



CATALOGUE OF MANUAL PUMPING TECHNIQUE



*For every
garden*

 *Traditional*
Czech production

 *Quality*
Czech cast iron

 *Long life*

ABOUT KOVOPLAST

Kovoplast Chlumec nad Cidlinou, a.s. is a traditional manufacturer of cast iron pumps and pumps with a tradition for more than 70 years.

The production of manual pumping equipment takes place directly in the town of Chlumec nad Cidlinou. We supply complete hand pumps and pumps. As a matter of course is the wide range of spare parts for the pumping technology.

Our Czech product with a tradition will serve you for decades.



Demonstration of the realization of a new well with a standard T pump into the garden.

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HOW TO CHOOSE A PUMP

Hand pumps can pump water from a depth of up to **30 m**. Suction depth means distance from the top dead center of the piston (highest position of the piston) to the suction basket, which is always at least 30 cm from the bottom of the well. The suction depth can therefore be from 0m to 30 m.

Nowadays, when periods without rainfall are lengthening and the water level in the well is falling lower than before, it is recommended to monitor the water level in the well. Sometimes just to replace the pump and suction line is not sufficient, but it is necessary to deepen the well.

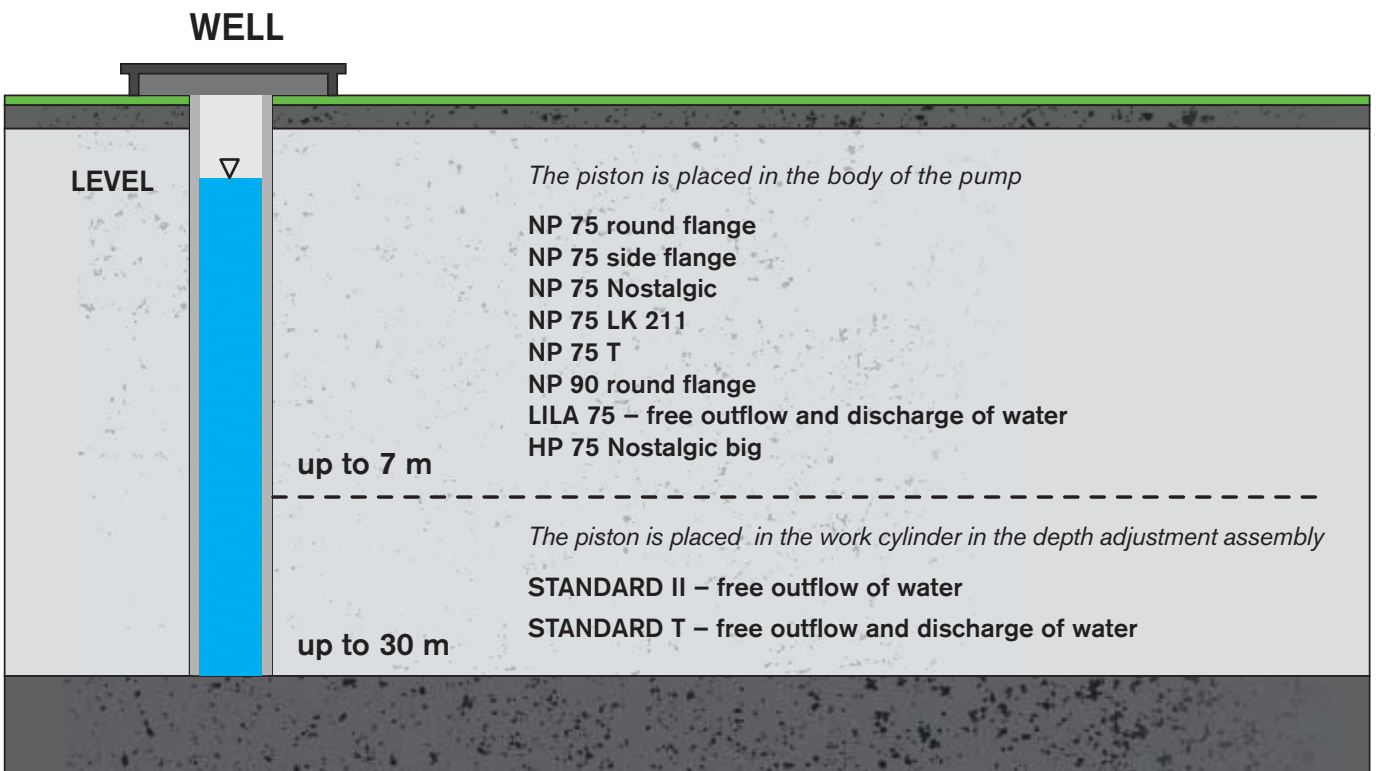
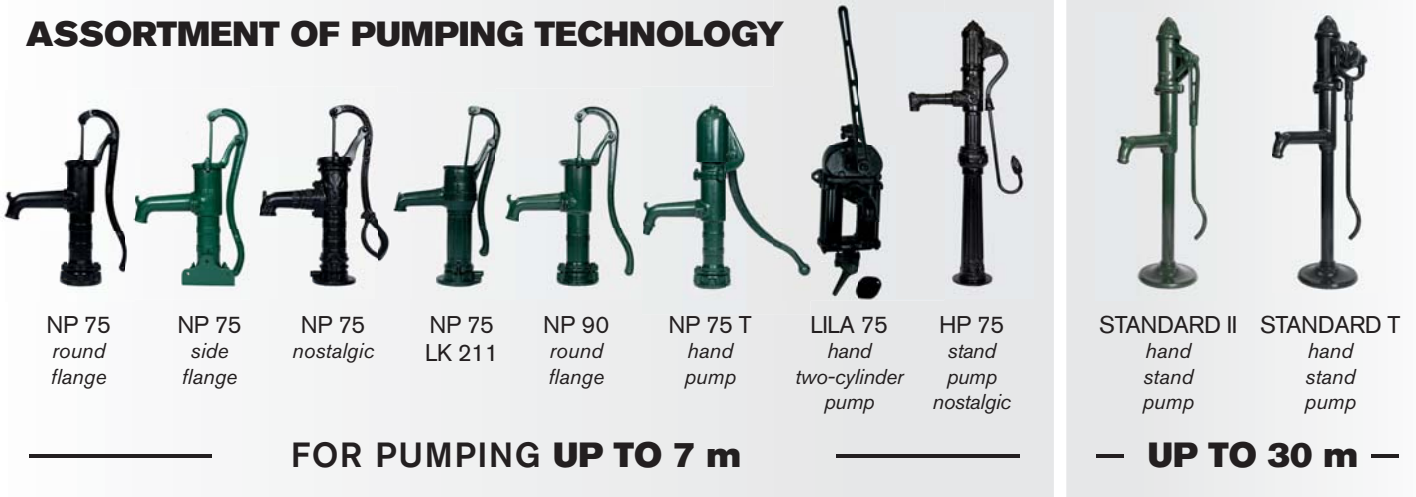
The first thing you need to know to choose the right type of pump is the depth of the well.

The second indicator is the purpose you need the pump for. Whether you will use it for a free outflow of water (into a bucket or a watering can) or is it necessary to push the water somewhere (spraying the garden, water supply at the height). Pressure pumps and pumps – NP 75T, STANDARD T pumps and a two-cylinder LILA pump – are used to spray or push water to a remote location.

It is recommended to secure the hand cast iron pump sufficiently against frost before winter to prevent it from any detriment. Hand pumps and pumps with a piston in their sousing (spout stand) are best removed from the well.

Pumps for all gardens

ASSORTMENT OF PUMPING TECHNOLOGY



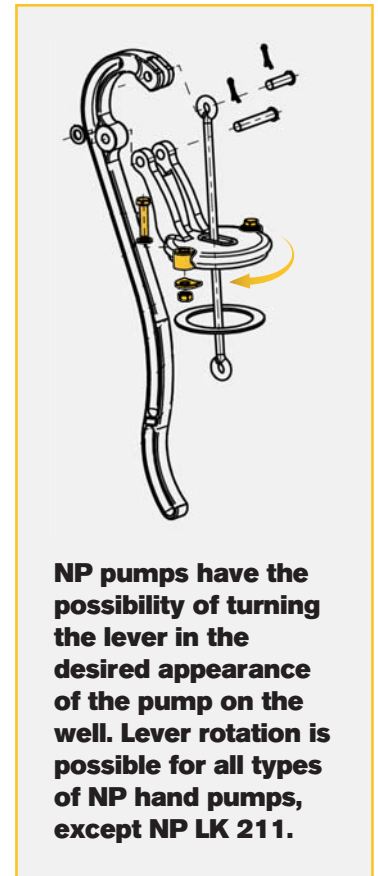
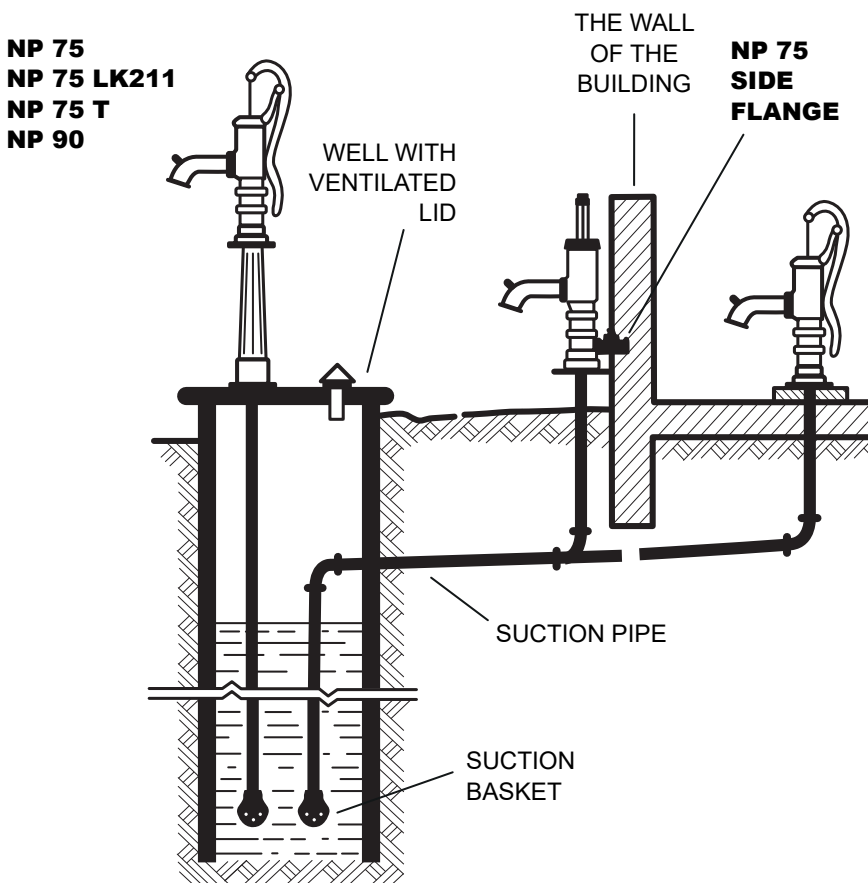
HAND PUMPS AND PUMPS FOR PUMPING UP TO 7 m

**Suitable for dug
and excavated wells
with a maximum depth
of 7 meters**

HAND STAND PUMPS LOW – TYPE NP

These pumps have a working piston located in the pump body, thanks to which you can place them on the well cover, but also outside the well. They are designed for pumping service water without mechanical impurities with a temperature of up to 40 °C. The suction pipe can be metal or plastic, jumped by several elbows, but most importantly always well sealed.

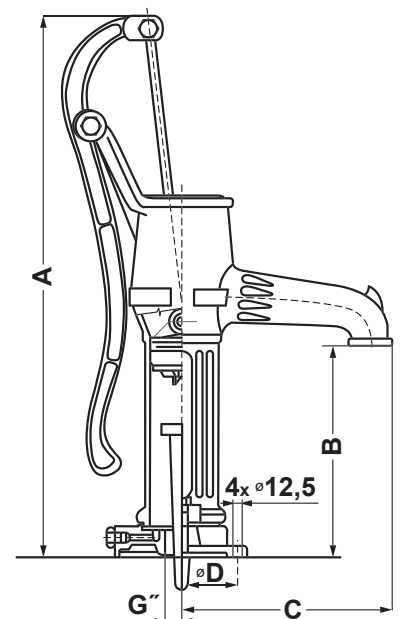
POSSIBILITIES OF USING NP HAND PUMPS



Technical information table for NP hand pumps

TYPE OF HAND PUMP NP	NP 75	NP 75 LK 211	NP 75 Nostal.	NP 75 T	NP 90
Water flow rate (l/min)	28	28	28	28	40
Number of double strokes per minute	40	40	40	40	40
Maximum suction depth (m)	7	7	7	7	7
Inner diameter of the cylinder (mm)	75	75	75	75	90
Piston stroke (mm)	160	160	160	160	160
Discharge height (m)	-	-	-	10	-
A (mm)	680	650	680	740	735
B (mm)	237	237	237	237	250
C (mm)	320	320	320	320	325
D (mm)	134	134	134	134	156
Connecting thread on pump plate G "	5/4"	5/4"	5/4"	5/4"	6/4"
Nipple thread on outlet G "	-	-	-	1"	-
Pump weight (kg)	15,6	12,2	19,9	23,8	18,3

Dimensions of NP pumps



Hand pump NP 75 ROUND FLANGE

There is a defrosting screw on the plate of the pump that you use for water discharge before the winter.

It is possible to purchase a NP 75 base with a height of 640 mm for the pump.



Colour design:
black / green



Hand pump NP 75 SIDE FLANGE

Thanks to the side plate of the pump, you can anchor it to the wall at the required height.



Colour design:
green



Hand pump NP 75 NOSTALGIC

Pump with ornaments that underline its nostalgic appearance.

There is a defrosting screw on the plate of the pump that you use for water discharge before the winter.

It is possible to purchase a base NP 75 - Nostalgic with a height of 640 mm for the pump, also with ornaments.



Colour design:
black

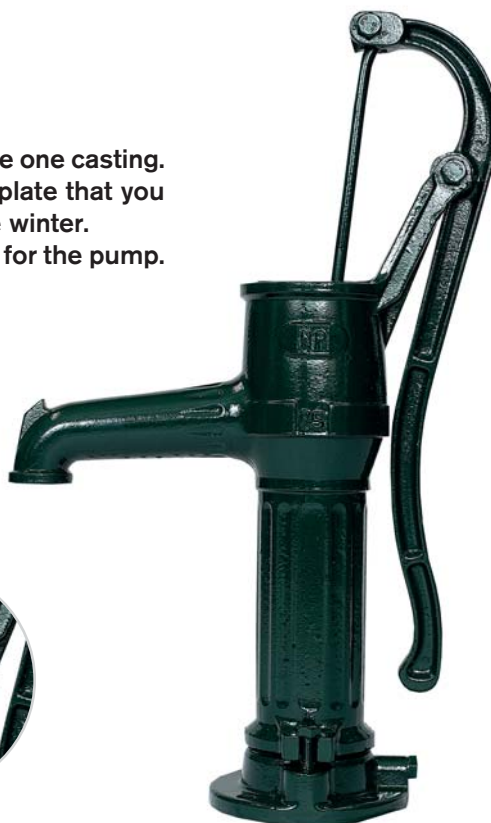


Hand pump NP 75 LK 211

It is our smallest pump.

The body, spout and top of the pump are one casting. There is a defrost screw on the pump plate that you can use for water discharge before the winter.

It is possible to purchase a base NP 75 for the pump.



Colour design:
green



Hand pump NP 75 T

This is our smallest pressure hand pump, suitable for both free outflow of water and pressing up the water. Thanks to the pressure head, it manages to push water up to a height of 10 m above its working piston, which is located in its body.



Colour design:
green



Pedestal NP 75



Colour design:
black / green



Pedestal NP 75 NOSTALGIC



Colour design:
black



The height of the pedestal is 640 mm. When using the base, remember to extend the suction line by its length.

Hand pump NP 90 ROUND FLANGE

Pump plate without drain valve. It is not possible to purchase a base for the NP 90 pump. The transported amount of water is about 12l / min higher than the NP 75 pump.



Colour design:
green



Hand stand pump HP 75 NOSTALGIC

The working piston is located directly in the pump housing. The body and the base are supplied as a whole and are decorated with ornaments for the nostalgic look of the pump. In order to be able to drain the pump completely and safely in winter, it is necessary to purchase a drainage device (cock, rod, clamp) that is not part of the pump.



Colour design:
black



Technical information table Hand stand pump HP 75 Nostalgic

TYPE OF HAND PUMP	HP 75 BIG NOSTALGIC
Water flow rate	28 l/min
Number of double strokes per minute	40
Maximum suction depth	7 m
Inner diameter of the cylinder	75 mm
Piston stroke	160 mm
Connecting thread on pump plate G"	5/4"
Weight of the pump	76 kg

Manual two-cylinder pump LILA 75

The two-cylinder single-acting pump LILA 75 can be installed in a very small space. It is suitable for both free outflow of water and pressing up the water. The pump consists of two working cylinders with a diameter of 75 mm driven by an adjustable lever.

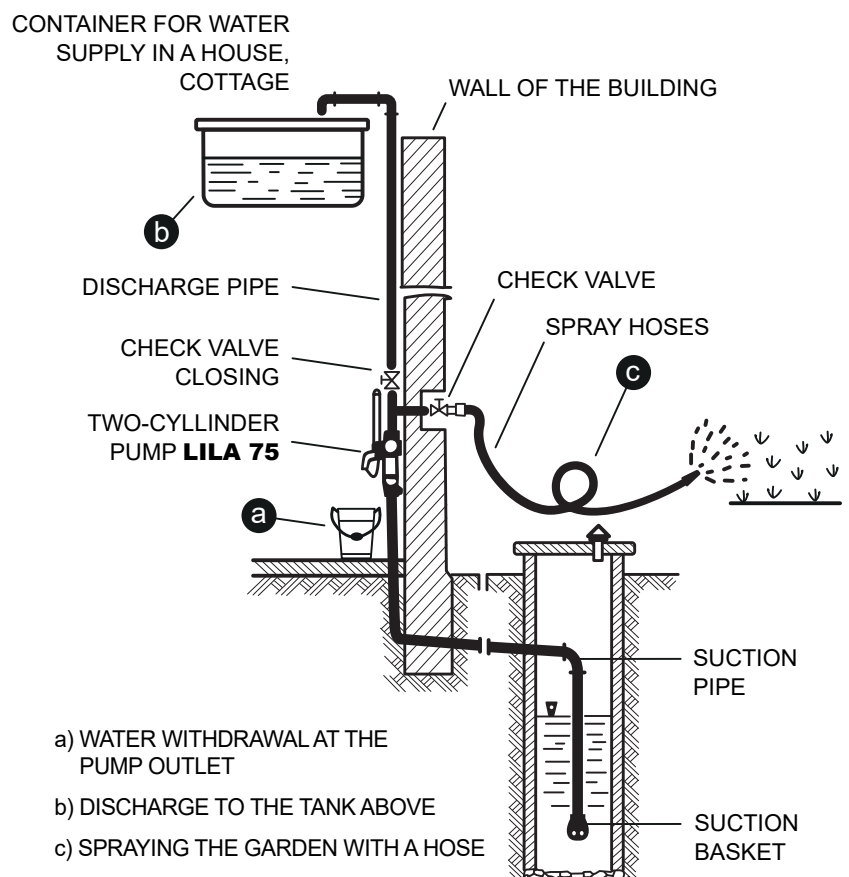
The variable design of the pump allows a wide range of possibilities of its use – for example for pumping water in households of summer cottages, for watering and spraying gardens, etc.



DESIGN OF A POSSIBLE USE OF THE PUMP LILA 75

Technical information table Two piston pump LILA

TYPE OF HAND PUMP	LILA 75
Amount of water transported - outflow	40 l/min
Amount of water transported – pressing up	30 l/min
Number of double strokes per minute - outflow	40
Number of double strokes per minute – pressing up	35
Maximum suction depth	7 m
Inside diameter of the cylinder	75 mm
Piston stroke	115 mm
Transport height	20 m
Connecting thread G" suction and discharge flanges	5/4" (DN32)
Weight of the pump	20 kg

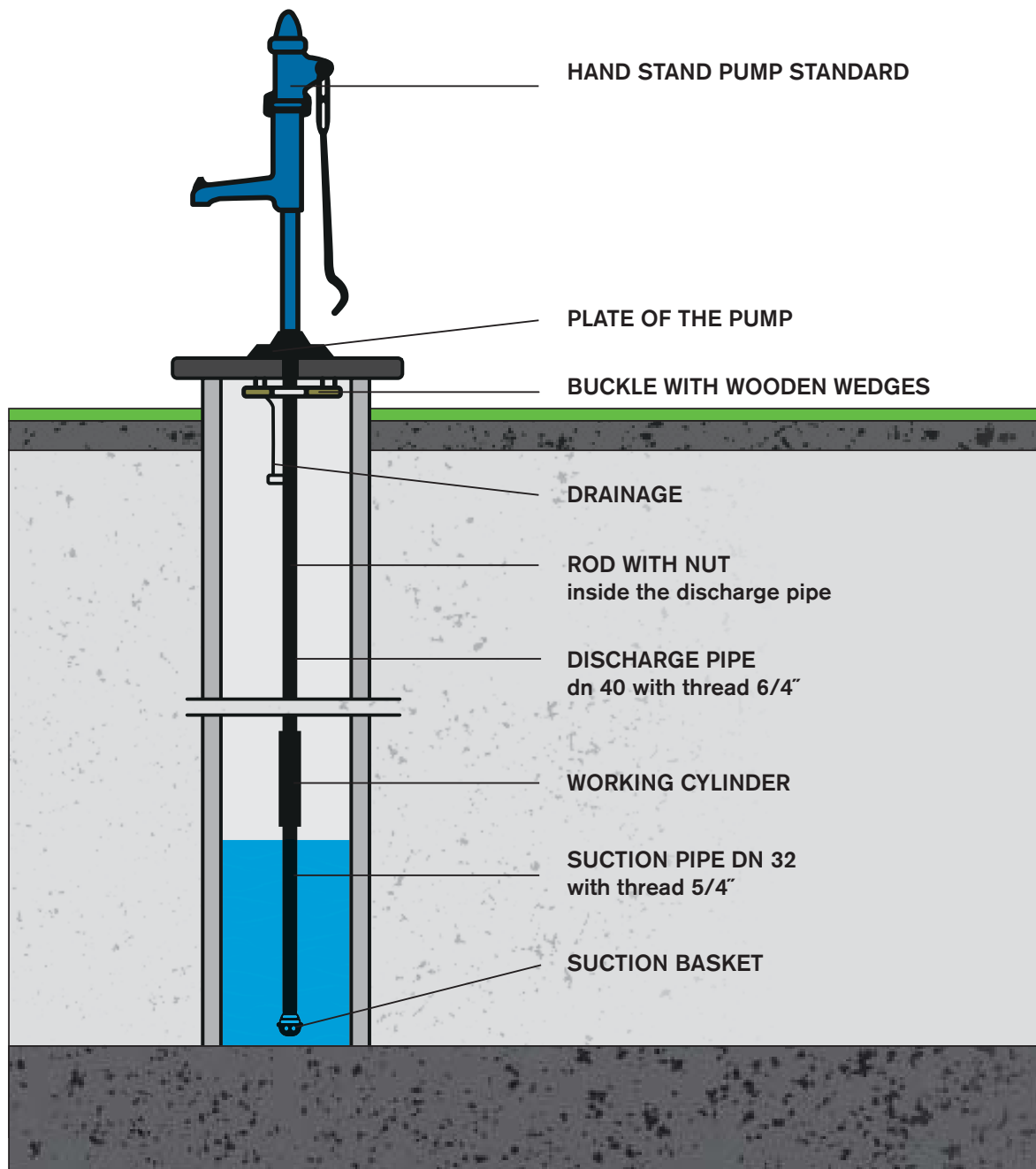


HAND PUMPS AND PUMPS FOR PUMPING UP TO 30 m

**Suitable for dug and excavated
wells with a maximum depth
of 30 meters**

HAND STAND PUMP STANDARD

STANDARD hand-held stand pumps with a high spout stand are designed for pumping water without mechanical additives with a maximum temperature of 40 °C. Water transport from drilled or excavated wells to a depth of 30 m. The high spout is designed for connection to depth adjustment.



Hand stand pump STANDARD II

Hand pump suitable for free flow of water.
Minimum well bore diameter = diameter of used cylinder + at least 20 mm.

Technical information table Hand pump STANDARD II

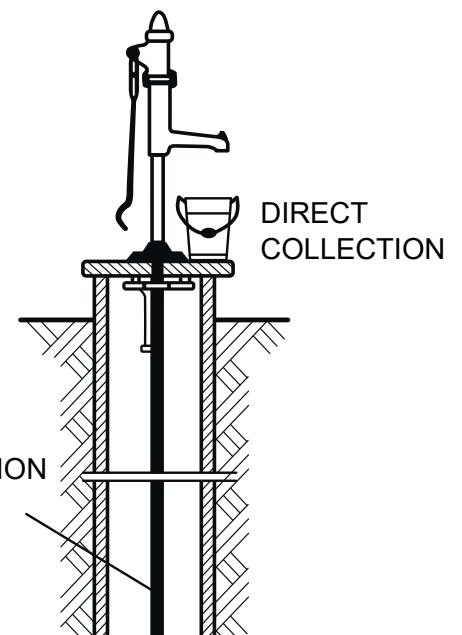
WORKING CYLINDER	MEASURING UNIT	PV 308	PV 306	PV 306
Inner diameter of the working cylinder	mm	65	75	90
Outer diameter of the working cylinder	mm	90	145	165
Maximum depth of well	m	29	22	15
Piston stroke	mm	170	170	170
Number of strokes in 1 minute		40	38	35
Amount of water transported	l/min	20	25	37
Suction flange DN32G	"		5/4"	
Discharge flange DN40G	"		6/4"	
Height of the pump	mm		1200	
Weight of the working cylinder	kg	4,5	6	7,7
Weight of the pump STANDARD II	kg		22	



Colour design:
black / blue / green



HAND PUMP STANDARD II



Hand stand pump STANDARD T

The hand pump has a pressure head and is designed for water discharge. So you can use the pump for transporting water to higher places or for spraying the garden.

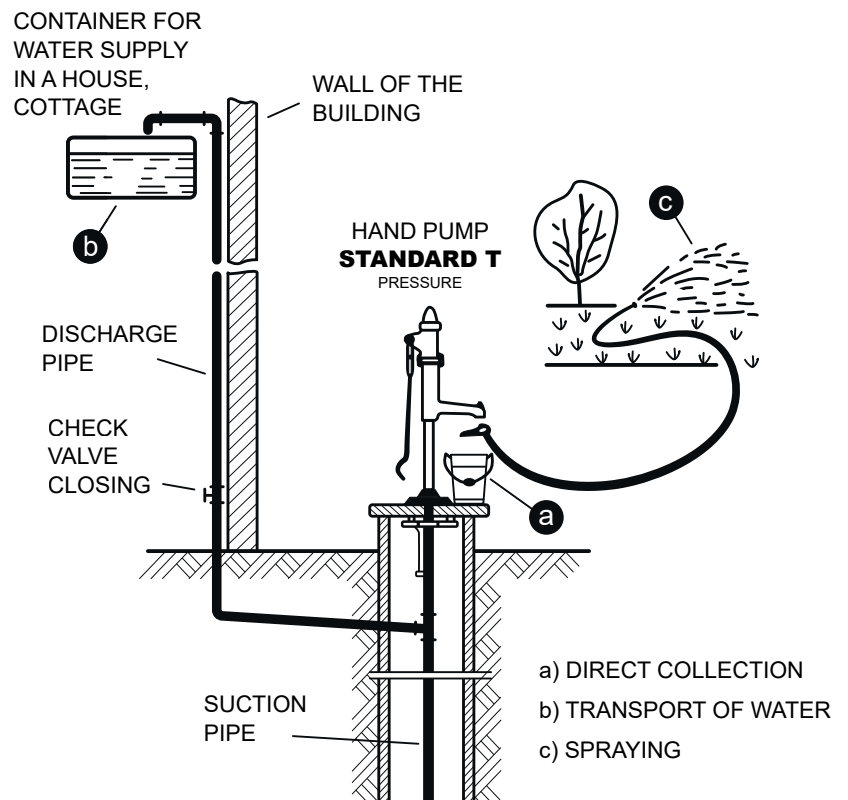
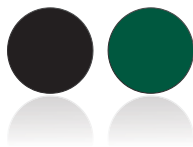
Minimum well bore diameter = diameter of used cylinder + at least 20 mm.

Technical information table Hand pump STANDARD T

WORKING CYLINDER	MEASURING UNIT	PV 308	PV 306	PV 306
Inner diameter of the working cylinder	mm	65	75	90
Outer diameter of the working cylinder	mm	90	145	165
Maximum depth of well	m	29	22	15
Piston stroke	mm	170	170	170
Number of strokes in 1 minute		40	38	35
Amount of water transported	l/min	20	25	37
Suction flange DN32G	..	5/4"		
Discharge flange DN40G	..	6/4"		
Discharge height above the water level	m	25		
Height of the pump	mm	1200		
Weight of the working cylinder	kg	4,5	6	7,7
Weight of the pump STANDARD T	kg	26		



Colour design:
black / green



DEPTH ADJUSTMENT TO STAND PUMPS STANDARD

Table with a list of required components Depth adjustment for the correct operation of STANDARD type hand pumps

CODE	NAME	4 m	5 m	6 m	7 m	8 m	9 m	10 m	11 m	12 m	13 m	14 m	15 m	16 m	17 m
	Hand stand pump STANDARD T or STANDARD II	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6201	Suction pipe 5/4" 2,2 m + SK Pirate	1		1											
6203	Suction pipe 5/4" 3,2 m + SK Pirate		1		1	1	1	1	1	1	1	1	1	1	1
6204	Suction pipe 5/4" 2 m + nozzle			1	1	1	1	1	1	1	1	1	1	1	1
6205	Discharge pipe 1 m with opening 6/4"	1	1	1	1										
6206	Discharge pipe 2 m with opening 6/4"					1		1							
6207	Discharge pipe 3 m with opening 6/4"						1		1	1	1	1	1	1	1
6217	Working cylinder 306/90	1	1	1	1	1	1	1	1	1	1	1	1		
6216	Working cylinder 306/75													1	1
6218	Working cylinder 308/65														
6208	Discharge pipe 1 m + nozzle 6/4"									1	1				
6209	Discharge pipe 2 m + nozzle 6/4"							1	1	1		1		2	1
6210	Discharge pipe 3 m + nozzle 6/4"										1	1	2	1	2
6211	Rod 2,15 m with nut M12	1	1	1	1		1			1	1		1		
6212	Rod 3,15 m with nut M12					1		1	1			1		1	1
6213	Rod 2,00 m with nut M12						1	1		1			1	1	
6214	Rod 3,00 m with nut M12								1	1	2	2	2	2	3
6221	Drainage equipment	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3349	Mounting clip with wedges	1	1	1	1	1	1	1	1	1	1	1	1	1	1

CODE	NAME	18 m	19 m	20 m	21 m	22 m	23 m	24 m	25 m	26 m	27 m	28 m	29 m	30 m
	Hand stand pump STANDARD T or STANDARD II	1	1	1	1	1	1	1	1	1	1	1	1	1
6201	Suction pipe 5/4" 2,2 m + SK Pirate													
6203	Suction pipe 5/4" 3,2 m + SK Pirate	1	1	1	1	1	1	1	1	1	1	1	1	1
6204	Suction pipe 5/4" 2 m + nozzle	1	1	1	1	1	1	1	1	1	1	1	1	1
6205	Discharge pipe 1 m with opening 6/4"													
6206	Discharge pipe 2 m with opening 6/4"													
6207	Discharge pipe 3 m with opening 6/4"	1	1	1	1	1	1	1	1	1	1	1	1	1
6217	Working cylinder 306/90													
6216	Working cylinder 306/75	1	1	1	1	1								
6218	Working cylinder 308/65						1	1	1	1	1	1	1	1
6208	Discharge pipe 1 m + nozzle 6/4"	1	1					1	1					
6209	Discharge pipe 2 m + nozzle 6/4"	1		1		2	1	1		1		2	1	1
6210	Discharge pipe 3 m + nozzle 6/4"	2	3	3	4	3	4	4	5	5	6	5	6	6
6211	Rod 2,15 m with nut M12	1	1		1			1	1		1			1
6212	Rod 3,15 m with nut M12			1		1	1			1		1	1	
6213	Rod 2,00 m with nut M12	1			1	1		1			1	1		1
6214	Rod 3,00 m with nut M12	3	4	4	4	4	5	5	6	6	6	6	7	7
6221	Drainage equipment	1	1	1	1	1	1	1	1	1	1	1	1	1
3349	Mounting clip with wedges	1	1	1	1	1	1	1	1	1	1	1	1	1

Depth adjustment consists of a fastening clip with wooden wedges, a working cylinder, a discharge line and a suction line with a suction basket.

Furthermore, from the dewatering device (for draining water from the body stand so that water does not freeze in it), which is located on the discharge pipe about 80 cm below the stand plate. Also from the inner rod, which connects the piston in the cylinder with the stand rocker arm, which mediates the transmission of movement between the hand pump lever and the piston in the working cylinder. The working cylinder with the working piston is separately located in the well above the discharge pipe.

The type of working cylinder is determined by the depth of the well. Discharge pipes (above the working cylinder) must be metal. The rod runs in them and plastic would be damaged. The suction line (under the working cylinder) must be 100% tight, all connections perfectly sealed. Suction pipes can also be plastic.

ITEMS OF THE DEPTH ADJUSTMENTS



Wedge-free buckle



Discharge pipe with hole



Suction pipe with suction basket PIRATE



Suction pipe with suction basket 321



Drainage equipment



Rod with nut



Wedge buckle



Suction pipe with nozzle

WORKING CYLINDER

Working cylinders are the main part of the depth adjustment for STANDARD pumps.

The type of cylinder used depends on the depth of the well, see. depth adjustment table.

Working cylinder 306

The cylinder body forms one unit. Between the body and the flange is a suction flap. There is a piston inside the cylinder with cuff and valve.



306/75



306/90

Working cylinder 308

The design is similar to type 306, but does not have a flange. The lower part of the working cylinder with the flap is connected to the body by a thread.



308/65

Dimensions of working cylinders

	HEIGHT in mm	OUTER DIAMETER	DIMENSIONS OF FLANGE
Working cylinder 306/75	395	85	145
Working cylinder 306/90	395	100	165
Working cylinder 308/65	375	77	90

SUCTION BASKETS

Suction baskets are used as inlet elements of the suction pipe for water suction. They prevent the ingress of coarse mechanical impurities into the suction line when sucking fluid. The suction basket must always be mounted vertically, because when the pumping is stopped, the valve cap (flap, plug, ball) automatically, i.e. by its own weight and the pressure of the column of liquid, it fits tightly into the seat and thus prevents backflow and leakage of liquid from the suction pipe. When the pump starts, the valve cap (flap, plug, ball) automatically rises from the seat due to pressure differences in the suction system and allows the suction liquid to flow through the suction basket through the pipe towards the hand pump.

Suction basket – cast iron SK 321

The top and bottom of the suction basket are connected by screws. There's a flap inside with a load that rests on a precisely machined surface.

Use: clean or turbid water without hard mechanical impurities up to a maximum temperature of 40°C.



PRODUCT CODE	6612	6613	6614	6615	6616	6617	6618	6619
Connecting thread - in inches	1/2 "	3/4 "	1 "	5/4 "	6/4 "	2 "	2 1/2 "	3 "
Diameter DN - mm	15	20	25	32	40	50	70	80
External dimension max. - mm	74	88	98	115	128	145	172	192
Weight - kg	0,4	0,6	0,7	1	1,5	1,9	3,9	5,6
Maximum overpressure	1							

Suction basket – cast iron SK KULI

Nozzle suction basket with ball valve designed for domestic water. The top and bottom of the basket are connected by screws. It is rubberised inside.

Use: clean or turbid water even with mechanical impurities (mud, sand, etc.) up to a maximum temperature of 60 ° C.



PRODUCT CODE	6606	6607	6608	6609	6610	6611
Connecting thread - in inches	1 "	5/4 "	6/4 "	2 "	2 1/2 "	3 "
Diameter DN - mm	25	32	40	50	70	80
External dimension max. - mm	96	115	128	145	172	240
Weight - kg	0,9	1,2	1,8	2,8	5,9	12
Maximum overpressure	1					

Suction basket – cast iron SK PIRATE

Nozzle suction basket with pupm disk valve designed for domestic water. The suction basket is cast in one piece. Usual valve and seat design - rubber seal for cast iron.

Use: not only for hand pumps, but especially for machine pumps. Clean or turbid water without mechanical impurities with a maximum temperature of 60 ° C.



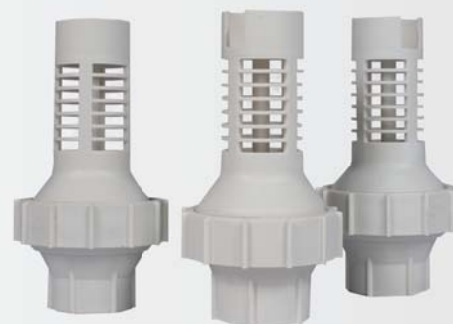
PRODUCT CODE	6600	6601	6602	6603	6604	6605
Connecting thread - in inches	1 "	5/4 "	6/4 "	2 "	2 1/2 "	3 "
Diameter DN - mm	25	32	40	50	70	80
External dimension max. - mm	72	84	90	107	121	152
Weight - kg	1,1	1	1,2	2,8	4,8	7,8
Maximum overpressure	1					

Suction basket – plastic SK PLAST

Nozzle basket with valve also suitable for drinking water.

The suction basket is made of plastic mouldings with high mechanical resistance and long life.

Use: clean or turbid water without mechanical impurities with a maximum temperature of 60 ° C.



PRODUCT CODE	6622	6620	6621
Connecting thread - in inches	1 "	5/4 "	6/4 "
Diameter DN - mm	25	32	40
External dimension max. - mm	99	99	99
Weight - kg	0,25	0,24	0,24
Maximum overpressure	1		

SPRAYERS

SPRAYERS PU-K

PU-K sprayer is designed for irrigation of agricultural land, gardens, maintenance of sports fields, spraying of landfills of wood, coal, etc. It is suitable for spraying with clean water only. It is produced in three sizes in accordance to the required spray length and precipitation intensity.

Sprayer PU-K1

The PU-K1 sprayer is supplied with a tripod, which allows good handling during relocation. It is equipped with a socket for connecting a DN 5/4 „or DN 6/4“ hose. Nozzle selection according to the required spray.



NOZZLE DIAMETER mm	WATER PRESSURE ON THE NOZZLE MPa	WATER CONSUMPTION l/s-1	SPRAY m	CIRCULAR IRRIGATED AREA m ²	RAINFALL mm/h-1
8	0,3	1,30	19,5	1194	3,9
	0,6	1,91	23,5	1735	4,0
10	0,3	1,78	21,5	1452	4,3
	0,6	2,50	25,5	1735	5,2
12	0,3	2,75	23,0	1662	5,9
	0,6	4,58	28,5	2550	6,5

Sprayer PU-K2

The PU-K2 sprayer is designed mainly as a part of irrigation sets of agricultural land.



NOZZLE DIAMETER mm	WATER PRESSURE ON THE NOZZLE MPa	WATER CONSUMPTION l/s-1	SPRAY m	CIRCULAR IRRIGATED AREA m ²	RAINFALL mm/h-1
12	0,3	3,30	25	1693	6,0
	0,6	4,58	32	3216	5,1
14	0,3	4,33	27	2290	6,8
	0,6	6,33	33	3421	6,6
16	0,3	5,41	30	2827	6,9
	0,6	7,83	37	4300	6,5
18	0,3	7,08	32	3216	7,9
	0,6	9,16	38	4536	7,3

Sprayer PU-K3

The PU-K3 sprayer is designed mainly as a part of irrigation sets of agricultural land.



NOZZLE DIAMETER mm	WATER PRESSURE ON THE NOZZLE MPa	WATER CONSUMPTION l/s-1	SPRAY m	CIRCULAR IRRIGATED AREA m ²	RAINFALL mm/h-1
24	0,4	13,33	38,5	4656	10,1
	0,6	17,50	46	6647	9,5

Sprayer REVOLTIN

Rotary circular sprayer, which is suitable for irrigating small gardens, orchards and ornamental garden areas with clean water without major mechanical admixtures.

The sprayer is portable. It consists of a folding tripod, a nozzle and a rotating paddle disk mounted on a spring shaft.

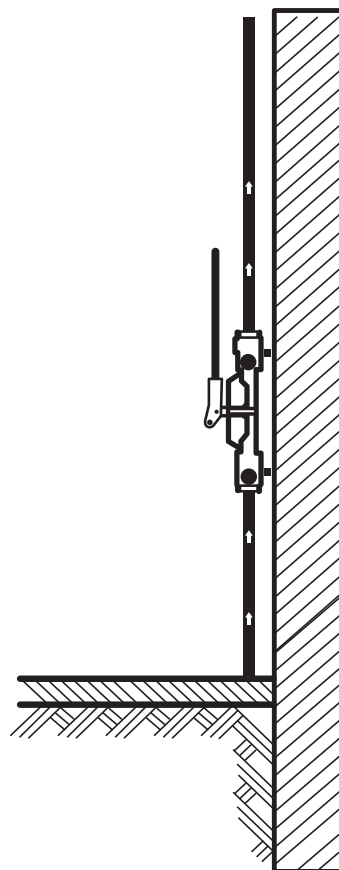
The device irrigates a circular area, the diameter of which is determined by the size of the nozzle and the water pressure (8 to 13 m). Supplied with union nut and socket for connecting DN 19 (3/4 ") or DN 25 (1") hose.



NOZZLE DIAMETER mm	WATER PRESSURE kp/cm ²	WATER FLOW l/min	SPRAY m	IRRIGATION AREA m ²	RAINFALL mm/hod	WEIGHT kg
4	2 - 3	15 - 18	8 - 10	284 - 415	4,0 - 4,4	4,8
5		21 - 30	9 - 11,5			
6	2 - 3	31 - 41	10 - 12	380 - 530	5,9 - 6,8	4,8
7		42 - 52	11 - 13			

Hand diaphragm pump

The diaphragm pump is designed primarily for pumping heavily contaminated liquids (sewers, septic tanks, etc.). The pump must be installed in a vertical position.



**Technical information table
Hand diaphragm pump**

TYPE OF THE PUMP	DIAPHRAGH
Amount of water transported	0,65 l/stroke
Maximum suction depth	4 m
Maximum discharge height	15 m
Connecting threads G	6/4"
Maximum temperature of the pumping liquid	40 °C
Weight of the pump	14,4 kg

Cast iron stand for drinking water – design NOSTALGIC

A beautiful and yet functional decorative element for gardens, parks, squares, urban areas.

Thanks to its internal assembly, this nostalgic stand is suitable for use for pumping drinking water. It can be connected to a pressurized water supply, i.e. to the city water supply system or to water pushed by an electric pump from a well. It is used to supply free-flowing water from pressure distribution. Easy to start and stopping the flow of water thanks to the lever on a stand.



*Low stand
without stand*



*High stand
including stand*

Punching tips

Punching tips can be used in calibres, wherever there is a large supply of groundwater, such as in sand pits during sand mining.

The punching tips can be used for low hand pumps NP series stand in soft aquifers. It also serves as a mechanical filter. They are available in two basic threaded versions 6/4" and 5/4".



TABLES OF NAMES AND ORDER CODES

KÓD	NÁZEV
60071	Hand stand pump STANDARD II - dark green
60072	Hand stand pump STANDARD II - black
60073	Hand stand pump STANDARD II - blue
60061	Hand stand pump STANDARD T - dark green
60062	Hand stand pump STANDARD T - black
41001	Pump NP 75 round flange - dark green
41002	Pump NP 75 round flange - black
60092	Pump NP 75 NOSTALGIC - black
41021	Pump NP 75 side flange - dark green
60111	Pedestal NP 75 - dark green
60112	Pedestal NP 75 - black
60122	Pedestal NP 75 Nostalgic - black
60051	Pump NP 75 LK 211 - dark green
60142	Stand pump HP 75 Nostalgic - black
4227	Pump NP 75 T - dark green
60011	Pump NP 90 round flange - dark green
60081	Two cylinder pump LILA 75 - dark green
60083	Two cylinder pump LILA 75 - blue
41181	Diaphragm pump - dark green
41182	Diaphragm pump - black
41184	Diaphragm pump - anthracite
60172	Cast iron stand Nostalgic for drinking water - black
60162	Cast iron stand Nostalgic for drinking water high - black
6600	Suction basket Pirát 1"
6601	Suction basket Pirát 5/4"
6602	Suction basket Pirát 6/4"
6603	Suction basket Pirát 2"
6604	Suction basket Pirát 2 1/2"

KÓD	NÁZEV
6605	Suction basket Pirát 3"
6606	Suction basket Kuli 1"
6607	Suction basket Kuli 5/4"
6608	Suction basket Kuli 6/4"
6609	Suction basket Kuli 2"
6610	Suction basket Kuli 2 1/2"
6611	Suction basket Kuli 3"
6612	Suction basket 321 1/2"
6613	Suction basket 321 3/4"
6614	Suction basket 321 1"
6615	Suction basket 321 5/4"
6616	Suction basket 321 6/4"
6617	Suction basket 321 2"
6618	Suction basket 321 2 1/2"
6619	Suction basket 321 3"
6620	Suction basket plastic SKP 5/4"
6621	Suction basket plastic SKP 6/4"
6622	Suction basket plastic SKP 1"
3200	Sprayer PU-K1 without tripod
3201	Sprayer PU-K1 nozzle 5/4" with tripod
3202	Sprayer PU-K1 nozzle 6/4" with tripod
3203	Sprayer PU-K2 without tripod
3204	Sprayer PU-K2 without tripod
3206	Sprayer REVOLTIN DN 3/4"
3207	Sprayer REVOLTIN DN 1"
6630	Punching tip 5/4"
6631	Punching tip 6/4"



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More information:

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