



engineers without borders uk



Lessons from South Africa

by Angus McBride



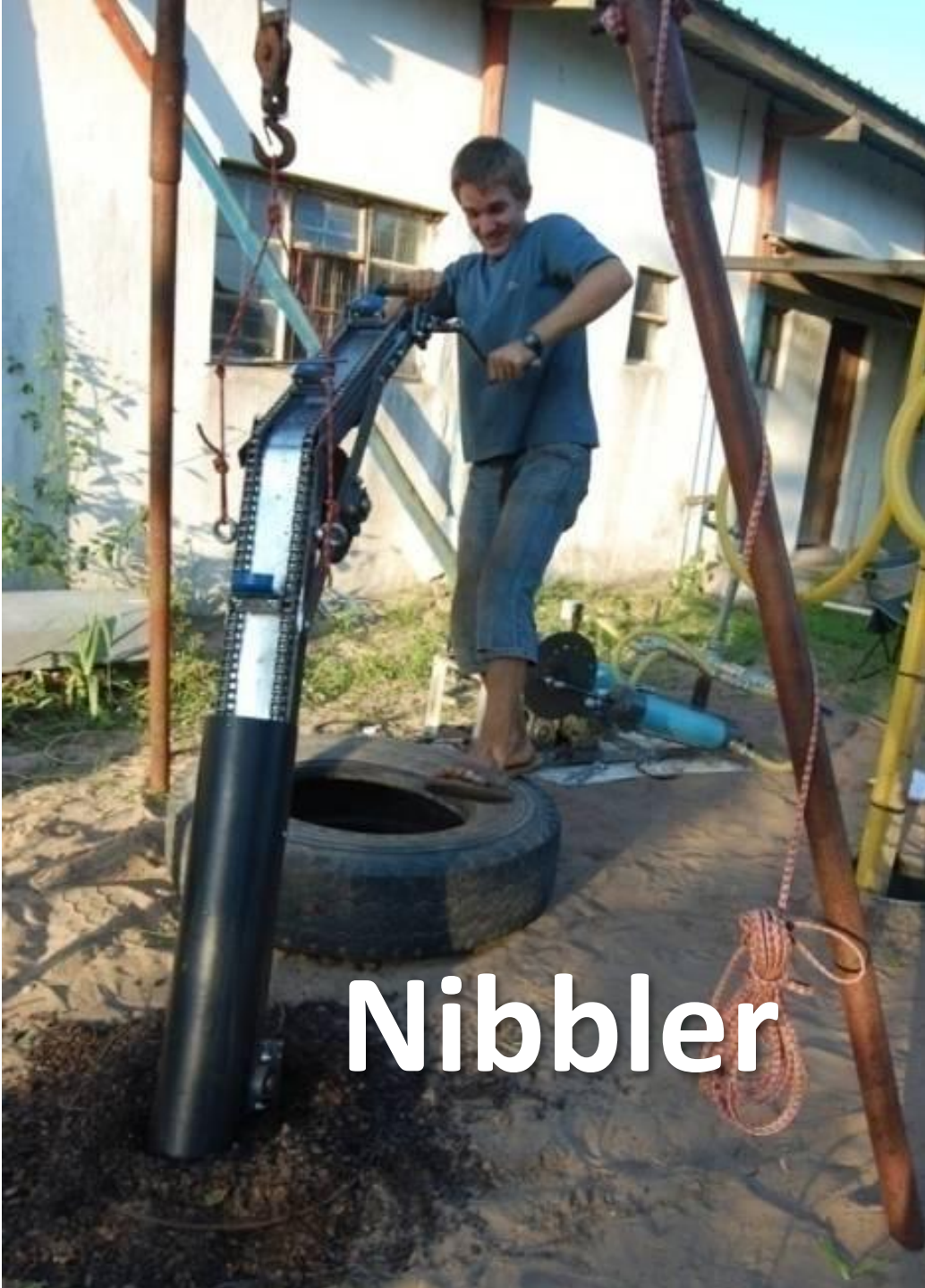
Pit Latrines in South Africa



Poor Access



Lots of Rubbish



Nibbler



The Auger

Catches on
Rags



Nanovac



eVac



Vacuum Pump





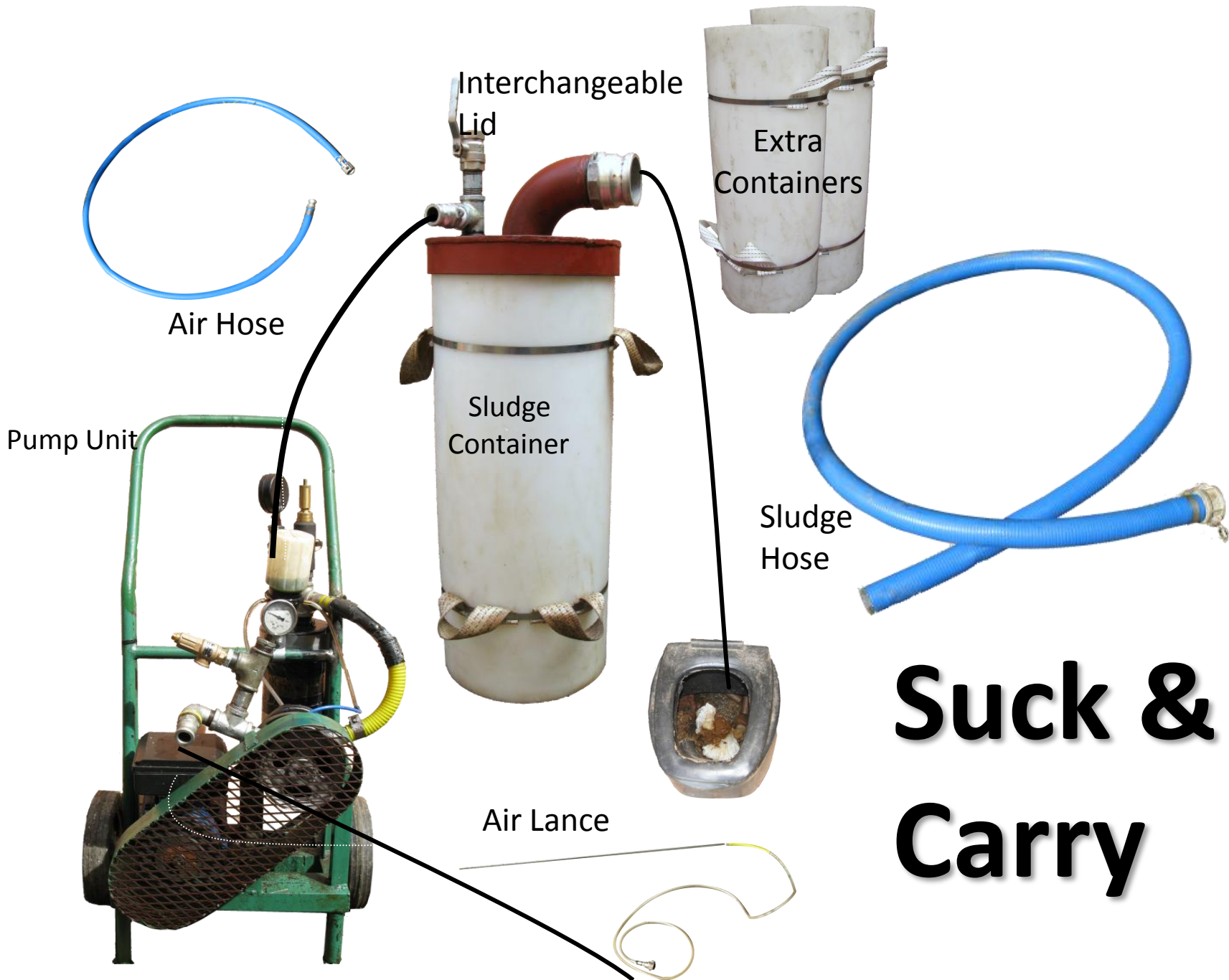
Small Containers



Plug & Gulp



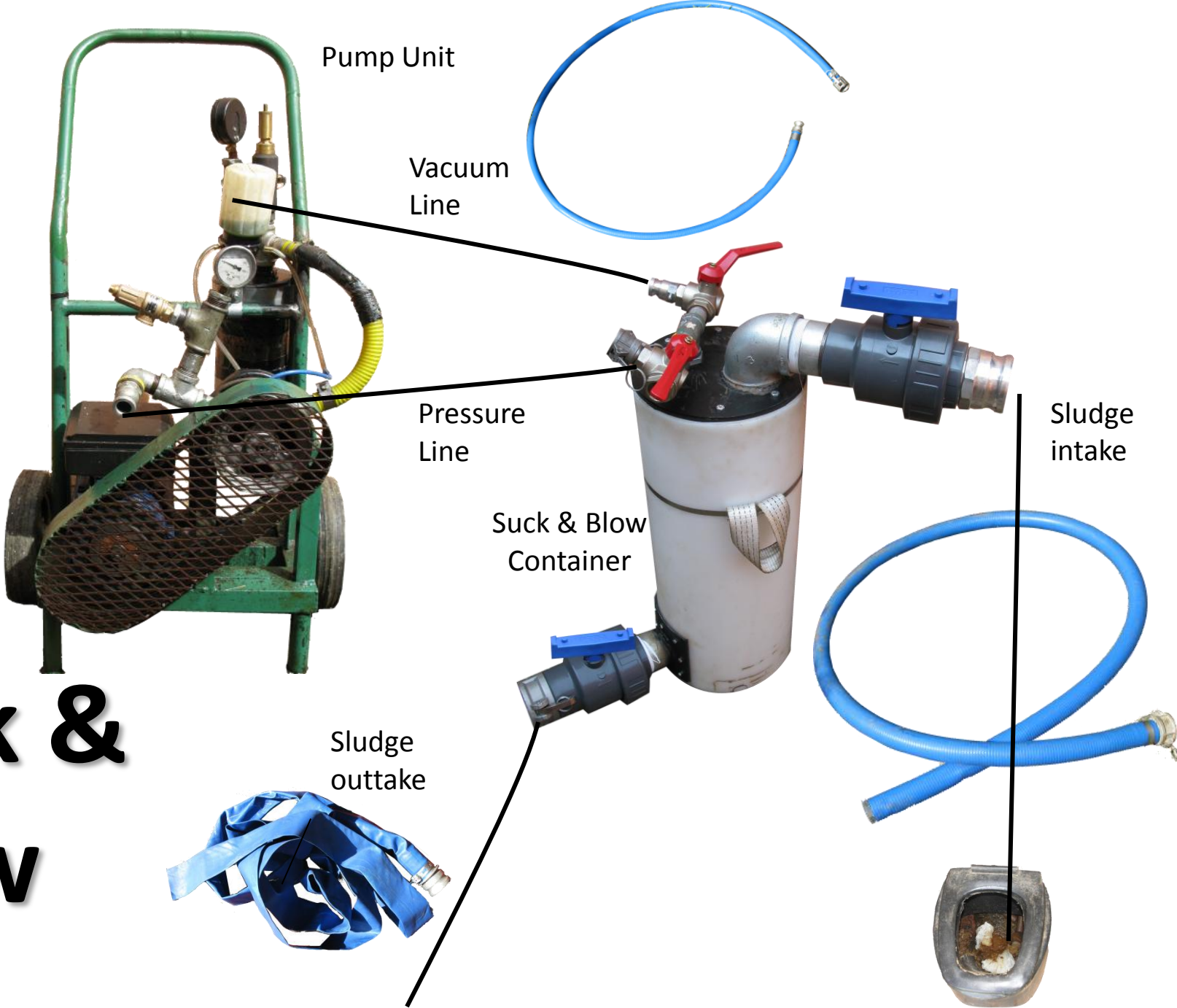
Air Lance



Suck & Carry



Suck & Blow



Pump Unit

Vacuum Line

Pressure Line

Suck & Blow Container

Sludge outtake

Sludge intake



Worker in blue uniform holding a blue hose.

Worker in blue uniform standing near a yellow pole.

Manual water pump system with a white cylindrical tank and blue hoses.

Concrete structure with a white plastic container on top.

Cinder block wall and green foliage in the background.

Grassy area with a utility tower visible in the distance.

A blue corrugated pipe is shown protruding from a rusty metal structure into a trench. The pipe is partially blocked by a crumpled plastic bag. The trench is filled with muddy water, and the surrounding soil is reddish-brown. The metal structure is made of corrugated metal sheets.

**Can Empty
Rubbish Within
Reason**

The image shows four different types of hose couplings and adapters scattered on a patch of green grass. In the top left, there is a green corrugated hose with a silver metal coupling that has a ring handle. In the top right, there is a blue corrugated hose with a similar silver metal coupling, but it has a different design with a ring handle and a bolt. In the bottom left, there is a blue corrugated hose with a silver metal coupling that has a ring handle and a bolt. In the bottom right, there is a green corrugated hose with a silver metal coupling that has a ring handle and a bolt. The text "Simple Parts not Available" is overlaid in white on the left side of the image.

**Simple Parts
not Available**



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4

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4

2

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2



DIESEL





Education for Labourers