



ecoWise Renewable Energy Application
ISO Tank Heating, Spent Grain Drying and others

Biomass Co-generation Power Plant

ecoWise biomass co-generation power demo plant was developed in 2004 dedicated to biomass power research and development. By recycling wood and horticulture waste, it generates two forms of energy simultaneously - electricity and steam. Producing renewable green energy reduces the fossil fuel consumption and Green House Gas (GHG) emission. ecoWise utilizes the steam from renewable energy plant for spent grain recycling and ISO tank heating.

- Recycle wood and horticulture waste : approx. 100 ton/day
- Boiler net output : 15 ton/hr superheated steam
- Steam specification : 22 bar at 260 °C
- Turbine capacity : 1MW electricity

ecoWise Clean Development Mechanism (CDM) Project

ecoWise has developed the 1st CDM project in Singapore. ecoWise CDM project utilize waste energy from its biomass cogeneration plant for spent grain drying and ISO tank heating. By utilizing the waste energy from a sustainable source, ecoWise is able to reduce global GHG emission by 15,000 tCO₂e/year and mitigate global warming.



Spent Grain Collection and Recycling

As one of the main spent grain collector and recycler, ecoWise owns and operates a tube bundle dryer with drying capacity more than 100 tons/day. It is supported by the operation team with more than 29 yrs of experience in waste collection and recycling business. Over the years, ecoWise has established a reputable track record. ecoWise is dedicated to provide a reliable waste collection and disposal service to support customer's smooth operation.

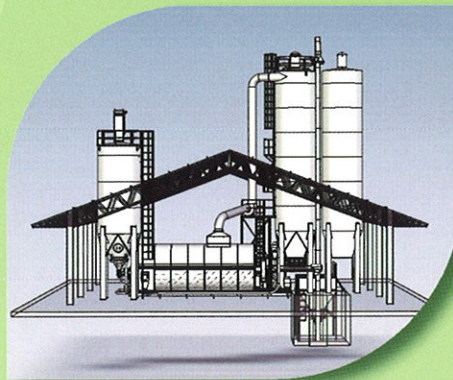


Spent Grain Recycling

- Latest technology – steam tube bundle dryer
- Drying capacity approx. 100 tons/day
- Optimized energy efficiency
- 24/7 continuous operation capability
- Reliable product quality
- Experienced operation team
- Reliable service track record
- CDM – GHG emission reduction

ISO Tank Heating Advantages

- Use waste heat from renewable source
- Stable and high temperature steam
- Sufficient ISO tank parking lot
- 24/7 continuous operation
- Competitive rate
- CDM – GHG emission reduction



ecoWise Renewable Energy Application ISO Tank Heating, Spent Grain Drying and others 绿科生物质能热电联产示范厂以及干燥和加热业务

绿科生物质能可再生资源厂

绿科于2004年发展建造了一间生物质能热电联产示范工厂用于生物质能研究和开发，该生物质能厂利用废木和园艺废料同时生产两种能源 - 电力和蒸汽。可更新绿色能源减少化石燃料的消耗，同时减少温室气体排放。绿科利用可更新能源厂的蒸汽处理和循环谷物残渣，以及提供国际标准集装罐加热服务。

- 循环的废木和园艺废料 : 约100吨/天
- 锅炉产量 : 15 吨/小时过热蒸汽
- 蒸汽规格 : 22 bar 260 °C
- 汽轮机规格 : 1 兆瓦的电力



绿科清洁发展机制项目

绿科成功的开发了新加坡的第一个清洁发展机制项目。此项目利用绿科的生物质能热电厂的废蒸汽用于谷物残渣干燥和ISO标箱加热，这个项目可以减少化石燃料的消耗，并减少了15,000tCO₂e/ 年的全球温室气体排放，从而产生了相应的碳汇。

谷物残渣收集和循环

绿科拥有并运营一套蒸汽列管干燥机，拥有100吨/天的干燥能力，是本地主要谷物残渣收集和循环业者。绿科的固废运输与处置经验的运营团队拥有29年经验。长年以来，绿科建立起优良可靠的固废处理循环服务纪录，确保我们的客户不会因为废物处理问题而导致生产受到影响。



谷物残渣资源回收系统优点

- 采用先进的干燥技术-蒸汽列管干燥机
- 处理能力约100吨/天
- 能源利用效率高
- 24x7连续运行能力
- 产品质量稳定可靠
- 拥有经验丰富的员工队伍
- 优良可靠的服务纪录
- 清洁发展机制 - 使用可更新能源，减少温室气体排放

国际标准集装罐加热系统优点

- 利用可更新能源产生的蒸汽
- 优质的高温蒸气
- 充足的服务停靠位
- 24x7 连续运行
- 具有竞争力的价
- 清洁发展机制 - 使用可更新能源，减少温室气体排放

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