSFERRED TO THE OPERATORS**

#### CHARACTERISTICS

Pneumatic rammers PERMON are used for pressing the forming materials, particularly in foundry technology and in places for pressing non-solid materials. It includes foundry sand in the rollers, nuclear, extensive casting moulds for pressing works, e.g. pressing fireproof lining in high furnaces.



P 1



PK 9, 11



Pneumatic rammer P1 is suitable especially for work on the worktop or for small surfaces, e.g. pressing small cores, etc. It is also used in construction and various works for material compacting.

PK 2, 3, 4



Type	Weight	Dimensions	Air consumption	Operating pressure
P1	2,5 kg	65 × 320 mm	0,2 m³/min	4 - 6 bar
PK 2,3,4	4,9, 5,3, 5,5 kg	80 x 620 - 1145 mm	0,3 m³/min	
PK 9	9 kg	80 × 1280 mm	0,6 m³/min	4 - 6 bar
PK 11	11 kg	80 × 1345 mm	0,55 m³/min	4 - 6 bar

## RAMMERS, AIR-SHOVEL, AND OTHER/ AIR SHOVEL

### CHARACTERISTICS

Air shovel is used for simple disruption of less solid materials. The air shovel is used for disruption and ploughing of compact soil, finding and releasing cables and lines, blowing and cleaning dilation joints, removal of contamination from the street channels, aerating and releasing tree roots, releasing the rails and signalling devices, and for removing old plasters.

After connecting the shovel to the distribution, the air flows in the unit. Press the control lever to allow air flow in the pin area, which alternately opens and closes air flow in the operating cycle in the extension tube, it is terminated with the outlet jet, and the air accelerates.

- **SIMPLE CONTROL**
- **THE OPTION OF REPLACEABLE EXTENSION NON-CONDUCTIVE TUBES**

VL 5



Sanding adapter



Type	Weight	Number of impacts	Air consumption	Hammer length	Hose clearance	Connective thread	Piston diameter	Piston stroke	Noise category	Vibration category
VL 5	4,5 Kg	145 Hz	2,1 m³/min	480 mm	16, 20 mm	RS, G 1/2	25 mm	5 mm	107 N (dB)	127 dB

# PNEUMATIC TOOLS ACCESSORIES

PERMON offers also professional accessories to the qualified and certified tools, such as tools, connection material, and consumption material.

- **DRILLING BARS, JOINTS**
- **DRAGS, CUTTERS, CHISELS**
- **DRILLING BITS**
- **REDUCTION OF DRILLING TUBES WITH VARIOUS THREAD TYPE**
- **DRILLING TUBES**
- **EXTRACTION MANDRELS**
- **HOSES, SLEEVES, CLAMPS, NUTS, QUICK COUPLING, REDUCTION**
- **OIL APPLICATORS**
- **ECOLOGICAL REMOVABLE OIL FOR GREASING**



**AOV 3**



**AOV 6**



**LR 1**  
**LR 3**



**SOOR 1, 3**



**SOOR 6**



Type	Weight	Oil volume	Max. air flow	Hammer length	Hose clearance	Connection thread	Max pressure
AOV 3	1,4 Kg		3 m³/min	250	13, 16, 20, 25 mm	Rs, 1" G, Rd	7 bar
AOV 6	9,5 Kg		6 m³/min	500	13, 16, 20, 25 mm	Rs, 1" G, Rd	7 bar
LR 1	1,7 Kg	0,5 L	0,3 - 0,70 m³/min	230	13, 16 mm	Rs, 1/2" G, Rd	7 bar
LR 3	3 Kg	1,3 L	0,7 - 5 m³/min	260	13, 16, 20, 25 mm	Rs, 1" G, Rd	7 bar
SOOR 1	3,1 Kg	0,5 L	6 m³/min	480	13, 16, 20, 25 mm	Rs, 1/2" G, Rd	7 bar
SOOR 3	4,4 Kg	1,3 L	6 m³/min	510	13, 16, 20, 25 mm	Rs, 3/4" G, Rd	7 bar
SOOR 6	19 Kg	1 L	6 m³/min	502	13, 16, 20, 25 mm	Rs, 1" G, Rd	7 bar







## CUSTOM PRODUCTION

Do you need special tools for your production which are not available in our offer but you would like to receive it from us? We offer custom made production. Based on your drawings or the basic specification we will take care of everything – from the design, calculations, technical documentation, provision of components, and completion.

The cooperation with the experts, who every day supervise the development, production, and testing of every piece of tools, enables us to provide reliable devices, custom made to suit your requirements. Check our professional products, for top class quality that we offer and guarantee.





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**GPS: 50°1'16.5" N, 13°51'59.4" E**