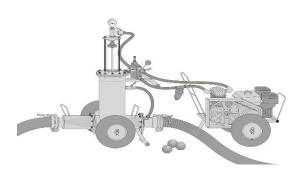


# **LATRINE EMPTYING TRCHNOLOGY**



PuPu Pump is designed to pull sludge from septic tanks and pit latrines and to push thick waste streams into a tank on a vehicle nearby or parked at a distance.

- Reduces pit-emptying by 40% in cost
- Can handle thick sludge up to 40 mm thickness
- Can be used in place of exhauster trucks
- Takes 30 -40 minutes to pump 2000 3000 L of sludge



### 1. Description

Pump developed specifically for emptying where exhausters can't reach. The pump pulls sludge into the pumping unit and then pushes that sludge up to 70m to a tank (Pull + Push = PuPu). Its usefulness in emptying pit latrines comes from the fact that it can reach a high vacuum in a short time through a combination of a (small) compressor, a reservoir with automatic duck bill non-return valve, and a manual operated suction/pressure valve.

#### 2. Technical specifications

Weight pump + compressor	50 Kg + 50 Kg
Pumping distance lay flat	0-100 meters depending on viscosity
Max suction depth	8 meters
Total head	20 meters
Diameter suction & delivery hoses	100 mm (4")
Length delivery hose	Delivered with 50 meters
Yield	1-7 m <sup>3</sup> /h depending on viscosity
Weight	Approx. 100 kg
Operating pressure	-0,8 to 2,5 bar
Warranty	1 year







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#### 3. Cost effectiveness

Initial investment	8,000 USD + a fee for training and import
Operational costs	\$5 for fuel, \$20 for staff
	Pupu consumes fuel and requires 2 members of staff. When used to
	empty pits, the Kisumu team charges \$40-80 per job depending on
	the volume of the pit- Business model is completely context
	dependent

## 4. Safety

Operator safety	Minimizes operator exposure to faecal sludge
Environmental safety	Minimizes environmental contamination through proper waste
	containment and prevention of spillage

# 5. Availability

Currently on order from the Netherlands but a local production hub will soon be established in Kenya (August 2023). Units in use in Kenya (Kisumu and Nakuru), Ethiopia and Burkina Faso

#### **Links/ Contacts**

http://www.practica.org/publications/pupu-pump-brochure/
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