



SPAN PUMPS

Innovate ♦ Design ♦ Implement

Joy Pump – Merry-go-round Pump

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Joy pumps are an innovative concept of pumping water from bore-well, a sump or a rainwater harvesting tank. It uses playful energy of children or operators collectively to pump water. Merry Go Round pumps use force lift technology to draw water from a water source to an overhead tank above the ground level for storage and distribution. It doesn't require electric power. Merry Go Round pumps work on the same technology and use the reciprocating motion to move the valves of a water cylinder. These pumps use a specially designed mechanism to convert the revolving motion to a reciprocating one. The technology below the ground is same as the hand pump technology, hence making it very easy to maintain at village level.

Technical Specifications:

Construction Details	Modular type play wheel Mechanism
Play wheel diameter	3340 mm
Play mechanism	Play wheel with drive and driven gear
Capacity	15-20 children
Ideal speed	20 rpm
Out put	1200 Liters per hour @ 20 rpm
Space requirement	Circular, minimum 7 meter diameter
Operating depth	Up to 42 m depth
Cylinder	Direct action reciprocating cylinder Of any deep well hand pump
Deliver head	900 kg with 30 meters of G.I. Riser pipe and 30 Miter Connecting rods.
Raised pipe	8 m
Weight	900 kgs
Riser pipes	As per user requirement

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Advantages:

1. Suitable for use on 100mm and above diameter bore well, sump or rainwater collector tank.
2. Can lift water up to 8m above ground for storage and distribution.
3. On line water purification devices can be used with either pumping or distribution system.
4. Easy to install and safe to use.
5. Low operation and maintenance cost.
6. Can be adopted with below ground assembly of any deep well hand pump.
7. Convenient for use in remote areas.

Applications:

The Joy pump can be used for water supply in

1. Schools, for drinking, sanitation and personal hygiene
 2. Institutions for drinking and sanitation
 3. Public garden, drinking, sanitation and watering plants
 4. Community centers for drinking and sanitation
 5. Small communities for drinking
 6. Relief camps for drinking.
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