

Chain Type Screen Unit

Implementer: Maezawa Industries, Inc.



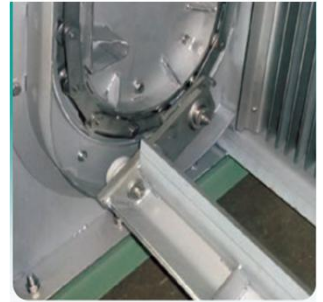
1 Motor Direct-Coupled Shaft-Mounted Reducer



3 Chain Guide



2 Clog-Resistant Screen



4 Large Object Avoidance Mechanism

Outline of Technology

Reduced Lubrication Point

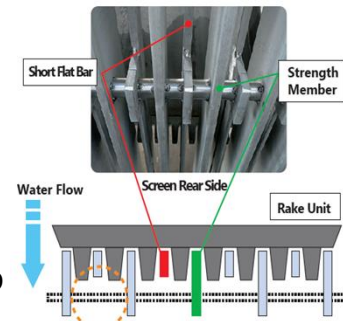
Automatic Lubricator

Lubrication only at two drive shafts with automatic lubricators. No submerged sprockets or bearings, and no lubrication required at the channel bottom due to chain guides.



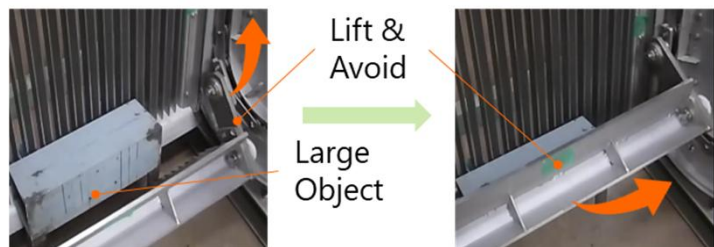
Clog-Resistant Screen

A screen made of short flat bars and strength members eliminates unreachable areas, preventing clogging and ensuring residue is scraped off as the comb penetrates.



Large Object Avoidance Mechanism

The Large Object Avoidance Mechanism allows the rake to lift off the chain path when it contacts large object, stones, or sand accumulated at the bottom of the unit, preventing jamming and emergency shutdown.



Features of the Technology

- **Suitable for combined sewer systems:** Equipped with a Large Object Avoidance Mechanism and resistant to sand inflow.
- **Unit Structure:** Easy installation, reducing construction time and cost.
- **Easy Maintenance:** Simple structure minimizes malfunctions and simplifies maintenance.
- **Improved Corrosion Resistance:** Constructed of SUS304 stainless steel and resin for excellent corrosion resistance.

Specifications

Item	Specification
Capacity	Small to large scale grit chamber facilities
Applicable Sewer	Combined or Separated
Channel Width/Depth	Width: 1 m ~ 4 m / Depth: less than 8 m
Bar Opening/Installation Angle	15 ~ 150 mm / 70° or 75°
Motor Output	1.5 kW or 2.2 kW

Overview of the Demonstration

Project Name	Demonstration Project for Chain Type Screen Unit
Period	August 2023 – March 2025
Target Country	Laem Chabang City, Chonburi Province, Kingdom of Thailand
Demonstration Site	Laem Chabang Wastewater Treatment Plant (Aerated Lagoon Process, 7,000 m ³ /day)
Sewer Channel	1.8 m Width × 3.65 m Depth



Existing Screen



Screen Front Side
(sand & debris accumulation)



Demonstration Screen



Screen Front Side

WOW TO JAPAN Project (Wonder Of Wastewater Technology Of JAPAN Project)

Maewaza Industries, Inc. conducted a demonstration from 2023 to 2024 as part of the Ministry of Land, Infrastructure, Transport and Tourism's "WOW TO JAPAN Project (Wonder of Wastewater Technology of JAPAN Project)."