

陈鹏
此账号已停用，请联系我的外部
账号 5051 浩汉智能

陈鹏
此账号已停用，请联系我的外部
账号 5051 浩汉智能



Hai Minh Textile Joint Stock Company

Energy saving and reduction projects

January 2026

陈鹏
此账号已停用，请联系我的外部
账号 5051 浩汉智能

Target for carbon reduce



HAI MINH TEXTILE

Based on 2018 carbon emissions, 2027 emission reduction targets:

- 30% reduction in total carbon emissions
- 65% reduction in unit carbon emissions

HMT carbon reduction plan



HAI MINH TEXTILE

Project
Completed

Coal

Electricity

Proper insulation for drying cylinder. project completed in 2022. Save 1207 tons of steam / year, 180 tons of coal / year and reduce carbon emissions 433 tons / year

Coal phase-out: The total amount of biomass used in 2024 is 32,927.93 tons. Coal 19,943.78 tons => Biomass used accounts for 62.3% of total fuel used for boilers. Starting from 2025 HMT will stop using Coal

Replace all fluorescent bulbs with LED bulbs. Saving electricity 659 MWh/year and reducing carbon emissions by 557 tons/year

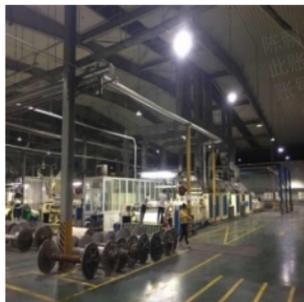
Reduce compressed air leakage: In 2021, the factory has replaced the valves and hose connections to reduce air leakage. Reduce electricity 486,000kw, and carbon 444 ton.

Install solar panels
Solar Power on all the rooftops has been in operation since March 2023. The total amount of solar power used in 2024 is 7,435,741 kwh, almost account for 14%



HAI MINH TEXTILE

✓ Replace all fluorescent bulbs with LED bulbs



- A total of 8800 fluorescent lights have been replaced with LEDs, saving electricity 659 MWh/year and reducing carbon emissions by 557 tons/year..
- The project has completed. Continued maintenance and replacement to perform this action for years to come.

✓ Reduce compressed air leakage

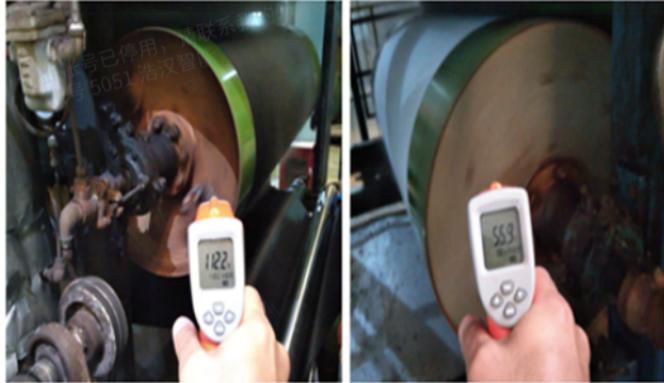
- In 2021, the factory has replaced the valves and hose connections to reduce air leakage
- Install water drain valves for air compressed equipment
- Reduce electricity 486,000kw, and carbon 444 ton
- The project had completed



HAI MINH TEXTILE

✓ Proper insulation for drying cylinder, Reduce compressed steam leakage

- At the finishing mill, the washing machine at the printing mill, the ammonia machine, all the drying rollers have been sprayed with insulation paint. The temperature before insulation is $\sim 110^{\circ}\text{C}$ and the temperature after insulation is 57°C .
- Save 1207 tons of steam / year, 180 tons of burn material / year and reduce carbon emissions 433 tons / year



Drying drum surface temperature before and after being insulated with glass wool (112°C & 57°C)

✓ Boiler air-fuel ratio improvement



- The factory has installed sensors and online oxygen meters for 4 boilers, and the factory has adjusted the oxygen concentration in the flue gas to about 10-12%.
burning material saving: 320 tons/year, CO₂ reduction: 770 tons/year

✓ Coal phase-out



- The factory has invested 2.9 million US dollars to purchase a new setting machine and 2 dryers, using LPG to reduce coal use.
- Starting in 2025, HMT has phased out coal and switched to biomass.

✓ Improve boiler efficiency



Existing boilers No. 4 and No. 5 are being renovated from old coal-fired boilers with efficiency above 70%. In order to improve production efficiency and ensure continuous production at the plant, boilers No. 4 and No. 5 are being installed to replace with dedicated biomass boilers, increasing efficiency to above 80%. The project is estimated to reduce CO2 emissions by 2% annually. The project started in August 2025 and is expected to be completed by the end of January 2026.



HAI MINH TEXTILE

✓ Install solar panels



HAI MINH TEXTILE

- Solar Power on all the rooftops has been in operation since March 2023.
- The total amount of solar power used in 2025 is 8,000,071 kwh, almost account for 12.7%



HAI MINH TEXTILE

Main measures for water conservation in factories

Production Improvement:

The new technology of feather singeing machine does not consume as much water as the old technology. Previously the old singeing machine used 2.0~2.5m³/1000m of water. Currently the new singeing machine uses 0.2~0.3m³/1000m of water.

Reduce water consumption by 3,000 tons per month





HAI MINH TEXTILE

Main measures for water conservation in factories

冷凝水回收



冷却水回收



工艺节水



树脂反冲洗节水



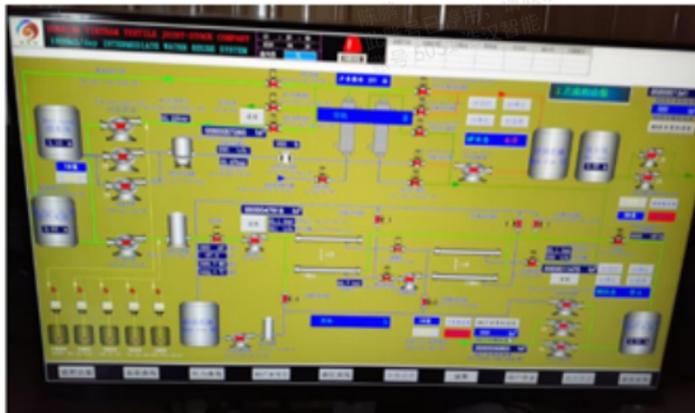
* Re-use cooling water, condensate and other process water conservation projects has reduce the waste of water resources.

* In 2025, the total volume of reused water in the factory was 302771m³, accounting for 13.9%.



HAI MINH TEXTILE

Main measures for water conservation in factories



Monitor screen of RO system for reusing



UF membrane



RO membrane

* Invested US\$588,000 for UF and RO water reuse system.

* In 2025, the total volume of RO water in the factory was 122578m³, accounting for 5.6%.



Our journey to reduce carbon 2030

2023

2025

2027

2020

2021

2023

2023

Committed to reduce carbon target



Proper insulation for drying cylinder, Reduce compressed air leakage



Replace all fluorescent bulbs with LED bulbs



Condensate recovery



Install solar panel



Coal phase-out



All core sites to have renewable generation, energy efficiency upgrades



陈鹏
此账号已停用，请联系我的外部
账号 5051 浩汉智能

Fluorescent bulb

LED bulb

陈鹏
此账号已停用，请联系我的外部
账号 5051 浩汉智能

Thank You!

陈鹏
此账号已停用，请联系我的外部
账号 5051 浩汉智能

陈鹏
此账号已停用，请联系我的外部
账号 5051 浩汉智能