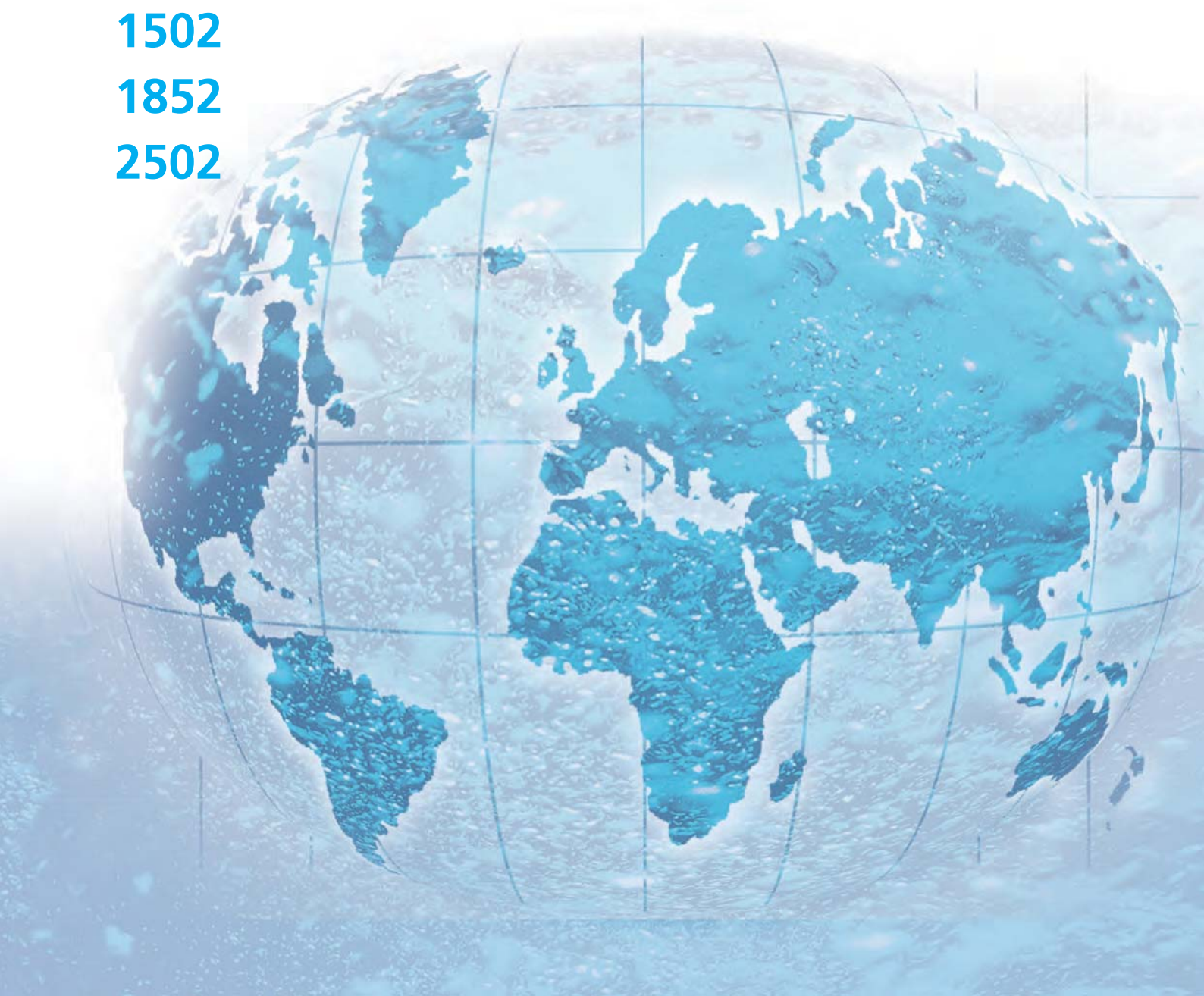
WOMA®

Water as a tool

High-Pressure Plunger Pumps

02-Line (up to 750 bar)

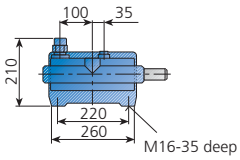
252
702
1002
1502
1852
2502

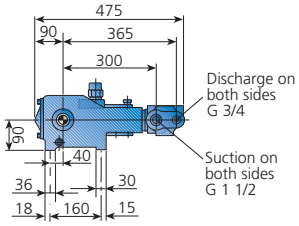


Technical Data

High-Pressure Plunger Pump Type 252 / 702

All dimensions in mm
Thread "M" as per DIN 13/ISO 261
Thread "G" as per DIN ISO 228/1

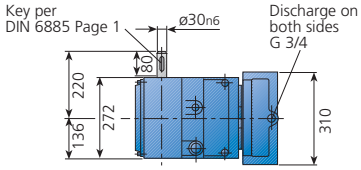




Technical Data:

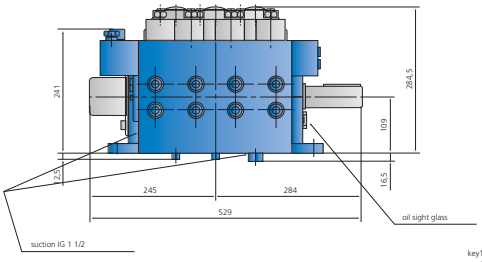
- Oil capacity: approx. 1.8 l
- Weight: approx. 50 kg net
- Stroke: 45 mm/1.77 inch
- Inlet pressure required*: 2 bar/30 psi
- Rod force: 7.5 kN

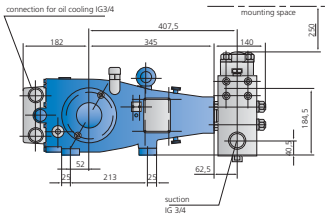
* Depends on operating mode, crank shaft speed and water temperature



Performance Chart Pump Type 252						
Plungerdiameter (mm)	Crank shaft (Rpm)	Required drive (kW)	Nominal flow rate			Maximum permissible operating pressure (psi/bar)
			USG pm	IMPG pm	(l/min)	
P 22	1,000 750	18 13	13.5 10.0	11.2 8.4	51 38	2,900/200
P 24	1,000 750	18 14	16.1 11.9	13.4 9.9	61 45	2,320/160
P 26	1,000 750	18 13	18.8 14.0	15.6 11.7	71 53	1,958/135
P 30	1,000 750	18 13	25.1 18.8	20.9 15.6	95 71	1,450/100
P 35	1,000 750	18 14	34.1 25.6	28.4 21.3	129 97	1,088/ 75

All dimensions in mm
Thread "M" as per DIN 13/ISO 261
Thread "G" as per DIN ISO 228/1

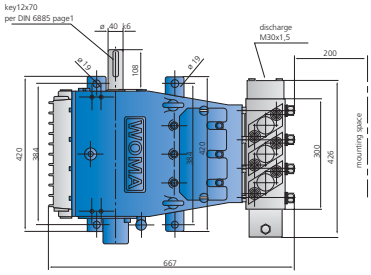




Technical Data:

- Oil capacity: approx. 3.2 l
- Weight: approx. 150 kg net
- Stroke: 44.5 mm/1.75 inch
- Inlet pressure required*: 2 bar/3 bar – 30 psi/43,5 psi (1000 Rpm)
- Rod force: 21 kN

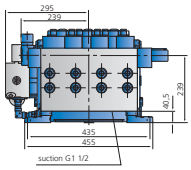
* Depends on operating mode, crank shaft speed and water temperature

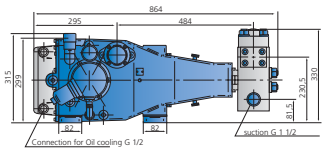


Performance Chart Pump Type 702						
Plungerdiameter (mm)	Crank shaft (Rpm)	Required drive (kW)	Nominal flow rate			Maximum permissible operating pressure (psi/bar)
			USG pm	IMPG pm	(l/min)	
P20	1000 750	47 35	10.30 7.66	8.58 6.38	39 29	9,425/650
P24	1000 750	48 37	15.32 11.36	12.76 9.46	58 43	6,500/450
P26	1000 750	50 37	17.96 13.47	14.96 11.22	68 51	5,800/400
P30	1000 750	50 37	24.04 17.96	20.02 14.96	91 68	4,400/300
P35	1000 750	51 38	33.02 24.83	27.50 20.68	125 94	3,200/220
P40	1000 750	51 38	43.59 32.49	36.30 27.06	165 123	2,500/170
P45	1000 750	52 38	55.21 41.48	45.97 34.54	209 157	1,958/135

High-Pressure Plunger Pump Type 1002 / 1502

All dimensions in mm
Thread "M" as per DIN 13/ISO 261
Thread "G" as per DIN ISO 228/1

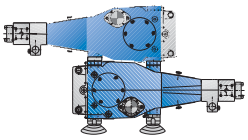


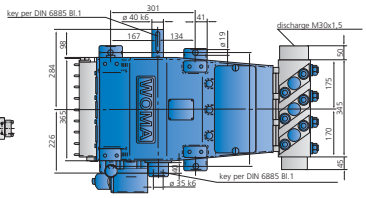


Technical Data:

- ▶ Oil capacity: approx. 6 l
- ▶ Weight: approx. 254 kg net
- ▶ Stroke: 73 mm/2.88 inch
- ▶ Inlet pressure required: 2 bar/30 psi
- ▶ Rod force: 29.4 kN

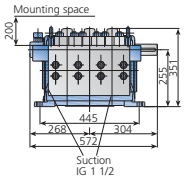
▶ Installation variations

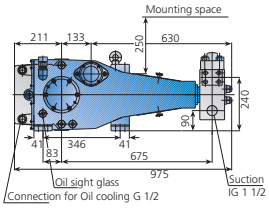




Performance Chart Pump Type 1002								
Plunger-diameter (mm)	Gear Ratio Pinion shaft (Rpm) 1,500	1,800	Crank shaft (Rpm)	Required drive (kW)	Nominal flow rate USG pm	IMPG pm	(l/min)	Maximum permissible operating pressure (psi/bar)
P 22		3.63	495	56	10.6	8.8	40	10,875/750
	3.00		500	56	10.6	8.8	40	
	3.63		413	46	8.7	7.3	33	
P 26		3.63	495	56	14.5	12.1	55	7,975/550
	3.00		500	57	14.8	12.3	56	
	3.63		413	47	12.2	10.1	46	
P 35		3.63	495	58	27.5	22.9	104	4,350/300
	3.00		500	58	27.7	23.1	105	
	3.63		413	48	22.7	18.9	86	
P 40		3.63	495	58	35.9	29.9	136	3,335/230
	3.00		500	58	36.2	30.1	137	
	3.63		413	48	29.9	24.9	113	
P 45		3.63	495	57	45.4	37.8	172	2,610/180
	3.00		500	58	46.0	38.3	174	
	3.63		413	48	37.8	31.5	143	

All dimensions in mm
Thread "M" as per DIN 13/ISO 261
Thread "G" as per DIN ISO 228/1



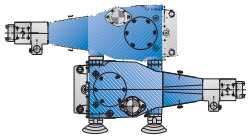


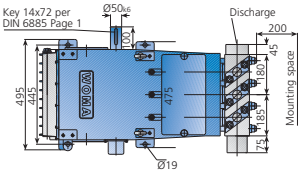
Technical Data:

- ▶ Oil capacity: approx. 9 l
- ▶ Weight: approx. 319 kg net
- ▶ Stroke: 95 mm/3.74 inch
- ▶ Inlet pressure required*: from P 40: 2 – 5 bar/30 – 75 psi
- ▶ Rod force: 40 kN

* Depends on plunger diameter

▶ Installation variations

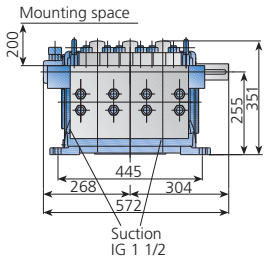


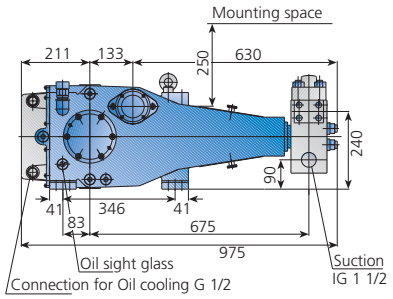


Performance Chart Pump Type 1502									
Plunger-diameter (mm)	Gear Ratio Pinion shaft (Rpm) 1,500	1,800	2,100	Crank shaft (Rpm)	Required drive (kW)	Nominal flow rate USG pm	IMPG pm	(l/min)	Maximum permissible operating pressure (psi/bar)
P 26			4.57	459	91	17.7	14.7	67	10,875/750
		3.69		488	98	19.0	15.8	72	
		4.57		393	79	15.3	12.8	58	
	2.96			507	101	19.5	16.3	74	
	3.69			407	82	15.9	13.2	60	
	4.57			328	66	12.7	10.6	48	
P 30			4.57	459	93	23.8	19.8	90	8,193/565
		3.69		488	99	25.4	21.1	96	
		4.57		393	79	20.3	16.9	77	
	2.96			507	102	26.2	21.8	99	
	3.69			407	82	21.1	17.6	80	
	4.57			328	66	16.9	14.1	64	
P 35			4.57	459	94	33.0	27.5	125	6,018/415
		3.69		488	100	35.1	29.3	133	
		4.57		393	81	28.3	23.5	107	
	2.96			507	104	36.5	30.4	138	
	3.69			407	84	29.3	24.4	111	
	4.57			328	67	23.5	19.6	89	
P 40			4.57	459	96	43.3	36.1	164	4,640/320
		3.69		488	101	46.0	38.3	174	
		4.57		393	82	37.0	30.8	140	
	2.96			507	105	47.8	39.8	181	
	3.69			407	85	38.3	31.9	145	
	4.57			328	68	30.9	25.7	117	
P 45			4.57	459	94	54.7	45.5	207	3,625/250
		3.69		488	101	58.4	48.6	221	
		4.57		393	81	47.0	39.2	178	
	2.96			507	104	60.5	50.4	229	
	3.69			407	84	48.6	40.5	184	
	4.57			328	68	39.1	32.6	148	

High-Pressure Plunger Pump Type 1852

All dimensions in mm
Thread "M" as per DIN 13/ISO 261
Thread "G" as per DIN ISO 228/1



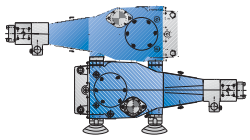


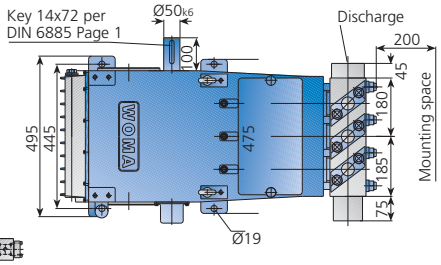
Technical Data:

- Oil capacity: approx. 9 l
- Weight: approx. 328 kg net
- Stroke: 95 mm/3.74 inch
- Inlet pressure required*: from P 40: 2 – 5 bar/30 – 75 psi
- Rod force: 50 kN

* Depends on plunger diameter

- Installation variations





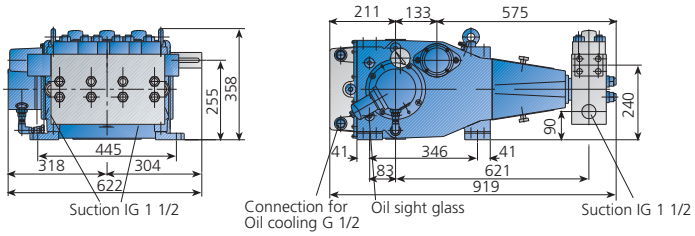
Performance Chart Pump Type 1852

Plunger-diameter (mm)	Gear Ratio – Pinion shaft (Rpm) 1,500	1,800	2,100	Crank shaft (Rpm)	Required drive (kW)	Nominal flow rate USG pm	IMPG pm	(l/min)	Maximum permissible operating pressure (psi/bar)
P 28			4.57	460	103	19.8	16.5	75	10,875/750
		3.69		488	109	21.1	17.6	80	
		4.57		394	89	17.4	14.5	66	
	2.96			507	115	21.9	18.3	83	
	3.69			407	92	17.7	14.7	67	
	4.57			328	74	14.3	11.9	54	
P 30			4.57	460	113	23.8	19.8	90	10,150/700
		3.69		488	121	25.4	21.1	96	
		4.57		394	98	20.3	16.9	77	
	2.96			507	126	26.2	21.8	99	
	3.69			407	100	21.1	17.6	80	
	4.57			328	84	16.9	14.1	64	
P 35			4.57	460	117	33.0	27.5	125	7,540/520
		3.69		488	124	35.1	29.3	133	
		4.57		394	100	28.3	23.5	107	
	2.96			507	129	36.5	30.4	138	
	3.69			407	104	29.3	24.4	111	
	4.57			328	84	23.5	19.6	89	
P 40			4.57	460	120	43.3	36.1	164	5,800/400
		3.69		488	127	46.0	38.3	174	
		4.57		394	102	37.0	30.8	140	
	2.96			507	133	47.8	39.8	181	
	3.69			407	105	38.3	31.9	145	
	4.57			328	85	30.9	25.7	117	
P 45			4.57	460	121	54.7	45.5	207	4,640/320
		3.69		488	130	58.4	48.6	221	
		4.57		394	105	47.0	39.2	178	
	2.96			507	135	60.5	50.4	229	
	3.69			407	107	48.6	40.5	184	
	4.57			328	87	39.1	32.6	148	

Technical Data

High-Pressure Plunger Pump Type 2502

All dimensions in mm
Thread "M" as per DIN 13/ISO 261
Thread "G" as per DIN ISO 228/1

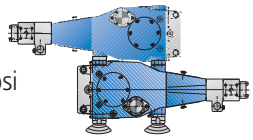


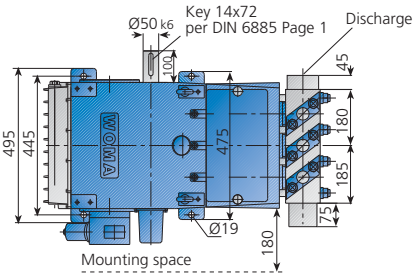
Technical Data:

- Oil capacity: approx. 8 l
- Weight: approx. 350 kg net
- Stroke: 95 mm/3.74
- Inlet pressure required*: from P 40: 2 bar/30 psi
- Rod force: 70 kN

* Depends on operating mode, crank shaft speed and water temperature

▶ Installation variations





Performance Chart Pump Type 2502									
Plunger-diameter (mm)	Gear ratio Pinion shaft (Rpm) 1,500	1,800	2,100	Crank shaft (Rpm)	Required drive (kW)	Nominal flow rate USG pm	IMPG pm	(l/min)	Maximum permissible operating pressure (psi/bar)
P 30			4.52	464	120	24.0	20.0	91	10,875/750
		3.57		504	130	26.2	21.8	99	
		4.52		398	103	20.6	17.2	78	
	3.04			493	127	25.4	21.1	96	
	3.57			420	108	21.7	18.0	82	
	4.52			331	85	17.2	14.3	65	
P 35			4.52	464	143	32.8	27.3	124	9,425/650
		3.57		504	155	35.4	29.5	134	
		4.52		398	122	28.0	23.3	106	
	3.04			493	152	34.9	29.0	132	
	3.57			420	129	29.6	24.6	112	
	4.52			331	102	23.2	19.4	88	
P 40			4.52	464	146	43.9	36.5	166	7,250/500
		3.57		504	158	47.6	39.6	180	
		4.52		398	125	37.5	31.2	142	
	3.04			493	155	46.5	38.7	176	
	3.57			420	132	39.6	33.0	150	
	4.52			331	104	31.2	26.0	118	
P 45			4.52	464	149	55.5	46.2	210	5,800/400
		3.57		504	162	60.2	50.2	228	
		4.52		398	128	47.6	39.6	180	
	3.04			493	159	58.9	49.1	223	
	3.57			420	135	50.2	41.8	190	
	4.52			331	106	39.6	33.0	150	

Technical Advantages

Pump Gear

- Proven pump gear with forced oil lubrication and variable gear ratios

Pump Head

- Easy-to-service pump head in block design made of treated forged steel
- Flange-mounted suction and discharge channel
- Valve design for high efficiency and easy servicing
- Maintenance-free plunger seal with lamellar packing
- Plungers made of ceramics (Types 252 to 2502)
- Long service live

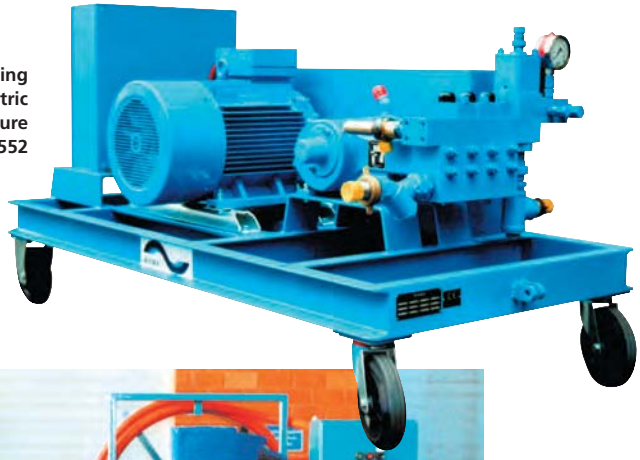
Additional Equipment

- Pressure regulating valve with pneumatic control
- Pneumatically controlled 2/2-way pressure relief valve
- Pneumatically controlled 3/2-way valve
- Pneumatically controlled high-pressure valves for parallel operation of several users

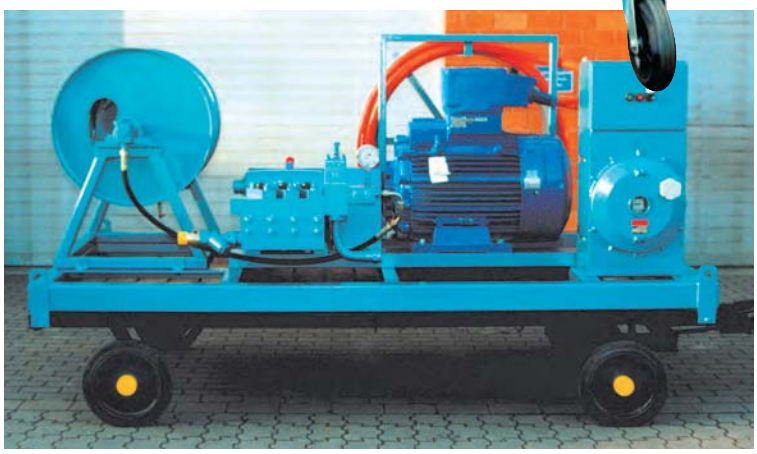
Options

- Pump head, cylinders and valves made from special materials for aggressive media, e.g. seawater

High-pressure waterjet system with electrically driven high-pressure plunger pump Type 752



High-pressure cleaning system with electric motor and high-pressure plunger pump Type 552



High-pressure cleaning system in explosion proofness design with electric drive and high-pressure plunger pump Type 1502

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High-pressure water jet systems
High-pressure water tools
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Food industry
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Mining
Municipal services
Offshore industry
Power industry
Public transport
Pulp and paper industry
Ship building
Wood working industry

HP-P-02-Line – 1/09-E · Subject to technical modification