

**NIKE**<sup>®</sup>  
HYDRAULICS



Hydraulic pumps 



**Hydraulic pumps**



*Nature has unimaginable energy that is demonstrated in so many ways – from the growth of plants to the eruption of mighty geysers. NIKE works on nature's terms and uses hydraulics to convert natural forces into useful work.*

*Hydraulics – versatile technology  
that uses natural forces*



# Hydraulic pumps

NIKE HYDRAULICS AB develops, manufactures and markets high-pressure hydraulics for versatile system solutions that are designed to meet users' needs and are based on a wide standard range of pumps and cylinders.

NIKE industrial hydraulics are used all over the world and in many different fields, including the process industry, mining, aerospace, the building industry, shipbuilding, transport, etc. The range includes hydraulic pumps, rams and a wide selection of accessories, push and pull kits, pullers and power tools such as spreaders and cutting tools.

In cooperation with OEM customers NIKE HYDRAULICS AB also develops special products and original equipment to suit customers' needs and specifications.

We hold ISO 9001 and 14001 certification and have CE marked products that meet the requirements of the Machinery Directive.



*Replacement of a bushing using a hollow cylinder and hand pump.*



*Fitting a ring seal in a joint on an industrial robot using a hollow cylinder and air hydraulic pump.*



*Lifting a machine with a cylinder and air hydraulic pump with remote control.*

# Get a new grip!



– hydraulic pumps for the future

*As a result of careful design, both of the external form and in the use of modern technology, NIKE hydraulic pumps make an attractive choice for professional users. The new design encompasses both pneumatic pumps and hand pumps. NIKE pumps come in several different types of pumps: hand pumps, air hydraulic pumps and electric and petrol-driven pumps.*

**The choice of pump type normally depends on the application:**

**Hand pumps** – easy to move around and do not require an external power source. Hand pumps are the most cost-effective option, but they require more effort and time when they are used with large *cylinders*.

**Air hydraulic pumps** – an economical choice, which can be operated more quickly and effectively. They require a supply of compressed air.

**Electric pumps** – the best choice where high capacity is required, for example when running large *cylinders* and/or several *cylinders* in parallel. Can be combined with various valve arrangements. Require access to an electrical supply.

**Petrol-driven pumps** – a good choice where a mobile pump unit is required, for example on building sites or in shipyards. Require no external power source.

## Pumps come in two different designs

- **Single-stage** – oil flow remains the same regardless of pressure.
- **Double-stage** – deliver a higher oil flow when the resistance is low (low pressure), and a reduced oil flow, hence lower pump effort, when the resistance is high (high pressure). These switch automatically between low and high pressure.

All pumps can be fitted with a pressure gauge to display the current hydraulic pressure or load.

The standard range of hydraulic pumps covers the pressure range 70 up to 240 MPa and they have the tank sizes shown in the tables in this catalogue. Special variants can be supplied with alternative pressures or tank sizes. Please ask for a quote.



## Hand pumps

*NIKE hand pumps – lightweight, safe and easy to use.*



- **Low pump force** - designed to reduce the pump effort so that these pumps can be used in difficult situations, such as confined spaces, single-handed operation, etc.
- **Low weight** - hand pumps are often moved between different work sites. Despite being made entirely of steel and other metals NIKE pumps are very light in weight.
- **Safety valve** - all pumps are fitted with a safety valve that prevents them from being overloaded.
- **Return connection** - most NIKE hand pumps are fitted with a return connection, which means that when combined with a valve arrangement they can be used in double-acting hydraulic applications.

*NIKE HYDRAULICS*

*– reliable tools when it counts.*



## Hand pumps with a modern design

*We are proud of the new design of our pumps, but they're not just good-looking. For example, every pump has a pressure gauge as standard. This is protected by the specially designed lever to give you greater control over your work, which is particularly important from the safety viewpoint.*

### PHS series



*All pumps in the PHS series are equipped with a pressure gauge as standard.*



*All PHS pumps in the pressure range 70–80 MPa can be fitted with a VR42 control valve so that they can operate double-acting rams or tools.*

- Double-stage operation – it takes less effort to operate a NIKE pump. It's like having automatic gears. When the resistance increases, the pump switches automatically so that you don't have to exert more effort.
- Return connection on all pumps.
- Robust aluminium tank.
- Needle valve – allows controlled release, greater precision and increased safety at a time when a few millimetres can mean the difference between success and failure.
- Easy to refill with oil.
- Mounting holes.

# Double-stage hand pumps



The AAE502 nipple should be used to fit valve VAD22 to PHS pumps. Other valves can be fitted directly to the pump.



To prevent overfilling the tank with oil, PHS pumps can be fitted with an extra VSS safety valve. This can be ordered as an accessory and screwed into the filler plug hole



A swivel coupling mounted between the pump and hose makes the unit even easier to handle.



The ultra high pressure pump PHS240-2400L is equipped with a 100 mm gauge for easier reading.



Technical data	PHS 70-300	PHS 80-300	PHS 70-1000	PHS 80-1000	PHS 100-1000	PHS 150-1000	PHS 70-2400	PHS 80-2400	PHS 100-2400	PHS 150-2400	PHS 240-2400L	PHS 70-4000	PHS 80-4000
Max. working pressure MPa (x10=bar)	70	80	70	80	100	150	70	80	100	150	240	70	80
Eff. oil capacity cm <sup>3</sup>	300	300	1000	1000	1000	1000	2400	2400	2400	2400	2400	4000	4000
Capacity, low pressure cm <sup>3</sup> /pump stroke	20	20	20	20	20	20	20	20	20	20	20	20	20
Capacity, high pressure cm <sup>3</sup> /pump stroke	1	1	2	2	1	1	2	2	1	1	0,7	2	2
Pump effort at max. working pressure N	350	400	320	360	230	370	320	360	230	370	460	320	360
Pressure connections G <sub>1/4</sub>	1	1	1	1	1	1	1	1	1	1	*	1	1
Return connections G <sub>1/4</sub>	1	1	1	1	1	1	1	1	1	1	1	1	1
Pressure gauge	AMT801	AMT801	AMT801	AMT801	TX104	TX104	AMT801	AMT801	TX104	TX104	AMT301	AMT801	AMT801
<b>Dimensions</b>													
Length mm	320	320	620	620	620	620	620	620	620	620	620	620	620
Height mm	170	170	170	170	170	170	170	170	170	170	170	170	170
Weight kg	6,0	6,0	8,1	8,1	8,3	8,3	9,9	9,9	10,1	10,1	10,3	13,7	13,7

\* PHS240-2400L has a 9/16-18 UNF return connection.

## Pump complete with fitted hose and couplings



	Technical data	Hose	Quick coupling	Swivel coupling
PHS70-1000/LS201	For other technical data see PHS70-1000	LS201ES 2 metres (reinforced)	AQ17 female	ASE10



PH70-500

### PH series

- Single-stage pumps.
- Simple and practical, with few moving parts.



PH70-500 pump, equipped with AMT801 pressure gauge and AVM204 pressure gauge adapter.

	Max. working pressure MPa (x10=bar)	Effective oil capacity cm <sup>3</sup>	Capacity cm <sup>3</sup> / pump stroke	Pump effort at max. working pressure N	Pressure connections G1/4"	Return connections G1/4"	Pressure gauge	Length/height mm	Weight kg
PH60-500	60	500	2.4	410	1	-	1)	545/130	3.5
PH70-500	70	500	2.4	480	1	-	1)	545/130	3.5
PH80-500	80	500	2.4	550	1	-	1)	545/130	3.5
PH60-1000	60	1000	2.4	410	1	-	1)	635/130	5.3
PH70-1000	70	1000	2.4	480	1	-	1)	635/130	5.3
PH80-1000	80	1000	2.4	550	1	-	1)	635/130	5.3

1) AVM202 or AVM204 pressure gauge adapter is recommended.

### Pump complete with fitted hose and couplings



	Technical data	Hose	Quick coupling	Swivel coupling
PH70-500/LS201	For other technical data see PH70-500	LS201ES 2 metres (reinforced)	AQI7 female	ASE10

# Single-stage hand pumps

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*NIKE hand pump used as a power source in an assembly jig for fitting parts to an industrial robot.*



*NIKEs hydraulic hand pumps are perfect even under severe conditions.*



PP70-1000



PP70-1000 pump, equipped with AMT801 pressure gauge and AVM204 pressure gauge adapter to display hydraulic pressure.



Fitting a swivel between the pump and hose results in a practical unit that is easy to handle.

## Air hydraulic pumps

*A modern design and proven construction that has been refined to meet today's requirements.*

*A safety valve fitted to all air hydraulic pumps prevents overloading.*

### PP-1000 series

Compact single-stage pumps that work in any position, horizontally or vertically, thanks to a rubber bladder built into the tank. Can be operated by hand or foot.

- High oil flow.
- Easy to fill and check oil level.
- Safety valve prevents overfilling of tank.
- Return oil line can be connected to oil filler hole.

	Max. working pressure MPa (x10=bar)	Effective oil capacity cm <sup>3</sup>	Capacity cm <sup>3</sup> /min <sup>1)</sup>	Required air pressure MPa	Pressure connections G1/4"	Return connections G3/8"	Pressure gauge	Length/height mm	Weight kg
PP70-1000	70	1000	750-170	0.65 - 1.2	1	2)	3)	439/174	5.9
PP80-1000	80	1000	600-160	0.6 - 1.2	1	2)	3)	439/174	5.9
PP100-1000	100	1000	600-120	0.65 - 1.2	1	2)	3)	439/174	5.9

<sup>1)</sup> At air pressure of 0.8 MPa.

<sup>2)</sup> Return line can be connected to end of pump. AAE482 nipple and 8100 O-ring recommended for G1/4" connection.

<sup>3)</sup> AVM202 or AVM204 pressure gauge adapter is recommended.

### Pump complete with fitted hose and couplings



	Technical data	Hose	Quick coupling	Swivel coupling
PP70-1000/LS201	For other technical data see PP70-1000	LS201ES 2 metres (reinforced)	AQ17 female	ASE10
PP70-1000/LS250	For other technical data see PP70-1000	LS250ES 2,5 metres (soft)	AQ17 female	ASE10

## PP-2100 series

Single-stage pumps in steel and aluminium with a compact and robust design.

- Available with the following options:
  - FP - with foot pedal for pumping and releasing.
  - RC - with remote control. Pump is controlled by two buttons on the control unit; one to start/stop and the other to release.
  - MLD - with lever control valve for double-acting hydraulic operation.
  - MRV - with ports for pressure and return connections, and lever valve for manual release. For use with tools that have their own valve or with a separate external valve.
- FP, RC and MRV models have a built-in release valve that returns oil to the tank.
- Level glass allows oil level to be checked.
- All pumps are equipped with silencers.
- Simple operation and easy to carry.



	Max. working pressure MPa (x10=bar)	Effective oil capacity cm <sup>3</sup>	Capacity cm <sup>3</sup> /min <sup>1)</sup>	Required air pressure MPa	Pressure connections G1/4"	Return connections G1/4"	Pressure gauge	Length/height mm	Weight kg
PP70-2100FP	70	2100	1000 - 200	0.65 - 1.2	1	3)	4)	324/215	9.8
PP70-2100RC	70	2100	1000 - 200	0.65 - 1.2	1	3)	5)	324/203	10.4
PP70-2100MLD	70	2100	1000 - 200	0.65 - 1.2	2)	2)	5)	324/242	10
PP70-2100MRV	70	2100	1000 - 200	0.65 - 1.2	1	1	5)	324/200	9.3
PP80-2100FP	80	2100	700 - 150	0.6 - 1.2	1	3)	4)	324/215	9.8
PP80-2100RC	80	2100	700 - 150	0.6 - 1.2	1	3)	5)	324/203	10.4
PP80-2100MLD	80	2100	700 - 150	0.6 - 1.2	2)	2)	5)	324/242	10
PP80-2100MRV	80	2100	700 - 150	0.6 - 1.2	1	1	5)	324/200	9.3
PP100-2100FP	100	2100	700 - 100	0.65 - 1.2	1	1	4)	324/215	10.3
PP100-2100RC	100	2100	700 - 100	0.65 - 1.2	1	1	5)	324/203	11

- 1) At air pressure of 0.8 MPa.
- 2) Two connections serve as both pressure and return connections depending on control valve setting.
- 3) Return line can be connected to end of pump.
- 4) TX111 or ATM214 pressure gauge adapter is recommended.
- 5) Pressure gauge can be connected directly to pump without an adapter.

## PP-9000 series

- Single-stage pumps.
- Large tank capacity.
- Separate pressure gauge connection.



	Max. working pressure MPa (x10=bar)	Effective oil capacity cm <sup>3</sup>	Capacity cm <sup>3</sup> /min <sup>1)</sup>	Required air pressure MPa	Pressure connections G1/4"	Return connections G1/4"	Pressure gauge	Length/height mm	Weight kg
PP70-9000RC	70	9000	1000 - 200	0.65 - 1.2	1	3	3)	340/311	18.4
PP70-9000RC/MDL	70	9000	1000 - 200	0.65 - 1.2	2)	2)	3)	340/311	18.8
PP80-9000RC	80	9000	1000 - 200	0.6 - 1.2	1	3	3)	340/311	18.4
PP80-9000RC/MDL	80	9000	1000 - 200	0.6 - 1.2	2)	2)	3)	340/311	18.8

- 1) At air pressure of 0.8 MPa.
- 2) Two connections serve as both pressure and return connections depending on control valve setting.
- 3) Pressure gauge connects directly to pump.

# Electric hydraulic pumps

*NIKE electric hydraulic pumps are reliable, versatile and easy to use. Suitable for many different applications.*

All pumps have double-stage operation with automatic switching between high and low pressure at 2–6 MPa depending on type.

The low-pressure unit is a gear pump that gives a high flow up to the switching pressure.

The high-pressure unit is a single or double-piston pump.



PME70-2030MRV

PME70A-4100SD

PME70-2030MLS

## Pump features:

- Built-in safety valve to prevent overloading.
- Vented tank and intake filter.
- Level glass for checking oil level.
- Two-metre power cord with earthed plug (2000 series).
- Two-metre power cord without plug (4000 series).
- Pressure gauge port.
- Carrying handle for ease of transport.
- Mounting hole in base for permanent installation, plus rubber feet.

Several different versions of these pumps are available as standard with a choice of tank sizes and valve arrangements. We can also give quotes for non-standard variants, with alternative motor voltage ratings if required.

## Description of valve alternatives:

**ADV** - Automatic release valve. Oil returns to tank when motor is switched off. The pressure in the tool then drops and the tool returns automatically. For crimping, cutting or press tools that are used in high-frequency applications.

If intended for use with a tool such as a ram, where uncontrolled release is undesirable, an alternative valve arrangement should be chosen.

**MRV** - Manual release valve. Suitable when you want to maintain the pressure in the tool for an extended period and have controlled release. Recommended for use with tools for cable crimping or cutting.

**AP** - Adapter plate. This pump has no valve, but simply a connecting plate with pressure and return connections. This can be used where the connected tool has its own valve, or where an external valve is to be used.

**MLS** - With lever valve for single-acting tools.

**MLD** - With lever valve for double-acting tools.

**SS** - With solenoid valve for single-acting tools (24 V DC).

**SD** - With solenoid valve for double-acting tools (24 V DC).

**MLS, MLD, SS and SD** - Recommended for industrial applications such as presses and bending machines.



All electric pumps can be fitted with an AMT801 pressure gauge with the aid of the AAM14 pressure gauge adapter.



TRC230-24 – Remote control assembly (24 V DC) with three-metre cable between motor and remote control.



An electric pump and cylinder being used to lift a locomotive for maintenance.

	Max. working pressure MPa (x10=bar)	Effective oil capacity, litres	Capacity l/min		Motor V/kW	Valve	Motor start/stop	Weight kg
			low pressure	high pressure				
PME70-2030ADV	70	3.2	2.7	0.3	230/0.55 <sup>1)</sup>	ADV	FS	22
PME70-2030MRV	70		2.7	0.3	230/0.55 <sup>1)</sup>	MRV	FS	22
PME70-2030AP	70		2.7	0.3	230/0.55 <sup>1)</sup>	AP	MS	22
PME70-2030MLS	70		2.7	0.3	230/0.55 <sup>1)</sup>	MLS	MS	23
PME70-2030MLD	70		2.7	0.3	230/0.55 <sup>1)</sup>	MLD	MS	23
PME70-2030SS	70		2.7	0.3	230/0.55 <sup>1)</sup>	SS <sup>3)</sup>	MS	25
PME70-2030SD	70		2.7	0.3	230/0.55 <sup>1)</sup>	SD <sup>3)</sup>	MS	25
PME70A-4100AP	70	10	7.5	1.6	400/2.2 <sup>2)</sup>	AP	MS	47
PME70A-4100MLS	70		7.5	1.6	400/2.2 <sup>2)</sup>	MLS	MS	48
PME70A-4100MLD	70		7.5	1.6	400/2.2 <sup>2)</sup>	MLD	MS	48
PME70A-4100SS	70		7.5	1.6	400/2.2 <sup>2)</sup>	SS <sup>3)</sup>	MS	50
PME70A-4100SD	70		7.5	1.6	400/2.2 <sup>2)</sup>	SD <sup>3)</sup>	MS	50
PME70A-4200AP	70	20	7.5	1.6	400/2.2 <sup>2)</sup>	AP	MS	70
PME70A-4200MLS	70		7.5	1.6	400/2.2 <sup>2)</sup>	MLS	MS	71
PME70A-4200MLD	70		7.5	1.6	400/2.2 <sup>2)</sup>	MLD	MS	71
PME70A-4200SS	70		7.5	1.6	400/2.2 <sup>2)</sup>	SS <sup>3)</sup>	MS	73
PME70A-4200SD	70		7.5	1.6	400/2.2 <sup>2)</sup>	SD <sup>3)</sup>	MS	73

<sup>1)</sup> Single-phase

<sup>2)</sup> Three-phase

<sup>3)</sup> Supplied without remote control or cable for solenoid valve. TRC230-24 remote control can be ordered separately.

FS: Spring-loaded starting by means of starter plate.

MS: On/off control by means of a button on the motor.



## Petrol-driven hydraulic pumps

*Hydraulic petrol-driven pumps with a high oil flow. Petrol-driven pumps are a good alternative when you need a mobile pump that does not require an external power source, for example on building sites or in shipyards.*

- Double-stage pumps with automatic switching between low and high pressure.
- Supplied with chromed protective frame with rubber feet.
- Open design for effective cooling during operation.
- Can be equipped with hose reel and other accessories.

	For single-acting/ double-acting tools	Max. working pressure MPa (x10=bar)	Effective oil capac- ity litres	Capacity, low pressure litres/min	Capacity, high pressure litres/min	Motor	Power kW	Length mm	Depth mm	Height mm	Weight kg
PMP70-1700MLS	single	70	1.7	3.5	0.6	1 cyl., 4 stroke	1.3	360	450	336	23
PMP70-1700MLD	double	70	1.7	3.5	0.6	1 cyl., 4 stroke	1.3	360	450	336	23



*Petrol-driven pump – a good alternative on building sites, etc.*

## Accessories



*SVD1010R hose reel. The foot support can be extended if the reel is used free-standing. The crank handle for winding the reel can be folded away when not in use.*



*PMP70-1700MLD equipped with twin hose reels.*



# NIKE HYDRAULICS AB

Since 1924 we have been developing, manufacturing and marketing high-pressure hydraulic products for industrial, automotive and rescue applications. With our head quarter in Eskilstuna, Sweden we deliver high pressure hydraulics worldwide. Overcoming limitations and developing smart solutions are equally important in finding the road to success.

NIKE HYDRAULICS stands for quality, reliability, service and design. Our products are marketed all over the world, and Europe is our largest market. We have subsidiaries in the USA and UK. Besides this, we have partners in more than 70 different countries all around the world, to ensure that you receive the best service as possible where ever you are.

**NIKE**<sup>®</sup>  
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Our website is being updated continuously. Furthermore, the services provided on the site are under constant development.

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