

Hydraulic Pumps





Features & benefits



- Ergonomic design
 - Light weight; easy to carry and operate
 - Low operating force required; minimal user effort
 - Soft-grip handles; more comfort and grip
 - Anti-slip rubber underneath; pump is stable and does not shift
 - Pump handle lock; easy and safe to carry
- Service- and maintenance-friendly; technical parts are easy to access and replace without removing the tank
- High oil output; quicker action both in the first and second stage
- Accurately adjustable pressure release valve; loads can be lowered safely and with extreme control
- Pressure gauge connection on the pump block; the pressure gauge can be directly mounted on the pump at an angle of 45 degrees, making it easily readable
- Oil level glass in the tank; easily check the oil level in both horizontal and vertical position
- Integrated filler funnel; top up oil easily and quickly without extra accessories
- Push & Unlock pump handle lock; unlocking is quick and easy with one brief push on the pump handle

Control Valves
Accessories
Hydraulic Hoses
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Accurately adjustable pressure release valve; loads can be lowered safely and with extreme control



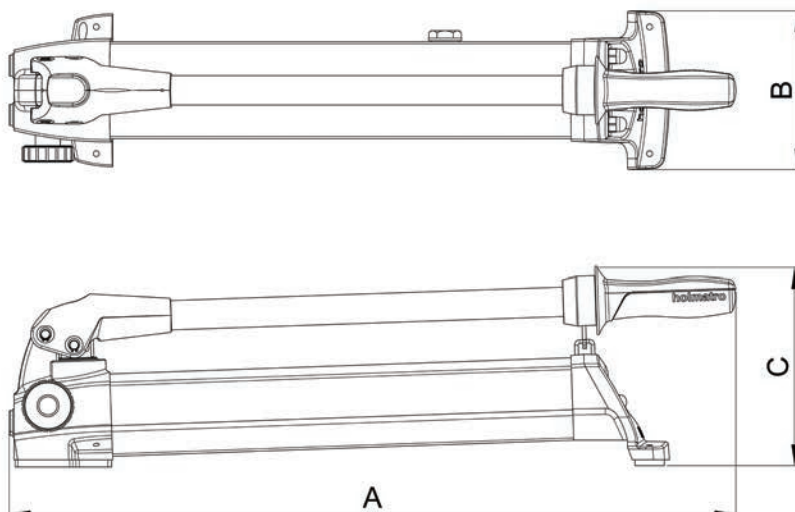
Pressure gauge connection on the pump block; the pressure gauge can be directly mounted on the pump at an angle of 45 degrees, making it easily readable

Hand Pumps - 1-stage


model		PA 04 H 1	PA 09 H 1
art no		100.142.031	100.142.032
max. working pressure	bar/Mpa	720 / 72	720 / 72
capacity oil tank (effective)	cc	400	900
capacity oil tank	cc	500	1000
first stage output (per stroke)	cc	1.8	2.6
first stage pressure range	bar/Mpa	0 - 720 / 0 - 72	0 - 720 / 0 - 72
max. operating force	kg	40.0	39.0
connection		3/8" NPT female	3/8" NPT female
operator type		hand	hand
weight, ready for use	kg	3.5	4.8

Hand Pumps - 1-stage (dimensions)


model		PA 04 H 1	PA 09 H 1
dimension A	mm	434	619
dimension B	mm	135	135
dimension C	mm	165	170




Features & benefits


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Accurately adjustable pressure release valve; loads can be lowered safely and with extreme control



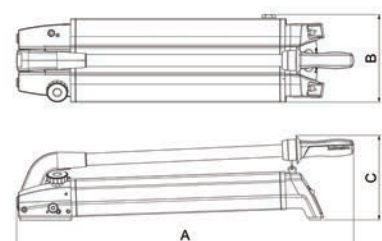
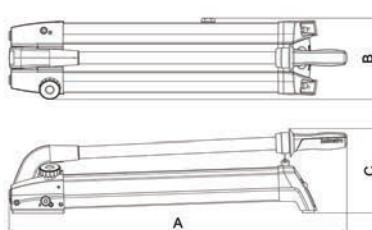
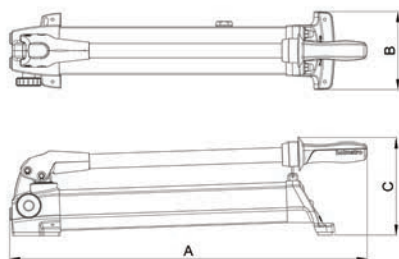
Pressure gauge connection on the pump block; the pressure gauge can be directly mounted on the pump at an angle of 45 degrees, making it easily readable

Hand Pumps - 2-stage


model		PA 04 H 2	PA 09 H 2	PA 18 H 2	PA 38 H 2	PA 58 H 2
art no		100.142.033	100.142.034	100.142.035	100.142.037	100.142.038
max. working pressure	bar/Mpa	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72
capacity oil tank (effective)	cc	400	900	1800	3800	5800
capacity oil tank	cc	500	1000	1990	4150	6150
first stage output (per stroke)	cc	18.4	22	42.8	42.8	50.5
second stage output (per stroke)	cc	1.4	2.1	3.1	3.1	4
first stage pressure range	bar/Mpa	0 - 45 / 0 - 4.5	0 - 45 / 0 - 4.5	0 - 45 / 0 - 4.5	0 - 45 / 0 - 4.5	0 - 45 / 0 - 4.5
second stage pressure range	bar/Mpa	45 - 720 / 4.5 - 72	45 - 720 / 4.5 - 72	45 - 720 / 4.5 - 72	45 - 720 / 4.5 - 72	45 - 720 / 4.5 - 72
max. operating force	kg	32.0	33.0	35.0	35.0	34.0
connection		3/8" NPT female	3/8" NPT female	3/8" NPT female	3/8" NPT female	3/8" NPT female
operator type		hand	hand	hand	hand	hand
double acting optional				yes	yes	yes
weight, ready for use	kg	3.4	4.7	7.6	11.4	14.6

Hand Pumps - 2-stage (dimensions)


model		PA 04 H 2	PA 09 H 2	PA 18 H 2	PA 38 H 2	PA 58 H 2
dimension A	mm	434	619	700	700	897
dimension B	mm	135	135	169	183	182
dimension C	mm	165	170	175	175	185





PA 18 F 2

Features & benefits



- Ergonomic design
 - Light weight; easy to carry and operate
 - Low operating force required; minimal user effort
 - Anti-slip rubber underneath; pump is stable and does not shift
 - Pump handle lock; easy and safe to carry
- Service- and maintenance-friendly; technical parts are easy to access and replace without removing the tank
- High oil output; quicker action both in the first and second stage
- Accurately adjustable pressure release valve; loads can be lowered safely and with extreme control
- Pressure gauge connection on the pump block; the pressure gauge can be directly mounted on the pump at an angle of 45 degrees, making it easily readable
- Oil level glass in the tank; easily check the oil level in both horizontal and vertical position
- Integrated filler funnel; top up oil easily and quickly without extra accessories
- Push & Unlock pump handle lock; unlocking is quick and easy with one brief push on the pump handle

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Accurately adjustable pressure release valve; loads can be lowered safely and with extreme control



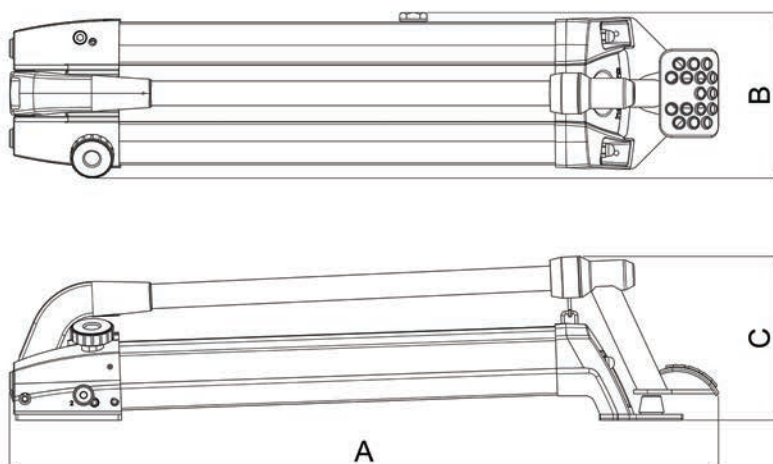
Pressure gauge connection on the pump block; the pressure gauge can be directly mounted on the pump at an angle of 45 degrees, making it easily readable

Foot Pump

model	PA 18 F 2	
art no	100.142.036	
max. working pressure	bar/Mpa	720 / 72
capacity oil tank (effective)	cc	1800
capacity oil tank	cc	1990
first stage output (per stroke)	cc	42.8
second stage output (per stroke)	cc	3.1
first stage pressure range	bar/Mpa	0 - 45 / 0 - 4.5
second stage pressure range	bar/Mpa	45 - 720 / 4.5 - 72
max. operating force	kg	37.0
connection	3/8" NPT female	
operator type	foot	
double acting optional	yes	
weight, ready for use	kg	8.3

Foot Pump (dimensions)

model	PA 18 F 2	
dimension A	mm	724
dimension B	mm	169
dimension C	mm	167





AHS 1400 FS

Features & benefits


- Usable at any place because of compact construction
- Lightweight
- Safe; when the air pressure is lost, the oil pressure is maintained
- Spark-free; suitable for explosive rooms
- Low-noise because of built-in silencer
- Energy-saving; stops as soon as the maximum pressure has been reached

Standard supplied with


- Compressed air connector

Hydraulic Hoses

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Pressure Gauges

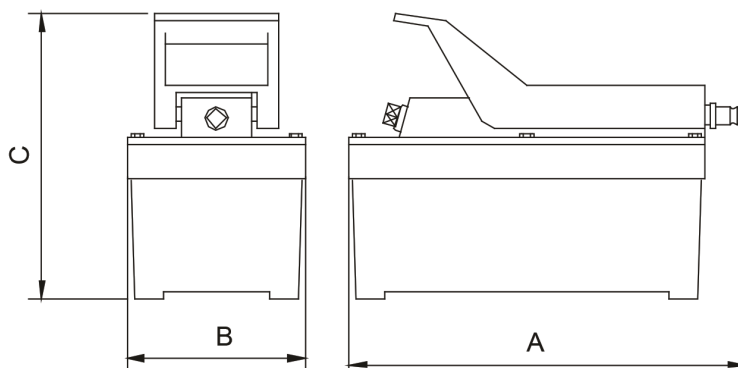
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Valve Blocks 'FlowPanel'

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Compact Air Pump - Single-acting


model		AHS 1400 FS
art no		100.602.001
max. working pressure	bar/Mpa	720 / 72
output unloaded	cc/min	9600
output loaded	cc/min	4100
air consumption unloaded	l/min	700
air consumption loaded	l/min	580
capacity oil tank (effective)	cc	1400
max. air pressure	bar/Mpa	8.5 / 0.9
connection		3/8" NPT female
operator type		air
suitable for (tool type)		single acting
weight, ready for use	kg	6.5
temperature range	°C	-20 + 55
dimensions (AxBxC)	mm	282 x 128 x 200





AHS 1400 D

Features & benefits


- Usable at any place because of compact construction
- Lightweight
- Spark-free; suitable for explosive rooms
- Low-noise because of built-in silencer
- Energy-saving; stops as soon as the maximum pressure has been reached
- Unsuitable for lifting applications, because the pump has no load holding valve

Standard supplied with

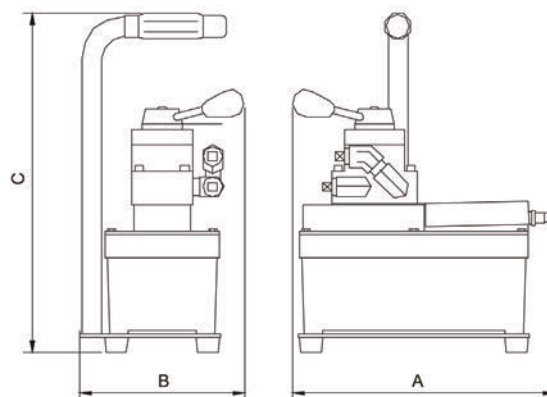

- Compressed air connector

Hydraulic Hoses
 Pressure Gauges
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Compact Air Pump - Double-acting


model		AHS 1400 D
art no		100.602.002
max. working pressure	bar/Mpa	720 / 72
output unloaded	cc/min	9600
output loaded	cc/min	4100
air consumption unloaded	l/min	700
air consumption loaded	l/min	580
capacity oil tank (effective)	cc	1400
max. air pressure	bar/Mpa	8.5 / 0.9
connection		3/8" NPT female
operator type		air
suitable for (tool type)		double acting
weight, ready for use	kg	9.6
temperature range	°C	-20 + 55
dimensions (AxBxC)	mm	315 x 180 x 372





EHW 1650 RC



With option 3 the pump is suitable for lifting applications

Features & benefits


- Usable at any place because of compact construction
- Lightweight
- For both horizontal and vertical use
- Perfectly suitable for cable cutters and nut crackers
- Suitable for single-acting tools and cylinders
- With option 3 the pump is suitable for lifting applications

Standard supplied with

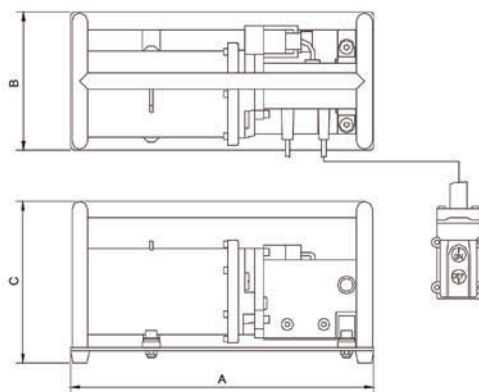

- Waterproof (IP 54) Remote Control with 2.3 m long electric cord

Additional information


- Option 1: Needle valve for controlled oil return (art no 100.182.157)
- Option 2: Pressure gauge for reading the pressure (art no 100.182.158)
- Option 3: Needle valve and pressure gauge (art no 100.182.162)

Compact Electric Pump


model	EHW 1650 RC	
art no	100.551.001	
max. working pressure	bar/Mpa	720 / 72
first stage output / min.	cc	2000
second stage output / min.	cc	250
capacity oil tank (effective)	cc	1650
connection	3/8" NPT female	
engine	230 VAC - 0.35 kW - 50 Hz - 1 Ph	
charge remote control	V	15
weight, ready for use	kg	11.6
dimensions (AxBxC)	mm	416 x 190 x 222





5-step plan for selection of vari pumps

Step 1

Select the power source.

- Air motor
- Electric motor (230 V - 1 ph - 50 Hz)
- Electric motor (400 V - 3 ph - 50 Hz)
- Petrol engine

Step 2

Select pump type.

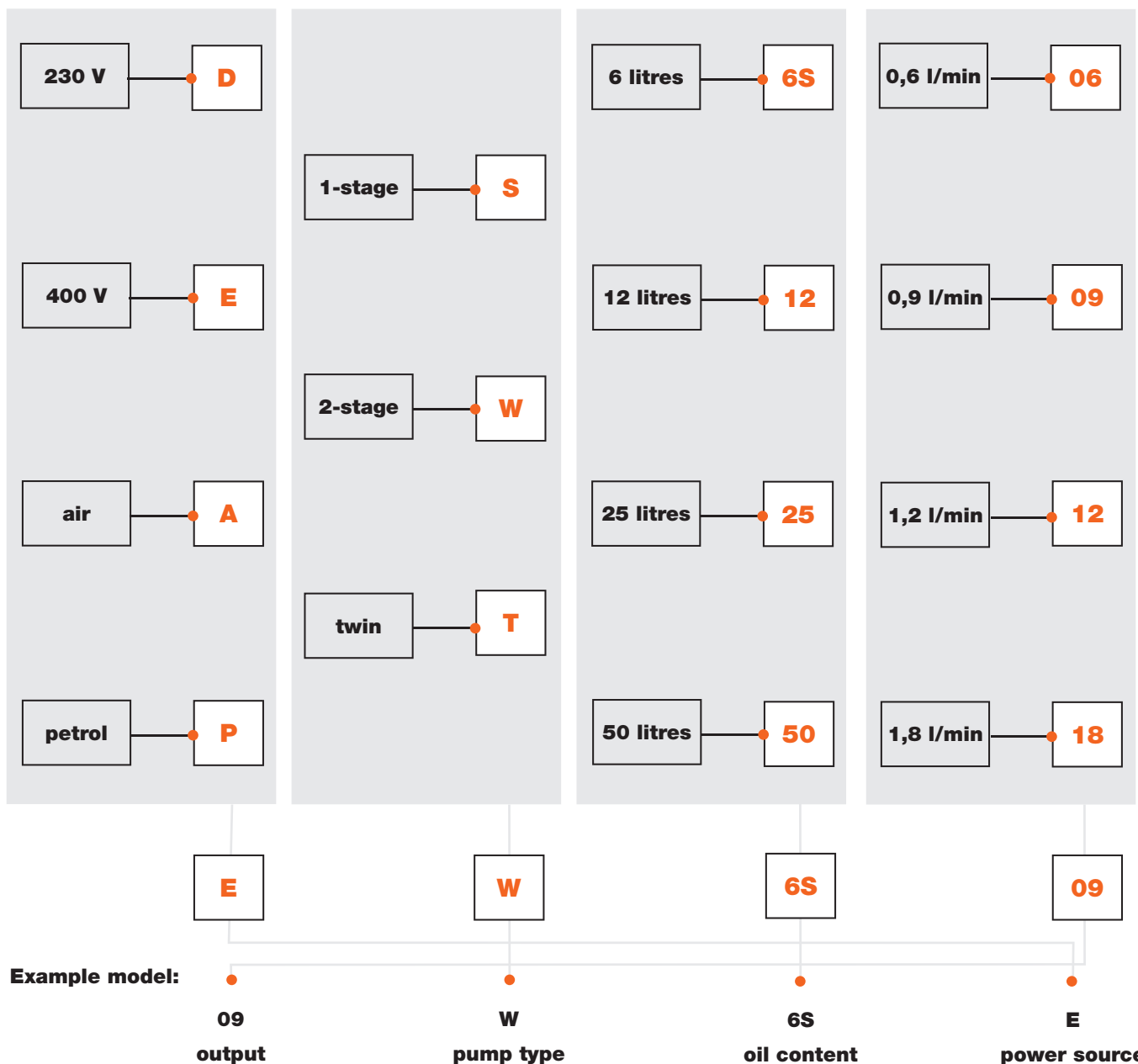
- Single-stage
- Two-stage for higher operating speed
- Twin, with 2 independant outlets

Step 3

Select the correct content for the oil tank.

Step 4

Select the correct pump output in litres per minute.



5-step plan for selection of vari pumps

Step 5

Select the correct control valve (for twin pumps 2 valves required).

For single-acting tools:

- M 311 (hand operation)

For double-acting tools:

- M 322 (hand operation)
- M 323 (hand operation with deadman's handle)
- M 324 (electromagnetic operation)

The following items must be additionally ordered with this valve:

- Remote control (art no 100.151.060)

For use in combination with EC-vari pumps

Contact our sales department for additional information

- M 325 (air-powered operation)

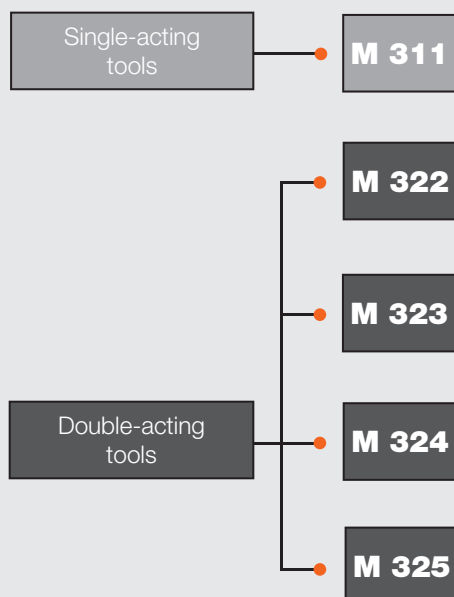
The following items must be additionally ordered with this valve:

- Remote control (art no 100.161.004)

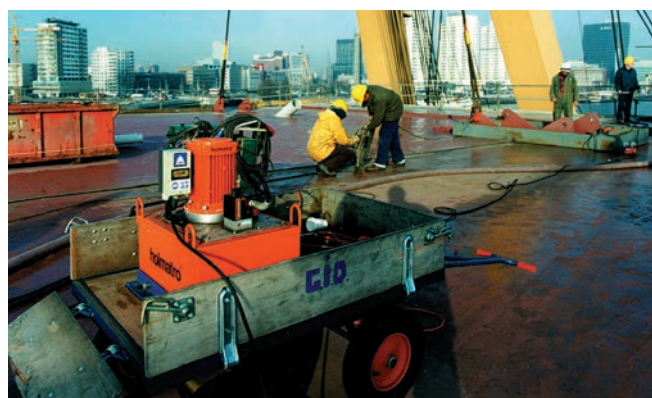
You now have a functional pump

Do not forget to specify the couplers and/or hoses

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Example model:
09 W 6S E + M 323





06 S 6 SD


Features & benefits


- Safe
 - In case of a power failure, the oil pressure is maintained
 - Protected against pressure drop by pressure-controlled non-return valve
- Excluding single-acting or double-acting control valve

Available on request


- Larger tank
- Other voltages / frequencies

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Vari Pumps - 230V - 1-stage


model	06 S 6 SD	06 S 12 D	09 S 6 SD	09 S 12 D	09 S 25 D	09 S 50 D
art no	100.152.012	100.152.013	100.152.015	100.152.016	100.152.017	100.152.018
max. working pressure bar/Mpa	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72
capacity oil tank (effective) cc	6000	12000	6000	12000	25000	50000
first stage output / min. cc	600	600	900	900	900	900
first stage pressure range bar/Mpa	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72
operator type	electric motor	electric motor	electric motor	electric motor	electric motor	electric motor
engine	230 VAC - 1.1 kW - 50 Hz - 1 Ph	230 VAC - 1.1 kW - 50 Hz - 1 Ph	230 VAC - 1.1 kW - 50 Hz - 1 Ph	230 VAC - 1.1 kW - 50 Hz - 1 Ph	230 VAC - 1.1 kW - 50 Hz - 1 Ph	230 VAC - 1.1 kW - 50 Hz - 1 Ph
weight, ready for use kg	36.0	44.0	38.0	46.0	65.0	95.0
dimensions (LxWxH) mm	400 x 300 x 411	400 x 300 x 541	400 x 300 x 541	400 x 300 x 541	500 x 380 x 541	500 x 380 x 676

Vari Pumps - 230V - 1-stage


model	12 S 6 SD	12 S 12 D	12 S 25 D	12 S 50 D
art no	100.152.020	100.152.021	100.152.022	100.152.023
max. working pressure bar/Mpa	720 / 72	720 / 72	720 / 72	720 / 72
capacity oil tank (effective) cc	6000	12000	25000	50000
first stage output / min. cc	1200	1200	1200	1200
first stage pressure range bar/Mpa	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72
operator type	electric motor	electric motor	electric motor	electric motor
engine	230 VAC - 1.5 kW - 50 Hz - 1 Ph	230 VAC - 1.5 kW - 50 Hz - 1 Ph	230 VAC - 1.5 kW - 50 Hz - 1 Ph	230 VAC - 1.5 kW - 50 Hz - 1 Ph
weight, ready for use kg	38.0	46.0	65.0	95.0
dimensions (LxWxH) mm	400 x 300 x 441	400 x 3200 x 541	500 x 380 x 541	500 x 3800 x 676



06 W 6 SD


Features & benefits


- Safe
 - In case of a power failure, the oil pressure is maintained
 - Protected against pressure drop by pressure-controlled non-return valve
- Excluding single-acting or double-acting control valve

Available on request


- Larger tank
- Other voltages / frequencies

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Vari Pumps - 230V - 2-stage


model		06 W 6 SD	06 W 12 D	09 W 6 SD	09 W 12 D	09 W 25 D	09 W 50 D
art no		100.152.025	100.152.026	100.152.028	100.152.029	100.152.030	100.152.031
max. working pressure	bar/Mpa	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72
capacity oil tank (effective)	cc	6000	12000	6000	12000	25000	50000
first stage output / min.	cc	1600	1600	2500	2500	2500	2500
second stage output / min.	cc	600	600	900	900	900	900
first stage pressure range	bar/Mpa	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20
second stage pressure range	bar/Mpa	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72
operator type		electric motor	electric motor	electric motor	electric motor	electric motor	electric motor
engine		230 VAC - 1.1 kW - 50 Hz - 1 Ph	230 VAC - 1.1 kW - 50 Hz - 1 Ph	230 VAC - 1.1 kW - 50 Hz - 1 Ph	230 VAC - 1.1 kW - 50 Hz - 1 Ph	230 VAC - 1.1 kW - 50 Hz - 1 Ph	230 VAC - 1.1 kW - 50 Hz - 1 Ph
weight, ready for use	kg	38.0	46.0	40.0	48.0	67.0	96.0
dimensions (LxWxH)	mm	400 x 300 x 441	400 x 300 x 541	400 x 300 x 441	400 x 300 x 541	500 x 380 x 541	500 x 380 x 676

Vari Pumps - 230V - 2-stage


model		12 W 6 SD	12 W 12 D	12 W 25 D	12 W 50 D
art no		100.152.033	100.152.034	100.152.035	100.152.036
max. working pressure	bar/Mpa	720 / 72	720 / 72	720 / 72	720 / 72
capacity oil tank (effective)	cc	6000	12000	25000	50000
first stage output / min.	cc	3200	3200	3200	3200
second stage output / min.	cc	1200	1200	1200	1200
first stage pressure range	bar/Mpa	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20
second stage pressure range	bar/Mpa	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72
operator type		electric motor	electric motor	electric motor	electric motor
engine		230 VAC - 1.5 kW - 50 Hz - 1 Ph	230 VAC - 1.5 kW - 50 Hz - 1 Ph	230 VAC - 1.5 kW - 50 Hz - 1 Ph	230 VAC - 1.5 kW - 50 Hz - 1 Ph
weight, ready for use	kg	40.0	48.0	67.0	96.0
dimensions (LxWxH)	mm	400 x 300 x 441	400 x 300 x 541	500 x 380 x 541	500 x 380 x 676



06 S 6 SE


Features & benefits


- Safe
 - In case of a power failure, the oil pressure is maintained
 - Protected against pressure drop by pressure-controlled non-return valve
- Excluding single-acting or double-acting control valve

Available on request


- Larger tank
- Other voltages / frequencies

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Vari Pumps - 400V - 1-stage


model	06 S 6 SE	06 S 12 E	09 S 6 SE	09 S 12 E	09 S 25 E	12 S 6 SE
art no	100.152.038	100.152.039	100.152.041	100.152.042	100.152.043	100.152.046
max. working pressure bar/Mpa	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72
capacity oil tank (effective) cc	6000	12000	6000	12000	25000	6000
first stage output / min. cc	600	600	900	900	900	1200
first stage pressure range bar/Mpa	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72
operator type	electric motor	electric motor	electric motor	electric motor	electric motor	electric motor
engine	400 VAC - 1.1 kW - 50 Hz - 3 Ph	400 VAC - 1.1 kW - 50 Hz - 3 Ph	400 VAC - 1.1 kW - 50 Hz - 3 Ph	400 VAC - 1.5 kW - 50 Hz - 3 Ph	400 VAC - 1.1 kW - 50 Hz - 3 Ph	400 VAC - 1.5 kW - 50 Hz - 3 Ph
weight, ready for use kg	33.0	41.0	36.0	44.0	63.0	35.0
dimensions (LxWxH) mm	400 x 300 x 441	400 x 300 x 541	400 x 300 x 441	400 x 300 x 541	500 x 380 x 541	400 x 300 x 441

Vari Pumps - 400V - 1-stage


model	12 S 12 E	12 S 25 E	12 S 50 E	18 S 12 E	18 S 25 E	18 S 50 E
art no	100.152.047	100.152.048	100.152.049	100.152.050	100.152.051	100.152.052
max. working pressure bar/Mpa	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72
capacity oil tank (effective) cc	12000	25000	50000	12000	25000	50000
first stage output / min. cc	1200	1200	1200	1800	1800	1800
first stage pressure range bar/Mpa	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72
operator type	electric motor	electric motor	electric motor	electric motor	electric motor	electric motor
engine	400 VAC - 1.5 kW - 50 Hz - 3 Ph	400 VAC - 1.5 kW - 50 Hz - 3 Ph	400 VAC - 1.5 kW - 50 Hz - 3 Ph	400 VAC - 1.5 kW - 50 Hz - 3 Ph	400 VAC - 2.2 kW - 50 Hz - 3 Ph	400 VAC - 2.2 kW - 50 Hz - 3 Ph
weight, ready for use kg	43.0	62.0	92.0	45.0	64.0	94.0
dimensions (LxWxH) mm	400 x 300 x 541	500 x 380 x 541	500 x 380 x 676	500 x 380 x 541	500 x 380 x 541	500 x 380 x 676



06 W 6 SE


Features & benefits


- Safe
 - In case of a power failure, the oil pressure is maintained
 - Protected against pressure drop by pressure-controlled non-return valve
- Excluding single-acting or double-acting control valve

Available on request


- Larger tank
- Other voltages / frequencies

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Vari Pumps - 400V - 2-stage


model	06 W 6 SE	06 W 12 E	09 W 6 SE	09 W 12 E	09 W 25 E	12 W 6 SE
art no	100.152.054	100.152.055	100.152.057	100.152.058	100.152.059	100.152.062
max. working pressure bar/Mpa	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72
capacity oil tank (effective) cc	6000	12000	6000	12000	25000	6000
first stage output / min. cc	1600	1600	2500	2500	2500	3200
second stage output / min. cc	600	600	900	900	900	1200
first stage pressure range bar/Mpa	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20
second stage pressure range bar/Mpa	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72
operator type	electric motor	electric motor	electric motor	electric motor	electric motor	electric motor
engine	400 VAC - 1.1 kW - 50 Hz - 3 Ph	400 VAC - 50 Hz - 3 Ph	230 VAC - 1.1 kW - 50 Hz - 1 Ph	400 VAC - 1.1 kW - 50 Hz - 3 Ph	400 VAC - 1.1 kW - 50 Hz - 3 Ph	400 VAC - 1.5 kW - 50 Hz - 3 Ph
weight, ready for use kg	35.0	43.0	38.0	46.0	65.0	37.0
dimensions (LxWxH) mm	400 x 300 x 441	400 x 300 x 541	400 x 300 x 441	400 x 300 x 541	500 x 380 x 541	400 x 300 x 441

Vari Pumps - 400V - 2-stage


model	12 W 12 E	12 W 25 E	12 W 50 E	18 W 12 E	18 W 25 E	18 W 50 E
art no	100.152.063	100.152.064	100.152.065	100.152.066	100.152.067	100.152.068
max. working pressure bar/Mpa	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72
capacity oil tank (effective) cc	12000	25000	50000	12000	25000	50000
first stage output / min. cc	3200	3200	3200	5000	5000	5000
second stage output / min. cc	1200	1200	1200	1800	1800	1800
first stage pressure range bar/Mpa	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20
second stage pressure range bar/Mpa	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72
operator type	electric motor	electric motor	electric motor	electric motor	electric motor	electric motor
engine	400 VAC - 1.5 kW - 50 Hz - 3 Ph	400 VAC - 1.5 kW - 50 Hz - 3 Ph	400 VAC - 1.5 kW - 50 Hz - 3 Ph	400 VAC - 2.2 kW - 50 Hz - 3 Ph	400 VAC - 2.2 kW - 50 Hz - 3 Ph	400 VAC - 2.2 kW - 50 Hz - 3 Ph
weight, ready for use kg	45.0	64.0	94.0	47.0	96.0	96.0
dimensions (LxWxH) mm	400 x 300 x 541	500 x 380 x 541	500 x 380 x 676	400 x 300 x 541	500 x 380 x 676	500 x 380 x 676



06 T 6 SE


Features & benefits


- Pump with 2 separate outlets
- Safe
 - In case of a power failure, the oil pressure is maintained
 - Protected against pressure drop by pressure-controlled non-return valve
- Excluding single-acting or double-acting control valve

Available on request


- Larger tank
- Other voltages / frequencies

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Pressure Gauges	page 171
Valve Blocks 'FlowPanel'	page 174

Vari Pumps - Twin - 400V - 1-stage


model	06 T 6 SE	06 T 12 E	09 T 12 E	09 T 25 E	09 T 50 E
art no	100.152.070	100.152.071	100.152.072	100.152.073	100.152.074
max. working pressure bar/Mpa	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72
capacity oil tank (effective) cc	6000	12000	12000	25000	50000
first stage output / min. cc	600	600	900	900	900
first stage pressure range bar/Mpa	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72
operator type	electric motor	electric motor	electric motor	electric motor	electric motor
engine	400 VAC - 1.5 kW - 50 Hz - 3 Ph	400 VAC - 1.5 kW - 50 Hz - 3 Ph	400 VAC - 2.2 kW - 50 Hz - 3 Ph	400 VAC - 1.5 kW - 50 Hz - 3 Ph	400 VAC - 2.2 kW - 50 Hz - 3 Ph
weight, ready for use kg	40.0	47.0	52.0	71.0	100.0
dimensions (LxWxH) mm	400 x 300 x 441	400 x 300 x 541	400 x 300 x 541	500 x 380 x 541	500 x 380 x 676



12 S 6 SA


Features & benefits


- Safe
 - In case of a power failure, the oil pressure is maintained
 - Protected against pressure drop by pressure-controlled non-return valve
- Excluding single-acting or double-acting control valve

Available on request


- Larger tank
- Other voltages / frequencies

Control Valves	page 161
Accessories	page 162
Hydraulic Hoses	page 166
Pressure Gauges	page 171
Valve Blocks 'FlowPanel'	page 174

Vari Pumps - Air - 1-stage - 8 Bars


model		12 S 6 SA	12 S 12 A	12 S 25 A	12 S 50 A	18 S 12 A	18 S 25 A
art no		100.162.018	100.162.019	100.162.020	100.162.022	100.162.023	100.162.024
max. working pressure	bar/Mpa	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72
capacity oil tank (effective)	cc	6000	12000	25000	50000	12000	25000
first stage output / min.	cc	1300	1300	1300	1300	2000	2000
first stage pressure range	bar/Mpa	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72
operator type		air	air	air	air	air	air
engine		8 bars - 3.0 kW	8 bars - 3.0 kW	8 bars - 3.0 kW	8 bars - 3.0 kW	8 bars - 3.0 kW	8 bars - 3.0 kW
weight, ready for use	kg	33.0	41.0	60.0	89.0	42.0	62.0
dimensions (LxWxH)	mm	400 x 300 x 348	400 x 300 x 448	500 x 380 x 448	500 x 380 x 583	400 x 300 x 448	500 x 380 x 448

Vari Pumps - Air - 1-stage - 8 Bars


model		18 S 50 A
art no		100.162.025
max. working pressure	bar/Mpa	720 / 72
capacity oil tank (effective)	cc	50000
first stage output / min.	cc	2000
first stage pressure range	bar/Mpa	0 - 720 / 0 - 72
operator type		air
engine		8 bars - 3.0 kW
weight, ready for use	kg	91.0
dimensions (LxWxH)	mm	500 x 380 x 583



12 W 6 SA


Features & benefits


- Safe
 - In case of a power failure, the oil pressure is maintained
 - Protected against pressure drop by pressure-controlled non-return valve
- Excluding single-acting or double-acting control valve

Available on request


- Larger tank
- Other voltages / frequencies

Control Valves	page 161
Accessories	page 162
Hydraulic Hoses	page 166
Pressure Gauges	page 171
Valve Blocks 'FlowPanel'	page 174

Vari Pumps - Air - 2-stage - 8 Bars


model		12 W 6 SA	12 W 12 A	12 W 25 A	12 W 50 A	18 W 12 A	18 W 25 A
art no		100.162.027	100.162.028	100.162.029	100.162.030	100.162.032	100.162.033
max. working pressure	bar/Mpa	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72
capacity oil tank (effective)	cc	6000	12000	25000	50000	12000	25000
first stage output / min.	cc	3600	3600	3600	3600	5700	5700
second stage output / min.	cc	1300	1300	1300	1300	2000	2000
first stage pressure range	bar/Mpa	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20
second stage pressure range	bar/Mpa	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72
operator type	air	air	air	air	air	air	air
engine		8 bars - 3.0 kW	8 bars - 3.0 kW	8 bars - 3.0 kW	8 bars - 3.0 kW	8 bars - 3.0 kW	8 bars - 3.0 kW
weight, ready for use	kg	35.0	43.0	62.0	91.0	44.0	63.0
dimensions (LxWxH)	mm	400 x 300 x 348	400 x 300 x 448	500 x 380 x 448	500 x 380 x 583	400 x 300 x 448	500 x 380 x 448

Vari Pumps - Air - 2-stage - 8 Bars


model		18 W 50 A
art no		100.162.034
max. working pressure	bar/Mpa	720 / 72
capacity oil tank (effective)	cc	50000
first stage output / min.	cc	5700
second stage output / min.	cc	2000
first stage pressure range	bar/Mpa	0 - 200 / 0 - 20
second stage pressure range	bar/Mpa	200 - 720 / 20 - 72
operator type	air	air
engine		8 bars - 3.0 kW
weight, ready for use	kg	93.0
dimensions (LxWxH)	mm	500 x 380 x 583



12 S 6 SP

Features & benefits


- Safe
 - In case of a power failure, the oil pressure is maintained
 - Protected against pressure drop by pressure-controlled non-return valve
- Excluding single-acting or double-acting control valve

Available on request


- Larger tank

Control Valves	page 161
Accessories	page 162
Hydraulic Hoses	page 166
Pressure Gauges	page 171
Valve Blocks 'FlowPanel'	page 174

Vari Pumps - Petrol - 1-stage - 4-stroke


model	12 S 6 SP	12 S 12 P	12 S 25 P	12 S 50 P	18 S 12 P	18 S 25 P
art no	100.162.002	100.162.003	100.162.004	100.162.005	100.162.006	100.162.007
max. working pressure bar/Mpa	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72
capacity oil tank (effective) cc	6000	12000	25000	50000	12000	25000
first stage output / min. cc	1300	1300	1300	1300	2000	2000
first stage pressure range bar/Mpa	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72	0 - 720 / 0 - 72
operator type	petrol engine	petrol engine	petrol engine	petrol engine	petrol engine	petrol engine
engine	4-stroke - 4.2 HP - 3.1 kW	4-stroke - 4.2 HP - 3.1 kW	4-stroke - 4.2 HP - 3.1 kW	4-stroke - 4.2 HP - 3.1 kW	4-stroke - 4.2 HP - 3.1 kW	4-stroke - 4.2 HP - 3.1 kW
weight, ready for use kg	35.0	43.0	62.0	91.0	44.0	64.0
dimensions (LxWxH) mm	400 x 300 x 462	400 x 300 x 562	500 x 380 x 562	500 x 380 x 697	400 x 300 x 562	500 x 380 x 562

Vari Pumps - Petrol - 1-stage - 4-stroke


model	18 S 50 P
art no	100.162.008
max. working pressure bar/Mpa	720 / 72
capacity oil tank (effective) cc	50000
first stage output / min. cc	2000
first stage pressure range bar/Mpa	0 - 720 / 0 - 72
operator type	petrol engine
engine	4-stroke - 4.2 HP - 3.1 kW
weight, ready for use kg	93.0
dimensions (LxWxH) mm	400 x 380 x 697



12 W 6 SP

Features & benefits


- Safe
 - In case of a power failure, the oil pressure is maintained
 - Protected against pressure drop by pressure-controlled non-return valve
- Excluding single-acting or double-acting control valve

Available on request


- Larger tank

Control Valves	page 161
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Valve Blocks 'FlowPanel'	page 174


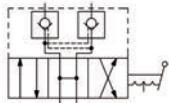
Vari Pumps - Petrol - 2-stage - 4-stroke


model	12 W 6 SP	12 W 12 P	12 W 25 P	12 W 50 P	18 W 12 P	18 W 25 P
art no	100.162.010	100.162.011	100.162.012	100.162.013	100.162.014	100.162.015
max. working pressure bar/Mpa	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72	720 / 72
capacity oil tank (effective) cc	6000	12000	25000	50000	12000	25000
first stage output / min. cc	3600	3600	3600	3600	5700	5700
second stage output / min. cc	1300	1300	1300	1300	2000	2000
first stage pressure range bar/Mpa	0 - 200 / 0 - 20	0 - 200 / 0 - 20	200 - 0 / 20 - 0	0 - 200 / 0 - 20	0 - 200 / 0 - 20	0 - 200 / 0 - 20
second stage pressure range bar/Mpa	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72	200 - 720 / 20 - 72
operator type	petrol engine	petrol engine	petrol engine	petrol engine	petrol engine	petrol engine
engine	4-stroke - 4.2 HP - 3.1 kW	4-stroke - 4.2 HP - 3.1 kW	4-stroke - 4.2 HP - 3.1 kW	4-stroke - 4.2 HP - 3.1 kW	4-stroke - 4.2 HP - 3.1 kW	4-stroke - 4.2 HP - 3.1 kW
weight, ready for use kg	37.0	45.0	64.0	93.0	46.0	65.0
dimensions (LxWxH) mm	400 x 300 x 462	400 x 300 x 562	500 x 380 x 562	500 x 380 x 697	400 x 300 x 562	500 x 380 x 562

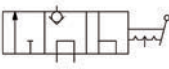

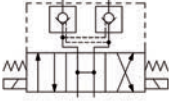

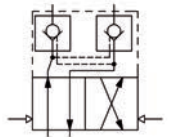

Vari Pumps - Petrol - 2-stage - 4-stroke


model	18 W 50 P
art no	100.162.016
max. working pressure bar/Mpa	720 / 72
capacity oil tank (effective) cc	50000
first stage output / min. cc	5700
second stage output / min. cc	200
first stage pressure range bar/Mpa	0 - 2000 / 0 - 200
second stage pressure range bar/Mpa	200 - 720 / 20 - 72
operator type	petrol engine
engine	4-stroke - 4.2 HP - 3.1 kW
weight, ready for use kg	95.0
dimensions (LxWxH) mm	500 x 380 x 697




Control Valves - Hand Pumps


image	hydraulic diagram	description	model	art no
		Control valve <ul style="list-style-type: none"> • Suitable for double-acting tools • Handle stops in each position • With pressure controlled non-return valves for securing the load • 3-position 4-way valve • Connection: 3/8" NPT female (2x) 	VM 43 L	100.182.175






Control Valves - Vari Pumps


image	hydraulic diagram	description	model	art no
		Control Valve <ul style="list-style-type: none"> • Suitable for single-acting tools • Handle stops in each position • 3-position, 3-way Valve • Not in combination with a vari pump model (name) starting with 18 W • Connection 3/8" NPT female thread (2x) 	M 311	100.181.311
		Control Valve <ul style="list-style-type: none"> • Suitable for double-acting tools • Handle stops in each position • With pressure-controlled non-return valves for securing the load • 3-position 4-way Valve • Connection: 3/8" NPT female (2x) 	M 322	100.181.322
		Control Valve <ul style="list-style-type: none"> • Suitable for double-acting tools • Handle with dead man's function, automatically goes to "O" position • With pressure-controlled non-return valves for securing the load • 3-position, 4-way Valve • Connection: 3/8" NPT female (2x) 	M 323	100.181.323
		Control Valve <ul style="list-style-type: none"> • Only suitable in combination with EC-version Vari pumps. Contact our sales department for additional information • Suitable for double-acting tools. Valve with electromagnetic control (24 VDC) • With pressure-controlled non-return valves for securing the load • 3-position, 4-way valve • Connection: 3/8" NPT female (2x) • Remote control, art no 100.151.060 (to be ordered separately) • 4 buttons (on, off, lift and lower) 	M 324	100.181.324
		Control Valve <ul style="list-style-type: none"> • Suitable for double-acting tools • Valve with air control. Only suitable in combination with air-powered Vari pumps • With pressure-controlled non-return valves for securing the load • 2-position 4-way Valve • Connection: 3/8" NPT female (2x) • Remote control, art no 100.161.004 (to be ordered separately) • 2 buttons (lift and lower) 	M 325	100.181.325
		Single/double-acting valve <ul style="list-style-type: none"> • For assembly on the vari pump underneath a double-acting valve (M 322, M 323, M324 or M 325) • This valve makes it possible to drive both single and double acting tools with just one pump • Switch with A + B function (double-acting) or A (single-acting) 	M304	100.172.051








Accessories - Hand Pumps


image	description	model	art no
	Foot Plate Set • Suitable for PA 09 pumps	-	100.182.218
	Foot Plate Set • Suitable for PA 18/38 pumps	-	100.182.217
	Foot Plate Set • Suitable for PA 18/38 pumps including VM 43 L valve	-	100.182.219

Accessories - Vari Pumps


image	description	model	art no
	Connecting plate • For remote or separately from the pump placing of the valves M 311, M 322, M 323, M 324 or M 325 (if necessary combined with pressure control valve M 303) • Connection: 1/4" BSP female	M 302	100.181.302
	Connecting block • For mounting couplers or hoses • To be mounted on the pump when using connecting plate M 302 instead of control valve • Provided with pressure relief valve • Connection: 1/4" BSP female (2x), 3/8" NPT female (1x) • Mounting of pressure gauge A 500 possible using nipple 100.581.104 • Mounting pressure gauge A 150 possible using nipple 100.581.128	M 301 B	100.182.088
	Pressure Control Valve • For mounting unto the Pump or unto the connecting plate M 302 (below the connecting block M 301 or below the Valves M 311, M 322, M 323, M 324 or M 325) • Pressure adjustable between 0 and 720 Bars	M 303	100.181.303
	Protection frame for 6, 12, 25 and 50 liter pumps	-	100.151.056
	Cover plate for protection frame	-	100.151.040

Accessories - Vari Pumps


image	description	model	art no
	Carrying handle set for 6 and 12 litre pumps	-	100.151.053
	Carrying handle set for 25 and 50 litre pumps	-	100.151.054
	Set of wheels for 25 and 50 litre pumps	-	100.151.039
	Carriage-frame for 6, 12, 25 and 50 litre pumps	-	100.151.038
	Silencer for air vari pumps	HSR 0.5 U	100.182.015
	Air treatment set for air Vari pump (separately delivered)	A 181 U	100.582.181
	Air treatment set for air vari pump (to be mounted)	-	100.161.003

