



Equipment Overview

Model	Capacity (m ³ /day)	Power (kw)
ECFOP - 25	25	5
ECFOP - 50	50	10
ECFOP - 75	75	15
ECFOP - 100	100	20
ECFOP - 150	150	30
ECFOP - 200	200	40
ECFOP - 500	500	90
ECFOP - 1000	1000	180

CANADIAN CRYSTALLINE WATER INDIA LTD

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ELECTRO - CAVITATIVE FLOCCULATION OXIDATION PROCESS



48 Years of
Complete Solutions Of Waste Water Treatments



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.

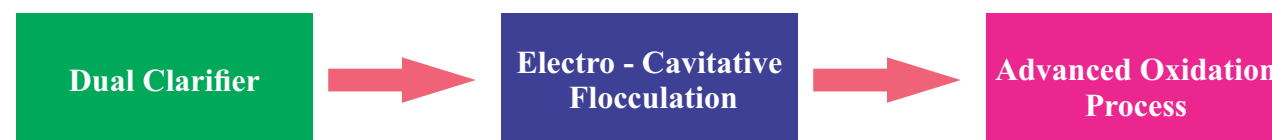
We specialize in effluent treatment plants and have successfully supplied projects of various sizes in India and globally. The above projects have been covered in various industries like Textile, Tanneries, Beverages, Sugar Mills, Refineries, Automobile, Pharmaceuticals, Hotels, Resorts, etc., globally. Our successfully history for past 40years speaks about our technical strength.

Canadian Crystalline has global operation with channel partners and own establishments over 42 countries World wide. Canadian Crystalline is a reputed name among the industrial water user s for the past four decades. A pioneer in the field, our company is one of the very few in the world with a complete range of waste water 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 USA and China to take care of regional support.

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

Innovation & Technology

World has entered into a new era where sustainability is the main factor to encounter the Challenges of depletion of our reserves and environmental upsets. Biological and chemical treatments of wastewater are usually associated with the production of green house gases and activated sludge along with some other limitations regarding required area and removal of residual chemicals respectively. On the other hand, ECFOP is an extremely effective wastewater treatment system for removing various pollutants.



Dual clarifier systems are designed to remove suspended solids (TSS), biochemical oxygen demand (BOD5), and oils and greases (O&G) from a wastewater stream. Contaminants are removed through the use of a dissolved air-in-water solution produced by injecting air under pressure into a recycle stream of clarified effluent. This recycle stream is then combined and mixed with incoming wastewater in an internal contact chamber where the dissolved air comes out of solution in the form of micron-sized bubbles that attach to the contaminants. The bubbles and contaminants rise to the surface and form a floating bed of material that is removed by a surface skimmer into an internal hopper for further handling.

Benefits

- Alternative to sedimentation
- Particles attach to air bubbles
- Best for removing low density flocs
- Uses small tanks with high hydraulic loading rate and low retention time of 10 minutes.



Electro - Cavitative Flocculation

Our research and development wing has committed and dedicated to finding a solution with an infusion of large investments of money, human resources and Research and Development we have developed the state of art "SS Aluminium-Titanium Nano-Electrodes.

Electrodes are durable and highly efficient as they increase the efficiency in treatment of wastewater. This helps reduce the energy required for **Electro Cavitative flocculation**. This state of art technology makes this system (CC-EMC-HY series) 24X more efficient than any other waste water technology.



In addition to this innovative technology ionized air bubbles in the nanometer range (Nano-Bubble) are created using high pressure. These Nano-bubbles speed up the cavitation of substances in the waste water. This way we are able to increase the potency required for continuous electro cavitation which can treat higher volumes of waste water.

Factors Influencing

Features

- Design construction parameters like size and shape.
- Technological process parameters like liquid flow rate, pressure.
- Properties of investigated system like density, surface tension, viscosity of liquid.



Benefits

- Simple equipment
- Requires Small area
- Ease of operation
- Reduced production of sludge

We can add AOP for further reduction of residual COD, odour, color, etc..in waste water treatment plant like Pome effluent, polymer industries, agro chemical industries ect.....

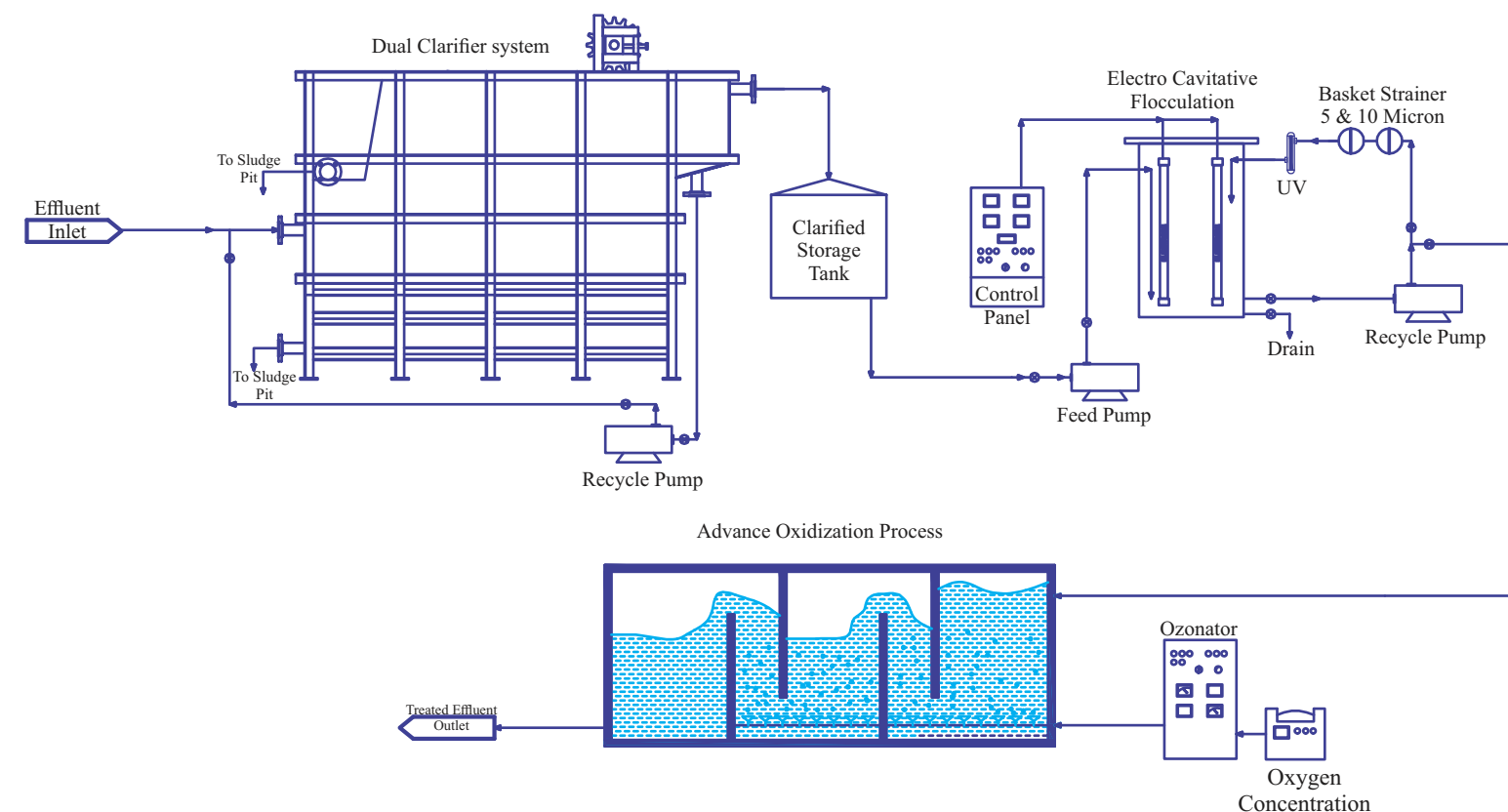
Advanced Oxidation Process

Applications

- Pulp and paper industry
- Palm oil Effluent
- Textile industries
- Mining and metal-processing industries
- Water containing food waste
- Oily wastes
- Waste dyes
- Domestic wastewater
- Dairy waste water
- Agro chemical waste

- A lower demand of Ozone is sufficient.
- No import duty as well as localized availability of spare parts at any given time.
- Skid mounted and Plug & Play type.
- Available in both air cooled and water cooled models.
- Power guarantee is not more than 7.5 – 8KW per kg of Ozone. Compare to the other system which use above 4KW upto 15KW per kg of Ozone

Sample Process Flow For Pome



The infeed is considered to be treated water of aerobic or anaerobic process.

Treated Potent Industrial Pollutants

- Arsenic
- Sulfates
- TDS
- COD
- Algae
- Mercury
- Lead
- Oil/Fat
- Aluminum / Aluminum Salts
- Petrol Wastes
- Color
- Phenols
- Zinc
- Microbial and dangerous medical wastes
- Cobalt
- Phosphates
- Nitrates
- TSS
- BOD
- Aliphatic hydrocarbons