



# WWF Low Carbon Manufacturing Programme (LCMP)

## Quarterly Newsletter

October 2018 Issue

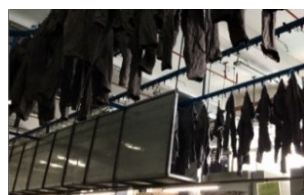
### Success Story

**ZhongShan Yida Apparel Ltd. (“Yida”)** is a subsidiary factory of the HK Crystal Group, which specializes in the manufacture of jeans. Established in 2005, the company aims to generate social and economic benefits through low-carbon and environmental stewardship and become the company of choice for business partners and employees. Yida is the LCMP pilot factory, the factory has just completed its fifth verification and received the fourth consecutive Platinum label this year. In the ten years since Yida became the pilot LCMP factory, the cumulative business volume has had a substantial increase and the carbon intensity has decreased. The solar heating area has been extended from the dormitory to production. The factory has also adopted numerous carbon reduction measures:

- From the early stage of only using dryers for drying jeans to a previous stage of hanging washed jeans above dryers and making use of waste heat to dry the jeans, they have progressed to recent installation of a semi-closed tunnel to collect heat from condensate via heat transfer devices to further absorb heat for drying purposes. This saves 130 tonnes of steam and reduces carbon emissions by 20 tonnes annually.



**Hanging system for jeans**



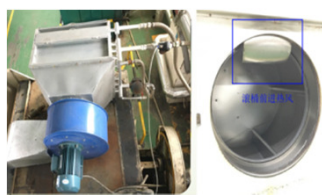
**Semi-closed tunnel**

- Installing an electromagnetic wave scale deposit processor in boilers has reduced the deposit's adhering to the inner wall of boiler pipes, thereby improving the energy efficiency of the boiler, resulting in carbon emissions reduction of 32 tonnes annually.



**Electromagnetic wave scale deposit processor**

- Hot air normally enters dryers from the top. To enhance drying, the factory installed energy saving steam boxes to collect heat from condensate, this enters the dryer at the front resulting in better heat utilization. This not only reduces drying time by 23 per cent, but also saves 1,360 tonnes of steam and reduces carbon emissions by 208 tonnes annually.



**Heat collection from condensate**

### Feed-in Tariff rates set in Hong Kong

In response to climate change, governments have implemented different measures in order to achieve their committed carbon emissions reduction targets. The Hong Kong SAR Government established the "Feed-in Tariff" in 2018 to encourage enterprises and citizens to install renewable energy power generation systems (including solar photovoltaic systems or wind power generation systems). The tariff rate is set in the range of HK\$3-5 per unit of electricity depending on the generation capacity. This is the highest in East Asia and will help drastically reduce the payback period to about 10 years. In addition, the power companies will also sell Renewable Energy Certificates, by purchasing the certificates organizations and the general public can support the development of renewable energy in Hong Kong. Find out more here:

[http://www.news.gov.hk/eng/2018/04/20180417/20180417\\_215407\\_544.html](http://www.news.gov.hk/eng/2018/04/20180417/20180417_215407_544.html)

### LCMP updates and activities

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

- WWF-Hong Kong Corporate Sustainability Summit and Award Presentation 2018 (Nov.)
  - The 2018 LCMP report on accredited factories (Nov.)
  - Walk for Nature 2018 (Nov.)
  - Kingfisher Group Supplier Conference (Nov.)
- For more details, please contact the LCMP team!

### Electromagnetic wave scale deposit processor

When the concentration of water impurities in a boiler is saturated, especially for hard water containing less soluble calcium, Epsom salt, etc..., precipitates are formed and adhere to the tube wall forming scale deposits. The scale reduces the heat transfer capability of the heated surface and hence slows down the heat transfer to the water which causes low thermal efficiency and component damage to the boiler corresponding to increased fuel and maintenance costs. Installing an electromagnetic wave scale deposit processor can make physical changes to the precipitates and reduce the deposit's adhesion to the inner pipe wall, thereby producing a descaling effect.

## Best practices: Foshan Longart Building Decoration Materials Co., Ltd. - Building Materials Industry

**Foshan Longart Building Decoration Materials Co., Ltd. was established in 2008. It specialises in the manufacture of glass mosaic products. The factory joined the LCMP in 2014 and has completed 2 LCMP verifications and implemented a series of carbon reduction measures that include:**

- Replacing oil-based paint with water-based paint for printing has reduced the amount of dilutant required and improved the workshop environment.
- Replacing spray painting with UV ink printing, plus reducing a large amount of thinner used in spray painting and improving the workshop environment.
- Adopting a centralised compressed air system to replace independent compressors, reducing electricity consumption by 110,000 kWh annually.
- Replacing CFL energy saving lamps with LED lighting in production, reducing electricity consumption by 24,000 kWh annually.
- Recycling waste heat from the kiln, providing heat to replace the heat supply from electric-driven heaters in the “meshing pasting” process.



**Water-based painting material**



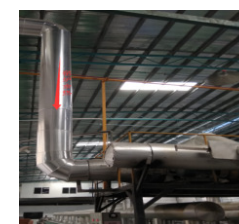
**Spray painting Vs UV ink printing**



**Centralized compressor**



**LED lighting**



**Heat recovery from Kiln**