



## Industrial Upflow Softeners

The INDION Industrial Upflow Softener is manually operated, and designed to suit the requirements of medium-scale industries. It incorporates the proven technique of counterflow regeneration. The units thus produce treated water with low residual hardness throughout the cycle.

A strongly acidic cation exchanger in sodium form is used to exchange sodium ions for the hardness-forming calcium and magnesium, thus producing soft water. At the end of each service cycle, the ion exchanger is regenerated with sodium chloride solution, after which the unit is ready for the next service cycle.

For introducing the brine into the unit, a hydraulic ejector with control valve, suction and delivery piping is provided. A combined salt tank which can hold a sufficient quantity of salt for a number of regeneration is provided.

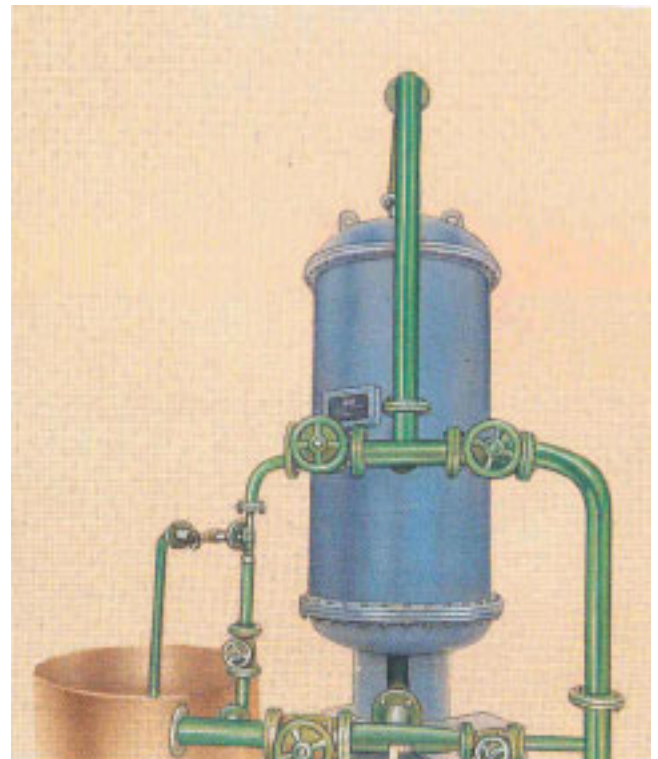
The unit is supplied in knocked-down condition and is easily assembled at site. To meet special requirements, these softeners can be supplied for automatic operation. INDION Industrial Upflow Softeners are available in three standard models: S 600/U, S 800/U and S 1000/U.

### Advantages

- Consistent treated water quality.
- Easy to install and operate.
- Produces clear, soft and non-scale forming water.
- Low operating costs.
- Incorporates INDION high-capacity polystyrene bead type cation exchange resin, which is remarkably stable and has a long life.

### Applications

- Boiler feed
- Process water in textile mills
- Beverage manufacture
- Laundry and air conditioning plants



- Cooling tower make up
- Jacket cooling
- Hospitals, hotels

### Specifications

- One mild steel pressure vessel provided with an inlet distributor, an outlet collecting system and a brine distributor. The vessel is painted externally with a protective coat of red oxide and internally with anti-corrosive bituminous paint.
- One set of control valves, with all piping to inlet and outlet terminals.
- One combined salt tank/brine measuring tank, provided with brine suction piping with adjustable indicating clamp, hydraulic ejector and control valve.
- One orifice board for indicating wash and rinse flow rates (to be fitted in the drain sump)
- One charge of INDION cation exchange resin.
- One hardness test kit for testing the softened water.

## Technical Data

Model	Softener Diameter	Flow rate		Working Pressure		Output per Regene-ration *	Treated Water Hardness (Max.)	Salt per Regene-ration
		Min	Max	Min	Max			
	mm	m³/h	m³/h	Kg/cm²g	Kg/cm²g	m³	ppm CaCO <sup>3</sup>	kg
S 600/U	600	1.3	13	1.7	3.5	117	5	65
S 800/U	800	2.3	23	1.7	3.5	208	5	100
S 1000/U	1000	3.5	35	1.7	3.5	320	5	155

\* Based on raw water hardness of 200 ppm CaCO<sup>3</sup>.

- Notes :** 1. Feed water should be free from turbidity, free chlorine, heavy metals, organic matter and oil, and should be at ambient temperature.  
2. Output per regeneration depends on raw water quality.

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. Please contact our regional offices for current product specifications.

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### CORPORATE OFFICE

Tiecicon House, Dr. E. Moses Road, Mahalaxmi, Mumbai 400 011.  
Tel: 022-2493 9520/23/25 Fax: 022-2493 8737  
E-mail: ieil@ionexchange.co.in; hocro@ionexchange.co.in

### INTERNATIONAL DIVISION

R-14, T.T.C. MIDC, Thane-Belapur Road, Rabale, Navi Mumbai 400 705.  
Tel: 022-2769 7112/3/4 Fax: 022-2769 7918  
E-mail: rabcrointl@ionexchange.co.in

### REGIONAL OFFICES

#### CHENNAI

Ion House, 42, B.N. Reddy Road, Chennai 600 017.  
Tel: 044-2815 3293, 2815 0807 Fax: 044-2815 3361  
E-mail: checro@ionexchange.co.in

#### DELHI

Block-B, Flat No. 8, Local Shopping Center, Ring Road, Naraina Vihar, New Delhi 110 028  
Tel: 011-2577 1160/6061, 2577 1348 Fax: 011-2577 4837  
E-mail: delcro@ionexchange.co.in

#### KOLKATA

New Alipore Market Complex, Block-M, Phase 1, 5th Floor, New Alipore, Kolkata 700 053.  
Tel: 033-2400 4341/49, 2400 0797 Fax: 033-2400 4345  
E-mail: calcro@ionexchange.co.in

### MUMBAI

Tiecicon House, Dr. E. Moses Road, Mahalaxmi, Mumbai 400 011.  
Tel: 022-2493 9520/23/25 Fax: 022-2493 8737  
E-mail: hocro@ionexchange.co.in

### VADODARA

Nirali Apartments, Near Ellora Park Telegraph Office, Vadodara 390 007.  
Tel: 0265-239 6506, 239 7638 Fax: 0265-239 8508  
E-mail: brdcro@ionexchange.co.in

### BRANCH OFFICES

- Bangalore - Tel: 080-528 4696/7, 526 3904 Fax: 080-529 5795  
E-mail: bngcro@ionexchange.co.in
- Chandigarh - Tel: 0172-745 011 Fax: 0172-744 594  
E-mail: chd.general@ionexchange.co.in
- Hyderabad - Tel: 040-2339 7760 Fax: 040-2339 7761  
E-mail: hydcro@ionexchange.co.in
- Indore - Tel: 0713-506 4875 Fax: 0731-504 1578  
E-mail: indore.gen@ionexchange.co.in
- Lucknow - Tel: 0522-223 8589 Fax: 0522-223 8545  
E-mail: luk.general@ionexchange.co.in
- Pune - Tel: 020-714 6063 Fax: 020-714 6109  
Email: pun.general@ionexchange.co.in

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