



# WWF Low Carbon Manufacturing Programme (LCMP)

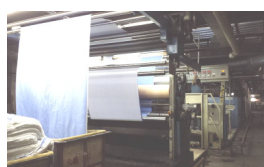
## Quarterly Newsletter

April 2014 Issue

### Success story

**Dongguan Shatin Lake Side Textiles Printing & Dyeing Co., Ltd.** is a subsidiary factory of Fountain Set (Holdings) Limited. The company specializes in the manufacture of printed and dyed fabrics and is equipped for fabric mercerization. While focusing on core business development, the company also adopts environmental and energy saving approaches in its production processes in order to demonstrate corporate social responsibility. Lake Side was a pilot LCMP factory, and last year completed its third LCMP verification and was awarded the LCMP Gold label. Over the years, the factory has adopted a series of carbon reduction measures and has achieved impressive results. They have:

- Replaced thermal oil with high pressure steam as transmitting medium to power the heat exchanger. This provides more efficient heat transmission to the stenter. Water condensate from the steam can also be recovered to provide heat energy for production lines and the electricity generating facility – this change has lowered carbon dioxide emissions by more than 6,200 tonnes annually.



Stenter



Chamber for water condensate

- Replaced their “Tubular Drying Range” with a “Tin Frame Drying Range”. Its distinguishing features are higher capacity, lower power requirements and a shorter drying time. The new drying range has reduced annual electricity consumption by more than 48 percent and lowered carbon dioxide emissions by more than 2,200 tonnes annually.



Tin Frame Drying Range

- Replaced their traditional steam generated “Hot Bleaching” pretreatment process with a “Cold bleaching – Short steam – Water rinse” approach in their knitted fabric facility – lowering carbon dioxide emissions by more than 600 tonnes annually.



Cold bleaching pretreatment

### Environmental news

#### Union Nations: Nearly half of “new” electricity generation comes from clean energy

The Union Nations Environment Program (UNEP) has announced that the number of clean energy projects is increasing around the world, with 44 per cent of new electricity coming from renewable energy in the last year. In 2013, China invested US\$56 billion in clean energy field, surpassing Europe and becoming the world leader in clean energy investment. Globally last year, the application of renewable energy led to an overall carbon emissions reduction of 1.2 billion tonnes. Since 2009, the primary cost of electricity generation via solar and wind turbine methods has been reduced by 25 per cent and 53 per cent respectively, a fact which may strengthen governments’ confidence in committing to climate agreements. More at:

<http://news.bjx.com.cn/html/20140411/502960.shtml>

### LCMP updates and activities

The LCMP is organizing a series of engagement activities in the coming months:

- Launch of free consulting services on energy saving and carbon reductions measures (May)
- Invitation of Kingfisher suppliers to join the LCMP (May)
- LCMP kick off meeting for GAP suppliers (June)
- Webinar on energy efficiency / carbon emissions (June)

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

### Low-carbon tips: Steam systems

Recovered heat from steam systems can provide energy to preheat water in boilers; the result being that the energy consumed during the preheating process can be reduced. Water condensate recovery systems collect water condensate from steam pipes, drain condensed water through a steam trap and collect heat energy from steam. To prevent steam leakage in such a recovery system, it is particularly important to select the correct type of steam trap and perform regular and proper maintenance.

## Best practices: Leedarson Lighting Co., Ltd. - Electrical Appliances and Houseware Industry

**Leedarson Lighting has implemented carbon reduction measures in their general utilities and production facilities, and realized further gains through factory management and staff engagement. The steps the company has taken include:**

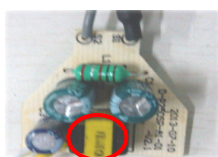
- **Aging line:** Installing high efficiency motors and adding baffles at both sides to reduce heat loss at the entrance;
- **Air compressor:** Adding a compensated capacitor to reduce the single phase current from 182A to 157A to save electricity and cost;
- **PCBA:** Improving PCBA design by using an E-type inductor, increasing insertion efficiency by 87 percent and reducing the defect rate;
- **Production line automation:** Adopting automation in their LED production line to increase productivity;
- **Forklift:** Replacing their diesel forklift with an electric one, reducing carbon emissions and improving incidences of noise pollution;
- **Factory management:** Establishing zone control and stock management procedures in the store room for better resource utilization;
- **Staff training:** Designing a “low-carbon card” for staff which provides low-carbon living tips and simple practices.



Aging line - baffles



Air compressor - compensated capacitor



E-type inductor on PCBA



Automated LED production line



Store room - zone control



Low-carbon tips