

Low Carbon Manufacturing Programme

Case Study



Established in 1970, Crystal Group is a leading garment manufacturer and one of the five largest garment manufacturers in Asia. Based in Hong Kong, Crystal Group employs more than 40,000 employees around the world. In 2009, Zhongshan Yida Apparel Ltd. (Zhongshan Yida), Crystal's denim factory based in Zhongshan, joined our LCMP pilot scheme.

Carbon Reduction Measures

- Using solar energy to heat water used in the living zone and production.
- Using water curtain technology to reduce room temperature by 3°-12°C and maintain the temperature in the production area at around 27°-28°C. This process saves up to 90 percent of the energy consumed by air-conditioning. Water curtain technology can also improve air flow and alleviate staff allergies to cotton fibres.
- Replacing T8 fluorescent tubes with T5 fluorescent tubes, reducing the number of lights, lowering the overall lighting level, and installing individual switches for lights.
- Installing energy-saving devices in sewing machines, yielding an average electricity savings of 20 percent.
- Installing variable speed drives in sewing machines, air compressors, the main power transformer, the water pump in the boiler room and in the central air conditioning system.
- Using sea freight instead of land transportation methods for ex-factory goods. Reducing frequency of transportation and emissions by setting regular production materials deliveries from suppliers (1 to 2 times) per month

Results

The carbon emissions and electricity consumption of Zhongshan Yida were reduced by a total of 17 percent, using data from 2007 and 2008 as a baseline. Crystal Group believes that, as long as staff are aware of the need to conserve energy, they will be willing to switch off unnecessary or unused electrical appliances; meaning that companies will not need to invest in expensive environmental protection technology. The LCMP can help to identify potential areas for emissions reduction and change staff perceptions about environmental protection; while at the same time giving the group a higher market profile and developing a better overall corporate image.

Factory

Zhongshan Yida
Apparel Ltd.

Parent Company

Crystal Group

Industry

Textile & Garment

Label

Gold

LCMP - A comprehensive carbon accounting and labeling system

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LCMP is a WWF initiative with verification from third parties.