

# Water Treatment with LEGIO.Filter and Pressure Increase System

- Poster -

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One possibility to purify raw water offers the combination from the Hydraulic Ram and LEGIO.Filter in countries without an area-wide power supply (for example Ethiopia).

The Hydraulic Ram can be used for pressure increase or conveyance. The raw water must have a certain head to ensure work of the filter. The Hydraulic Ram needs no external source of power, because it is the force of the moving water which is powering it. The basic idea behind a Hydraulic Ram is simple. It uses the momentum of an amount of moving water to pump a smaller amount of water uphill. To use a Hydraulic Ram, only a source of water situated above the ram is necessary.

The water will be purified with the LEGIO.filter. LEGIO.filter separates

- Bacteria, parasites and viruses, which are in the source or ground water as well as any that are detectable in the drinking water
- Suspended matter, fine sand, mud and drops of opacity, (all of which are just a few microns in size and were caused by storms)

out of the water flow.

The LEGIO.filter process uses porous tube-shaped ultra-filtration membranes. The particles from the untreated water are separated mechanically. The membranes are the same as a sieve, with openings that are 0.02  $\mu\text{m}$  in size. Everything that is larger than this will be removed from the water.