## **OUR OFFICES IN INDIA & GLOBAL**

## CANADIAN CRYSTALLINE WATER INDIA LTD

Waste Water Treatment

Ultra Filt

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# BREWERY





Acute shortage of water which mankind faces today is due to rampant pollution and extravagant use. Treating water with care to meet the quality requirement is the need of the hour. We at **Canadian Crystalline Water India Ltd.**, remove pollutants from waste water, recycle and recover the other valuable products for reuse, reducing waste and pollution, in short, protecting the environment.

## **Canadian Crystalline**

We introduce ourselves as one of the leading solution provider for Waste Water Treatment and since 1972, with 4 decades of experience in the field of Water Treatment.

We specialize in Effluent Treatment Plants and have successfully supplied projects of various sizes in India and globally.

The above projects have been covered in various industries like Textile, Tanneries, Beverages, Sugar Mills, Refineries, Automobiles

Pharmaceuticals, Hotels and Resorts etc., globally. Our successful history for the past 40 years speaks about our Technical Strength.

Canadian Crystalline has global operation with channel partners and own establishments over 42 countries worldwide. Canadian Crystalline is a reputed name among the industrial water users for the past four decades. A pioneer in the field, our company is one of te very few in he world with a complete range of wastewater and treatment technologies. Our position of strength has been attained by our focus on technological advancement through continuous research and development.

The company has a full-fledged R&D center where our engineer's work on new product design, development, as well as up gradation of existing ones and indigenization of foreign technologies obtained through collaborations. Our international business division contributes a major share of the company's sales turn over. The company has established offices in Dubai, UAE as well as in the USA and China to take care of regional support.

Canadian Crystalline is the company, which provides a complete solutions for Effluent Treatment, recycling and zero discharge.

## **OUR CERTIFICATIONS AND APPROVALS**

1. CLRI a Govt.of.India organization 2.NEERI 3.TERI 4.Anna University 5. Sugar cane research institute 6.IIT Madras

Canadian Crystalline offers innovative technological solution for achieving 'Zero Discharge' and efficient water recovery for reuse. We offer complete 'Turnkey Solutions' for "Effluent management" as below :

Effluent Treatment b) Effluent Re-Cycling a) Reject Management d) Waste Recovery C)

With an effective "Research & Development", we have concluded that we require a combination of technologies to achieve effective "Waste Water Treatment" by implementing high end technologies.

#### NIL SLUDGE NIL CHEMICAL TECHNOLOGY

**Textile: Ozonisation - CPR** 

Canadian Crystalline is a master in Textile Dyeing Effluent Treatment Solutions. Our Patent marked technology of ozonisation with CPR has been creating ripples in the industry for the past two decades. The effectiveness of this technology results in efficient effluent treatment and water reuse.





**AERIAL VIEW OF FACTORY** 



#### **Ozonisation - MBR**

We have also implemented ozonisation with MBR for the segments of Tannery, Dyeing and other industrial effluent treatment solutions. As all these technologies reduces the foot print of the area required for constructing the plant and does not use any chemical addition and thus does not create sludge.

Worldwide research in advanced oxidation and utilization of the technology is a challenge. Canadian Crystalline is an active participant and an efficient equipment manufacturer in supporting the technologies.

## MBR INTRODUCTION

The membrane bioreactor (MBR) is a recent but increasingly utilized technology for treating municipal and high organic industrial wastewater by combining the highly efficient separation technology of hollow fiber membranes with a compact activated sludge process. Although the technical application of the aerobic MBR process can be traced back 1970's, it has only become widely used commercially in the realm of wastewater treatment in the past 10 years.

The liquid solid separation by membrane replaces the conventional settling process and effectively removes suspended and organic solids producing bacteria free water. MBR allows for the activated sludge to be maintained at much higher levels of mixed liquor suspended solids (MLSS) than conventional systems and because of the membrane interface, bacteria are retained longer within the activated sludge enhancing the decomposition of the organic matter.

MBR is a modern, highly effective water treatment system that can deal with the ever increasing demands of municipal wastewater quality and increasing treatment volumes.

CANADIAN CRYSTALLINE'S MBR is easy to operate, automatic, modular based treatment process, delivering the following benefits

- Allows 50% footprint saving over conventional treatment systems a)
- Copes with high MLSS (<15g/L) & long sludge retention time (<60 days) b)
- Consistent effluent quality with varying influent conditions c)
- 40% less sludge production and reduced disposal costs d)
- e) f)

#### **ULTRA FILTRATION (UF)**

Ultra filtration (UF) is a variety of membrane filtration in which hydrostatic pressure forces a liquid against a semi permeable membrane. Suspended solids and solutes of high molecular weight are retained, while water and low molecular weight solutes pass through the membrane. This separation process is used in industry and research for purifying and concentrating macromolecular (103-106 Da)solutions, especially protein solutions

## **MICROFILTRATION**

microporous membrane

#### **SAFE DRINKING WATER**

Micro porous membranes are used by the micro-electronics industry as an integral part of water production. Membrane filters are widely used in biotechnology and food and beverage applications where sterile product is required.

#### **DISSOLVED AIR FLOTATION (DAF)**

Dissolved air flotation (DAF) is a water treatment process that clarifies wastewaters (or other waters) by the removal of suspended matter such as oil or solids. The removal is achieved by dissolving air in the water or wastewater under pressure and then releasing the air at atmospheric pressure in a flotation tank or basin. The released air forms tiny bubbles which adhere to the suspended matter causing the suspended matter to float to the surface of the water where it may then be removed by a skimming device.[1][2][3]

Dissolved air flotation is very widely used in treating the industrial wastewater effluents form oil refineries, petrochemical and chemical plants, natural gas processing plants and similar industrial facilities.

#### CLARIFLOCCULATOR

Clariflocculator is the most used sedimentation process equipment for raw water treatment. It is a time tested and dependable equipment of produce consistent quality of supernatant, but occupies large plan area. Therefore, Clariflocculator these days losing preference as sedimentation equipment for populated cities where land prices are escalating.

Low energy consumption, simple membrane cleaning allows low operations cost

CANADIAN CRYSTALLINE enables to offer a value engineered solutions

Microfiltration is a filtration process which removes contaminants from a fluid (liquid & gas) by passage through a