

**SINCE 2010**



# **REAL-IONS TECHNOLOGIES**

**LEADER IN PROJECT ENGINEERING &  
MANUFACTURING SERVICES FROM  
CONCEPT TO COMMISSIONING**

**SUGAR PLANT AND EQUIPMENTS**

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# ABOUT US

“Real-IONS Technology” is an organization offering Project Engineering and Manufacturing Services covering a wide spectrum of industries. It was conceptualized to bridge a gap in this segment of the engineering industry and has adopted a position of trying to bring around a Single Point Responsibility for all kinds of projects.

Right from its inception, the company adhered to develop own technology, and has become one of the leader Project Engineering and Manufacturing Services.

## WHY CHOOSE US ?

“Real-IONS Technologies” is the one stop shop for all yours projects needs:

- i. We believe in long-term relationship, that customer delights can be achieved only through begin focused on what you know best.
- ii. We are always up-to-date with new developments in the industry.
- iii. A dedicated highly qualified team understands the issues in the industry, the current economics guiding the changing trends. This know-how assists us in discussing career paths and selecting suitable candidates.





# WHAT WE DO?

## SCOPE OF SERVICES

- Adhere to high standards of ethics and integrity.
- Work safely and remain responsive to environmental principles.
- Make continuous improvement an integral part of the way we operate.
- Attract, develop, motivate and retain highly competent, committed and creative people.
- Reward those contributing to our success.



### PROJECT ENGINEERING



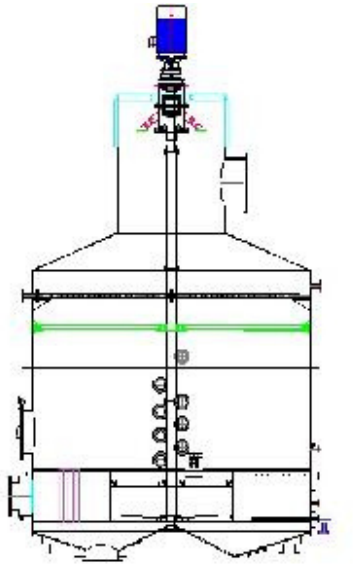
### MANUFACTURING SERVICES



### ERECTION & COMMISSIONING



# SUGAR PLANT EQUIPMENTS



## PAN CIRCULATORS

Mechanical Pan Circulators are used in the Sugar industry to enhance the efficiency of the crystallization process. They can be used for A, B and C massecuites. Mechanical Circulator for vacuum pans reduces boiling time, sugar color and increases pan yield. It boosts the heat transfer efficiency by inducing a higher rate of heat transfer and evaporation. With an increase in heat transfer co-efficient, the strike time reduces up to 30%, which in turn increases the production capacity of the unit.



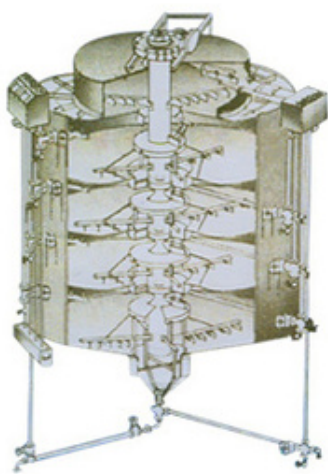
## MAGMA MIXER

Where crystal and liquid are mixed together. When massecuite is to be double cured or even single cured (in case of low grade massecuite), the centrifuged sugar is to be mixed with syrup or clarified juice or hot water to form a magma. The magma preparation is generally done in magma mixers. These mixers are double paddle type with drive under centrifugal machines help in well mixing of sugar with diluting liquid. The arm shall be strong enough to brake the lumps of sugar and mix well with liquid.



## CHAIN CONVEYOR

Chain conveyors are primarily used to transport heavy unit loads, e.g., pallets, grid boxes, and industrial containers. These conveyors can be single or double chain strand in configuration. The load is positioned on the chains, and the friction pulls the load forward. Chain conveyors are generally easy to install and have minimal maintenance for users.



## JUICE CLARIFIER

A clarifier is used to separate out the solids suspended in the cane juice. These solids originate from sand adhering to the cane stalks as well as from material inherent in the cane stalk. The separation takes place by allowing the solid particles to settle out onto a tray. The solids are swept from the tray into a mud compartment, from which it is pumped to filters for de-sweetening and dewatering.



## MOLASSES STORAGE TANK

Molasses Storage Tanks are large containers designed to hold molasses, a thick, dark syrup created during sugar production. These tanks are typically made of durable materials like steel or concrete to withstand the weight and density of molasses. They provide several benefits, including efficient storage of molasses for industrial use and ensuring a steady supply for various applications like food production and fermentation processes.



## EVAPORATORS / LIME TANK

The Evaporative Tank patented by Poly Products is the ideal solution for wastewater reduction. It is free of complicated machinery and chemistry and was originally developed as a cost-saving means of recovering valuable drag-out but is now the go-to solution for many wastewater reduction projects. Our plating customers have doubled their benefits by using the Evaporative Tank for E.P.A. compliance and discovering dramatic savings in their waste treatment costs.



## VACUUM CRYSTALLIZER

Vacuum crystallization is a process where the pressure inside a crystallizer is reduced to below atmospheric levels to induce crystallization. By lowering the pressure, the boiling point of the solvent decreases, allowing the solution to evaporate at lower temperatures.

This technology is ideal for handling heat-sensitive materials and ensuring high-purity crystal production. Industries requiring precision and efficiency often rely on this method.



## DISTILLATION COLUMN

We are Designing and fabricating Distillation Column as per client's requirements. We are having expertise to design packed bed column as well tray type columns Let us know your requirement our Mass transfer experts will design it for you.





## FERMENTATION TANK

A Fermenter is a device that is used to carry out the fermentation process utilizing micro-organisms, which is why it is also known as a “Fermenter or Bio-reactor.” It contains all of the components required for the commercial synthesis of compounds such as antibiotics, enzymes, and drinks in a variety of sectors.



## REBOILER / HEAT EXCHANGER

The re-boiler, as the name implies, is a device used to replenish the heat lost by a process commodity. It is natural that during the refining process commodities will lose heat. In many cases, lower temperature means less efficiency and productivity.



## PROCESS VESSELS

A process vessel is a tank or container designed and equipped with the controls and accessories to complete a sub-process as part of an overall process. The material that the process vessel is made of, as well as its accessories and controls, depend on its intended use.

Blending, separation, cooling, purification and changing a material's state are just some of the processes carried out in a process vessel. A process vessel may be connected to the previous or next processes horizontally or vertically.



## DECANTERS



Real-Ions decanter centrifuges help you separate solids from liquids within one single continuous process. Stand out from the competition with high performance separation that results in extracted / clarified products of excellent quality and higher commercial value. Make a difference as you recover valuable raw materials, reduce energy consumption and lower footprint and waste management costs with our industrial decanter centrifuge machines and services.



## ZLD PLANT

Zero Liquid Discharge (ZLD) is a classification of water treatment processes intended to reduce wastewater efficiently and produce clean water that is suitable for reuse (e.g., irrigation). ZLD systems employ wastewater treatment technologies and desalination to purify and recycle virtually all wastewater received.





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