# SAR Chem-Tech Solution



## Efficiency Engineered – From Process to Project Delivery.

- **Process Design**
- **Construction**
- **Basic & Details Engineering**
- **Project Management**
- **Waste Heat Recovery**
- **Turnkey Solutions**

## Right Solutions For All Your Process Needs





# About SAR Chem-Tech

At SAR, we are pioneers in providing cutting-edge machinery and construction solutions for the biofuel industry. With over a decade of experience and a team of seasoned experts, we have Successfully built and delivered more than 12 state-of-the-art biofuel factories worldwide.

Our objective is to offer reliable and cost effective Engineering solutions systems to Chemical and allied industries mainly in the area of Heat and Mass Transfer Separation operations.

**BIOETHANOL PLANTS**

**POTABLE ALCOHOL PLANTS**

**INDUSTRIAL ALCOHOL PLANTS**

# SERVICES

## PROCESS DESIGN

SAR provides process design and basic engineering packages for various open art process units, including Solvent Recovery Units, Distillation Systems, Evaporation Systems, Extraction Systems, and more.



## CONSTRUCTION

Our experienced construction team handles the entire process of building biofuel factories, from site preparation to equipment installation, ensuring timely completion and adherence to the highest quality standards.

## BASIC AND DETAIL ENGINEERING

We excel in developing comprehensive engineering packages, from conceptual design to basic and detailed engineering, including safety studies, ensuring the success and efficiency of each project.





# SERVICES

## PROJECT MANAGEMENT

Our experienced team handles all aspects of project management, from conceptual planning to commissioning, ensuring seamless execution, adherence to schedules, and efficient budget management.

## REVAMPING SERVICE

SAR offers integrated inspection, heat treating, maintenance, repair, and asset integrity management solutions for equipment such as Distillation Units, Heat Exchangers, Piping, Cooling Towers, and more, ensuring optimal performance and longevity.

## WASTE HEAT RECOVERY

We specialize in waste heat recovery solutions, utilizing various commercial recovery units such as Recuperators, Regenerators, Heat Pipe Exchangers, Economizers, Heat Pumps, and more to harness waste heat for energy efficiency and reduced fuel consumption.

## TURNKEY SOLUTIONS

We excel in developing comprehensive engineering packages, from conceptual design to basic and detailed engineering, including safety studies, ensuring the success and efficiency of each project.

# FEATURES

## FEEDSTOCK DIVERSITY

SAR stands as a premier industry leader, continuously pursuing innovation and pioneering advancements. We were among the earliest to possess the expertise and capability to furnish systems compatible with a comprehensive range of raw materials, including Cane molasses, cane juice, cane syrup, and Grains (wheat, rice, sorghum, corn, bajra).

## FERMENTATION SYSTEM

**Maximized Yield:** Our fermentation system ensures yield with the highest alcohol maximum concentration in fermented wash.

**Reduced By-products:** Minimized occurrence of fermentation by-products due to specialized designs facilitating enhanced interaction between yeast and fermented sugar.

**Optimized Design:** Pre-clarification post-clarification processes for cane molasses optimization, multi-feed fermentation module, and yeast recycling for heightened productivity.

## DISTILLATION SYSTEM

**Enhanced Quality:** Equipped with state-of-the-art apparatus, our distillation plants ensure enhanced alcohol quality through improved impurity removal.

**Operational Efficiency:** Multi-pressure distillation systems operating under vacuum and low temperatures to avoid scale formation, resulting in improved steam economy and reduced impure spirit production.

**Zero Discharge:** Integrated evaporator for substantial reduction of spent wash volume, ensuring minimal effluent quantity and optimized utility consumption.

**Cattle Feed:** Distillers Dried Grains with Solubles (DDGS), a by-product obtained from grain distillation, is utilized as cattle feed, rendering the distillery a zero-discharge facility.

## ZERO DISCHARGE SOLUTIONS

**Wastewater Management:** Customized solutions for wastewater management, ensuring zero discharge through large evaporators for Vinasse/cane molasses spent wash concentration.

**Operating Efficiency:** Thermo vapor recompression to reduce steam consumption, efficient scrubbing of exhaust gases, and heat recovery from exhaust gases to reduce fuel consumption in the dryer.

**Optimal Thermal Efficiency:** System designed for optimal thermal efficiency and devoid of fouling nuisances, with proper temperature selection for dryers to minimize operating costs and ensure product dryness.





# WHY CHOOSE US?

## EXPERTISE

With over a decade of experience in the industry, SAR boasts a team of seasoned professionals who are experts in their respective fields. From engineers to technicians, our our staff brings unparalleled knowledge and skill to every project.

## QUALITY ASSURANCE

At SAR, quality is non-negotiable. We adhere to stringent quality control measures to ensure that every product and project meets the highest standards of excellence. From meticulous design planning to rigorous testing and inspection, we leave no stone unturned in our quest for perfection. Our unwavering commitment to quality assurance instills confidence in our clients, guaranteeing reliable and long-lasting solutions that stand the test of time.

## INNOVATION

At SAR, innovation is ingrained in our DNA. We stay ahead of the curve by embracing the latest technological advancements and industry best practices. Our relentless pursuit of innovation drives us to constantly explore new ideas and methodologies, ensuring that our clients benefit from cutting-edge solutions that deliver unmatched performance and efficiency.

## SUSTAINABILITY

Environmental responsibility is at the core of everything we do. SAR is deeply committed to promoting sustainability and mitigating environmental impact through our engineering solutions. From optimizing energy efficiency to implementing eco-friendly practices, we prioritize sustainability at every stage of our projects. By choosing SAR tech, you not only invest in high-quality engineering services but also contribute to a greener, more sustainable future for generations to come.

# OUR CLIENTS

Godrej

WE CAPTURE WHAT MOVES
MANE
KANCOR

DEEPAK NOVOCHEM TECHNOLOGIES LIMITED

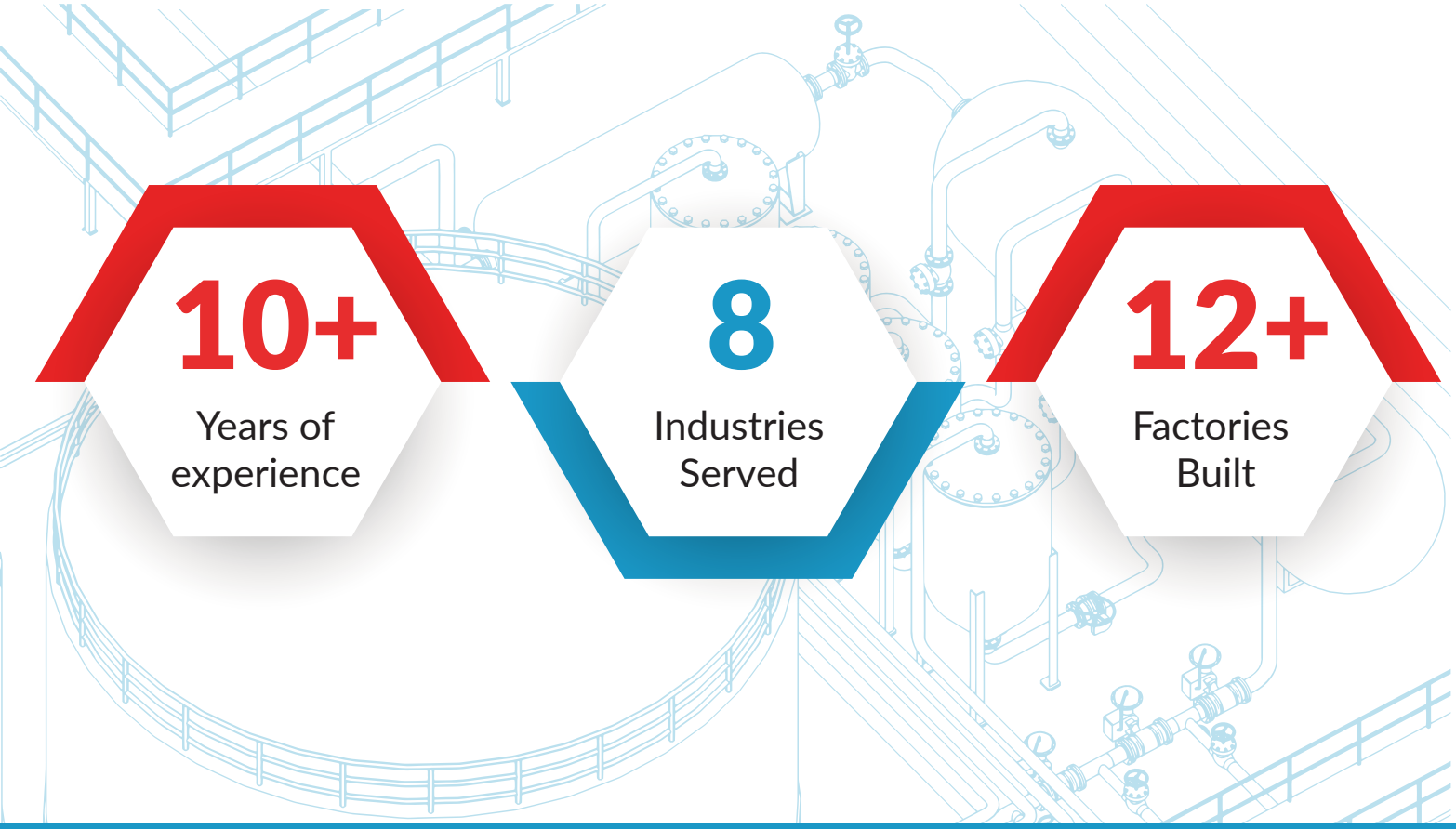
ALKYL

Deepak Fertilizers and Petrochemicals Corpn Ltd

TIRUMALAGRO ETHENOL LLP



# SAR Chem-Tech Solution



**10+**
Years of experience

**8**
Industries Served

**12+**
Factories Built

Ready to embark on your next project with SAR tech? Get in touch with us today to discuss your requirements and discover how our expertise can transform your vision into reality.


## SAR Chem-Tech Solutions

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