

# Kurimoto FRP Products

• Contributing to water infrastructure improvement with experience in various parts of the world

## Features

- Smooth inner surfaces of pipes provide superior water flow, and excellent corrosion resistance against acids and alkalis.
- Joints with longer "bonds" and "allowable bending angles" realize greater watertightness.
- High strength and light weight results in excellent workability.

## Outline (Technical Principle and Operation)

Kurimoto Polycon FRP pipes have a solid construction with special resin mortar between the FRP layers on the inner and outer surfaces. The interior and exterior FRP layers absorb the bending stress applied to the pipe. The intermediate resin mortar layer keep the space between the two FRP layers and transmits shearing force. This ideal construction provides superior strength against inner and outer pressures.

External pressure pipes have excellent acid resistance, earthquake resistance, and watertightness. Featuring high external pressure strength, they are suitable for sewage pipes. In Japan, there are many cases of application in public sewage systems, airport storm sewers, and sewage pipes in reclaimed land.

Nominal Diameter:  $\Phi 200$  to  $\Phi 3,000$

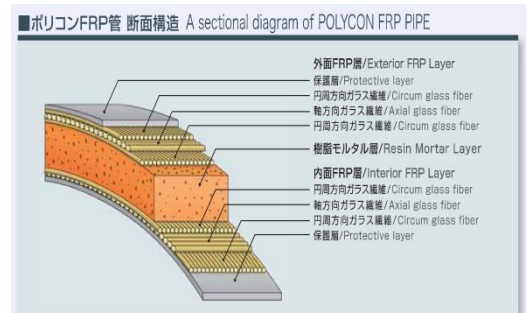
Internal pressure pipes have superior water flow and excellent watertightness at joints. They are suitable for agricultural applications and for penstocks.

In Japan, these pipes are used for irrigation and agriculture, and penstocks at hydroelectric power stations.

Nominal Diameter:  $\Phi 200$  to  $\Phi 3,000$

Well pipes feature light weight and high strength. Screw joints provide excellent workability. They have superior corrosion resistance preventing electrolytic corrosion and rust.

Nominal Diameter:  $\Phi 150$  to  $\Phi 600$



## Product Introduction

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- External Pressure Pipes: Public sewage system: Used by many local governments  
(for sewage, reclamation in ports, etc.)  
Airports: Tokyo International Airport (Haneda), Narita International Airport,  
Kansai International Airport (Osaka), and other airports in Japan
- Internal Pressure Pipes: Agricultural Water: National (Ministry of Agriculture, Forestry and Fisheries,  
and Hokkaido Development Agency of the Ministry of Land, Infrastructure,  
Transport and Tourism); Prefectural (various prefectures)  
Penstocks: Electric power companies and enterprise bureau of local governments
- Well Pipes: Waterworks: Water departments of local governments  
Industry: Private factories and hotels  
Others: Large hospitals (emergency), seismic observation wells

## Effects

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- Reduction in nominal diameters of pipes  
(Downsizing by one step is possible with the same flow and slope because of superior water flow.)
- Long life  
Example: Durable for 50 years in 0.5 mol/L (equivalent to pH 0) of sulfuric acid
- Easier installation  
(The weights of external and internal pipes are approximately 1/5 of reinforced-concrete pipes.)

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