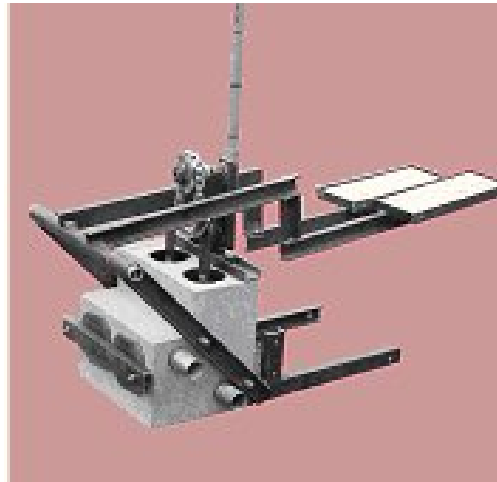


### Suction pump BERNA

- Pedalpump: operated in sitting or standing position
- 2 PVC cylinders: in a concrete block
- Suction height: 8 m at sea level
- Output: 2,000 – 4,500 liters/h depending on suction height
- Weight: 40 kg approx.
- Production: local craftsmen using locally available materials
- Costs: see on the reverse side



### Suction and pressure pump LUZERNA

- Pedalpump: operated in standing position
- 2 PVC cylinders: in a concrete block
- Suction height: 6 m at sea level
- Pressure height: 10 m
- Output: 1,500 – 2,500 liters/h depending on output height
- Weight: 48 kg approx
- Production: local craftsmen using locally available materials
- Costs: see on the reverse side



### Suction and pressure pump SOLODURUM

- Hand lever pump: operated in standing position
- 1 PVC cylinders: in a concrete block
- Suction height: 6 m at sea level
- Pressure height: 12 m
- Output: 600 – 1,500 liters/h depending on output height
- Weight: 35 kg approx
- Production: local craftsmen using locally available materials
- Costs: see on the reverse side

## Comparative table of SE3WE.CH pump types

	Pump type		
	BERNA Suction pump	LUZERNA Suction and pressure pump	SOLODURUM Suction and pressure pump
<b>Capacity</b>			
Water volume per piston and stroke	1 l	0,5 l	0.4 – 0,8 l
Water volume at 40 pump movements/minute	80 l	40 l	16 – 32 l
Max. suction height (up to 1000 AMSL)	8m	6m	6 m
Max. pressure height	0 m	10 m	12 m

<b>Drive/power</b>			
At max. output	240 N	320 N	28 – 54 N
Handling	operated by foot sitting or standing position	operated by foot standing position	operated by hand standing position

<b>Weight approx.</b>			
	40 kg	48 kg	35 kg

<b>Amount/diameter of cylinders</b>			
	2 / 100 mm	2 / 80 mm	1 / 100 mm

<b>Production costs/single pump</b>			
Material costs (depending on local costs)	60 US\$ approx.	70 US\$ approx.	40 US\$ approx.

<b>Amount of work</b> (depending on skills of craftsmen and workshop equipment)			
	12 h approx.	16 h approx.	8 h approx.

	Pump type		
	BERNA Suction pump	LUZERNA Suction and pressure pump	SOLODURUM Suction and pressure pump
<b>Production on site / necessary workshop equipment</b>			
Electricity / welding machine minimum 150 A	Yes	Yes	Yes
Electric drilling machine (capacity 13 mm) with range of drill bits up to 11 mm	Yes	Yes	Yes
Workshop tables with vises	Yes	Yes	Yes
Tools for metal handling	Yes	Yes	Yes
Lathe / turning pieces	No	advantageous	No

<b>Necessary material</b>			
Concrete (cement, gravel, sand)	Yes	Yes	Yes
Metal profiles, plastic tubes, screws and nuts	Yes	Yes	Yes
(see detailed list of materials)			
Junction and conductive material	Yes	Yes	Yes

<b>Minimum requirements for craftsmen</b>			
Knowledge of metal handling, one of them needs to be a electric welder	Yes	Yes	Yes

<b>Instruction languages</b>			
English, French, Spanish, German			