



# Apex Hand Pumps

## Introduction:

**Apex International** is one of the world's leading manufacturer of community Deep/ Shallow well water handpumps. Our pumps conform to the required relevant National and International standards. We are an ISO9001:2000 certified company by International Certifications Services Accredited by Joint Accreditation System of Australia and New Zealand for the manufacture of Hand pumps and spares thereof.

We are manufacturing a wide range of deep well and shallow well hand pumps, which includes the most popular India Mark II, India Mark III, India Mark II extra deep well hand pumps, as per relevant Bureau of Indian Standards and the Afridev and U3 modified deep well hand pumps as per relevant SKATHTN Switzerland specifications.

The hand pumps are positive displacement lift pumps with

zero suction head as the cylinder is submerged under water level of bore holes./open well as the case may be.

We can offer hand pumps for lifting water from upto 90 meters of depth. The pumps can also be installed on open wells. Adequate well sealing at the time of installation of the pumps, ensure against borehole water contamination.

With minor modifications, the pumps can be motorized and also modified to force lift water upto heights of 15 meters to overhead tanks as measured from the ground level.

The pumps are steel fabricated hot dip galvanized and are easy to install and with low maintenance costs.

Our hand pumps are being exported world wide to over 30 countries of Asia, Africa, Australia and Europe.

We are committed to quality and total customer satisfaction.

## India Mark-II Deep Well Handpump

*(as per Bureau of Indian Standard specifications)*

- **PUMP HEAD (ABOVE GROUND MECHANISM)** fully fabricated steel construction duly hot dip Galvanised. Available with different mounting arrangement.
- **CYLINDER ASSEMBLY** Consisting of cast iron body lined from inside with seamless brass liner of 63.5mm ID, gun metal valve components and nitrile rubber cup seals. Capable of giving discharge of 0.37 liters per stroke.
- **CONNECTING ROD** of 12mm dia mild steel electrogalvanised, in three meter lengths with hexagonal couplings.
- **RISER PIPE (DROP PIPE)** of 32mm N.B.G.I medium in three meter lengths with socket at one end.



India Mark-II/ Mark-III Deep Well Handpump

### FORCE LIFT HANDPUMP

Capable of force lifting water to overhead tanks at heights upto 10 meters above ground levels, by providing special Force Lift Kit which can work in the existing pumps also.

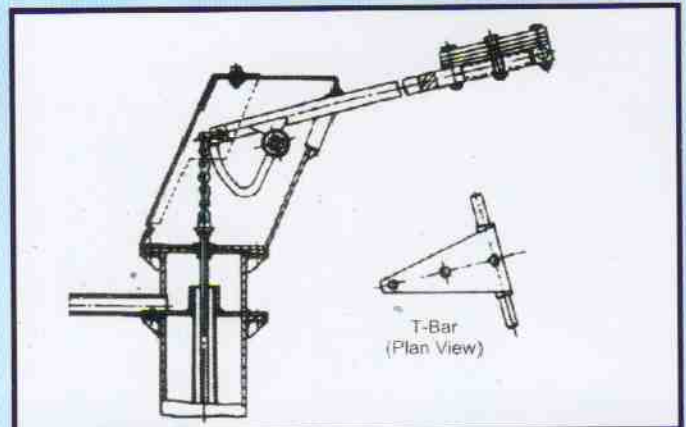
### OPTION FOR CORROSIVE WATERS

- Non corrosive under ground parts to handle corrosive waters
- Brass or stainless steel cylinder assembly with flush end caps. Available in 3 sizes of inner diameter 63.5mm and 50mm to suit discharge requirements of 0.32 and 0.2 liters/stroke respectively.
- Stainless steel connective rods in 12mm dia and 3 meters length with couplings.
- Stainless steel or UPVC riser pipes.

## Extra Deepwell Handpump

**For 45-90 meter's setting Depth**

*(as per Bureau of Indian Standard specifications)*

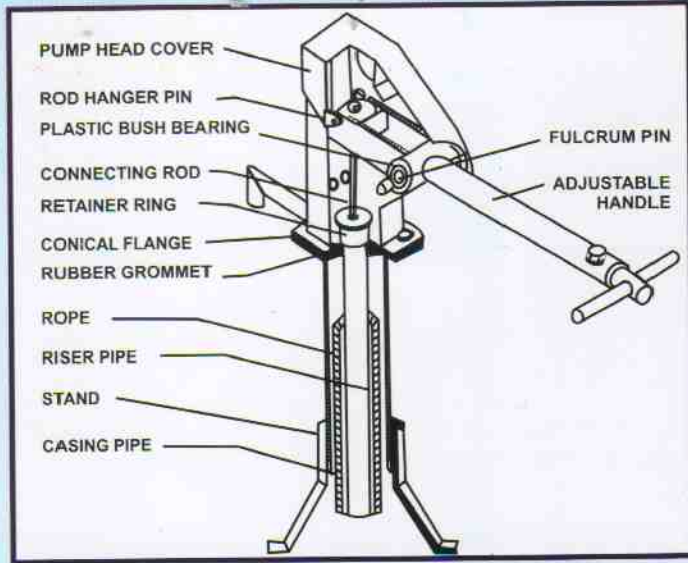


- Heavier handle with T-bar and additional weights ensure reduced pumping effort.
- Cylinder assembly modified to have 3 pump buckets



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## Afridev Deepwell Handpump (as per SKAT-HTN, Switzerland specifications)

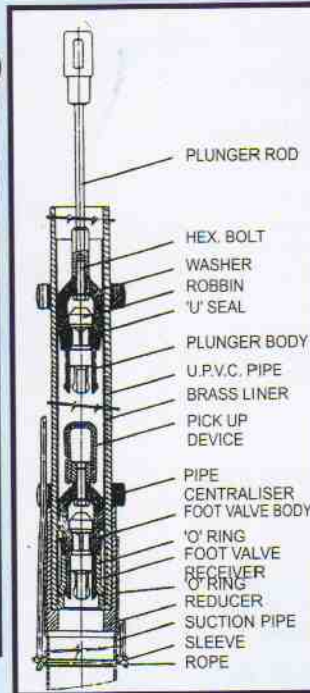


### PUMP HEAD (The above Ground Mechanism)

- Fully fabricated steel structure duly hot dip galvanised with conical flange and rubber grommet.
- Plastic bush bearings add to ease of operation and maintenance.
- Different handle settings provided for varying installation depths.
- Essential maintenance tools and spares are supplied with pump, if required.

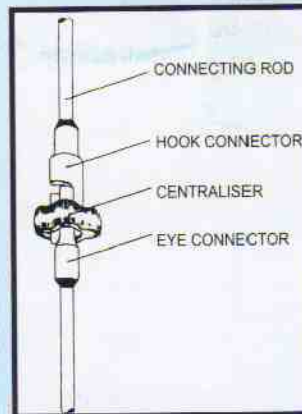
### RISING MAIN

- 63mm O.D. X 4.7 mm thickness x 3.0 mtrs. Long UPVC pipe with Spigot-Socket cemented joints along with rubber centraliser.



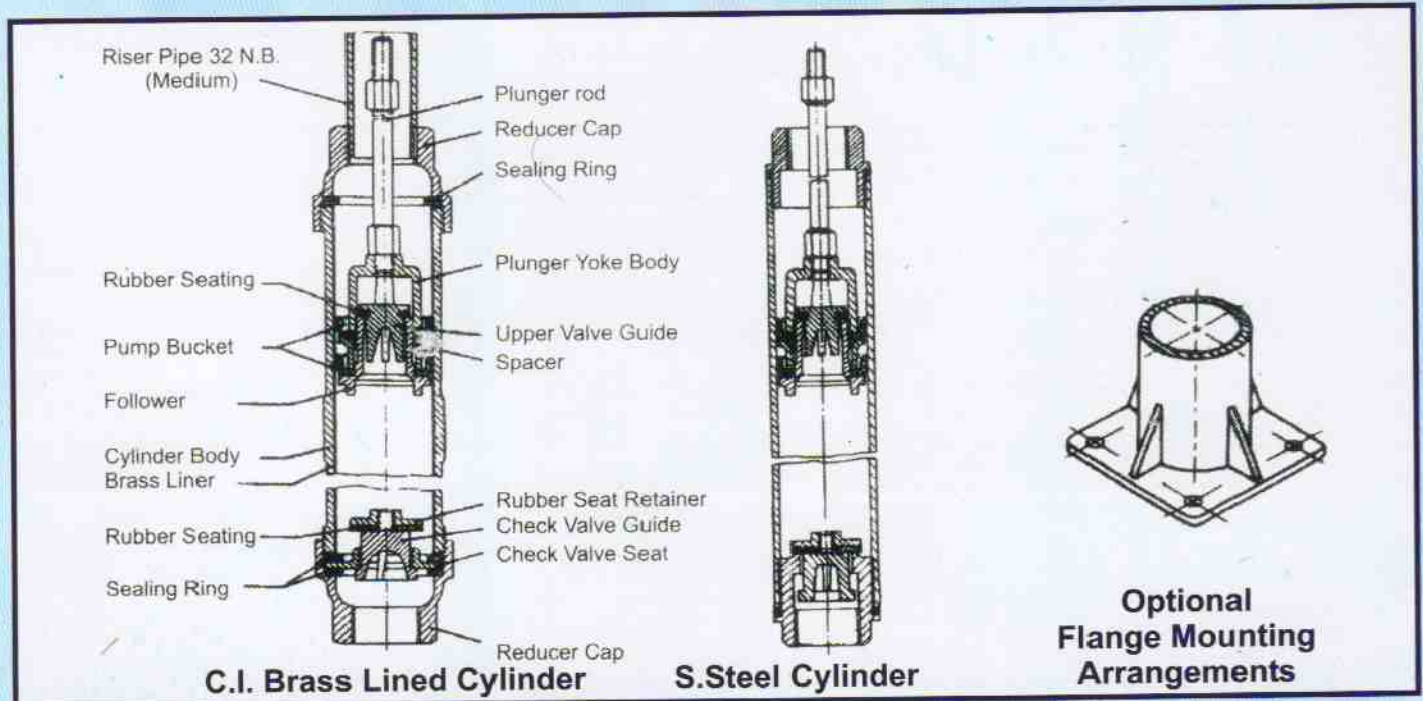
### CYLINDER ASSEMBLY

- 63mm O.D. X 4.7 mm thick UPVC pipe lined from inside with 700mm long extruded seamless brass tube with 50mm ID.
- Interchangeable plunger and foot valve bodies made out of injection moulded delrin with stainless steel provided on the top of foot valve for easy extraction of valves without taking out rising main and cylinder. The Plunger/ FV assembly are also available in Brass.
- Nitrile rubber 'U' seal, bobbin and 'O' rings.
- Discharge : 0.42ltrs. Per stroke



### CONNECTING ROD

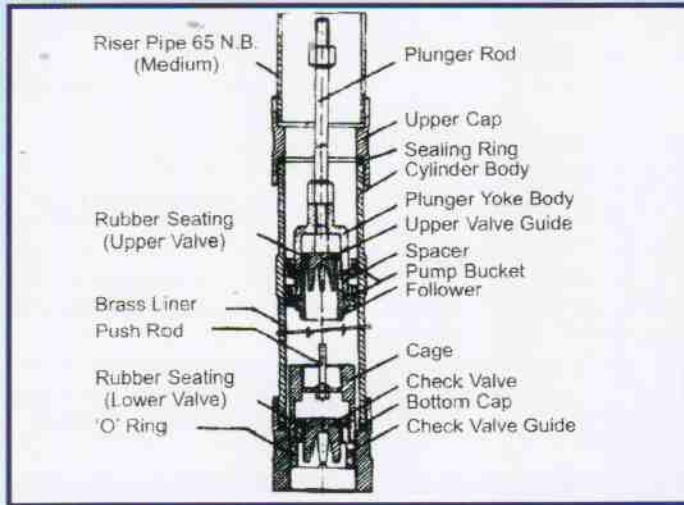
- 10 mm dia M.S. hot dip galvanised in 3 meters length with forged M.S. tool-less eye & hook connectors with rubber centraliser.
- For corrosive waters rods and connectors are available in stainless steel.
- FRP connecting rods with brass connectors can also be supplied.





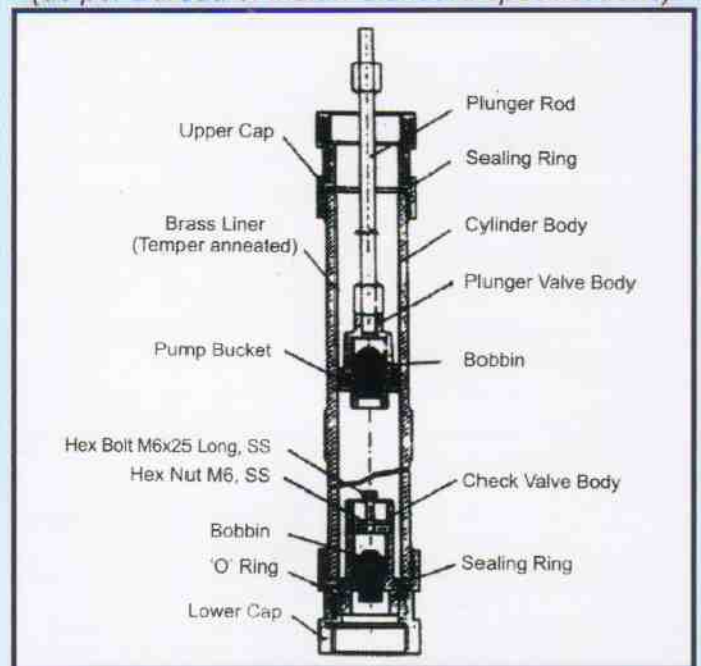
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## VLOM India Mark-III Handpump (as per Bureau of Indian Standard specifications)



- 63.5 mm I.D. Cylinder assembly modified to have open top with cap to take 65 N.B.G.I medium riser pipe
- Plunger and foot valves extractable without removing riser pipe and cylinder body.
- Suitable for settling depth upto 45 meters.

## VLOM India Marked-III Handpump Open Top 50mm Cylinder Inner Assembly (as per Bureau of Indian Standard specifications)



- Modified IM III with 50mm cylinder and 50mm NB Riser Pipe, Interchangeable Bobbin Valves, Single Cup Washer.

## U3 Modified Deepwell Handpump (as per SKAT-HTN, Switzerland specifications)

The U3 modified deep well hand pump is broadly a combination of IM-III and the Afridev deep well hand pump and is recommended for aggressive water conditions, where G.I. Pipes cannot be used. The above ground pumping mechanism is essentially of IM-III pumps, whereas the below

ground pumping mechanism is similar to Afridev Handpump i.e. UPVC Riser Pipes (63mm OD-spigot socketed joints) and Cylinder Assembly with UPVC Brass Liner (50mm dia, open top VLOM). The standard connecting rods are of India Mark-II, India Mark-III type and option of Fibre Reinforced Plastic (FRP) connecting rods is also available.

## APEX HAND PUMPS - SELECTION GUIDE

Sl. No.	PUMP TYPE	Recommended for water level setting depth (mtr.)	Minimum ID of bore (mm)	Approx. Discharge (Ltrs/hr.)
01.	India Mark-II Deep well Handpump as per BIS* specifications with 63.5 mm dia cast iron Brass sleeved cylinder assembly.	20 - 45	100	900
02.	India Mark-II Extra Deep well Handpump as per BIS* specifications with 63.5mm dia cast iron brass sleeved cylinder assembly.	45 - 90	100	720
03.	India Mark -III Deep well Handpump as per BIS* specifications with 65mm dia cast iron brass sleeved open top cylinder assembly with extractable plunger and foot valves assemblies.	20 - 45	100	900
04.	India Mar-III Deep well Handpump as per BIS* specifications, with 50mm dia cast iron brass sleeved open top cylinder assembly with extractable plunger and foot valves assemblies.	20 - 45	100	600
05.	U3 modified Deep well Handpump as per SKAT-HTN, Switzerland specifications with 50mm dia open top, UPVC brass lined cylinder assembly with extractable plunger and foot valves Assemblies.	20 - 45	100	600
06.	Afridev Deep well Handpump as per SKAT-HTN, Switzerland specifications with 50mm dia open top, UPVC brass lined cylinder assembly with extractable plunger and foot valves assemblies.	20 - 45	100	990
07.	Shallow Well India Mark - II/ India Mark-III modified Pump	Upto 21	100	900

Designs and Specifications subjects to change without prior notice  
\*BIS - Bureau of India Standard



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