Drum Packing Line Project

Project Performance

The company continuously promotes and supports innovation within its production processes. The **Drum Packing Line system** has been upgraded from manual operation to a **semi-automated system**, featuring a **digital weighing system** and **automatic filling control**. This improvement enhances filling accuracy, reduces human errors from manual weighing, and significantly increases production efficiency.

Additionally, the production line structure has been redesigned into a **closed system** in compliance with **GHP** and **HACCP** standards to prevent product contamination and elevate food safety standards.

This development has resulted in faster and more stable production processes, reduced material loss, and greater customer confidence in the long-term quality and reliability of the company's products.

Environmental Innovation for Sustainability: "Drum Packing Line Project"

The company is committed to developing environmentally friendly innovations. In this project, technologies were implemented to **efficiently reduce energy and resource consumption**, as well as **strictly control the production process** to reduce waste generation and environmental pollution.

Project Results:

1. **Increased production capacity:**

The upgraded system can handle high-demand periods and support future business growth. It enables the production line to operate faster, efficiently meeting increased demand during peak seasons or market expansion.

2. **Reduction of overfill and underfill:**

The automated system accurately controls oil volume according to standards, minimizing excess raw material usage and preventing underfilling.

3. **Reduced filling time per drum by an average of 20%:**

Faster drum filling improves overall production efficiency and enables quicker product delivery.

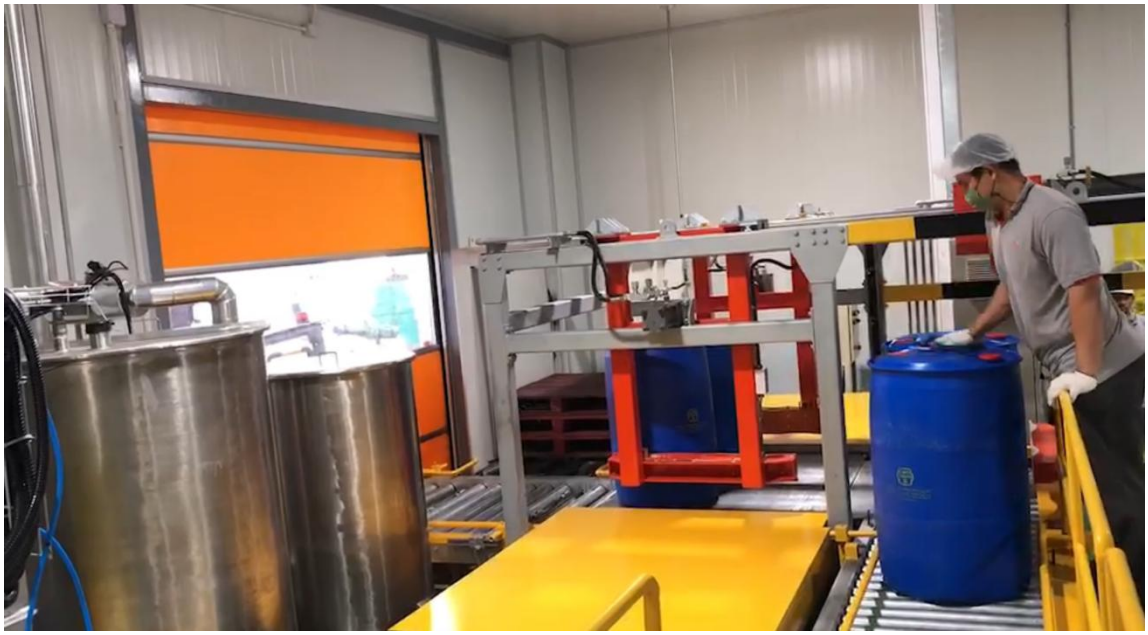
4. **Enhanced production standards in line with GHP/HACCP:**

The production process complies with international food safety and quality standards, increasing customer confidence.

5. **Reduced risk of foreign contamination during filling:**

The closed filling system prevents dust and other contaminants from entering the product.

6. **Improved employee safety by reducing direct contact with hot products:**
Reduces the risk of burns from hot oil and creates a safer working environment



Solar Cell Project at Bangpoo Factory

Project Performance

The company promotes and supports the development of innovations for sustainable energy use, focusing on improving energy efficiency within the production process while reducing environmental impacts from operations.

In the past year, the company implemented a **solar power generation system installation project (Solar Cell)** at the Bangpoo factory. This initiative represents one of the clean energy innovations that aligns with both environmental sustainability and energy cost management goals.

In addition to the benefits of energy savings, this project also marks the beginning of promoting the use of renewable energy in the industrial sector and serves as a model for the practical application of green technology within the organization.

Environmental Innovation for Sustainability: "Solar Cell Project at Bangpoo Factory"

The company is committed to conducting its business alongside sustainable environmental stewardship, recognizing the impact of greenhouse gas emissions on climate change.

To address this, the company initiated the **Solar Rooftop Project** at the Bangpoo factory. The project involves installing solar panels on the factory rooftops to generate electricity from solar energy, which is then directly supplied to the factory's power system.

Especially during daytime, when electricity demand is at its highest, this system effectively reduces the factory's reliance on power from the national grid, thereby improving energy efficiency and supporting the company's sustainability goals.

The key benefits derived from this project are as follows:

1. Reduction **in external energy consumption:**

Utilizing self-generated electricity within the factory helps reduce dependence on electricity purchased from private power companies, while also enhancing the energy security of the production process.

2. **Lower electricity costs:**

Solar energy is a fuel-free resource, enabling long-term savings on energy expenses. It also helps mitigate the impact of future fluctuations in energy prices.

3.**Reduction of carbon dioxide (CO_2) emissions:**

The solar cell system produces no combustion or pollutants, resulting in a significant reduction of CO_2 emissions and directly contributing to the decrease of greenhouse gases.

4. **Enhancement of a green corporate image:**
The use of clean energy reflects responsible environmental business practices and strengthens the company's reputation among consumers, investors, and business partners.
5. **Support for the Net Zero Emission goal:**
This project aligns with the company's long-term objective to achieve **net zero greenhouse gas emissions**, a global target that many organizations around the world are striving toward

Project Performance

The company places great importance on developing production technologies for higher efficiency, alongside creating high-quality and value-added products. By continuously promoting and supporting innovation, the company has undertaken the **construction of a 240 TPD Hydrogenation Building** to accommodate the installation of systems and machinery for the **Hydrogenation Process,** a key technology in the vegetable oil industry. This process enhances the stability of palm oil, improves its resistance to oxidation, and extends its shelf life. The project aims to strengthen the company's competitiveness in the market and to meet the evolving demands of consumers in the future.

Environmental Innovation for Sustainability: "Construction Project of 240 TPD Hydrogenation Building"

The **Hydrogenation Building** was designed to support production processes that utilize hydrogen gas to hydrogenate palm oil. This process efficiently transforms raw materials into higher-quality products while optimizing energy use, minimizing energy loss, and enhancing workplace safety. The system features precise temperature and pressure control, along with a standardized hydrogen gas management system that integrates advanced technology and optimized design.

As a result, the Hydrogenation Building serves as a key infrastructure for driving production innovation and supports the development of products that meet both quality and sustainability goals.

Environmental and Sustainability Highlights of the Project:

1. **Reduction of waste from the production process:**
   The advanced control system minimizes raw material loss and reduces waste generated during production.
2. **Improved energy efficiency:**
   By utilizing technology that precisely controls temperature and pressure, the system helps reduce excessive energy consumption.
3. **Energy-efficient building design:**
   The facility features an automatic ventilation system and uses construction materials with thermal insulation properties to conserve energy.
4. **Compliance with international safety and environmental standards:**
   The project aligns with **ISO 45001**, **ISO 14001**, and **ESG. (Environmental, Social, and Governance)**
5. **Support for future environmentally friendly production:**
   The facility is designed to accommodate **Green Industry** operations and sustainable production in the future.

This project represents a significant milestone for the company in building infrastructure that supports long-term innovation-driven growth, in alignment with sustainable development goals encompassing environmental, economic, and social dimensions.

Construction Project of 500 TPD Refinery Building

Project Performance

The company continues to promote and support innovation development within its production processes. Currently, the company is in the process of constructing a **500 TPD Refinery Building**, a palm oil refinery with a production capacity of **500 tons per day**, utilizing advanced technology and intelligent control systems.

The project aims to enhance production quality to meet international standards, improve efficiency, reduce unit costs, and strengthen competitiveness. It is also designed to support the processing of various raw materials, reduce environmental impacts, and emphasize quality control, safety, and sustainability throughout every step of the operation.

Environmental Innovation for Sustainability: "Construction Project of 500 TPD Refinery Building"

The company integrates innovation to enhance production efficiency while maintaining environmental responsibility. The **500 TPD Refinery Building Project** has been designed with a production system that emphasizes sustainability in all aspects. including energy use, resource management, and the reduction of environmental impacts.

This ensures that operations comply with international standards and actively supports the company's commitment to sustainable development.

Environmental and Sustainability Highlights of the Project:

1. **High-efficiency Continuous Distillation System:**
   This system increases production capacity, minimizes raw material loss, and ensures consistent product quality while consuming less energy compared to conventional systems.
2. **Heat Recovery System:**
   Recycles energy generated from the production process for reuse, thereby reducing overall energy consumption.
3. **Energy-efficient building design:**
   The facility is equipped with an automatic ventilation system and constructed with thermal-insulated materials to enhance energy conservation.
4. **Compliance with international safety and environmental standards:**
   The project adheres to **ISO 45001**, **ISO 14001**, and **ESG (Environmental, Social, and Governance)** practices.
5. **Support for environmentally friendly production in the future:**
   Designed to accommodate **Green Industry** operations and sustainable production initiatives.
   This project represents a major milestone for the company in establishing the infrastructure necessary to support long-term innovation-driven growth, aligning with sustainable development goals across environmental, economic, and social dimensions.