

For us **BEER** Means . . . **Brewery Engineering Expertise and Reliability.**

Cheers with

BEER !!!

Successful commissioning of India's first Mash Filter Brewery

India's first Mash Filter, supplied by PRAJ at Blossom Industries, Daman has been successfully commissioned, meeting all performance parameters. With the successful commissioning and handing over of the plant for commercial production, the brewery will have capacity reaching 1.0 million hlpa.

Till date PRAJ has executed and commissioned three large capacity plants incorporating Mash Filter technology, in India.

With increasing malt prices and varying malt quality, Mash Filter becomes a more viable and suitable option for Indian Breweries. PRAJ has emerged as a pioneering market leader and currently executing four large capacity turnkey plants with Mash Filter brew houses for various breweries in India.

By advancing to Mash Filter Technology, breweries can enhance revenues through increased production efficiencies and productivity with lower utility consumptions.



Benefits of Meura Mash Filter :

- High productivity (at least 14 to 16 brews per day).
- Higher extraction yields (practical yield at least equal to lab yield) resulting into decrease in specific malt consumption.
- Very Bright Worts with low solids content < 5ml/l.
- Acceptance of high proportion of Adjuncts/Grains (upto 100 % with the use of exogenous enzymes)

MEURA

In 2006, Praj entered into an association with Meura, Belgium, world leaders in mash filtration technology to offer high efficiency Mash filters in India and subcontinent.



Commissioning India's Largest Tank Farm!

In association with Holvrieka, Netherlands, PRAJ has successfully executed and handed over India's largest Unitanks cellar for a brewery in South India. The 4000 hl Unitanks with direct expansion ammonia jackets were manufactured at site under supervision and guidance from Holvrieka, one of the World's largest tank building companies. PRAJ and Holvrieka have inked an exclusive partnership to add value and competitiveness to the Indian market.

Following this success, PRAJ recently being contracted for two more large capacity Unitank cellars in Southern India including one for United Breweries Limited.



Praj Filtrox Beer Filtration – High Technology in Use

Praj - Filtrox Partnership for Indian brewery equipment market is now in its 15th year. Praj has commissioned more than 25 Filtration plants in India with 5 more are under execution.

70% of the India's beer is filtered through the Praj Filtrox Candle filters and will be reaching 80% by end 2011.

Building on this success, Praj – Filtrox is introducing Beer Recovery Systems, for the first time in India.

Praj Filtrox Beer Recovery System

Statistics reflect that in production of beer, about 3% of a brewery's output is carried along and lost with cropped yeast. Approximately 60% of the volume of cropped yeast is beer, which is a huge loss to the brewery. If yeast is discharged into the effluent treatment system, very high treatment costs arise due to the very high biological oxygen (140,000 mg/kg) demand. Recovery of the valuable beer from yeast therefore becomes a must.

PRAJ - FILTROX supplies CERINOX® BR, Cross-flow filtration plant for beer recovery with ceramic membranes. Typical payback periods range from 1 to 2 years, it is depending upon the brewery's size and on the use of dia-filtration.



Projects Commissioned, Under Execution

Rhino Agencies Limited, India
(Unit of Yuksom Breweries Limited, Mumbai)



This is the second Greenfield Brewery project supplied by PRAJ for Yuksom Group after Denzong Brewery Unit in Orissa. Yuksom Group ranks among the largest beer producing companies in the North-East.

Mount Everest Breweries Limited, India
(Owned by Associated Kedia Group)



Mount Everest Produces their own brands (Lemount Strong, Mount 5000) and are also bottling for United Breweries Brands (Kingfisher Strong, Zingaro) in state of Madhya Pradesh.

Mount Shivalik Industries Limited, India (Belongs to well known Mount Shivalik Group)



Mount Shivalik is among the largest beer producing companies in North India, having brands Thunderbolt, Stroh and Torpendo.



Crown Beers India Limited, Hyderabad, Andhra Pradesh

(Owned by AB InBev, India)

PRAJ received repeat order from Crown for 300 hl/hr Filtration plant after building a Greenfield brewery plant in 2007 for Anheuser Busch, India. Crown is the only Brewery to produce the world famous Budweiser in India.

Jagatjit Industries Limited – Malt Extraction Plant, Hamira, Punjab



Jagatjit manufactures and markets alcoholic beverages, malt, malt extract, malted milk foods, milk powder, ghee(butter), glass and pet containers.

Praj has executed and successfully commissioned a Malt Extraction Plant for Jagatjit which is capable of handling 6.0 - 6.5 MT Malt throw.



Privilege Industries Limited, Pune, Maharashtra

AB InBev is close to striking an exclusive licensing deal for this Greenfield brewery owned by Wadhawan Group. This new tie-up will mark the second manufacturing footprint for the iconic Budweiser, once more from a plant supplied by PRAJ.



United Breweries Limited - Greenfield project Andhra Pradesh

After successful completion of UB's state of the art Greenfield in Rajasthan, PRAJ is executing second repeat order for UB in Andhra Pradesh incorporating Mash Filter Brewhouse and Direct Expansion Unitanks. This is UB's largest plant in India having final future capacity of 2.0 million hlpa.

New Contracts Under Execution

With the recent growth in Indian beer Industry, many Breweries have expanded their existing plant capacities or planned new breweries.

Continuing its strong presence and maintaining customer's faith, PRAJ has recently been contracted for 4 Greenfield brewery installation in different parts of India : -

- Eastern India – 0.6 Million HLPa expandable to 1 Million HLPa
- Southern India – 0.5 Million HLPa expandable to 1.2 Million.HLPa
- North East India – 100,000 HLPa expandable to 250,000 HLPa.
- North India – 150,000 HLPa expandable to 315,000 HLPa.

Quality Assurance

- Well equipped manufacturing facilities with automatic welding and polishing machines.
- Total covered area of 2,00,000 sq. ft. and open area of 3,40,000 sq. ft.
- Accredited with ASME 'U' & 'H' stamp, ISO 9001-2008 certification & CE marking.
- Codes and standards followed include ASME Section VIII. Div.1, BS 5500, ASNI (SNT-TC-IA 1984 & 1988), TEMA, DIN, IS 2825 and AD Merkblatter.
- Working with various grades of Stainless Steel, Copper, Carbon steels, Nickel, Titanium, Hastalloy and other exotic materials
- Large pool of approved vendors
- Stringent raw material testing
- Effective supply chain management.

- Skilled manpower.
- Experienced and committed internal quality assurance and control.
- HSE practices in line with international standards
- Enhanced resource base





Praj Matrix - Innovation Center

Brewery Laboratory following EBC standards

- State of the art own R&D facility for brewery analysis in India.
- 11 laboratories - 2 labs – as per 10,000 clean area classification
- Staff Includes - 60 PhD holders and 15 Graduates
- Analysis facility from Raw material to final product
- Standards followed include EBC, ASBC and MEBAK

PRAJ – Brewery Technology Solutions

- Offers total brewery engineering with seamless integration services
- Performance guarantees as per DIN 8777, EBC and MEBAK standards
- Preferred supplier for major international brewers in India with multiple Turnkey references.
- Independent PLC control system, recipe management with Brew Card Concept
- Strong project management team with vast experience
- Network of well identified contractors for quality site work
- After sales services
- Utility engineering, supply and supervision services
- Special and customized systems on demand
- Creating new benchmarks in the Indian brewing industry
- Plant-to-plant integration services



Advantage PRAJ

- # 1 in design, engineering, manufacturing and project execution
- In more than 45 Countries ...Across 5 Continents ... Over 450 references.
- Process and application engineering with 9 patented products/processes
- Strong project management team with global experience
- Project Managers at PRAJ are certified by agencies like PMA and IMPA.

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