



A CASE STUDY ON RESOURCE EFFICIENT AND CLEANER PRODUCTION

VEAM FOUNDRY COMPANY HIEP PHUOC INDUSTRIAL PARK

The **Global Eco-industrial Parks Programme - Country level intervention in Vietnam** (2020-2024), funded by the Swiss State Secretariat for Economic Affairs (SECO) and implemented by the United Nations Industrial Development Organization (UNIDO) in collaboration with the Ministry of Planning and Investment (MPI), aims to enhance the environmental, economic, and social performance of industrial parks and zones in Vietnam. This initiative promotes the eco-industrial park approach in selected pilot industrial parks and supports the development of relevant national policies.

The project supports over 100 tenant companies in pilot industrial parks in implementing Resource Efficient and Cleaner Production (RECP) practices. These efforts aim to enhance the quality of life for workers and promote sustainable production.

COMPANY INFORMATION



Company Name: Branch Of Viet Nam Engine And Agricultural Machinery Corporation - Foundry Factory (VEAM FOUNDRY)

Address: Lot B15, Street 12, Hiep Phuoc Industrial Park, Hiep Phuoc Commune, Nha Be District, Ho Chi Minh City

Key Product: Metal casting

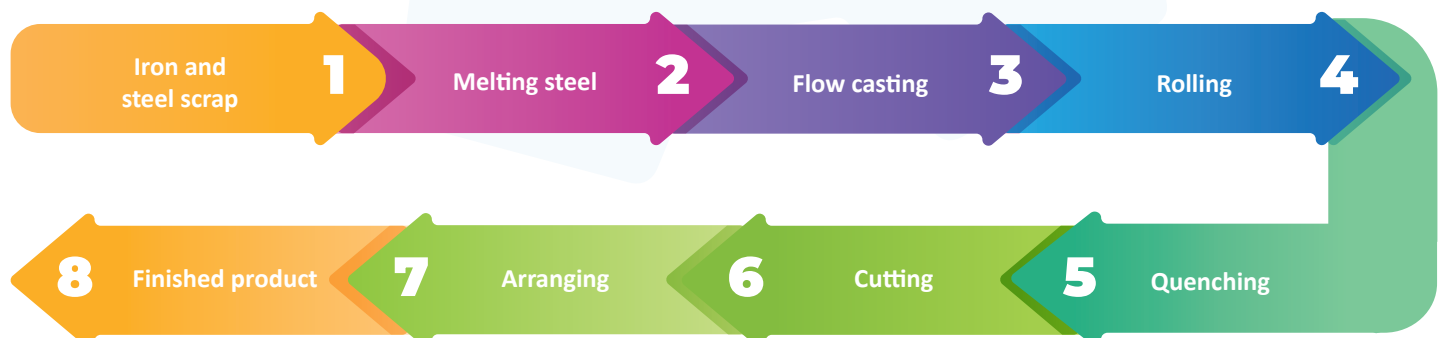
Production capacity: 12,600 tons of cast ingot/year

Factory Area: 30,000 m²

Workshop area: 8,682 m²

Number of workers: 210 people

PRODUCTION PROCESS



TYPES OF WASTE

Wastewater

- » Domestic wastewater: 2,770 m³/year
- » Industrial wastewater: 7,756 m³/year

Solid waste

- » Waste sand 1,200 tons/year; slag 360 tons/year
- » Other industrial solid waste such as packaging, PE film, etc.,
- » Domestic waste: 27.7 ton/year




THE PROJECT'S INTERVENTIONS AND IMPACTS

The project has supported by:

- » Conducting capacity building training on RECP and Industrial Symbiosis for company technical staff
- » Conducting RECP assessment by project experts
- » Proposing solutions to improve resource efficiency and production efficiency of companies

Proposed by the project

■ Investing in central energy monitoring system	■ Gradually replacing compact lights into LEDs
■ Installing multi-function power meters	■ Investing in led lights with integrated solar panels
■ Investing in an anti-magnetic furnace instead of the old one	■ Investing in a solar power system
■ Installing a fan 37 kW inverter	■ Improving chemical storage area in production area
■ Optimizing the operation of the cooling fan system	■ Reviewing and improving the air compressor room
■ Enhancing inspection and repairing compressed air leaks	■ At the same time, implementing management and technical solutions to control water consumption
■ Investing in an air compressor with a capacity of 55 kW with integrated inverter	■ Investing in equipment to collect dust deposited on the factory floor

Solution type	Potential benefits	Implemented results
 Save energy	13 solutions to reduce electricity consumption of 1,013,974 kWh/year (equivalent to 2,072 t CO ₂ /year), to save 6.475 billion VND/year (275,571 USD/year). Investment cost: 16.936 billion VND (720,688 USD)	6 solutions to reduce electricity consumption of 561,871 kWh/year (equivalent to 451t CO ₂ /year) and save 945.71 million VND/year (40,242 USD/year) Investment cost: 1.0 billion VND (42,533 USD)
 Save water	1 solution to reduce water consumption of 7,500m ³ /year, to save 120 million VND/year (5,106 USD/year) Investment cost: 100 million VND (4,255 USD)	1 solution to reduce water consumption of 7,500m ³ /year, to save 72 million VND/year (3,063 USD/year) Investment cost: 50 million VND (2,127 USD)
 Follow-up options	<ul style="list-style-type: none"> ■ Invest in a magnetic resistance furnace to replace the old furnace ■ Install a fan 37 kW inverter ■ Invest in a solar power systemy 	