Mahabir Make Hand Pumps



LET US PAINT THE EARTH GREEN BY NOT PRINTING PROFILES

It is the most basic element on the planet. It gives life to everything. And it is seemingly painful to see that more than a billion people can't get clean water for drinking, cooking and bathing. Two million children die every year caused by contaminated water. It is a silence progress which is holding back human progress. Together you and I can change this. ONE COST EFFECTIVE technology which has an important role in 'reaching the unreached' with portable water is the use of hand pumps on boreholes and hand-dug wells.

REACHING THE UNREACHED





We are a diversified industrial establishment in The Eastern India. We manufacture all kinds of deep well and shallow well hand pumps. We are an ISO certified company and have licenses from Bureau of Indian Standards. We are also certified by UNICEF and The Standards Organisation of Nigeria. Our galvanizing plant is the largest in the country which is equipped with a ten meter long zinc bath which make us the largest manufacturer of hand pumps in India. We have an in-house the state of the art testing laboratory where various tests can be performed as per the laid specifications. Our products have been inspected by many reputed inspection agencies like Crown, SGS, Rites etc.

Our manufacturing sites are located at about 120 kilo meters from Patna (the capital city) and about 550 Kms from Haldia (the closest sea port). We have the capacity to manufacture and deliver 3000 sets of Hand Pumps on a monthly basis.

ABOUT US

The other products manufactured by us are fabricated and galvanized transmission line towers, telecommunication towers, pre stressed cement concrete poles **as** per designs of Rural Electrification Corporation of India and Paraffin Wax. We have also manufactured ASCR and AAC conductors which if laid in a straight line can transmit electricity from north pole to the south pole on three parallel transmission lines.

The Hon'ble Chief Minister of Bihar Mr. Nitish Kumar has awarded us for having contributed to the industrial development of the state.

Mahabir India Mark II pumps are manufactured as per standards laid under the IS 15500–2004 (Bureau of Indian Standards), covering hand pumps for lifting water from wells of depth of 20 meters to 50 meters. Above 50 meters, the efforts put in for pumping may not give adequate results in terms of discharge of water and therefore extra deep well hand pump are recommended.

INDIA MARK II DEEPWELL HAND PUMP

Under the Hand Pump project o the UNDP/World Bank, a consumer testing laboratory in the United Kingdom conducted extensive trails in the early 1980s of the twelve different Deep Well Hand Pumps from all over the world and India Mark II was concluded the best for community water supply.

The main sub-assemblies for the India Mark II hand pumps are as follows:

Pump Assembly

It consists of head with handle assembly, water tank assembly and stand assembly.

Head with Handle Assembly

Conversion Head: Side plate, back plate, front end top and bottom end plates are made from 4 mm thick MS plates. Bottom flange is made from 6 mm thick MS plates. Handle is made from 32 mm Square MS bar. Length of Handle is nearly 1170 mm.

Water Tank Assembly

Top and bottom flanges are made from 6 mm thick MS plates. Pipe holder is made from solid bars to hold 32 mm Riser Pipes.

Stand Assembly

The Stand flange is made from 6 mm thick MS Plate. The pipe used is 150 mm medium 1 B' Class pipe. The angles are $40 \times 40 \times 6$ mm.

Cylinder Assembly

It is made of 63.5 mm I.D. Cast-Iron cylinder with brass liner and cast iron caps of 32 mm thread with two nitrite rubber cup washer (leather) and Plunger rod are as per IS 9301 - 1984. The lower and upper valve assemblies are made out of gun metal chiefly of lead, tin and bronze.

Connecting Rods

This connects the Pump assembly with the cylinder assembly.

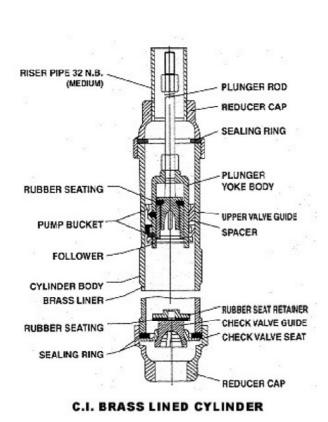
The diameter is 12 mm and the length is 3 meters. It is made of Mild Steel or Stainless Steel. For corrosive waters it is recommended that Stainless Steel connecting rods be used. The number of rods required is proportionate to the depth of the water. For instance, for a depth of 30 meters, 10 connecting rods of 3 meter length would be required.

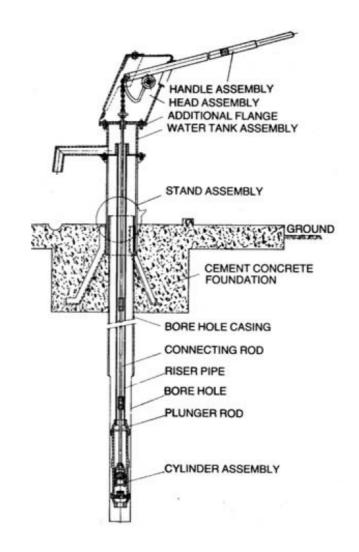
Riser Pipes (32mm NB)

It is of 32 mm nominal bore galvanized iron pipes of medium class of 3 meters length. PVC Pipes are also available. The number of riser pipes required is proportionate to the depth of the water. For instance, for a depth of 30 meters, 10 riser pipes of 3 meter length would be required.

Other Details

Recommended for water level ranging from 20 to 50 meters ID of the bore 100 millimeter Approximate discharge per hour 900 liter Stroke Length 125 \pm 4mm





WE RECOMMEND INSTALLING INDIA MARK II DEEPWELL HAND PUMPS OWING TO ITS COST EFFICIECY AND STURDY MAKE.

The need of a Village Level Operation and Maintenance (VLOM) Hand Pump lead to the development of India Mark III Deep Well Hand Pumps which is manufactured as per IS 15500/2004. It is also referred to as Modified India Mark II in the colloquial language.

INDIA MARK III DEEPWELL HAND PUMP

The basic difference in India Mark III Hand Pumps & India Mark II Hand Pumps is that here pump has open top cylinder which facilitates easy maintenance of plunger Assembly and check Valve Assembly by pulling out from the cylinder without pulling out the Cylinder / Riser pipe.

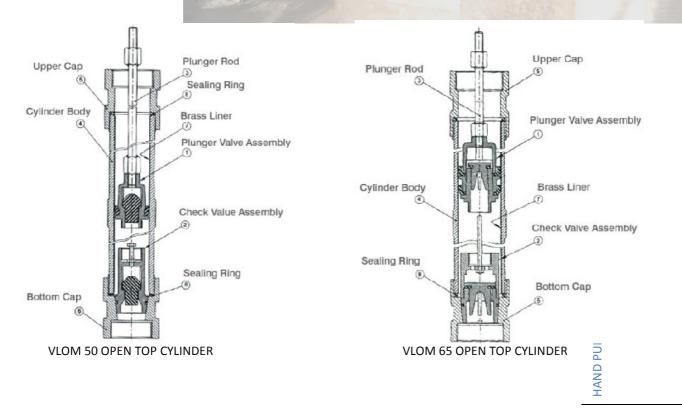
The sub-assemblies for India Mark III is the same as India Mark II.

It is available in two variants.

INDIA MARK III VLOM 50 INDIA MARK III VLOM 65

Advantages

- The repairs can be carried out by local mechanics.
- This pump has open top cylinder so the components can be extracted from cylinder for maintenance without pulling out cylinder riser pipes. So the below ground level repairs can be carried out within a short time.



The Afridev Deep Well Hand Pump has emerged from field trials in Africa and currently its specification is controlled by SKAT, Switzerland. Afridev is abbreviated for 'Africa Development' and was developed to make an African version of village Level Operation & Maintenance pump. This pump also has an open top cylinder.

SKAT has currently provided three revision of the numbered 3,4 and 5.

AFRIDEV HAND PUMP

The sub-assemblies of Afridev follows, which has the following options.

Pump head Type

Pump head with short spout: (30 cm) or with long spout (58 cm)

Pump stand type

Pump stand with bottom flange or 3 legs or with ISO flange arrangement:

Rising main arrangement

PVC-U Rising main with "Sockets" or with Bell ends.

Cylinder arrangement

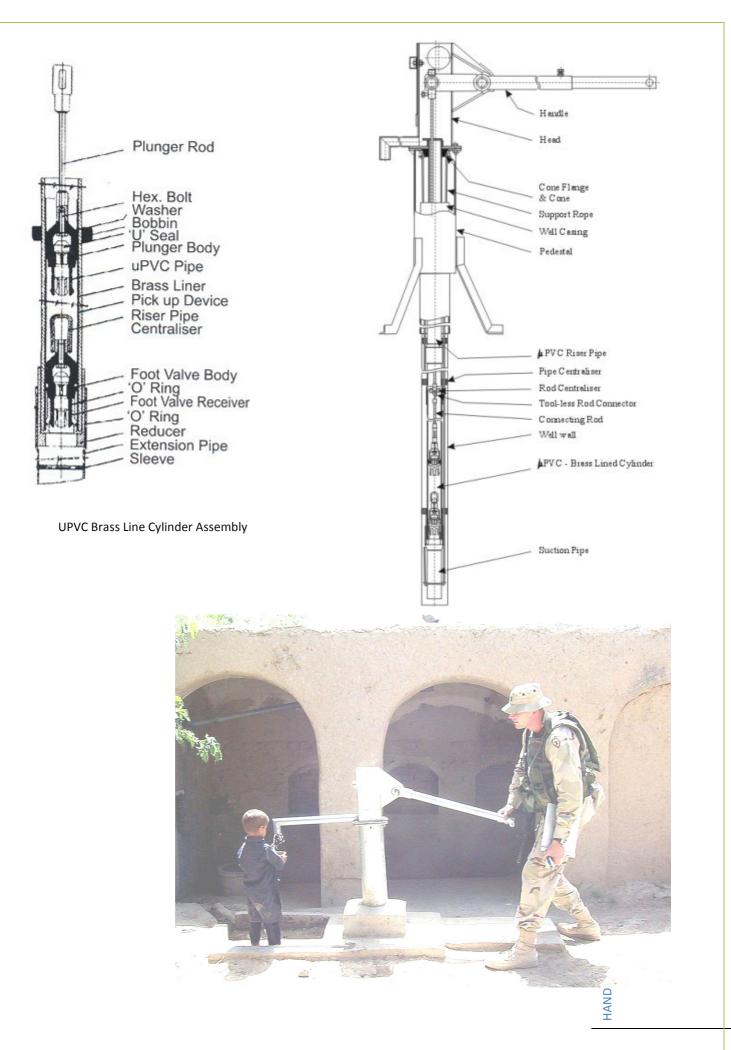
Brass plunger with Brass foot valve or Brass plunger with Plastic foot valve or Plastic plunger with Plastic foot valve:

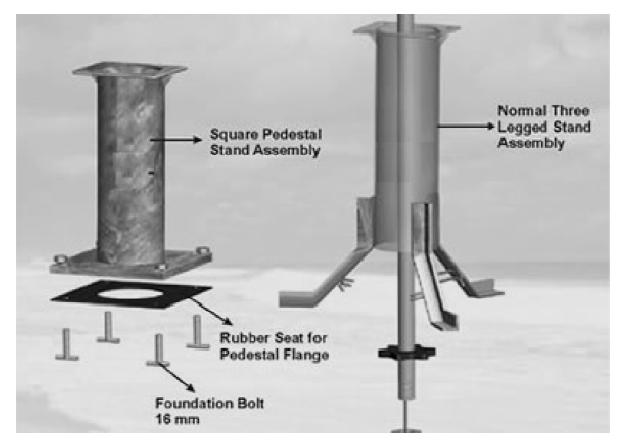
Pump rod arrangement

MS- Pump rods with threaded connectors or SS- Pump rods with threaded connectors or FRP- Pump rods with Brass connectors or SS- Pump rods with "Hook & Eye" connectors.

Mahabir Make Afridev as per SKAT Revisions are supplied with additional Tools and Spares comprising of;

Bush Bearing- 4 Nos, Bobbin 1 No U Seal 1 No, O Ring Big and Small,
Open ended Spanner – 1 No, Socket Spanner – 1 No, Fishing Tool -1 No
Solvent cement – 250ml, Cleaning Fluid – 250 ml, 6mm Rope – 70 meters





WE PROVIDE AN OPTION TO CHOOSE BETWEEN TRILEG OR BOTTOM FLANGE PEDESTAL ARRANGEMENT. MANY BUYERS FROM BURKINA FASO HAVE REQUESTED US FOR RECTANGULAR BOTTOM FLANGES (330x 220 x 8 mm) WHICH HAS BEEN DESIGNED FOR THEM.



TARA Direct Action Hand Pump was developed in Bangladesh as an alternate to the traditional hand pump. It was a technology which would be less expensive, easier to maintain and reasonably long lasting. It is also referred to as India Mark I. Mahabir Industries is among the very few industrial unit to have in house complete production of Tara Pump and licenses of quality assurances from Bureau of Indian Standards. Tens of thousand Tara Pump have been supplied by us to various State Government and NGOs. The distinguishing feature of this pump is that water is pumped out both in upwards and downwards stroke.

DIRECT ACTION HANDPUMP

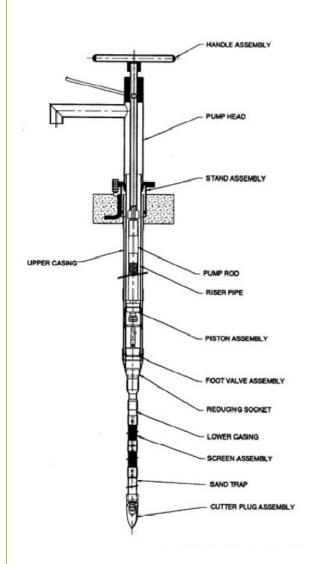
TARA INDIA MARK I HAND PUMP

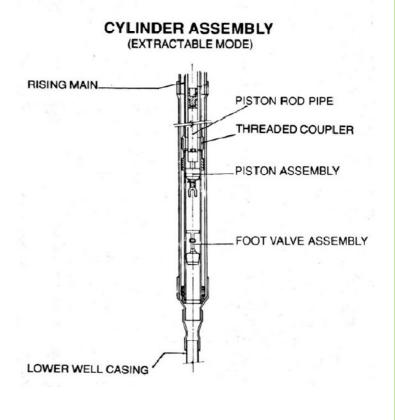
Tara Pump comprises of pump body and cylinder assembly which is connected by the Riser main. The riser main acts as Upper Well casing. There is a T handle bar, which is connected to the buoyant PVC pump rod. The pump rod is plastic pipes, when filled with air the buoyancy helps in the upward stroke. This is what makes using the pump easier.

Cylinder assembly consists of cylinder pipes, foot valve assembly, piston assembly and piston rod. The piston moves up and down against the cylinder body. The upward and downward movement with valve lifts water in upwards direction of each stroke, therefore discharging is Possible in both ways i.e upwards as well as downwards stroke. This is what makes this pump unique.

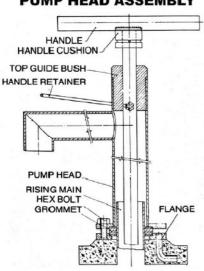
Cylinder Assembly is at the bottom of the rising main and connected with top of lower well casing. The top of the lower well casing is solvent welded to the cylinder bottom through reducer bell connector. The lower end of this is attached to the screen. The well casing and well screen are made of UPVC Pipes. The screens are made from UPVC ribbed pipes for maximum open area taking into consideration minimum penetration of sand.

Tara Pump is designed to lift water from static water level of ideally between 7-15 meters but could be used for up-to 20 meters. The discharge is nearly 24 liters/minute. It could be easily installed and maintained at the village level. Complications of a lever action hand pump such as bearing, axle etc are eliminated in this model.

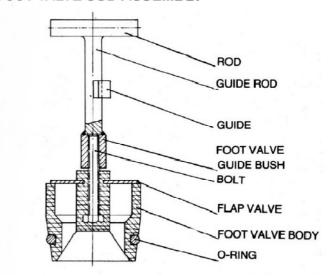




PUMP HEAD ASSEMBLY



FOOT VALVE SUB ASSEMBLY



NOTITIONAL DRAWINGS AS PER BUREAU OF INDIAN STANDARADS OF TARA DIRECT ACTION HAND PUMP

HAND PU

Shallow Well Hand Pump is a simple and Robust Cast Iron Hand Pump modified by UNICEF by making certain design of Nepal No.6 pump. The plunger uses a molded PVC Cup seal with two 3 mm disc (Electroplated) and the check Valve is a floating valve system of Nitrile Rubber with M.S. Weight. In shallow well up to 10-15 meters this is a cost effective option.

SHALLOW WELL HANDPUMP

SINGUR HAND PUMP

It consists of the following sup assemblies

Pump base with floating valve

Pump body

Pump head with fulcrum

Handle

Plunger rod assembly

The pump body is made of cast iron. The piston rod is made of 12mm dia. bright bar, electro-galvanized. The total weight of the complete suction pump is approximately 32kg

Advantages

- A sliding plate has been provided on the top of the head to prevent water contamination
- Can work up to a depth of 15 meters.
- A low cost pump which gives high discharge.
- Extremely sturdy and capable of withstanding rough usage, practically no maintenance even after extensive use.
- Suitable for community water supply.
- Very reliable Valve System and durable PVC Cup seals.
- Maintenance is very simple and requires only basic tools.
- Much higher discharge than any comparable pump

The treadle pump is a human-powered irrigation device that sits on top of a well. Pumping is activated by stepping up and down on treadles which drive pistons, creating cylinder suction that draws groundwater to the surface. Treadle pumps free farmers from dependence on rain-fed irrigation, provide capacity to raise crops in two growing seasons per year, and help farmers maximize return on their small plots of land.

BAMBOO TREADLE PUMP

Pump prices, range from US\$20 – \$100 based on country of purchase. This pump is ideal for a farmer with a plot size of less than two acres wherein he can either irrigate directly or store the water in a tank or pit and resort to bucket irrigation.

This is the most cost effective manner in which a farm can be irrigated with areas with no or limited electricity .

We are currently supplying the same to many companies and are exclusive manufacturers of the same for International Development Enterprises.



MAHABIR MAKE UGANDA MODIFIED HAND PUMPS (U2)
MAHABIR MAKE UGANDA MONDIFIED HAND PUMPS (U3)
MAHABIR MAKE GHANA MODIFIED HAND PUMPS
MAHABIR MAKE FORCE AND LIFT HAND PUMPS





Since November, 1949

Wed. 6th May, 2009

Mahabir Industries set to solve water problem in Nigeria

Mahabir Industries, the oldest and largest manufacturer of hand pumps in India, said it was ready to partner with the government, corporate bodies, non-governmental organisations and individuals to reduce water shortage in Nigeria.

"Unlike war and terrorism, the global water crisis does not make media headlines, despite claiming more lives through diseases.

"Unlike natural disasters, it does not rally concerted international action, despite the fact that more people die each year from drinking dirty water than from the world's hurricanes, floods, tsunamis and earthquakes combined," a statement from the company on water crisis said.

The company organises annual drillers meetings and invites buyers to get a glimpse of the manufacturing of the hand pumps and ways to identify the defects.

The hand pumps, the company claims, hold the key to solving water problem in Nigeria and other parts of Africa.

The company also claims that if there is a cheaper type of hand pumps of the same quality, it will reduce the price by half.

Mahabir Industries said water problem should attract similar attention given to war and terrorism as well as other natural disasters.

The company looks forward to forming alliances with drillers, importers and other stakeholders in the water industry.

PRINT MEDIA PUBLICATIONS

FINANCIAL STANDARD, Tuesday, May 19, 2009

India firm ready to partner NGOs to supply hand pumps

Mahabir Industries, Industrial House, the Industries oldest and the largest manufacturer of hand pump in India has expressed its readiness to supply India Mark II and India Mark III Hand Pumps, which are imported from India.

The company manufacturers foot which operated treadle pump under the brand " The Farmer's Friend" for International Development Enterprise as a part of its corporate social responsibility has licenses from the Bureau of Indian Standard and has carried out innumerable project since its

The company organises annual drillers meet at its inhouse plant in India where

buyers are invited to get a the glimpse manufacturing of the hand pumps and ways to identify the defects and an installation training session is also held which ensures long lasting life of the hand pumps.

lookout to form alliances with importers and drillers in India Mark II and India Mark Nigeria, have shipped single hand pumps to remote inaccessible areas in Africa

According to the firm, the water people work so hard to collect in Africa is often dirty, polluted, and unsafe to drink and women who are trapped in this situation have little time for other activities such as child care, rest, or productive work. The time

spent collecting water often disembowels women by reinforcing time-poverty and lowering income.

It noted that the World Bank, UNICEF, Government Water Board, leading NGOs like Living Water International, Water Aid, etc the firm which is on a are drilling boreholes across Africa and fitting them with III Hand Pumps, which are imported from India.

Mr Maskara Saurabh, an expert in the industry said most of the non ISI-hand pumps which are fake imitations have serious technical problems within one to three years with pumping rods and pipes rust and breaking, bearings wearing out and the cylinder

having problems with the wearing out of the rubber seals of the piston and leaking foot valves.

Saurabh added that this has led the drilling companies and Non Governmental organisations to explore options of importing hand pumps directly from India.

"It has a benefit wherein they are able to save on the price and also get quality assurances from manufacturer themselves", he said.

There are many producers of hand pumps in India, but the prominent ones are Mahabir Industries, Industrial House, Jharkhand Agro, SKI, Khalsa, Meera and Ajay etc.

From: Sent:

To:

Ishwarlall Bridglall 16 March 2009 13:42PM

saurabh@mahabirindustries.com

"Dear Saurabh

Namaskar! We wish to place on record our sincere thanks and gratitude to you and your family for your kindness, generosity and the extremely, selfless and warm welcome you accorded to us during our recent visit to India. We were overwhelmed by your spirit of perfect, pure, traditional Indian hospitality. Do You Know that many Indian families Living in South Africa over the last 150 years have come from Bihar and Uttar Pradesh. The hospitality that we try to offer to our guests here may be quite similar to what we experienced at your home. I have often wondered from where we inherited these traits. After visiting with your family I am now convinced that we have in fact inherited this hospitality and athiti bhav from you. My wife and Bhabi were overwhelmed and felt as if we had come home. In fact when we took leave from you we felt that we were leaving home. I could not believe that we had spent just a few hours with you and it seemed as if we had known you for a whole life time. Many many thanks for a most for a most spectacular, and spiritually enlightening visit to your home and a special bonus which comprised a tour of Bihar. Very special thanks to Your Father, Mother, Grandmothers and all members of your esteemed family for their love and kindness. Not forgetting the most delicious , home cooked meal we enjoyed. We look forward to seeing you and family sometime in South Africa.

Regards Anil"

JALAM ENTERPRISES, SOUTH AFRICA

YOUR APPRECIAT

"IN ALL THE HAND PUMP MANUFACTURING COMAPNIES AND IN THEIR PURSUIT FROM BEING GOOD TO GREAT, IT IS MAHABIR INDUSTRIES WHICH IS MOST LIKELY TO MAKE THE CUT." MR EVANS. GARY (DIRECTOR) LIVING WATER INTERNATIONAL

"I HAVE BEEN VERY IMPRESSED WITH THE SERVICES OFFERED AND DETAILED INFORMATION PROVIDED TO US BY YOUR COMPANY."

MR FRED PROBY, LIFE WATER INTERNATIONAL UK

"THE QUALITY OF HAND PUMPS SUPPLIED BY YOU IS VERY GOOD. THANKS BE TO GOD THAT YOU ARE A GOOD MAN."

MR BENJAMIN, BRIGHT FIELD INVESTMENTS, NIGERIA

Dear Mr. Maskara.

On behalf of Living Water International, I want to thank you for the India Mark II hand pump you had. delivered to our office in Stafford, Texas.

The overall quality is excellent. We have set it up for display and training in our main office. It will be used to demonstrate the India Mark II as one of the types of hand pumps that we install in many of the 25 countries where Living Water International has projects.

We will be happy to demonstrate it to other organizations during reasonable office hours, with prior appointment.

Again, please except our appreciation for allowing us to display this hand pump.

Sincerely,

Bradley R. Saltzman Vice President



BIHAR.

Dear Sirs,

REGIONAL OFFICE FOR SOUTH CENTRAL ASIA UNICEF HOUSE, 73, LODI ESTATE NEW DELHI-10003 INDIA TELEPHONE: 690401 TELEPHONE: 690401 CABLE ADDRESS: UNICEF NEW DELHI TELEX: 3161464 (UNCF-IN)

16 October, 1989



भारतीय मानक ब्यरो BUREAU OF INDIAN STANDARDS

Patliputra Industrial Estate Address:

Patna 800013

Phones · 0612-2262808. 2275342

0612-2262305 E-mail; Web: hpbo@bis.org.in http://www.bis.org.in

Patna Branch Office

ATTACHMENT TO LICENCE NO. CM/L- 1841455

CML NO	NAME OF THE LICENSEE WITH ADDRESS	PRODUCT	IS NO
1841455	Mahabir Industries, Barauni Industrial Area, PO: Tilrath, Begusarai, (Bihar) PIN: 851 122.	Deepwell Handpumps – Standard Deepwell Handpump – VLOM-50 Deepwell Handpump – VLOM-65	IS 15500 (Part 2) : 200

ENDORSEMENT NO.

Dated 25.06.2009

Renewed for a further period of one year from First July Two Thousand Nine to Thirtieth June Two Thousand Ten

Other terms and conditions of the Licence remain the same.

Director, BIS. and ector, BIS.
बी० सी० प्रामानिक
B. C. PRAMANIK
वैज्ञाविक ई-ब्रिटेशक
Scientist E-Director
भारतीय मानक ब्यूरो
Gureau of Indian Standar
पटना PATNA

Thanking you,

information.

WS.C02.009/89-3058

M/s Mahabir Industries Post Box No. 12 Begusarai 851 101.

Yours faithfully,

ESA OVASKAINEN Handpump Coordinator

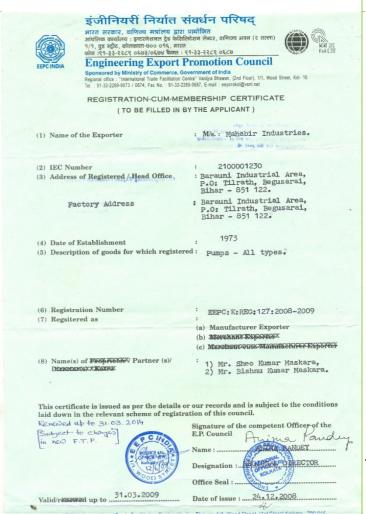
Supply § Procurement Section M/s Crown Agents Services Ltd.

CERTIFICATIONS

We are in receipt of Crown Agents' Inspection Report No. TX 16282 of test batch of 50 Nos. of India Mark II Handpumps which according to the report have been found of satisfactory quality. In view of the above, we wish to inform you that UNICEF authorised quality control inspection would be available to you for any State Government's Handpump order. We will include your name in the list of Qualified Manufacturers as soon as the amended list is circulated next time. In the meantime, you may communicate with State Government with a copy of this letter. Please do not hesitate to contact us for any further

Please do not hesitate to contact us for any further





WE ARE JUST A HAND SHAKE AWAY

We firmly believe that strategic partners are a key components to a company's success. We are open to any mutually benefical alliance.

PARTNER US

We are looking for Companies/ Manufacturer's Representatives/ Associates/ Non Government Organizations etc located or operating in Africa, South America or Bangladesh etc. who are:-

- unicef
- a. Capable of procuring orders of different kinds of Hand Pumps internationally.
- b. Capable of interacting with buyers locally and meeting their commercial requirement.

It is pertinent to mention that no order is too small or too large for us. Even if a nut or a bolt has broken down and you want us to supply it to the remotest corner of Africa we will send it with seamless service.

We invite you to use our contract manufacturing facilities wherein you can take advantage of our manufacturing expertiese. At the moment International Development Enterprises uses our contract manufacturing facilities for manufacturing Treadle Pumps which we supply at cost price to them as a part of our corporate social responsibility.





OTHER FRIENDS

- 1. JALAM TRADING ENTERPRISES, SOUTH AFRICA
- 2. LANKA DEEPWELL, SRI LANKA
- 3. MINISTRY OF ENVIRONMENT, THE DEMOCRATIC REPUBLIC OF CONGO
- 4. BRIGHT FIELD INVESTMENT, LAGOS, NIGERIA
- 5. G 6 TRADING, ETHIOPIA
- 6. LIFE FOR WATER, UK
- 7. LIFE WATER INTERNATIONAL, USA
- 9. WATER WELL DRILLING AND IMPORTING COMPANIES
- 9. PHED, GOVERMENT OF BIHAR, INDIA















QUESTIONS, COMMENTS, SUGGESTIONS & PRAISE

MAHABIR INDUSTRIES

1, BARAUNI INDUSTRIAL AREA
POST TILRATH, BEGUSARAI,
BIHAR, INDIA

INDIA CALLS
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