

INDION[®] ASM

Description

INDION ASM is an ion exchange resin based media designed to selectively remove arsenic from ground water without affecting the characteristics of influent water.

INDION ASM performs well, even in the presence of common anions such as chlorides, sulphates or bicarbonates. INDION ASM is used like conventional ion exchange resins.

Characteristics

| | | |
|---------------------------|---|---------------------------------------|
| Appearance | : | Reddish brown beads |
| Matrix | : | Gel |
| Moisture holding capacity | : | 47 - 54 % |
| Shipping weight | : | 720 kg/m ³ , approximately |
| True density | : | 1.145 g/ml, approximately |
| Particle size range | : | 0.3 mm to 1.2 mm |

Operating parameters:

| | | |
|------------------------------------|---|--------------------------------------|
| Maximum operating temperature | : | 60° C |
| Operating pH range | : | 6.5 to 9.0 |
| Arsenic adsorption capacity | : | 0.5 - 2.0 g /l |
| Static arsenic adsorption capacity | : | 25 - 37 mg /g |
| Recommended contact time | : | 2.5 to 5 minutes (Typical 3 minutes) |
| Specific service flow rate | : | Typical 20 - 30 BV/h |
| Minimum bed depth | : | 0.5 m |

Salient features

- INDION ASM Selectively removes arsenic in presence of other anions.
- It removes As III as well as AS IV.
- INDION ASM is operated like conventional ion exchange resins and operates at conventional pressures.
- Physically stable during usage, does not generate fines.
- Effluent arsenic levels does not exceed influent levels at any point of normal operation.
- Ideal for municipal and residential POE & POU devices.
- INDION ASM was tested for Volatile organic compounds VOC's, and found to be within the drinking standard as per EPA 8021 B.
- Water treated through INDION ASM was tested for oral toxicity as per IP (Indian Pharmacopoeia) and found to be safe for human consumption.
- Exhausted INDION ASM is non toxic and safe for disposal as per TCLP (Toxicity characteristic leaching procedure as per EPA 1311). Please follow Local regulations for disposal.

Note: -

- It is recommended to rinse the resin with minimum 10 bed volumes of DM water before taking it into service.

- It is recommended to pre-treat and pre-filter the influent water to obtain best results.
- The desirable influent water quality must be within the specified limits.
- Turbidity 1 NTU, Iron - < 0.5 ppm, Manganese - < 0.5 ppm, Oil & grease Nil, Organics Nil, Arsenic 3000 ppb max.
- Presence of Phosphates, Vanadium and Silica can affect the Arsenic removal capacity.

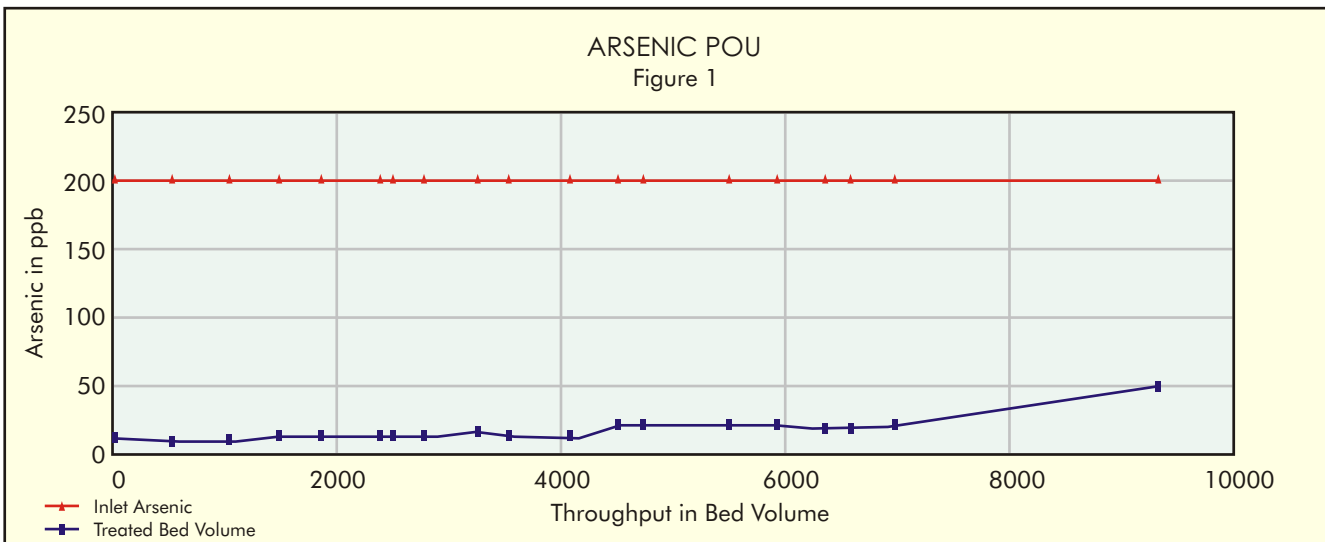
Field performance of Arsenic removal unit.

Point of use unit:-

Location: Block Development Office,
Dist. Nadia, West Bengal

Inlet feed water quality

| Sr.no. | Parameters | Values |
|--------|-------------------------|-------------------------------------|
| 1 | pH | 7.30 |
| 2 | Conductivity | 600 - 700 $\mu\text{s} / \text{cm}$ |
| 3 | Alkalinity | 352 ppm as CaCO_3 |
| 4 | Total Hardness | 340 ppm as CaCO_3 |
| 5 | Iron | 0.5 to 1 ppm as Fe |
| 6 | Arsenic | 0.2 ppm as As |
| 7 | Treatment flow rate LPH | 60 - 90 |



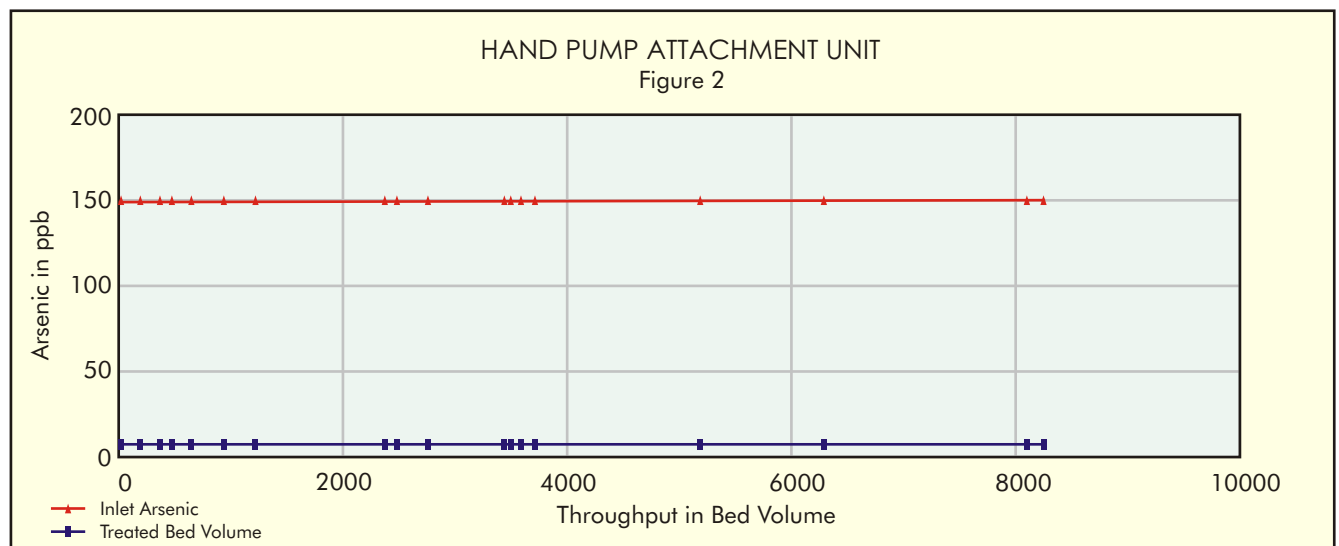
Field performance of Arsenic removal unit.

Hand pump attachment unit: -

Location: Govindpur Haldarpada,
at Debogram (Dist Nadia), West Bengal

Inlet feed water quality

| Sr.no. | Parameters | Values |
|--------|----------------------------|-------------------------------------|
| 1 | pH | 7.40 |
| 2 | Conductivity | 600 - 700 $\mu\text{s} / \text{cm}$ |
| 3 | Alkalinity | 264 ppm as CaCO_3 |
| 4 | Total Hardness | 240 ppm as CaCO_3 |
| 5 | Iron | 0.5 to 1 ppm as Fe |
| 6 | Arsenic | 0.15 - 0.2 ppm as As |
| 7 | Treatment flow rate LPH | 600 - 700 |



Packing

| | | | |
|--------------------------|------------|-----------------------------|----------------|
| HDPE Lined bags | 25/ 50 lts | LDPE bags | 1 cft / 25 lts |
| Super sack | 1000 lts | Super sack | 35 cft |
| MS drums with liner bags | 180 lts | Fiber drums with liner bags | 7 cft |

Storage

Ion exchange resins require proper care at all times. The resins must never be allowed to become dry. Repeated drying and rewetting produce stresses analogous to those due to osmotic shock and can lead to fragmentation of Ion exchangers.

Safety

During storage and usage contact with oxidizing agents must be avoided to prevent accidents and damage to the resin.



Tested and certified by WQA against NSF/ANSI standard 61. See WQA website (www.wqa.org) for us, restriction and limitations.

INDION range of Ion Exchange resins are produced in a state-of-the-art ISO 9001 and ISO 14001 certified manufacturing facilities at Ankleshwar, in the state of Gujarat in India. is the registered trademark of Ion Exchange (India) Ltd.

To the best of our knowledge the information contained in this publication is accurate. Ion Exchange (India) Ltd. maintains a policy of continuous development and reserves the right to amend the information given herein without notice.

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ION EXCHANGE (INDIA) LTD.

Corporate Office

Ion House, Dr. E. Moses Road,
Mahalaxmi, Mumbai 400 011
Tel: +91 22 3989 0909 | Fax: +91 22 2493 8737
E-mail: ieil@ionexchange.co.in

International Division

R-14, T.T.C MIDC, Thane - Belapur Road,
Rabale, Navi Mumbai 400 701
Tel: +91 22 3989 0909 / 3913 2400 | Fax: +91 22 2769 7918
E-mail: export.sales@ionexchange.co.in

OFFICES

| Regional | Telephone | Fax | E-mail |
|---------------|------------------------------|------------------|--|
| Chennai | +91 44 3989 0909 / 3910 2900 | +91 44 2815 3361 | checro@ionexchange.co.in |
| Delhi | +91 11 3989 0909 / 3054 3200 | +91 11 2577 4837 | delcro@ionexchange.co.in |
| Kolkata | +91 33 3989 0909 / 3043 3400 | +91 33 2400 4345 | calcro@ionexchange.co.in |
| Vashi | +91 22 3989 0909 / 3913 2300 | +91 22 2788 9839 | mumcro@ionexchange.co.in |
| Branch | | | |
| Bengaluru | +91 80 2204 2888 | +91 80285 32002 | bngcro@ionexchange.co.in |
| Bhubaneswar | +91 674 326 9525 / 257 1491 | | bbsr@ionexchange.co.in |
| Chandigarh | +91 172 274 5011 | +91 172 274 4594 | delcro@ionexchange.co.in |
| Hyderabad | +91 40 3066 3101 / 02 / 03 | +91 40 3066 3104 | hydcro@ionexchange.co.in |
| Lucknow | +91 522 319 9911 | +91 11 2577 4837 | lko.general@ionexchange.co.in |
| Vadodara | +91 265 302 7489 / 90 | +91 265 2352 932 | brdcro@ionexchange.co.in |
| Visakhapatnam | +91 891 324 6253 | | sales.vizag@ionexchange.co.in |

Factories: Ankleshwar | Hosur | Patancheru | Rabale | Verna

All India Service and Dealer Network

www.ionresins.com