

INDION® Industrial Downflow Softener

Indion Industrial Downflow Softener is a manually operated unit designed especially for industrial use. It is simple to operate, economical to maintain and is widely used in the industry.

The softener comprises a steel pressure vessel containing a bed of cation exchange resin, regenerating system and control valves. A strongly acidic cation exchange resin in sodium form is used to exchange sodium ions for the hardness-forming calcium, magnesium ions, and thus produce soft water. At the end of each service cycle, the ion exchange resin is regenerated with sodium chloride solution, after which the unit is ready for the next service cycle.

For larger plants, a brine measuring tank is provided and a separate salt saturator, preferably in concrete, is recommended for bulk storage of salt and preparation of brine. Standard equipment is available to soften water, up to a maximum flow rate of 275 m³/h.

Advantages

- Easy to install and operate
- Produces clear, soft & non-scale forming water
- Low operating cost
- Incorporates Indion high-capacity, polystyrene bead type cation exchange resin which is remarkably stable and has a long life

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 paints.



- One set of control valves, with piping to inlet and outlet terminals
- One combined salt/brine measuring tank, provided with brine suction piping with hydraulic ejector and control valve
- One orifice board for indicating wash and resin flow rates (to be fitted in the drain sump)
- One charge of Indion cation exchange resin with supporting underbed
- One hardness test kit for testing the softened water

Optional

One set of fittings for concrete salt saturator, wherever applicable, to be constructed by the client.

Technical Specifications

Model	Max Flow Rate	Working Pressure		Regenerants	
		Min.	Max.	Min.	Max.
	m ³ /h	kg/cm ² g		kg	
S 6015/D	13.0	2.0	3.5	29.0	58.0
S 6025/D	13.0	2.0	3.5	29.0	58.0
S 8015/D	23.0	2.0	3.5	51.0	102.0
S 8025/D	23.0	2.0	3.5	51.0	102.0
S 10015/D	35.0	2.0	3.5	80.0	161.0
S 10025/D	35.0	2.0	3.5	80.0	161.0
S 12020/D	50.0	2.0	3.5	116.0	170.0
S 12025/D	50.0	2.0	3.5	116.0	231.0
S 14020/D	70.0	2.0	3.5	157.0	231.0
S 14025/D	70.0	2.0	3.5	157.0	313.0
S 16020/D	90.0	2.0	3.5	204.0	299.0
S 16025/D	90.0	2.0	3.5	204.0	408.0
S 18020/D	114.0	2.0	3.5	259.0	381.0

Model	Max Flow Rate	Working Pressure		Regenerants	
		Min.	Max.	Min.	Max.
	m ³ /h	kg/cm ² g		kg	
S 18025/D	114.0	2.0	3.5	259.0	517.0
S 20020/D	140.0	2.0	3.5	327.0	476.0
S 20025/D	140.0	2.0	3.5	327.0	639.0
S 22020/D	170.0	2.0	3.5	388.0	578.0
S 22025/D	170.0	2.0	3.5	388.0	775.0
S 24020/D	200.0	2.0	3.5	459.0	692.0
S 24025/D	220.0	2.0	3.5	459.0	926.0
S 26020/D	240.0	2.0	3.5	541.0	808.0
S 26025/D	240.0	2.0	3.5	541.0	1081.0
S 28020/D	275.0	2.0	3.5	628.0	937.0
S 28025/D	275.0	2.0	3.5	628.0	1255.0
S 30020/D	275.0	2.0	3.5	724.0	1081.0
S 30025/D	275.0	2.0	3.5	724.0	1448.0

Note:

1. Feed water should be free from turbidity, organic matter, heavy metals, free chlorine and oil design parameters based on 25° C.
2. Output between regenerations will vary with influent feed 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/branch offices for current product specifications.

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