

Est. 1976

**Shrijee Process Engineering Works Ltd.
(INDIA)**

SHRIJEE GLOBAL CLIENTELE



SHRIJEE CLIENTS

- Bajaj Hindusthan (India)
- Balrampur Chini Mills (India)
- Bannari Amman Sugars (India)
- Sri Renuka Sugars (India)
- Kaset Thai Sugar (Thailand)
- KSL Group (Thailand)
- Mitr Phol Sugars (Thailand)
- PT Dharpala Usaha (Indonesia)
- PT PG Gorontalo (Indonesia)
- PT. Kebon Agung (Indonesia)
- Nagarjuna International (Vietnam)
- Gia Lai Sugars (Vietnam)
- Quang Ngai Sugar (Vietnam)
- Fiji Sugar Corporation (Fiji)
- Fincha Sugar (Ethiopia)
- West Kenya Sugar (Kenya)
- Uganda Sugar Corporation (Uganda)
- Bua International (Nigeria)
- Mtibwa Sugars (Tanzania)
- SPA Sora Sucre (Algeria)

AND MANY MORE

SHRIJEE GROUP

- Shrijee was established at Mumbai (India) in 1976 as a sugar machinery manufacturer and has today supplied sugar equipment to more than 25 countries world-wide
- Shrijee is fully equipped to execute Turn-Key Sugar Plants from concept to commissioning of upto 15,000 TCD capacity. Starting from detailed engineering, design, fabrication, installation and commissioning
- The corporate Headquarters of Shrijee is in Mumbai with Regional offices in Ahmednagar, Delhi and Chennai (India)
- To facilitate catering to clients in different regions, Shrijee has four fully equipped manufacturing facilities at Ahmednagar and Chennai, with a central design office at Ahmednagar.

SHRIJEE CORE STRENGTH

- Highly motivated, committed, qualified and experienced team of technologists and Engineers
- Well-equipped design facility, manned by qualified and experienced personnel
- Adequate knowledge and updated understanding of National and International Standards for design, manufacture, quality control and testing systems for equipment
- Excellent Project Management skills for handling projects of any size and to complete the project in time to the entire satisfaction of clients
- Equally competent and capable associates of repute in the industry for outsourced equipment and services

AWARDS

- Lifetime Achievement Award to the Chairman Mr. G D Agarwal, by Sugar Technologists Association of India
- EEPC Award for Export Excellence for the years 2010, 2009, 1998, 1997 and 1990
- Award for Export Excellence from Government of Maharashtra for the years 2009 and 2008
- Recognized as Export House by Government of India
- Best Innovative Equipment Manufacturer Award from Bharatia Sugar Journal for 2004

Shrijee is fully equipped to supply all Milling Section equipment such as -

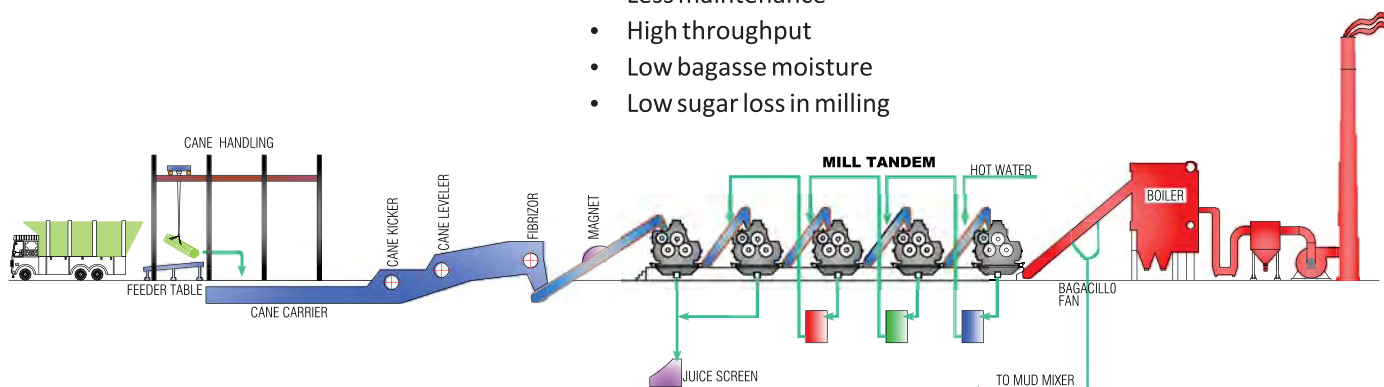
- Sugarcane Handling Systems
- Sugarcane Feeding and Preparatory devices
- Mill Tandem of different configurations to suit the performance requirements
- Different mill-drive systems such as Planetary Gears, AC Drives and VFD
- Juice screening equipment such as Rotary Screens, DSM Screens etc.
- Bagasse conveying and handling systems

PRODUCT FEATURES

- Robust heavy-duty housing
- Pin-type construction for easy assembling and dismantling
- Suitability of cane feed with Dounely Chute

ADVANTAGES

- Low power consumption
- Less re-absorption
- High Mill extraction with low operational cost
- Less maintenance
- High throughput
- Low bagasse moisture
- Low sugar loss in milling



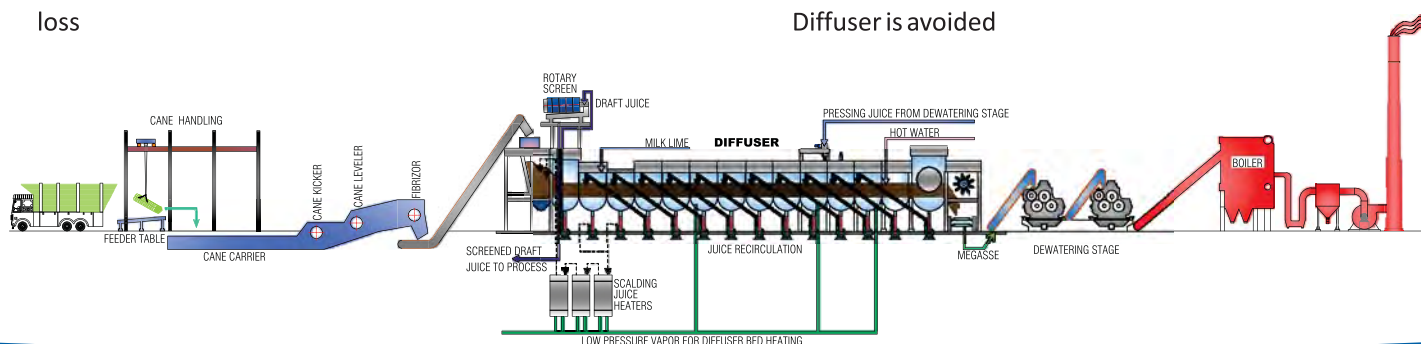
DIFFUSER

A proven high quality power-saving alternative equipment for juice extraction from Sugarcane or Beet. Shrijee is equipped to design, manufacture and install Diffusers (Cane Diffuser or Bagasse Diffuser) as per client requirement. A counter current flow of imbibition water over a moving bed of cane/ bagasse, with continuous recirculation of extracted juice ensures maximum juice extraction.

ADVANTAGES

- High Juice extraction of 97.50% to 98%
- Clarifier underflow muddy juice can be re-circulated to diffuser. Hence no vacuum filter is required and no sugar loss

- No bacterial contamination due to high operating temperature viz. 80°C to 85°C
- Auto pH control system avoids inversion losses
- Less suspended solid load to the clarifier
- High quality of clear juice
- Lesser power consumption compared to milling tandem
- Can be installed in open air and hence saving building costs
- Steam saving since temperature of diffuser juice outlet is high before treatment
- Lifting screws arrangement facilitates loosening of cane bed to increase percolation of juice, so that flooding in the Diffuser is avoided

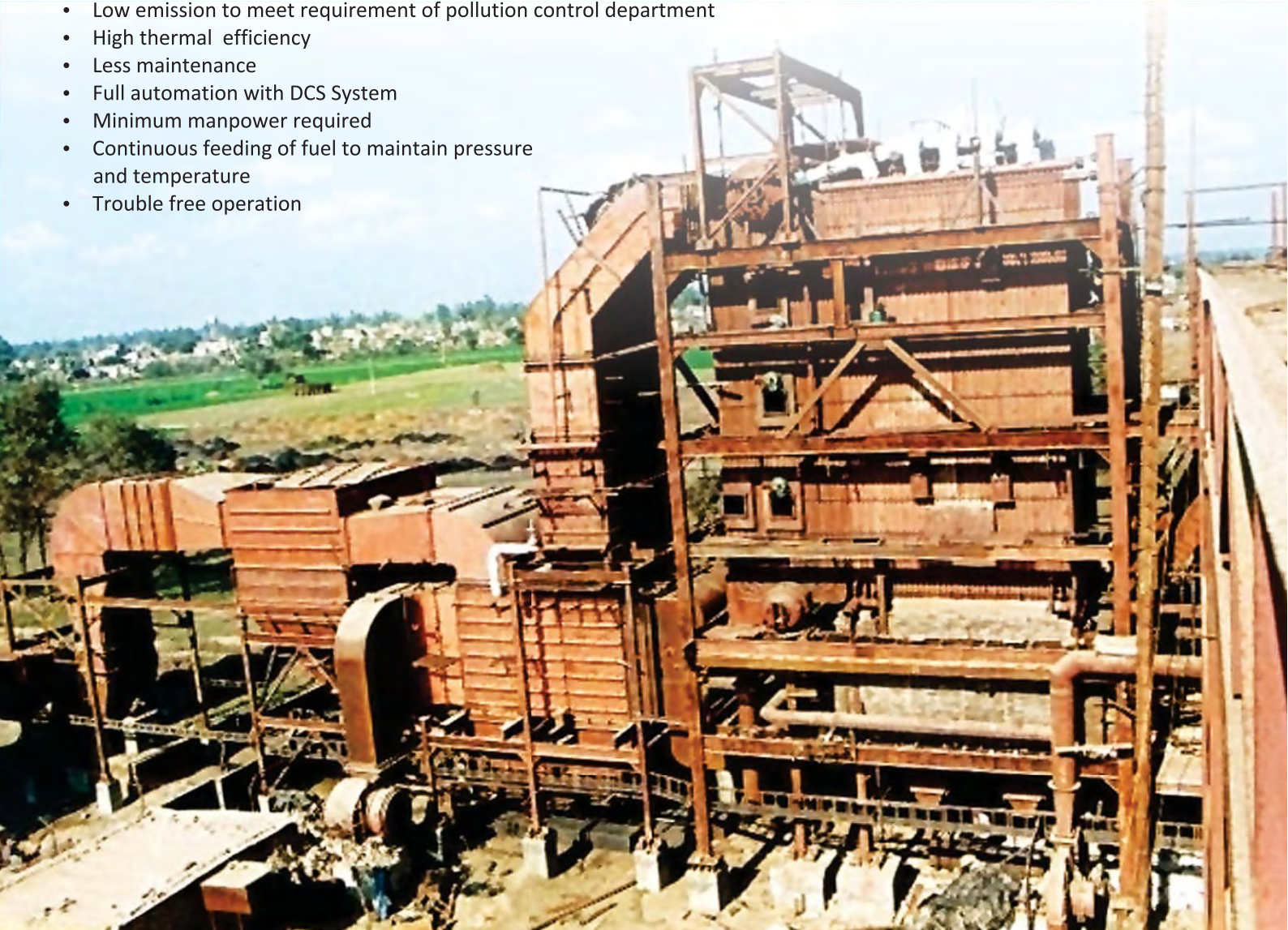


BOILER

Shrijee is capable of supplying, installing & commissioning boiler suitable for multi-fuels such as bagasse, other bio-mass, coal, oil & gas. Single/bi-drum boilers ranging in capacity from 20 t/hr to 200 t/hr steam generation at a pressure of upto 110 kg/cm² and temperature 530°C. Boiler is equipped with modern furnaces i.e. travelling grate, dumping grate and fluidized bed construction.

FEATURES

- Suitable for multi-fuels
- Low emission to meet requirement of pollution control department
- High thermal efficiency
- Less maintenance
- Full automation with DCS System
- Minimum manpower required
- Continuous feeding of fuel to maintain pressure and temperature
- Trouble free operation



CO-GENERATION

Sugar Industry is the only industry which utilizes all its waste and is an assured source of renewable energy. Recognizing this, Shrijee took to the cause of producing energy from bagasse based cogeneration power plants of up to 50MW capacity. Today, with high pressure Boilers - as high as 140 ATA and advanced systems of controls, Shrijee is a supplier of integrated cogeneration power plants in sugar industry which can generate surplus power utilizing bagasse and this power can be exported to the power grid. Such co-generation facilities across sugar cane factories have successfully supplemented the energy needs of the consumer.

Shrijee has developed energy conservation measures at every energy consumption point i.e. power & steam. We have developed power & steam saving units/measures in all the sections of the sugar factory (milling, boilers & process house), thereby the power generation & quantum of export has improved.

PROCESS HOUSE

Shrijee is today a company of high repute in process house manufacturing as it has supplied Turnkey Process Houses world-wide-

HIGHLIGHTS

- Shrijee has supplied and installed more than 30 process houses ranging in capacity 2,500 TCD – 15,000 TCD
- Shrijee has manufactured & supplied India's biggest process house of 15,000 TCD on turnkey basis for Bajaj Hindustan Ltd.
- In 1992 Shrijee was the pioneer in developing Continuous Vacuum Pan in India and has today supplied more than 200 units world-wide
- Shrijee has introduced several innovative and advanced process house equipment with an eye on thermal and electrical energy saving
- SHRIJEE has supplied Process Houses for Raw Sugar, Plantation White Sugar and Refinery With Process Steam Consumption of 30%, 32% and 37% respectively



SPECIALITY EQUIPMENT

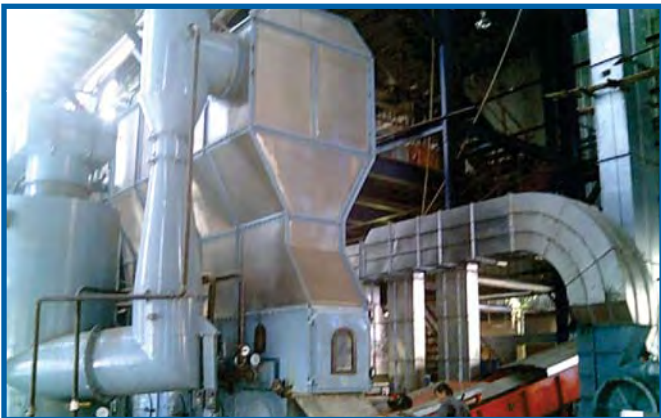
- Direct Contact Heater (Capacity Range – 50m³/hr to 500m³/hr)
- Duplex Heat Exchanger (Heating Surface 100m² to 600m²)
- Short Retention Time Clarifier (Suitable for 1,250 TCD to 10,000 TCD)
- Syrup Clarification System & Filtrate Clarification System (Suitable for capacity 1,250 TCD to 10,000 TCD)



Falling Film Evaporator (Heating Surface 500m² to 6,000m²)



Continuous Vacuum Pan (Capacity Range 15 tons/hr to 150 tons/hr for High & Low Grade Masseccuite)



Fluidized Bed Sugar Drier (Capacity 10 tons/hr to 60 tons/hr)



Rotary Sugar Drier (Capacity 10 tons/hr to 60 tons/hr)

SUGAR REFINERY

Shrijee can supply both integrated and stand- alone sugar refineries on turn-key basis with capacities ranging from 200 TPD to 2500 TPD to produce Refined Sugar of EEC Grade I, II, and III.

FEATURES

- State of the art technology
- Melt clarification with Phosphotation / Carbonation
- De-colourization with Ion –Exchange / Activated Carbon (Granular or Powder)
- Sugar quality upto 25 ICUMSA colour standards
- As per client's requirement, either Rotary Sugar Dryer or Fluidized Bed Sugar dryer can be supplied
- Final output Sugar Polarization - 99.7%
- Moisture Reduction from 1.5% to 0.03% – 0.04%



ALCOHOL PLANT

Shrijee is fully equipped to supply, erect and commission a complete Industrial Alcohol Plant & Ethanol Plant that can produce Absolute Alcohol, Ethanol, Extra-Neutral Alcohol (ENA) as well as Country Liquor based rectified spirit to be used for producing indigenous-made foreign liquor.

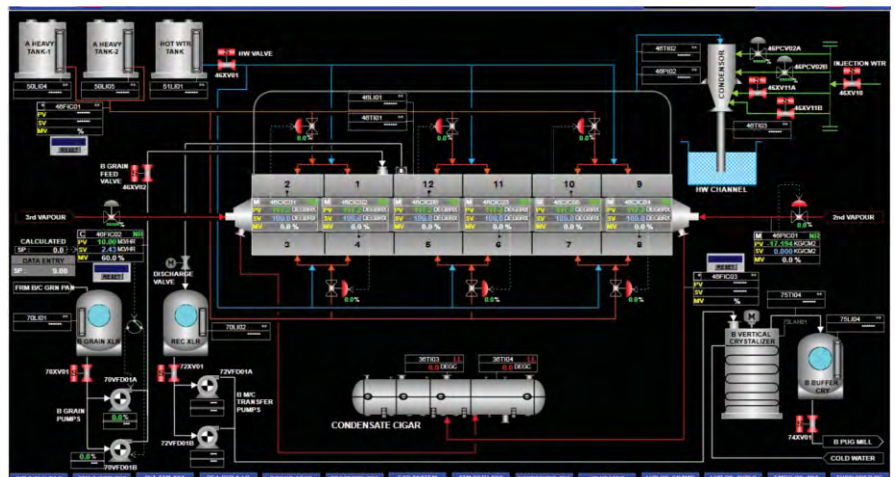
Features

- The raw material used is molasses / sugarcane juice and the plant can also be made suitable for use of rice, maize or wheat as raw material to produce the alcohol
- Utmost priority is given towards achieving cost-effectiveness and maximum efficiency for design & fabrication of the state of the art plant
- In-depth designing ensures reduction in steam consumption to achieve reduction in energy spent per liter of alcohol
- The fully equipped workshop can execute world-class fabrication of Reaction Vessel, Reactors, Heat-Exchangers, Distillation Column, Evaporator, Hydro-Extractor etc. All these equipment can be manufactured in different materials of construction such as copper, stainless steel etc. as per client requirement
- Required automation will be provided and the plant's capacity range can be 10,000 liters/day to 150,000 liters/day
- For Waste Water Treatment Plant various processes are being used such as incineration of spent wash in boiler after concentration in evaporator, digester system to produce methane gas and the most commonly used is bio-composting, which can be decided as per the client's requirement



AUTOMATION

Shrijee is renowned for providing automation in Sugar industry for Mill House, Boiler, Juice Clarification, Juice Heating, Batch & Continuous Pans, Centrifugals and Sugar Drying & Bagging section. Shrijee has established their credentials in Sugar Plant automation and achieved remarkable efficiency by reducing steam % on cane, giving desired performance, providing easy operation and reducing manpower requirement using DCS or PLC System. All field instruments of reputed international brands are used for the automation process.



Typical P & I for Continuous Vacuum Pan Automation

SHRIJEE PRODUCTS & SERVICES

- Sugar Plants - Mill, Boiler, Turbine, Boiling House, Alcohol Plant, Sugar Refinery
- Steam Saving Equipment (Below 32%) - Falling Film Evaporator, Continuous Vacuum Pan, Duplex Heater, Direct Contact Heater, Effective Vapour Bleeding System
- Solar Power Plants
- Sugarcane Farming Equipment - Sugarcane Loader, Infielder for cane hauling
- Rooftop Wind-Powered Ventilator



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