

PREM[®]



PREM INDIA MARK II DEEPWELL HANDPUMP

India Mark - II Handpump manufactured as per IS: 9301/1990 is used to draw water from the deeper aquifers up to 50 meters from 100/150 mm diameter borewells. This water from the boreal is safe, portable and free from the bacteria and contamination. A continuous supply of water is guaranteed by these handpumps.

PREM INDIA MARK II Pump has modular construction. It consists of the following assemblies.

Pump Assembly

Comprising of the head with handle assembly, water chamber assembly and the stand assembly.

Cylinder Assembly

A cast iron cylinder body with a Brass Liner inside and the lower and upper valve assemblies made out of gun metal (Lead, Tin & Bronze.)

Connecting Rod Assembly

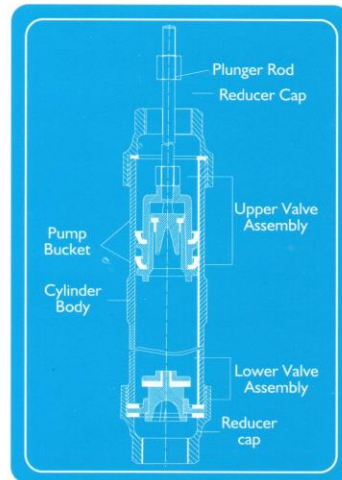
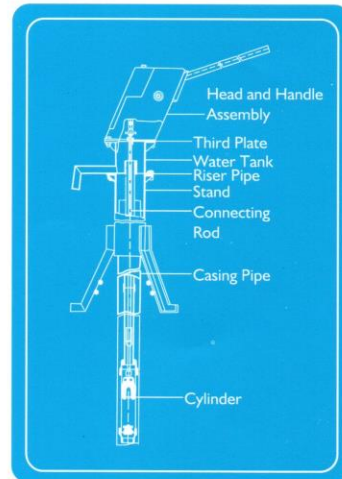
A link between the Pump Assembly and the Cylinder Assembly made from 12mm diameter stainless steel or electroplated mild steel rods.

Riser Pipe Assembly

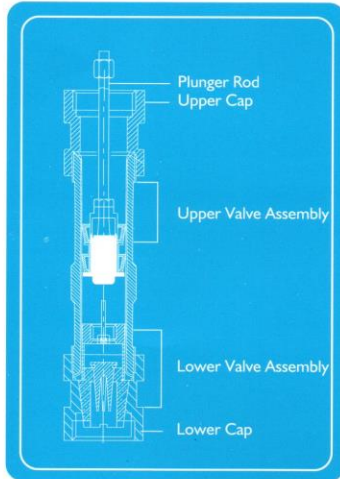
32mm diameter G.I. Pipes supplied in three metres length with both ends threaded, one end fitted with coupler and another with thread Protector.

Advantages

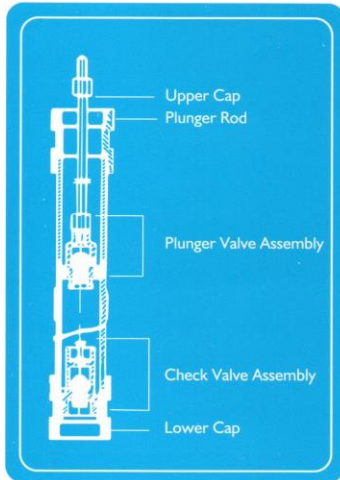
1. The entire Pump Unit is very strong and sturdy. Specially processed Nitrile Rubber Cup Washers ensure long life and durability.
2. The entire Pump is hot dip galvanized to make it corrosion resistant.
3. The handle is so designed that it balances the counter weight of the connecting rods and the ball bearings ensure frictionless and effortless operation.
4. Installation of the Pump in a concrete platform by using steel shuttering not only increases its operational life, but also prevents contamination of water thereby supplying safe and portable drinking water.
5. Even though the Standard stipulates a pumping efficiency of 15 liters per minute per 40 strokes, **PREM INDIA MARK-II DEEPWELL HANDPUMP** delivers 17 liters of water for the same number of strokes.



VLOM CYLINDER ASSEMBLY



65mm OTC



50mm OTC

PREM INDIA MARK III

(65mm OTC) DEEPWELL HANDPUMP

India Mark III Handpump manufactured as per IS: 13056: 1991 is a modified version of India Mark II Handpump.

The basic difference in India Mark III Handpump and India Mark II Handpump is that the pump has Open Top Cylinder (OTC) which facilitates pulling out the cylinder / riser main. 65mm diameter G.I. Pipes are used in this Pump. The main advantages of India Mark III.

Handpumps are as follows

1. The repairs can be carried out by local mechanic. Hence it is also known as "Village Level Operation and Maintenance (VLOM) Handpump.
2. Modification incorporated in this pump simplify maintenance procedure and reduces maintenance
3. Below ground level repairs could be carried out within a very short time without removing G.I. Pipes.
4. It minimizes breakdown time.

(50mm OTC) VLOM DEEPWELL HANDPUMP

India Mark III VLOM (50mm OTC) Handpump is a modified version of India Mark III VLOM (65mm OTC) pump, where in 50mm diameter G.I./P.V.C. are used of 65mm Pipes. The design of the cylinder is simplified in this pump.

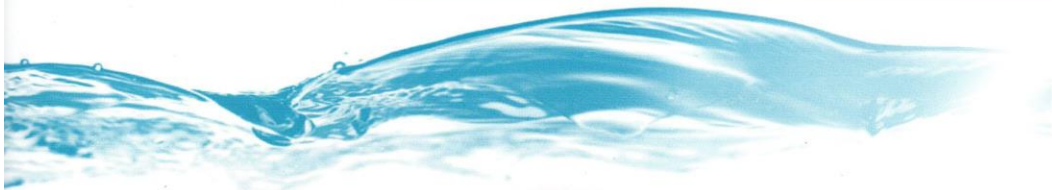
The features and advantages of 50mm India Mark III Pump are.

Features

- ◆ 50mm Riser Pipe
- ◆ Interchangeable Nitrile bobbin valves.
- ◆ 50mm open top cylinder
- ◆ Single nitrile cup washer.
- ◆ Pip Centralisers.
- ◆ Monolithic piston and foot valve assembly.

Advantages

- ◆ Lower Capital cost.
- ◆ Suitable for use up to 60 metres.
- ◆ Can be installed on 100mm borewells.
- ◆ PVC Riser Pipe option.
- ◆ Unlined wells can be used.
- ◆ Tools not required for servicing piston and foot valve.



AFRIDEV HANDPUMPS

AFRIDEV Handpump has all the features of VLOM Handpump. AFRIDEV Pump has been designed to overcome the maintenance problems faced by the rural/unskilled operators. AFRIDEV Pump can be handled even by Ladies easily. The Pumps are manufactured as per the latest SKAT specification.

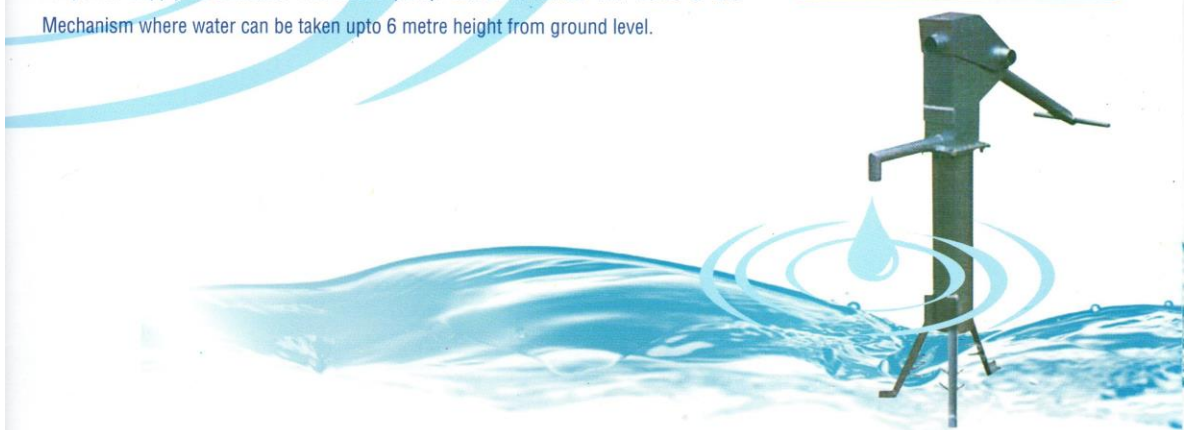
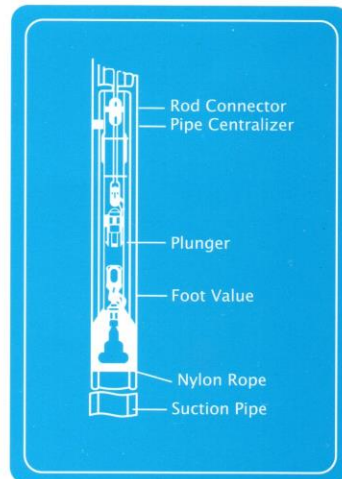
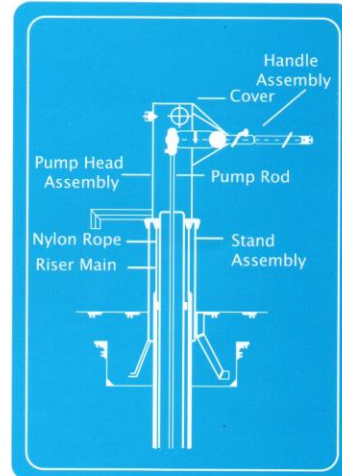
Salient Features

- ✓ Non corrosive below ground components capable of working in corrosive water sources.
- ✓ UPVc Riser pipe, Cylinder, Plunger and Foot Valve are light in weight and also inexpensive.
- ✓ 10mm dia three metres long connecting rods with forged eye and hook at either sides are quit useful for interlocking easily without any tools. 12mm dia rods can be optional.
- ✓ Fulcrum and Rod Hanger Pins are supported on special grade plastic bush bearings, easily replaceable.
- ✓ Adjustable Handle to suite installations in different bore depths.
- ✓ Rubber Centralisers are provided to each connecting rod to prevent internal damage to UPVc pipes, due to abrasion.
UPVc pipe to prevent external damage.
- ✓ Rubber Centralisers are also provided to each UPVc pipe to prevent external damage.

MODIFIED AFRIDEV HANDPUMP

We have recently designed modified Afridev Handpumps with modified handle & with ball bearing. This type of pump yields 30 litres/min/40 Strokes (1800 litres/hour) of water. The maximum depth is 36 meter and can be used for 125/150mm N.B. borwells. 32 mm G.I. Riser Pipes and 12mm connecting rods can be used for this type of handpump. This pump can be very useful for high yielding borwells in the areas where no power supply is available. The above pump can be modified with Force & Lift Mechanism where water can be taken upto 6 metre height from ground level.

PREM



EXTRA DEEPWELL HANDPUMP

India Mark II Pump with minor modifications is capable of drawing water from operating depths upto 90 metres.

Modified Heavier Handle with a T-bar and additional weights ensure reduced pumping efforts.

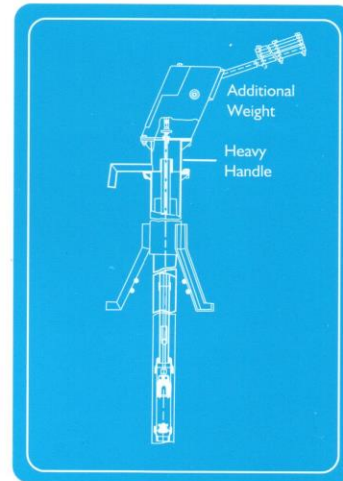
Modified Cylinder Assembly has Three Pump Buckets.

38 mm O.T.C. HANDPUMPS

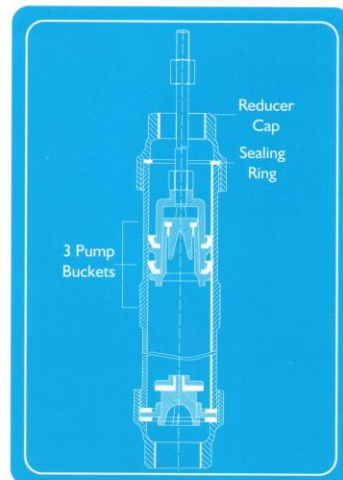
This type of pump is very much useful for the low discharge borewells. The use of this pump greatly reduces an infrucuous expenses incurred in drilling and construction of the borewells. 8 mm connecting rods are used for this pump.

The pump works up to a maximum depth of 80 meters. The yield of the pump is 11 liters/40 strokes. It is much more easier for operation than the traditional extra deep well hand pump.

PUMP ASSEMBLY



CYLINDER ASSEMBLY



PERFORMANCE FACTORS

Sr. No	Characteristics	India Mark II	India Mark III (65mm)	India Mark III (65mm)	AFRIDEV	Extra Deep Well
1.	Minimum Borewell Diameter (mm)	100	VLOM-OTC 125	VLOM-OTC 100	100	100
2.	Application Range. a. Static water level (Meters) b. Optimum Installation Depth (Meters)	15-40 21-40	15-25 21-30	15-50 21-60	20-45 20-45	40-90 50-90
3.	Stroke length (mm)	125	125	125	225	100
4.	Discharge/40 strokes Liters/minute	15	15	10	16.5	12
5.	Riser Main a. Size (mm) b. Material	32 Galvanized Steel	65 Galvanized Steel	50 Galvanized Steel / PVC	63 uPVC	32 Galvanized Steel
6.	Connecting Rod. a. Size (mm) b. Material	12 Steel Zinc Plated	12 Steel Zinc Plated	12 Steel Zinc Plated	10 / 12 Steel Zinc Plated	12 Steel Zinc Plated
7.	National/ International Standards	IS:9301	IS: 13056 & RUWATSAN 1 NIS - 325	IS: 13056	SKAT specifications /RUWATSAN II NIS-326	IS: 13287

- We have designed and developed special type of hand pumps
- We also manufactured & supply special & standard tool kits.
- We can also manufacture & supply hand pumps as per buyer's specification.



PREM ENGINEERING PVT. LTD.

Factory : 334 GIDC Aji Industrial Estate Phase - II Rajkot - 360003
 Phone : +91-281-2387164 / 2387295 Fax : +91-281-2227573 Mobile ☎ : +91-94268 05805
 Email : info@anilengines.com Website : www.anilengines.com
Show Room : Dhebar Road Near Corporation Bank Rajkot - 360002
 Phone : +91-281-2231829 Mobile ☎ : +91 99740 97574 Email : marketing@anilengines.com

info@gujaratprinters.com