



WATER & PROCESS SOLUTIONS

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# Helping Companies Realize Advancement in Human Progress

Purification and Separation Technology Solutions

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**Make *Real*  
Progress.**



The global leader in sustainable separation and purification technologies, Dow Water & Process Solutions is helping organizations worldwide make real progress.

Real progress. Today we can no longer define it by productivity, efficiency or profit alone. As the world faces steep challenges around water, food, energy, climate and health, real progress is as much about what you don't produce as what you do. It's about making a definable difference, in the success of a company, and the vitality of a community. It means improving the quality and lowering the cost of drinking water, elevating opportunities while reducing environmental impact, producing more while using less energy to do it.



Dow Water & Process Solutions is helping companies in every industry, in every corner of the globe make real progress. We're helping make water safer and more accessible, food taste better, pharmaceuticals more effective and industries more efficient. We're deeply committed to developing sustainable, integrated technologies for meeting the world's growing water and energy requirements.

With industry-leading products, extensive expertise and experience in a broad range of water treatment applications, Dow is leading the discussion about critical issues related to water, food, pharmaceutical and energy resources worldwide. And we bring not only tremendous capabilities, but determination to move forward in the best possible direction. We are here to make your real progress our promise.

#### DOW WATER & PROCESS SOLUTIONS IMPACT SITES

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| <p><b>● RESEARCH &amp; DEVELOPMENT</b><br/>           Edina, Minnesota USA<br/>           Spring House, Pennsylvania USA<br/>           Midland, Michigan USA<br/>           Tarragona, Spain<br/>           Shanghai, China<br/>           Huzhou, China<br/>           Sao Paulo, Brazil</p>  | <p><b>■ MANUFACTURING</b><br/> <i>Ion Exchange Resins</i><br/>           Fombio, Italy<br/>           Soma, Japan<br/>           Chauny, France<br/>           Midland, Michigan USA<br/>           Qingpu, China<br/>           Stade, Germany</p>   |
| <p><b>▲ COMMERCIAL OPERATIONS</b><br/>           Sao Paulo, Brazil<br/>           Sydney, Australia<br/>           Kuala Lumpur, Malaysia<br/>           Mumbai, India<br/>           Dubai, UAE<br/>           Johannesburg, South Africa<br/>           Moscow, Russia<br/>           Tokyo, Japan<br/>           Bangkok, Thailand<br/>           Seoul, Korea<br/>           Rheinmuenster, Germany</p> | <p><i>Reverse Osmosis Membranes</i><br/>           Edina, Minnesota USA<br/>           Jubail Industrial City, Kingdom of Saudi Arabia</p> <p><i>Ultrafiltration, Electrodionization, Membrane Bioreactor Modules</i><br/>           Huzhou, China</p> <p><i>Fine Particle Filtration</i><br/>           Menlo Park, California USA</p> |

# Dow has the most complete portfolio in the industry today—and a global presence second to none.

Since the 1940s, Dow has been an innovator in water separation technologies, known for a number of industry firsts—including the world's first spiral-wound membrane technology for water treatment. With the acquisition of Rohm & Haas in 2009, Dow Water & Process Solutions broadened its portfolio even further and became a leader in Reverse Osmosis (RO) and Ion Exchange Resin (IER) technologies worldwide. Dow Water & Process Solutions is the only manufacturer today to offer a complete portfolio of Ultrafiltration (UF) and Reverse Osmosis (RO) membranes, Fine Particle Filtration (FPF), resin technologies and Electrodeionization (EDI) products—and continues to set an industry standard for quality and reliability. And Dow's commitment to research has never been stronger. At the Tarragona Global Water Technology Development Center, for instance, Dow's research is speeding the development of technologies that will help communities worldwide make real progress in meeting growing demand for safer water.

## AN EXTENSIVE RANGE OF LEADING-EDGE TECHNOLOGIES

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### **RO**

#### Reverse Osmosis & Nanofiltration

Dow Water & Process Solutions is a recognized world leader in RO technology, known for DOW FILMTEC™ and FILMTEC ECO elements.

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### **IER**

#### Ion Exchange Resin

We have the widest range of world-class Ion Exchange Resins to meet separation requirements, from softening to ultrapure water generation to trace contaminant removal.

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### **FPF**

#### Fine Particle Filtration

TEQUATIC™ PLUS filters are breaking new ground in the treatment of difficult feedwater, reducing costs for maintenance, labor and consumables, and increasing uptime and water recovery.

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### **UF**

#### Ultrafiltration

The outside-in, hollow fiber configuration of DOW IntegraFlo™ UF modules set the standard for RO pre-treatment, stand-alone drinking water production, and wastewater treatment and reuse.

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### **EDI**

#### Electrodeionization

The distinct spiral-wound design of DOW™ EDI modules offer a chemical-free alternative to mixed-bed Ion Exchange Resins for polishing RO permeate — an ideal choice for high purity water needs when combined with our RO membranes and Ion Exchange Resins.

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### **CA**

#### Catalysts

Dow offers a wide range of catalyst products — from acid and base type catalysts to catalysts for immobilized metals applications.

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### **AB**

#### Adsorbents

DOWEX™ OPTIPORE™ and AMBERLITE™ adsorbent resins' distinct pore structure removes organic solvents from water and impurities from aqueous food.

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### **SM**

#### Selective Media

ADSORBSIA™ titanium-based media provide a convenient and cost-effective option for removing arsenic in drinking water.

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# Advancing human progress, one application at a time.

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## CHEMICAL & PETROCHEMICAL

Innovative polymeric catalysts from Dow Water & Process Solutions help make chemical processing more efficient, and provide a clean, economically competitive alternative to existing large-scale industrial processes.



## INDUSTRIAL WATER

From system design to long-term system optimization and troubleshooting, Dow Water & Process Solutions plays a critical role in helping manufacturers in every industry produce the pure water that advances their operations, while helping reduce waste and improve energy efficiency.



## FOOD & BEVERAGE

From prolonging shelf life to reducing sodium content, to ensuring consistent quality, Dow Water and Process Solutions is helping food and beverage manufacturers produce safer, more nutritious, better tasting products—while capitalizing on market opportunities and addressing global food shortages.



## HEALTHCARE

U.S. Food & Drug Administration compliant resin technology from Dow Water & Process Solutions is integral to the development of today's most promising drugs and therapies—helping medicine taste and work better and driving efficiency in pharmaceutical production. From pills for lowering cholesterol to nicotine lozenges to drug bioprocessing, Dow innovation offers Ion Exchange Resin solutions that help companies improve healthcare worldwide.



## OIL FIELD WATER

With a full portfolio of water technologies, including Ultrafiltration, Reverse Osmosis, Nanofiltration, Ion Exchange, polymeric adsorbents, and Fine Particle Filtration, Dow Water and Process Solutions is helping improve recovery, lower costs and minimize the environmental impact of hydrocarbon production.



## POWER GENERATION

Reverse Osmosis and Ion Exchange Resins technologies from Dow Water & Process Solutions are helping the world's leading energy companies drive down the cost—and environmental footprint—of generating power. Dow water purification components are among the most widely used in the power industry, including oil field water sulfate removal, because of their consistently high quality and reliability.



## MUNICIPAL & DESALINATION

Reverse Osmosis and Ultrafiltration technologies from Dow Water & Process Solutions are improving the efficiency of desalination and other water treatment processes worldwide, making it possible for communities to derive greater quantities of usable water—more cost effectively.



## MINING & HYDROMETALLURGY

Ion Exchange Resins, membrane and processing technologies from Dow Water & Process Solutions facilitate the reuse of water in mining and metallurgy—enabling companies to conserve natural resources. Sustainability has become a key issue in the mining industry today, and water recycling is an integral part of this conservation effort.



## RESIDENTIAL & COMMERCIAL

Reverse Osmosis and Ion Exchange Resins technologies from Dow Water & Process Solutions are helping to meet the growing demand for affordable and versatile solutions for purifying tap water—in homes, restaurants, hotels, car washes, laundromats and other commercial applications. Dow water purification components deliver better quality water with less waste and greater energy efficiency.



## WASTE WATER & REUSE

Separation technologies from Dow Water & Process Solutions are helping to address global water shortages—allowing communities and industries to turn wastewater into a valuable resource through reclamation processes that are energy-efficient and cost effective. Wastewater treated with Dow water purification components recycles water for agriculture and landscape irrigation, groundwater replenishment and industrial processes.

## A long-term partnership with customers.

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From residential to industrial applications, Dow Water & Process Solutions is delivering the game-changing technology that makes possible the next generation of sustainable solutions. Dow has the depth of technical experience — and the breadth of resources — to develop new solutions for customers based on their specific water treatment and process solutions requirements. We evaluate the situation, define the problem and develop viable ways to solve it — applying creative thinking to meet today's, and tomorrow's, challenges.

To learn more about Dow Water & Process Solutions and our extensive product offerings visit [www.dowwaterandprocess.com](http://www.dowwaterandprocess.com)

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