WEDC Developing knowledge and capacity in water and sanitation

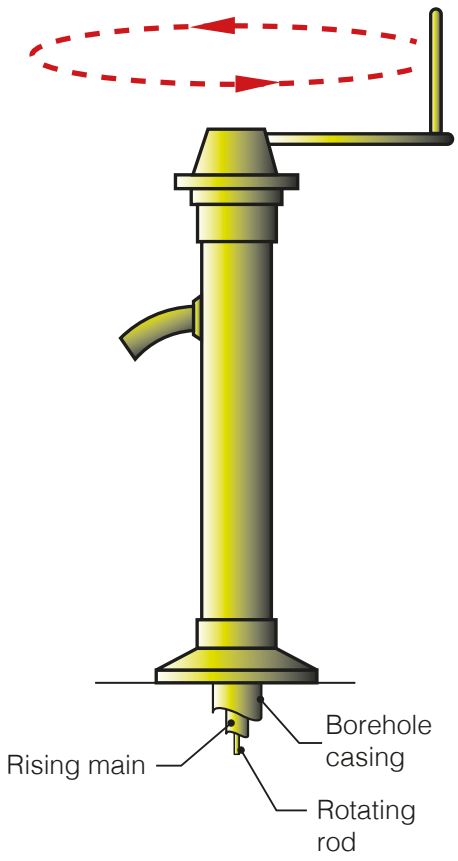
POSTER 52

Progressive cavity pumps

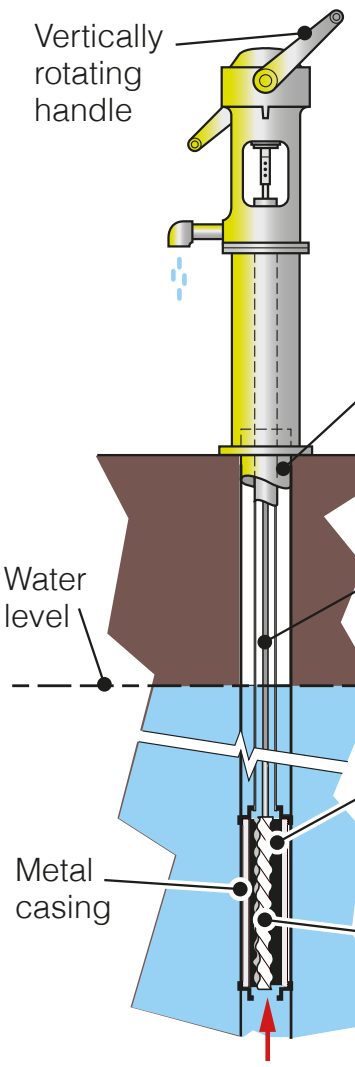
Many pumps rely on an up and down motion to provide the energy to lift the water; one family of pumps uses a circular action.

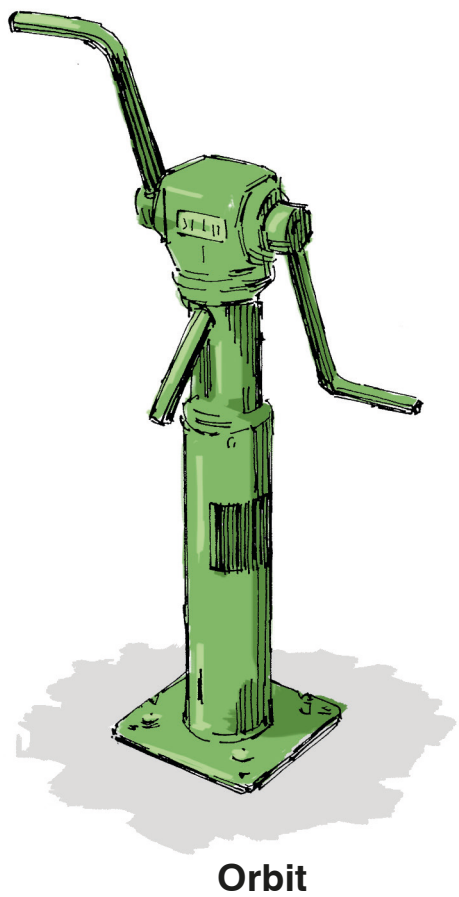
The pump rod is rotated using one or two handles, which can be arranged vertically or horizontally. This twists a large screw-shaped component that fits inside a specially shaped pumping cylinder. As the screw-shaped rotor rotates, the water is squeezed upwards against the matching stator and moves up the rising main.

Examples of this type of pump included the **Orbit** and the **Monolift**. These can easily be adapted to use a motor to drive the pump. They can still lift water when turned very slowly, so are useful for children and infirm people.

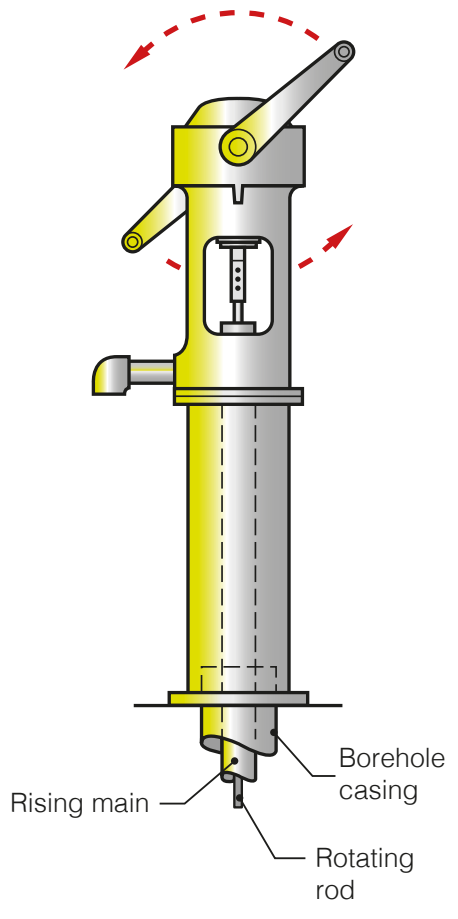


Pumphead with horizontally rotating handle (direct drive)

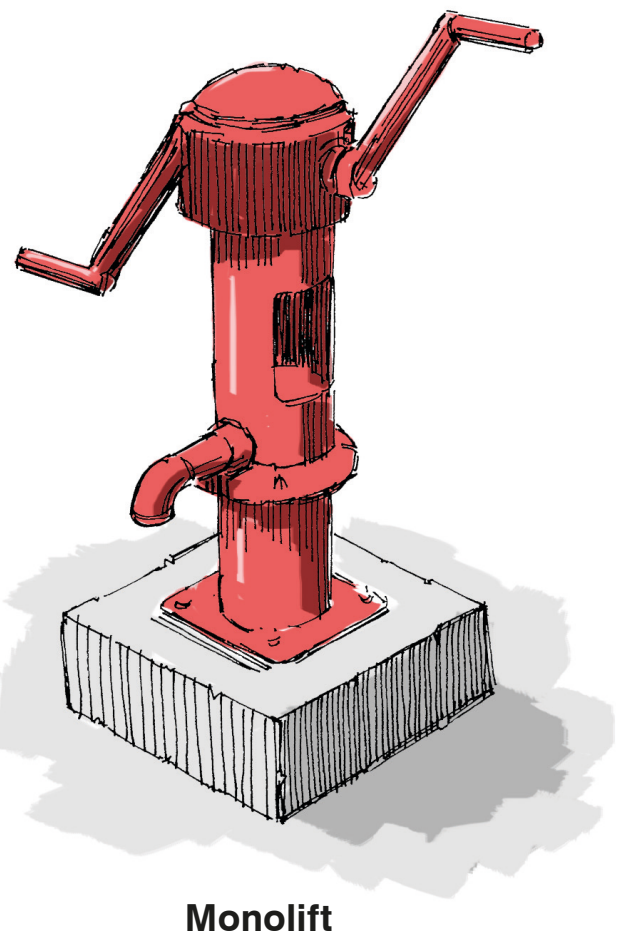




Orbit



Pumphead with vertically rotating handle and gearbox



Monolift

For further information visit:
http://wedc-knowledge.lboro.ac.uk/

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