



WWF Low Carbon Manufacturing Programme (LCMP)

Quarterly Newsletter

July 2013 Issue

Success story

ZhongShan Yida Apparel Ltd. is a subsidiary factory of the HK Crystal Group, which specializes in the manufacture of jeans. It is located in the Banfu area of Zhongshan in Guangdong Province. The factory provides a “one-stop shop” from product design to manufacture. Their clients are located over the US, Europe and Asia. Yida joined the LCMP in 2009, and the factory has adopted many carbon reduction measures and has achieved impressive results. In their 2012 verification, Yida received the LCMP Platinum label, managing to reduce their carbon intensity by more than 11 percent. They also:

- Replaced steam with solar energy, providing heat to the dormitory and production line, reducing steam consumption by 75 percent and lowering annual carbon emissions by more than 1,100 tons.

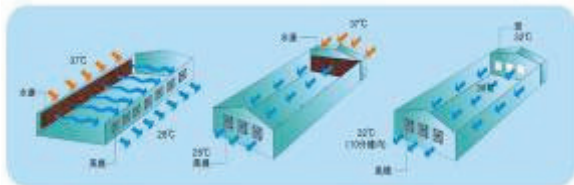


Solar energy for the dormitory



Solar energy for the production lines

- Replaced the steam operated central air-conditioning system with a water curtain* and exhaust fan, reducing temperatures and improving ventilation on production lines, reducing steam consumption by 80 percent and lowering carbon emissions by more than 470 tons annually.



Design of water curtain and exhaust fan

*The use of the water curtain will increase indoor air humidity

- Recovered water condensate from the laundry and dormitory steam system, saving 4,000 tons of steam and reducing annual carbon emissions by more than 1,800 tons. Flexible usage of aluminum alloy in furniture and waste fabrics, also reduced the generation of wastage.



Collection of water condensate



Flexible assembly of aluminum furniture



Recycling of waste fabrics

Environmental news

Preparing for setting the carbon emissions cap: enterprises are required to disclose their carbon emissions under China's carbon trading scheme

In May, Mr. Jiang Kejun, a researcher from the NRDC Energy Research Institute said that the implementation of a carbon emissions cap in 2016-2020 is now under investigation, the 13th five-year plan will include an overall carbon emissions target. Pilot carbon trading schemes in 7 provinces and cities, including Guangdong, Shenzhen and Shanghai, will be launched this year. Under the scheme, all enterprises must disclose their carbon emissions. Implementation of the scheme began in Shenzhen on 17 June, 2013, and over 600 companies have already completed the carbon verification process. For further details, please click www.laohucijing.com/News/3946.html

LCMP updates and activities

The LCMP is organizing a series of engagement activities in the coming months, and you are welcome to join in!

- The LCMP SDF Low Carbon Workshop co-organized by the Hong Kong Council of Social Service (HKCSS) (July)
- Dialogue with LCMP factories (July - Aug)
- The LCMP SDF Low-Carbon Workshop co-organized by the Hong Kong Productivity Council (HKPC) (Aug)
- Free consulting service regarding energy saving and carbon reductions measures (start from Sept)

For more details, please contact the LCMP team at any time.

Low carbon tips: Electrical systems

Energy-saving devices like variable frequency drives and electronic ballasts can increase the energy efficiency of equipment, but may also create harmonic distortion. Harmonics are currents produced by non-linear load, which can reduce the electrical system's efficiency and cause equipment to malfunction. The installation of active or passive harmonic filters can reduce thermal stress due to harmonic currents and reduce phase to neutral voltage drop; thus enhancing the power distribution efficiency. In addition, the chance of abnormal systems failures occurring due to harmonic distortions is reduced.

Best practices: Ningbo Klite Electric Manufacture Co., Ltd - Electrical Appliances and Houseware industry

The company implements its carbon reduction measures through the management of general utilities and ensuring success through greater staff engagement. These measures include:

- Alternative use of air coolers to extend the life of equipment
- Turning off surrounding light sources in workstations and only using lighting from production lines during the daytime
- Re-scheduling the production plan to reduce the daily use of the aging room
- Sharing the latest information about carbon emissions reduction measures on a company bulletin board
- Establishing an environmental committee to help the company achieve carbon reduction targets



Information sharing



The Environmental Committee

They also strive to make their manufacturing machinery energy-efficient and achieve carbon reduction goals by:

- Using LED lighting in all production lines
- Installing variable speed devices in air compressors
- Installing power factor compensation devices in electrical systems to improve power factors
- Adding thermal insulators at gateways of conveyor-belt-type heaters to prevent heat loss
- Installing voltage regulators to provide stable voltage and reduce equipment failure



LED lightings



Thermal insulators at heaters



Capacitor compensator