# FLOWYD

# What I offer

FLOWDY is a manufacturing company specializing in rotating turbine parts of Steam Turbine and Gas Turbine and produces products by carrying out all processes such as processing special alloy materials directly through centrifugal casting, forging, and heat treatment.

# Skills

It consists of the core parts of steam and gas turbines in nuclear, hydro, thermal and combined thermal power plants. The steam or gas passes the blades inside the turbine at high temperature and high pressure, giving them a fast rotational power source, and then turning the generator to generate electricity.

# What are I seeking

About Turbine, Turbo Machinery, Turbo Charger, Overhaul, Maintenance, Spare Parts, Turbine High Speed Pump, Power Plant using end user

# **Export Status**

FLOWDY is a manufacturing company specializing in steam turbines, gas turbines, and turbid machine parts. In the case of materials, it produces products by purchasing and processing special alloy materials that have undergone centrifugal casting, forging, and heat treatment. It started Mitsubishi in Japan in December 2018 and is exporting to advanced companies related to products such as Taiwan and Panama, and is contributing to localization of core parts of power generation turbines that relied on imported products through reverse design processing. Currently, it is under export contracts with Saudi Arabia, Egypt, and Thailand, and has been marketing in various ways, including participating in export consultations and ON-OFF exhibitions to become an exporter specializing in rotating equipment and materials.

/ In order to become an exporter specializing in rotating equipment and materials, support is needed as it requires a lot of costs such as participation in overseas exhibitions and translation.

### **Business content**

FLOWDY is a manufacturing company specializing in rotating turbine parts of Steam Turbine and Gas Turbine and contributes to localization through Reverse Engineering processing of key components of power generation Turbine, which relied on imported products.

## Possessive technology

Flowdy has a technique of restoring damaged parts to the same original product with only spot items without drawings or samples. As a result of its current commitment to 3D scanning and high-dimensional design techniques, the company is receiving reverse design orders in many countries, contributing to localization by reducing its overseas dependence on rotating equipment.

#### Item characteristics

It consists of the core parts of steam and gas turbines in nuclear, hydro, thermal and combined thermal power plants. The steam or gas passes the blades inside the turbine at high temperature and high pressure, giving them a fast rotational power source, and then turning the generator to generate electricity.

## **Major Produced Products**

- Blade : Composed of steam turbines and gas turbines in nuclear, hydro, thermal, combined thermal power plants Steam or gas generated by boilers or other facilities flows through blades inside the turbine at high temperature and high pressure, and then turns the generator to generate electricity

- Diaphragm : A module-shaped part assembled on a ring bonded to a rotor that adjusts the direction and speed of the steam so that it is well transferred to the rotating wing.

- Packing Ring : A sealing device in the turbine installed between the fixture and the rotor of the turbine with high temperature and pressure to prevent steam from leaking.

- Compressor Blade : A rotating wing blade mounted around the circumference of a compressor disk on a gas turbine engine that energizes the air as it passes through the engine.

#### **Competitor Status**

Domestic : In small and medium-sized Korean companies, there are small companies that only perform some processes, but not many competitors produce final products because they require high processing technology. Representatives include Doosan Heavy Industries & Construction Co. and Hyundai Heavy Industries Co., Ltd., where only final assembly and some products are made, and most composite processing blades are currently being made at our company.

Overseas : In terms of foreign countries, it is monopolized by world-famous advanced power generation equipment companies such as GE, SIMENS, Alstom, Mitsubishi, ABB, etc., but continues to cooperate and process with these companies.

## **Reverse Engineering**

A technique to recover damaged parts to the same as the original product with only the goods in stock without drawing or samples. As a result of its current commitment to paradoxical systems with 3D scanning and high-dimensional design techniques, it is receiving reverse design orders in many countries, contributing to localization by reducing its overseas dependence on rotating equipment.

#### Awareness

- Increasing demand for the latest eco-friendly power generation facilities is continuing to grow, especially in developing countries such as Southeast Asia, and orders for gas turbines and steam turbines are increasing. Therefore, active marketing activities for Southeast Asian markets are essential.

- In line with rapidly increasing industrial activities, we actively promote the localization of turbine blades-related components that can minimize energy loss and increase efficiency in the domestic industrial market.