

Aldex MP Series

C-800H MP HC Macroporous Strong Acid Resin Hydrogen Form

Aldex C-800H MP HC is a **premium grade, high capacity, strongly acidic macroporous cation resin in the hydrogen form**, used in demineralization systems and condensate polishers. Aldex C-800H MP HC combines high capacity characteristics with the increased thermal and chemical stability versus gellular resins. Aldex C-800H MP HC is more highly crosslinked than our standard non-solvent resins Aldex C-800H and Aldex C-800x10H.

Physical Chemical Properties

Resin Composition:	Macroporous polystyrene crosslinked with divinylbenzene
Ionic Form as Shipped:	Hydrogen (H ⁺)
Physical Form:	Spherical particles
Moisture Content (H ⁺ Form):	42 to 47%
Total Capacity (H ⁺ Form):	2.3 eq/l minimum
Odor and Taste:	None
Net Weight (as shipped):	48 to 50 lbs per cubic foot
Particle Size:	16 to 50 mesh
Uniform Coefficient	1.7 maximum

Recommended Operating Conditions

Influent pH:	0 to 14
Maximum Temperature (H ⁺ form):	250 °F
Bed Depth:	Minimum 36"
Service Flow Rate:	1 to 5 US gpm/ft ³ (8 to 40 BV/h)
Backwash Flow Rate:	See Fig. 2
Regenerant:	Hydrochloric Acid (HCl) or Sulfuric Acid (H ₂ SO ₄)
Regenerant Strength:	2 to 4%
Regenerant Flow Rate:	0.30 to 0.9 US gpm/ft ³ (2 to 7 BV/h)
Regenerant Dosage Level:	See Fig. 3
Slow Rinse (Displacement) Flow Rate:	0.30 to 0.9 US gpm/ft ³ (2 to 7 BV/h)
Fast Rinse (Displacement) Flow Rate:	1 to 5 US gpm/ft ³ (8 to 40 BV/h)
Rinse Water Requirements:	25 to 75 US gpm/ft ³
Exchange Capacity:	See Fig. 3
Reversible Swelling Na ⁺ to H ⁺	5% maximum

C-800H MP HC Features

Macroporous Structure

The macroporous structure of Aldex C-800H MP HC makes it possible to incorporate a higher level of divinylbenzene into the copolymer matrix than is attainable with standard gel-type resins. This results in a resin that has greater stability when exposed to oxidizing conditions such as high temperatures, iron and the presence of oxidizing agents.

High Physical Stability

The macroporous structure with high divinylbenzene content provides greater resistance to bead breakage.

Safety Information

A material safety data sheet is available for Aldex C-800H MP HC. Copies can be obtained from Aldex Chemical Co., LTD. Aldex C-800H MP HC is not a hazardous product and is not WHMIS controlled.

Caution: Acidic and basic regenerant solutions are corrosive and should be handled in a manner that will prevent eye and skin contact. Before using strong oxidizing agents in contact with ion exchange resin, consult sources knowledgeable in the handling of these materials.



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Pressure Drop

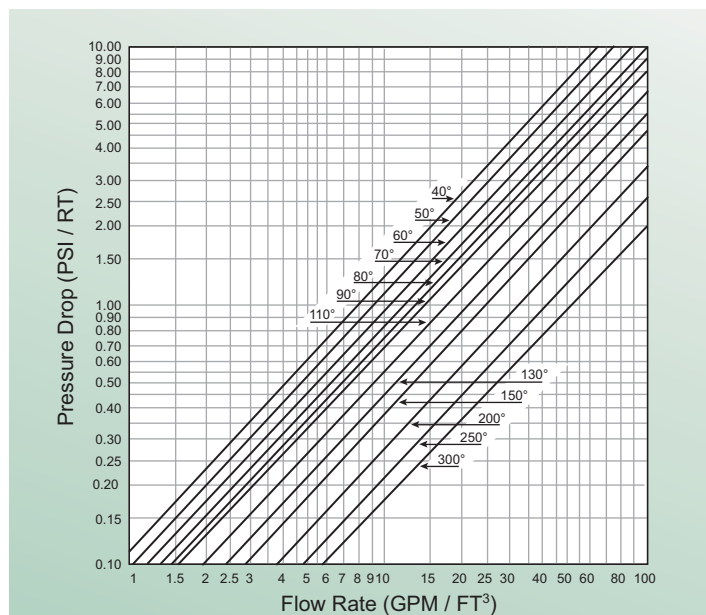


Fig. 1 Pressure Drop vs Flow Rate at various degrees Fahrenheit (F°)

Capacity Data

Regeneration level lbs HCl per cubic foot	Capacity kgr as CaCO ₃ per cubic foot	Influent Water
4	20.5	300 ppm ash 50% Sodium 50% Alkalinity
6	22.0	
8	23.5	
10	24.5	

Fig. 3 Capacity Data

Backwash Characteristics

Aldex C-800H MP HC should be backwashed for at least 10 minutes at a flow rate sufficient to cause 50% to 75% expansion of the resin bed.

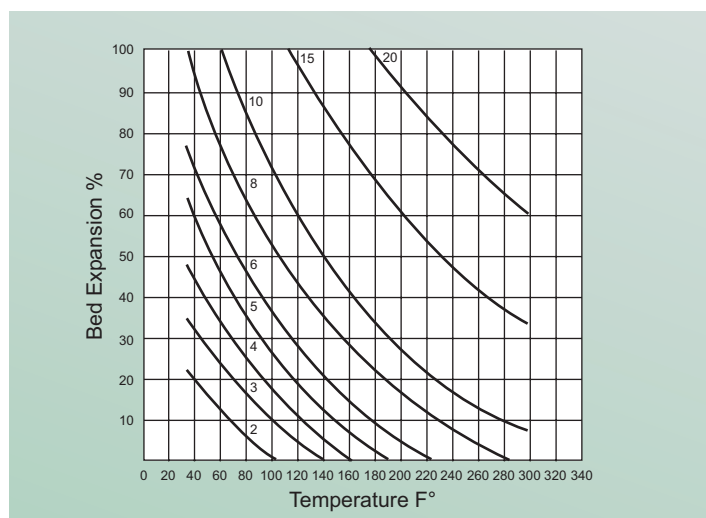


Fig. 2 Hydraulic expansion data parameter flow rate GPM / FT²



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