Over the years, Eco-Tec has firmly established itself in major markets worldwide, for industrial water treatment, chemical recovery, and gas purification systems. Industrial water treatment includes high-purity water treatment systems for steam, power generation, and produced water treatment systems for oil and gas production. Chemical recovery systems purify, recover, and recycle chemicals used in oil refineries and gas processing plants, steel and aluminum finishing, electroplating, and mineral processing. Gas purification systems specialize in the area of sulfur removal from biogas with new products being introduced for sour gas treatment and sulfur degassing.

**Full Quality Design and Manufacturing Capabilities**

Products are developed and continuously improved in Eco-Tec’s development department with full laboratory and pilot-plant testing. Standard equipment designs are adapted to market and client needs, and manufactured under an ISO 9001 registered quality process in Eco-Tec’s own factory. Equipment is designed as compact modular skids to minimize site construction and is completely assembled and tested in Eco-Tec’s factory prior to shipment.

Eco-Tec staff provides on-site commissioning supervision services as well as operator training and performance demonstration of each system. Technical support is available 24/7 on-line or on site if required.

Eco-Tec Inc. is headquartered in Pickering, Ontario, Canada. It maintains sales offices in Alberta, England, and India, with representatives and distributors around the world.
### Market Leadership & Capabilities

- Proprietary patents
- Proven 40 year history
- Over 2,000 systems in harsh environments
- Best value design
- Chemical and water analysis
- Process development & system design
- Engineering & lab studies
- Lab demonstrations

### Process Development Fabrication

- Chemical laboratory
- Extensive technical database and library
- Pilot plant trials
- Field trials on customer process
- Technology transfer & licensing
- Full process testing
- Engineering design
- Stainless and carbon steel certified welding
- Plastic fabrication
- Chemical treatments and formulations
- Paint, coatings
- Electrical design programming
- Mechanical assembly

### Customer Service – The Eco-Serv Program

- Factory and on-site training
- Commissioning supervision
- Performance evaluation program
- 24/7 service
- Lifetime monitoring
- Extensive parts inventory
- Laboratory backup

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**eco-TEC**
Short Bed Height:
The resin in a Recoflo® column is contained without any free space above the resin. Elimination of this “freeboard” reduces liquid dilution and intermixing in the column.

Low Resin Loading:
Ion exchange sites exist throughout the resin particles, Recoflo® improves performance by using only those near the surface and most accessible. Rapid surface exchange promotes a quick regeneration cycle and minimal resin shrinking or swelling.

Finer Mesh Resins:
Recoflo® uses resins with a small diameter and stronger ion exchange, which react and exchange ions much faster than conventional resins. This reduces the length of the exchange zone, allows the use of higher flow rates and requires less rinsing.

Packed Resin Beds:
Resin rinse requirements are reduced and dilution of process liquid is minimized by passing through a column of less dense liquids on top of more dense liquids and vice versa. Uniform flow distribution simplifies countercurrent regeneration, maintains exchange zone profile and prevents regenerant dilution. Stable liquid-liquid interfaces are maintained and “plug flow” conditions are optimized.

“‘If I had to purchase another demin system it would definitely be Recoflo®... After two years of trouble free operation, the Recoflo unit is easy to work with, simple to maintain and troubleshoot.”
- Southwestern Electric Cooperative, Freedom Station
High Purity Demineralization

Through advanced ion-exchange demineralization and softening technologies (Recoflo®) and innovative approaches to filtration (Spectrum™), Eco-Tec’s High-Purity Water-Purification Systems are improving process efficiency around the world.

For more than 30 years, Eco-Tec has specialized in integrating simple, reliable water-treatment components to provide the highest purity water for steam, power generation, chemical processes, and a variety of other industrial applications.

Featuring:
- RecoFlo® Water Demineralization Systems
- RecoFlo® Water Softening Systems
- Spectrum™ Filtration Systems
- Membrane Systems: Reverse Osmosis, Ultrafiltration
- Chemical Treatment
- Complete Integrated Systems

Produced Water Treatment Systems

Eco-Tec is a globally recognized provider of produced-water treatment systems for heavy oil operations, featuring advanced filtration (Spectrum Plus™) and ion exchange softeners (RecoPur®) that dramatically reduce materials, waste, and operational costs for clients.

Eco-Tec’s systems represent a safer, smaller, more efficient way of treating produced water to reduce scaling and corrosion, while eliminating conventional problems such as high chemical (salt, acid, caustic) consumption and poor oil and solids filtration quality.

Featuring:
- RecoPur® Water Softeners
- Spectrum Plus Filters™
**Acid Purification**

Eco-Tec is the world leader in the development and supply of acid purification and recycle equipment using resin-based technology. Today, hundreds of APU systems are operating in more than 55 countries, treating a variety of acid and mineral salt mixtures.

**Featuring:**
- APU® For Steel Pickling
- AnoPur™ for Aluminum Anodizing
- APU®/DPU™ for Aluminum Etching or Graining
- DPU™ for Aluminum Brightening
- ChromaPur™ for Chrome Plating

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**Metal Recovery & Purification**

With Eco-Tec’s Metal Recovery and Purification Systems, operations gain higher recovery rates and greater process performance – in a simple, fully-automated package. Systems also deliver a dramatic reduction in overall costs, materials, and waste to a variety of different industrial processes.

**Featuring:**
- Chrome Plating Salt Recovery Systems
- Nickel Plating Salt Recovery - NickelPur™
- Hydrometallurgy/Copper Electro-Refining Purification

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**Chemical Purification**

Chemical Purification Systems by Eco-Tec offer the most efficient approaches available for separation/ removal of contaminants, for pulp & paper, caustic etchant regeneration, and brine softening applications, among others; all in simple, fully-automated packages.

**Featuring:**
- Pulp & Paper Kraft Boiler Chloride Removal - PDP™ System
- ClO₂ Generator Acid Recycling - GAP™ System
- Brine Softening - BDH™
- Caustic Etchant Regeneration - CER™
Amine Purification

Eco-Tec’s Amine Purification Systems (AmiPur®-PLUS) are helping refineries, gas processing plants, and flue gas carbon capture operations around the world economically achieve emission standards and reduce contaminants.

Now installed in more than 18 countries, AmiPur continuously removes Heat Stable Salts (HSS) and/or carbon dioxide from amine circuits — ensuring stable, consistent performance of amine units with minimal attention.

**Featuring:**
- AmiPur®-PLUS for Refineries
- AmiPur®-PLUS for Gas Processing Plants
- AmiPur®-CCS for Flue Gas Carbon Capture

H₂S (Hydrogen Sulfide) Removal

Eco-Tec’s Gas Processing Systems efficiently reduce contaminants and improve the economic feasibility of energy recovery. Solutions include Biogas (BgPur™) and Sour Gas (SgPur™) Purification Systems which remove hydrogen sulfide from methane and industrial gases.

Eco-Tec’s Gas Purification Systems remove H₂S from methane gas and convert it to a non-hazardous elemental sulfur by-product. The purified methane gas can then be used for heating or power generation applications.

**Featuring:**
- H₂S Removal from Biogas - BgPur™
- H₂S Removal from Sour Gas - SgPur™
To request a quote or to learn more, contact us at any of our offices below:

Eco-Tec Inc.
1145 Squires Beach Road
Pickering, Ontario
Canada L1W 3T9
Telephone: (1) 905-427-0077
Fax: (1) 905-427-4477
ecotec@eco-tec.com