

ecologics presents HIGH CAPACITY STEP ACTION PUMP FOR IRRIGATION



PROVIDING WATER FOR LIFE



On our planet all animal life is dependant on the continuous growth of vegetation to provide edible foliage, fruit and grain. In many developing countries crops are grown in subsistence plots and small holdings often producing insufficient food to support the population. Many enterprising farmers irrigate by carrying water in containers from lakes and rivers. A small number have wells but the majority simply hope for rain, an increasingly unreliable commodity.

4 billion people exist at the bottom of this economic pyramid. For more than half the worlds population manually powered devices are a practical option - manual effort is the only thing that keeps them from starvation.

Ecologics high capacity step action pump is able to change the lives of people needing to irrigate to provide sufficient food. In addition to this basic necessity it provides the ability to generate income from crop surplus's for those who choose to unlock this potential.

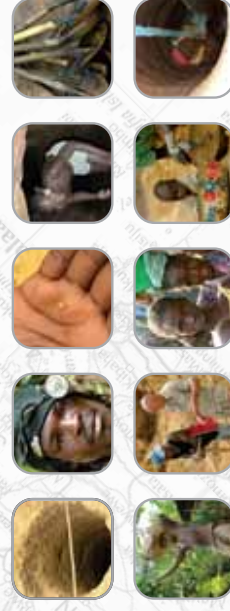
Ecologics high capacity step action pump is the product of our commitment to provide efficient, reliable and practical relief to all those people who have an urgent need to transport water from where it is to where it needs to be.



International Patents Pending

**P.O. Box 11 023
Christchurch
New Zealand.**
**Ph: +64 3 348 9744
Fax: +64 3 341 8090
email info@ecologics.co.nz**

www.ecologics.co.nz



engineering solutions
with a social conscience

www.ecologics.co.nz

SPECIFICATIONS

STEP ACTION PUMP PERFORMANCE DATA

Pump performance data is normally obtained in laboratories or ideal environments. Very rarely are they carried out in the field. Ecologics, recognising the needs of small scale farmers, has collected performance data under real life conditions. Pumping was undertaken at a sustainable stepping rate and over a distance of 100 metres. At elevations between 4 and 20 metres the following data was obtained:

PRACTICAL APPLICATION DATA

A cabbage or corn plant requires one litre of water per day to support growth and evaporation. The number of plants to be irrigated plus the total height the pump must lift the water determine how long a person must operate the pump. The following table provides some practical examples.

elevation	steps	litres p/h	elevation	plants	pump hours
4.0 m	80 p/m	4260 p/h	2.0 m	2000	0.75 hrs
8.0 m	76 p/m	4364 p/h	4.0 m	2000	0.75 hrs
12.0 m	62 p/m	3038 p/h	6.0 m	2000	0.75 hrs
16.0m	50 p/m	2264 p/h	8.0 m	2000	0.75 hrs
20.0m	50 p/m	1440 p/h	10.0 m	2000	1.00 hrs
			16.0 m	2000	1.50 hrs
			16.0 m	5000	2.25 hrs

Mechanical reliability has been tested to over 2.2 million litres with 100% mechanical success.



2 Diaphragm configuration.

Low resistance internal valves.

High flow low resistance manifolds

Lubricated reinforced nylon bearings.

Zinc plated pressed steel construction.

Dimensions 60cm x 35cm x 27cm.

Weight: 11 Kilograms.

Tolerant of silt laden water.

Optional carry straps and fire nozzle.

Outstanding lift and lateral delivery volumes.

Extend capabilities by indefinitely connecting pumps in series.

