

Hand Lever Pump overview

(PG 22, Version 04/2007)

	HP 1600-1S		HP 1600-2S		HP 3000-HT		HP 4000-LT	
<p>All pumps and power units available in various models.</p> <p>Modification of the model can change the evaluation of the areas of application.</p> <p>Additional model variations and information about the respective pump types can be found in the data sheets or upon request.</p>								
Pump type:	Hand Lever Pump		Hand Lever Pump		Hand Lever Pump		Hand Lever Pump Short Long	
Geometric volume / Conveying performance:	1.8 cm ³ / stroke		Step 1: 2.8 cm ³ / stroke approx. up to 600 bar Step 2: 1.3 cm ³ / stroke up to 1600 bar		Step 1: 32 cm ³ / stroke approx. up to 30 bar Step 2: 0.9 cm ³ / stroke up to 3000 bar		0.39 cm ³ / stroke	
Operating voltage / Nominal output:	--		--		--		--	
Max. Hydraulic pressure:	1600 bar		1600 bar		3000 bar		4000 bar	
Safety valve:	Positioned inside, set to max. pump pressure		Positioned inside, set to max. pump pressure					
Oil-level indicator:	--		--		--		--	
Pressure connection:	According to type key Broadest range of variations		According to type key Broadest range of variations		According to type key Broadest range of variations		According to type key Broadest range of variations	
Tank content:	3.3 litre		3.7 litre		2.1 litre		0.73 litre 1.5 litre	
Useable volume:	3.1 litre		3.4 litre		2.0 litre		0.63 litre 1.3 litre	
Hydraulic oil:	HLP ISO VG 15		HLP ISO VG 15		HLP ISO VG 15		HLP ISO VG 15	
Pump body / Set-up:	Burnished, high-strength tempered steel		Burnished, high-strength tempered steel		Burnished, high-strength tempered steel		Burnished, high-strength tempered steel	
Tank:	Steel tank coated		Steel tank coated		Aluminium		Steel tube tank	
Weight (filled with oil, without distributor, without pressure gauge)	19 kg		24 kg		17 kg		11 kg 10 kg	
Length:	750 mm		870 mm		830 mm		651 mm 660 mm	
Width:	270 mm		270 mm		200 mm		199 mm 130 mm	
Height with pressure gauge:	285 mm		280 mm		292 mm (Ø 100) / 300 mm (Ø 160)		218 mm 215 mm	
Pressure gauge Standard:	Ø 100, 1600 bar, Class 1.0, filled with glycerine		Ø 100, 1600 bar, Class 1.0, filled with glycerine		Ø 100, Class 1.0, filled with glycerine		Ø 100, Class 1.0, filled with glycerine	
Areas of Application:	small	big	small	big	klein	groß	klein	groß
SSV single / HM single	++	+	++	+	++	+	O	-
SSV multiple / HM multiple	+	-	++	+	+	O	O	-
Oil press-fit radial	O	-	O	-	++	+	++	O
ExpaTen	O	-	O	-	+	O	-	-
EcoRolls	O	-	O	-	O	-	-	-
Special features:	Pressure-tested: 150,000 load alternations, 0 bar up to max. bar pressure, external pressure limitation valve available.		Pressure-tested: 150,000 load alternations, 0 bar up to max. bar pressure, external pressure limitation valve available, Spare parts kit in the tank included.		Pressure-tested: 150,000 load alternations, 0 bar up to max. bar pressure, external pressure limitation valve available, Mining version available.		Pressure-tested: 50,000 load alternations, 0 bar up to max. bar pressure, Quick disassembly for transporting, portable set.	

All pumps are of an extremely rugged design. All high-pressure valves are manufactured with hardened valve seats. This ensures exceptionally long service life and ruggedness with regard to contaminants in the hydraulic circuit. All pumps are therefore perfectly suited for rough conditions at construction sites. Steel or aluminium tanks function the same as sturdy tube and angle frames in air and electric powered pumps. All pumps are CE classified, undergo extensive quality assurance checks during production and are supplied with extensive documentation.

Labelling:
 ++ Highly recommended O Limited recommendation
 + Recommended - Not recommended

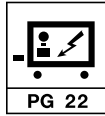
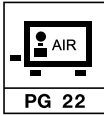


SCHAAF has been developing and manufacturing high-pressure hydraulic tools since 1954.



SCHAAF®

Hydraulic High-Pressure Technology



High-pressure unit overview

(PG 22, Version 04/2007)

	HDL 1000-2500 / HDL 1600-4000		HDE 3000-BK		HDE 4000		HDE 4000 D / DM	
All pumps and power units available in various models. Modification of the model can change the evaluation of the areas of application. Additional model variations and information about the respective pump types can be found in the data sheets or upon request.								
Pump type:	Air-Hydraulic Pump		Electrohydraulic High-pressure Unit		Electrohydraulic Pump unit		Electrohydraulic Pump unit	
Geometric volume / Conveying performance:	1000 - 2500 bar 1.0 cm ³ / stroke	1600 - 4000 bar 2.0 cm ³ / stroke	< 700 bar – 0.43 l/min > 700 bar – 0.085 l/min		< 700 bar – 2.3 l/min > 700 bar – 0.5 l/min		0.05 – 1.0 l/min	
Operating voltage / Nominal output:			400 V / 50/60 Hz P _{nenn} = 0.6 kw		400 V / 50/60 Hz P _{nenn} = 2.9 kw		230 V / 50 Hz, Motor drive power: 1.5 kw (DM: 0.75 kw)	
Max. Hydraulic pressure:	2500 bar	4000 bar	1600 bar	3000 bar	1600 bar	4000 bar	4000 bar	
Safety valve:	Factory set approx. to max. hydraulic pressure		Factory set approx. to max. hydraulic pressure		Factory set approx. to max. hydraulic pressure		Factory set approx. to max. hydraulic pressure	
Oil-level indicator:	Readable on the outside		Readable on the outside		Inspection Glass / Float Switch		Inspection Glass / Float Switch	
Pressure connection:	According to type key Broadest range of variations		According to type key Broadest range of variations		According to type key Broadest range of variations		According to type key Broadest range of variations	
Tank content:	6 litre		2.5 litre		33 litre		2 litre	
Useable volume:	5 litre		1.5 litre		23 litre		1 litre	
Hydraulic oil:	HLP ISO VG 15		HLP ISO VG 32		HLP ISO VG 32		HLP ISO VG 32	
Pump body / Set-up:	Service-friendly construction in compact frame		Service-friendly construction in mobile frame		Service-friendly construction in mobile housing		Modular compact unit, decomposable	
Tank:	Aluminium		Aluminium		Aluminium		Aluminium	
Weight (filled with oil, without distributor, without pressure gauge)	33 kg (incl. distributor and pressure gauge)	34 kg (incl. distributor and pressure gauge)	60 kg		240 kg		Approx. 40 kg	Approx. 2 x 20 kg
Length:	640 mm		445 mm		900 mm		335 mm	325 mm
Width:	352 mm		360 mm		530 mm		400 mm	397 mm
Height with pressure gauge:	340 mm		410 mm		1000 mm		490 mm	726 mm
Pressure gauge Standard:	Ø 100, Class 1.0, filled with glycerine		Ø 100, Class 1.0, filled with glycerine		Ø 160, Class 1.0, filled with glycerine		Electronic pressure monitoring Class 0.15 (standard design)	
Areas of Application:	small	big	small	big				
SSV single / HM single	++	++	++	++	++		++	++
SSV multiple / HM multiple	++	++	++	++	++		++	++
Oil press-fit radial	++	++	++	++	++		++	++
ExpaTen	++	++	++	++	+		++	++
EcoRolls	++	++	++	++	++		++	++
Special features:	Sound suppressor on the air pressure side, transmission ratio from 1 bar air pressure to 425 bar (740 bar HDL 1600-4000) hydraulic pressure, hand and foot operated air cut-off valve, external pressure limitation valve available.		Nearly uninterrupted flow rate, remote operation, external pressure limitation valve available, larger tank version available.		Temperature monitoring, remote operation with 10 m cable, electric or manually operated SPS Siemens S7-200 pressure release valve.		Each unit is custom-built according to the customer's wishes. The modular technology enables optimized investment costs. Integrated Tool-Service-Indicator (TSI).	

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