

## Customer Support

Canadian Crystalline has a full-fledged customer support Engineering Division, which looks after the erection, commissioning and servicing of water processing equipment supplied by us. The quick response team attends to any breakdown and other servicing problem immediately with the help of well trained and qualified engineers and technical experts. This makes Canadian Crystalline one of the most reliable and technically competent suppliers of water processing equipment on a turnkey basis in the world.

DART ( Divisional Apex Response Team) which works round the clock for complaints retrieval and follow up. We believe in complete customer satisfaction through our post sales service strategies, for which we implement TOP ( Training of Personal) periodically to meet the customer requirement ensuring " Success by Service".

## Work

Canadian Crystalline research and development wing has worked to design, develop and manufacture complete water treatment and purification systems.

Canadian Crystalline has its full-fledged production units, all the factories are equipped with state of art CAD design engineering section. Our in house tool rooms in all the works are equipped with precise engineering facility to achieve the highest quality of accuracy of all the components manufactured. All fabrication are done with advance tig and orbit welding machines. The works are well supported with conference rooms for constant technical and HRD training of our efficient staff. Great care is taken to see that the customer gets the most reliable and efficient equipments. Our in-house quality control program is very stringent as we are committed to provide quality products and service to enhance customer satisfaction through continual improvement of processes and technologies so as to achieve the highest quality in our production.

## GLOBAL WATER TECHNOLOGY SOLUTIONS

### Worldwide Operations



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## Canadian Crystalline

Canadian Crystalline group of companies was established to bridge the gap between demand and supply of potable drinking and fresh water for industrial and residential purposes. Since its inception in 1972, for four decades it has successfully designed, manufactured and commissioned a number of water treatment plants with indigenous and foreign technology.

Canadian Crystalline advanced research and development wing has developed systems for various applications in prime industries like off shore oil rigs, fertilizers, hospitals, refineries, etc.

water never  
tasted better

## Water Treatment Plants

Conventional water treatment concepts blended with Modern technology is offered by Canadian Crystalline in their Pressure sand filter, Activated carbon filter, Reverse osmosis system, Ultra violet sterilizers, Micron filters, Ozonators, De-Mineralizers, Softener, Iron removal filter, Fluoride removal of plants, Ultra filtration, Nano filtration, Electro De-Ionization and so on.

## Certifications & Approvals

Our Plants have been certified and approved by  
**TUV & BWW**

Our plants and Machinery confirms to:  
**USFDA Guidelines**  
**ECC Guidelines**  
**BIS Guidelines**  
**ABWA Guidelines**



### Containerized Desalination Plants

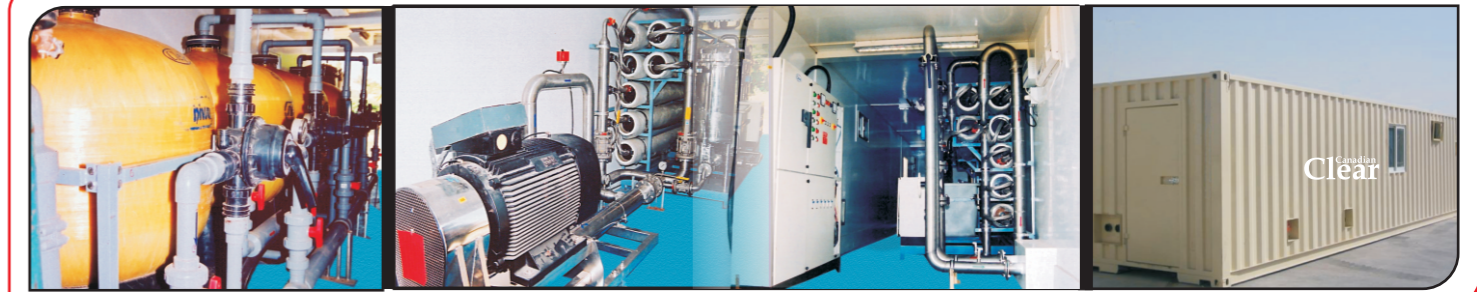
Canadian Crystalline has over the years built specialized containerized brackish water and sea water plants keeping in focus relief agencies, war time army requirements, make shift facilities as well as sea side resorts. Such units are also widely used in off shore oil rigs.

16 Containerized Desalination Plants of 180,000 GPD has been supplied to US Defence by us.

We are executing one of the largest state of art containerized sea water desalination plant producing 75000m<sup>3</sup>/day in the middle east.

### Demineralizers

The system ranges from two-bed demineralizer to mixed bed polishers capable of producing treated water of purity required for any specific application. Water conductivity with less than 0.1 micro siemens can be achieved. Canadian Crystalline offers wide range of de-mineralizers ranging from packaged type units to large custom-built installations. Manual, semi automatic plants are available. The units are supplied with chemical handling, resin regeneration system comprising rubber lined steel vessels and tanks and also rubber lined steel piping with cast iron rubber lined diaphragm valves which ensure fail-safe operation as well as Advance Composite FRP Vessels.



DESALINATION - PRE FILTRATION SYSTEMS

DESALINATION - REVERSE OSMOSIS SYSTEM

CONTAINERIZED DESALINATION PLANTS

### Iron Removal Filters

This filter has been designed by Canadian Crystalline with specific purpose of removing high iron content from water. The iron removal Filter uses mno<sub>2</sub> and Oxidation System to eliminate the presence of iron in water. Sizes ranging from 250lph to 50,000 lph are in the standard production range.

### Chemical Dosers

Mechanical to work on differential pressure on line and electro mechanical metering pump to dose variety of chemicals.

### De-Gasifiers

The custom designed de-gasifiers are used for removal of carbon-di-oxide from cat-ion treated water and de-aerators for removal of all dissolved gases at the final stage of boiler feed treatment. Canadian Crystalline range covers all normal capacities.

### Base Exchange Softeners

Canadian Crystalline range of softeners are from standard packaged-type-skid-mounted and large custom built Installation. Units are available manually controlled or semi or fully automatic. Canadian Crystalline softeners are suitable for treating water for low and medium pressure boilers as well as for process use. The units are perfectly engineered to ensure trouble free and long lasting service with minimum operating and maintenance costs.





### Bottled Water

Canadian Crystalline is one of the largest manufacturer of Bottled water processing equipments. Canadian Crystalline has the wide range of equipments to suit the ever-growing package drinking water industry. The Bottled water processing is specially designed to meet the highest standards of quality and shelf life in accordance with IBWA, ABWA, ECC and BIS guidelines. State of the art Pre-filtration system combined with Reverse osmosis system, Sub micron filter, Ultra violet and Ozonator form an integral part of the Bottled water processing equipments.

### Beverage, Food & Hospitality

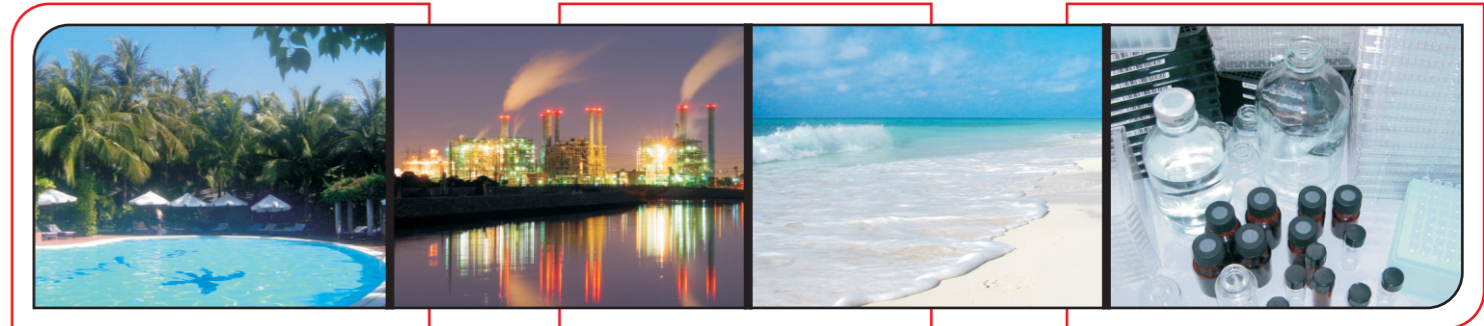
Canadian Crystalline has specially designed process plants to suit the critical needs of the beverages and food industry. Canadian Crystalline has supplied to all leading manufacturers of soft drinks, juices, beer, package snacks, vegetable oil, rice mill and other Agro based industries.

### Swimming Pool Recirculation Plant

Canadian Crystalline also provides water treatment plant for Hotels and Restaurants for their drinking, cooking, bathing and swimming pool water requirements for circulating swimming pool water to make it crystal clear and to the potable standards.

### Power, Cogen & General Industries

Canadian Crystalline has a clear understanding of the requirements of the Power and Cogen industries. Power being the backbone of every city, town & industry, it is important to provide the most efficient solution of process water. Specialized water treatment for boilers and water recovery system from the power plants have been supplied by Canadian Crystalline over the last four decades.



### Textile & Tanneries Paper & Pulp

Canadian Crystalline has wide expertise in meeting the water requirements of the textile and tanning segments. The water rejected from dyeing, spinning and other textile industries are recycled using high end technologies and these require wide expertise in designing and selection of appropriate technology to achieve desired quality.

Canadian Crystalline offers effluent treatment plants for both the textile and tanning industries.

Canadian Crystalline also offers specialized processing plants to achieve zero discharge. The recovered water of trained engineers have installed effluent treatment plants to a number of textile and tanning units throughout the country. Our past experience in handling different kinds of problem in the above industries help us to arrive at the most efficient and economical solution.

Canadian Crystalline uses the most advanced Nano filtration technology combined with RO and Ultra Filtration to achieve the best results in water recovery.

### Townships & Multi Storied Apartments

With ever growing urbanization the demand for quality water is to be met. Canadian Crystalline has its indigenous built water purification system & sewage treatment plants for housing, apartments and commercial complexes. Water treatment demands, including primary, secondary and tertiary are also built with separate treatments system. We offer economical system for builders, developers and architects.

performance  
Profitability  
productivity

### Seawater Desalination

The world has a total of 1.65 billion km<sup>3</sup> of water. However, only 0.3% of the total quantity is theoretically useable as fresh water and only 10% of the quantity, that is 0.03% is capable of economical utilization. Canadian Crystalline has designed the most economical and efficient sea water desalination plants to overcome the need for pure potable water for drinking and for industries. As sea water is in abundance, Canadian Crystalline has driven its R & D to built water treatment plants for sea water desalination with its in-house high efficient maximum recovery RO sea water membranes and high pressure pumps. Canadian Crystalline has executed a large number of sea water desalination plants world wide with option of containerized desalination plants as well as on site plants. Canadian Crystalline specific design team work on the highest engineering standards to ensure trouble free, minimum operation and maintenance cost.

### Chemical, Pharmaceutical, Electronic & Hospitals

Canadian Crystalline has made intensive studies, which has succeeded in understanding and satisfying the needs of the Chemical, Pharmaceuticals and Electronic industry. Ultra Pure Water with conductivity less than 1.5 micro siemens free from pathogens following USP 2627 standards are produced in the specially designed Canadian Crystalline processing plants. Specialized requirements for the manufacturers of semi conductors and integrated circuits are provided by Canadian Crystalline. With the ever-growing demand for process water in the Pharmaceuticals industry Canadian Crystalline incorporated latest technologies like EDI, Ultra Filtration and UV Sterilization to meet the needs of the industry. Canadian Crystalline uses sanitary, orbit welding and follows in-house passivation of all pipeline prior to the system being dispatched to the client. Canadian Crystalline implemented a large number of Chemical, Pharmaceuticals Hospital and Electronic plants throughout the length and breadth of the country.



### Pressure sand Filters (Total suspended solid Removal)

Canadian Crystalline filters provide crystal clear water of turbidity level less than 2 to 3 mg/ltr on silica scale. Horizontal and vertical filters are available in a complete range and sizes from 0.25M<sup>3</sup>/hr to 5000m<sup>3</sup>/hr. Normal filtering medium employed is clean sieved grade quartz and fine sand. For application like iron removal, chlorine reduction special type /filter media are available. The filters are manufactured in SS 316, SS 304, MS FRP as well as FRP Advance Composite. A wide range of chemical dozing equipment is specially designed to meet the specific water quality level. For mineral Water industry special TSS and Absorption Filters are designed to meet the specific water quality level.

### Reverse Osmosis

Canadian Crystalline specializes in reverse osmosis water purification system. The product range has backing from one of the world leaders in reverse osmosis plant with a proven technical background. The reverse osmosis system offered are ideal for treating of raw water carrying over 1500 mg/ltr total dissolved solids to 35000 mg/ltr total dissolved solids. A combination of reverse osmosis/ion exchange demineralising system is the answer for production of high purity water.



PRE FILTRATION SYSTEM

REVERSE OSMOSIS SYSTEMS

UV STERILIZERS & MICRON FILTERS

DOSING SYSTEM & OZONATOR

### Activated Carbon Filter

Canadian Crystalline provides a wide range of Activated Carbon Filters to cater to the need of smell, Odour and Colour Removal. The Activated Carbon Filters also remove chlorine and unwanted gases. Special Activated Carbon is used for removal of pesticides.

### Ultraviolet Water Disinfection System

A variety ranging from 75 lt./hr to 500m<sup>3</sup>/hr. A proven system destroys all germs, virus, bacteria and algae present in the water using Teflon tube technology of DUPONT(U.S.A).

### Ozonators

OZONE is the most powerful commercial oxidant in the world. It has been used primarily as disinfectant for drinking water since the early 1900's. It is also useful for waste water disinfections and malodorous off-gases from wastewater treatment plants. Because ozone must be generated on site for immediate use, this is best done through an ozone generator. The advantage of ozone for commercially treating wastewater is that it destroys bacteria, inhibits algae growth and reduces scaling in problem areas. It has a faster reaction rate than chemicals and only oxidation not chlorination, takes place.

### Micron Filters

The elements manufactured from 100% imported PVDF polypropylene, glass fibre ranging from 30 microns to 0.1 micron.

Micron filters are

- (a) Depth cartridges
- (b) Plated cartridges
- (c) Membrane cartridges.

# could it be easier?

## Achievements

- Canadian Crystalline and its group of companies have installed more than 5000 plants globally over the last four decades.
- Our Chairman and Managing Director has represented the International Bottled Water Association.
- We are approved supplier to all major international brands like **Pepsi and Aquafina, (Pepsi beverages Ltd.), Director's Special, John Exshaw, (Shaw Wallace and Co. Ltd.), Fosters, Haywards, Royal Challenge (SAB Miller) King Fisher and Mc Dowell's No.1 (United Breweries Ltd.,).**
- We are the largest manufacturers of Processing, Packaging and Pet blowing machines in the Indian sub - continent exporting to more than 40 countries.
- The first ABWA approved plant "SABOLS" was supplied, installed and commissioned by us.
- We are the approved suppliers to all leading pharmaceutical companies for USP 26 27 Standard Plants (e.g. Johnson & Johnson limited).
- Asia's largest packaged drinking water plant with capacity of 50m<sup>3</sup>/hr has been supplied, installed and commissioned by us.
- 16 Containerized Desalination Plants of 180,000 GPD has been supplied to US Defence by us.
- We are executing one of the largest state of art containerized sea water desalination plant producing 75000m<sup>3</sup>/day in the middle east.
- Our company has received a pioneer certificate from the Chairman & Managing Director of Pepsi co Holdings Pvt. Ltd., for world debut of Aquafina bulk water.
- 15 MLD - Two Pass Ro Sea Water Desalination Plant Supplied and Installed in Egypt by us.
- 20 MLD Sea Water Desalination Plant in Iraq.
- 3 MLD Three Pass RO Sea Water Desalination Plant in Oman.

