

# Ion Exchange Resins - Troubleshooting

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## What should I do when my ion exchange resins are not working?

Initially, we recommend that you consult your original equipment manufacturer (OEM) and discuss your performance problem since they are most familiar with your system. However, the following link can help you troubleshoot and solve your problem.  
[Ion Exchange Troubleshooting Guide](#)

Common problems encountered by a water treatment plant user include [insufficient throughput](#) ([http://dow-answer.custhelp.com/cgi-bin/dow\\_answer.cfg/php/enduser/std\\_adp.php?p\\_faqid=4276](http://dow-answer.custhelp.com/cgi-bin/dow_answer.cfg/php/enduser/std_adp.php?p_faqid=4276)) (plant capacity) between regenerations; [poor product water quality](#) ([http://dow-answer.custhelp.com/cgi-bin/dow\\_answer.cfg/php/enduser/std\\_adp.php?p\\_faqid=4277](http://dow-answer.custhelp.com/cgi-bin/dow_answer.cfg/php/enduser/std_adp.php?p_faqid=4277)); [increased rinse volume](#) ([http://dow-answer.custhelp.com/cgi-bin/dow\\_answer.cfg/php/enduser/std\\_adp.php?p\\_faqid=4278](http://dow-answer.custhelp.com/cgi-bin/dow_answer.cfg/php/enduser/std_adp.php?p_faqid=4278)), following regeneration; [high pressure drop](#) ([http://dow-answer.custhelp.com/cgi-bin/dow\\_answer.cfg/php/enduser/std\\_adp.php?p\\_faqid=4279](http://dow-answer.custhelp.com/cgi-bin/dow_answer.cfg/php/enduser/std_adp.php?p_faqid=4279)) across a vessel, leading to insufficient flow rate, or [shortened resin life](#) ([http://dow-answer.custhelp.com/cgi-bin/dow\\_answer.cfg/php/enduser/std\\_adp.php?p\\_faqid=4281](http://dow-answer.custhelp.com/cgi-bin/dow_answer.cfg/php/enduser/std_adp.php?p_faqid=4281)).

Any one or a combination of the following may be the cause:

- Change of Raw Water Composition
- Incorrect Process Parameters
- Mechanical Failure of Equipment
- Poor Ion Exchange Resin Performance

From our experience, the majority of troubleshooting cases are related to mechanical, equipment, or operational failures. It is therefore recommended to take a wide view of the whole plant operation (including the pretreatment) when troubleshooting.

If you do not know the cause of your problem, you may want to have us run an analysis to help identify the cause and direct your efforts to optimize system performance. Analysis of ion exchange resins that have been used in service is available from Dow under the System Optimization Services program for a nominal fee.

For further information, please download the appropriate brochure for your location:

- Step 1: Review Resin Sampling Procedure
- Step 2: Fill out Analysis Request Form
- Step 3: Review Available Testing Services for Ion Exchange Resins
- Step 4: Review Ion Exchange Resin Analysis - Price Sheet
- Step 5: Fill out Shipping Instructions

Complete information is included in the following links (dependent on application):

[Ion Exchange Resin Analysis for the Water and Process Industries](http://www.dow.com/webapps/include/GetDoc.aspx?filepath=liquidseps/pdfs/noreg/177-01771.pdf) (<http://www.dow.com/webapps/include/GetDoc.aspx?filepath=liquidseps/pdfs/noreg/177-01771.pdf>) (404KB PDF)

[Europe, Middle East, Africa Resin Analysis Information](http://www.dow.com/webapps/include/GetDoc.aspx?filepath=liquidseps/pdfs/noreg/177-01996.pdf) (753KB PDF) (<http://www.dow.com/webapps/include/GetDoc.aspx?filepath=liquidseps/pdfs/noreg/177-01996.pdf>)

[Ion Exchange Resin Analysis Guide for the Sweetener Industry](http://www.dow.com/webapps/include/GetDoc.aspx?filepath=liquidseps/pdfs/noreg/177-01802.pdf) (<http://www.dow.com/webapps/include/GetDoc.aspx?filepath=liquidseps/pdfs/noreg/177-01802.pdf>) (PDF)

[Request Form for Resin Analysis](http://www.dow.com/webapps/include/GetDoc.aspx?filepath=liquidseps/pdfs/noreg/177-01776.pdf) (<http://www.dow.com/webapps/include/GetDoc.aspx?filepath=liquidseps/pdfs/noreg/177-01776.pdf>) (PDF)

[Resin Sampling Procedure, Tech Fact](http://www.dow.com/webapps/include/GetDoc.aspx?filepath=liquidseps/pdfs/noreg/177-01758.pdf) (<http://www.dow.com/webapps/include/GetDoc.aspx?filepath=liquidseps/pdfs/noreg/177-01758.pdf>) (PDF)

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## RELATED INFORMATION

[Ion Exchange Resins - Cleaning recommendations](#)

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[Ion Exchange Resins - Steps to System Design](#)

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[Ion Exchange Resins - Diagnosis of Poor Water Quality](#)

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[Ion Exchange Resins - Understanding Long Rinse Times After Regenerating](#)

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[Ion Exchange Resins - Cleaning Organic Fouling from Anion Resins](#)

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