

Sistema de Evaporação - HPD

- Evaporadores de circulação forçada , utilizados para concentração de solução de cristais ou produtos com tendencia a incrustação.



Desenvolvimentos em Vinhaça de Cana_ HPD



Base Técnica – Testes Piloto e desenvolvimento

Soluções para Concentrar Vinhaça

- FERTILIZANTE LÍQUIDO
- COMPOSTAGEM
- FERTILIZANTE SOLID
- RECUPERAÇÃO DE ENERGIA
- GRANULAÇÃO

Bio-ethanol Industrial References

Location	Type of Equipment	Start-up
St. Croix Cruzan	MVR Evaporation with Enhanced FC Finisher, sugar cane vinasses 44t/h evap and 70% final concentration	2011
Holland Abengoa	Multiple effect wheat/corn stillage concentration, 170 t/h as water evaporated with Enhanced FC Concentrator and FF Evaporators	2010
France Cristanol	MVR wheat stillage concentration, 60 t/h as water evaporated with Enhanced FC Concentrator	2009
USA	3 MVR corn stillage concentrators, 45% concentration 36 T/h	2010
USA	3 MVR corn stillage concentrators, 45% concentration, 36 T/h evaporation	2010
USA	Distributor Plate Addition, Steepwater MVR Evaporator	2008
USA AGP	Corn Stillage Concentrator, 50%TS, 10t/h evaporation	2008
USA	Syrup from steep water, 60-65% concentration 43,6 T/h evaporation	2007
USA	Syrup from steep water, 60-65% concentration 96,000 lb/h evaporation	2005



Bio-ethanol Several Pilot Tests

Location	Type of Equipment	Date
Colombia	Complete pilot test, sugar cane vinasses concentration 60%	2009
Argentina	Complete pilot test, sugar cane vinasses concentration 70%	2008/09
Spain	Complete pilot test, wheat & sorghum stillage concentration	2008
USA	Complete pilot test with Drying – Barley Stillage to 45%	2008
France	Complete Pilot Test, wheat stillage concentration	2007
USA	Complete Pilot Test with Drying – Corn Stillage to 50%	2008
USA	Complete Pilot Test, stillage to 55%	2004
USA	Complete Pilot test, stillage to 50%	2004
USA	Complete Pilot Tests, Steep-water to 70%, Falling Film testing to 25%	2003
USA	Complete Pilot Tests Steep-water to 60%	2003

Concentração de Vinhaças

Evaporador de Película Descendente



Sistemas de Múltiplos Efeitos - HPD

- O primeiro evaporador para Industria de Papel e Celulose no Brasil , falling film , de 5 , 6 e sete efeitos.

