

INDION®

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.

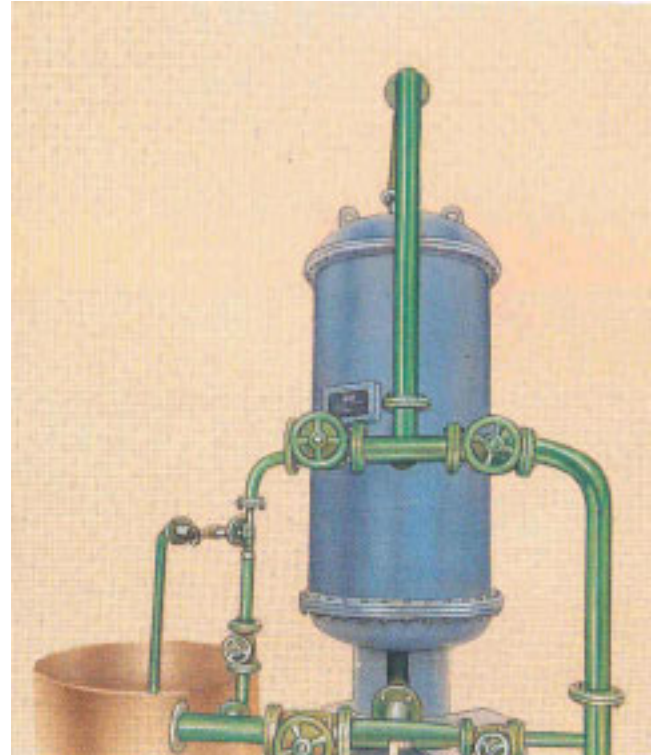
The unit is supplied in knocked-down condition and is easily assembled at site. To meet special requirements, these softeners can be supplied for automatic operation. INDION Industrial Upflow Softeners are available in three standard models: S 600/U, S 800/U and S 1000/U.

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 Regeneration *	Treated Water Hardness (Max.)	Salt per Regeneration
		Min	Max	Min	Max			
	mm	m ³ /h	m ³ /h	Kg/cm ² g	Kg/cm ² g	m ³	ppm CaCO ³	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 CaCO³.

- 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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