

*Differential Rotary Screw Thickener*

***IGKT***

***GK Thickener***

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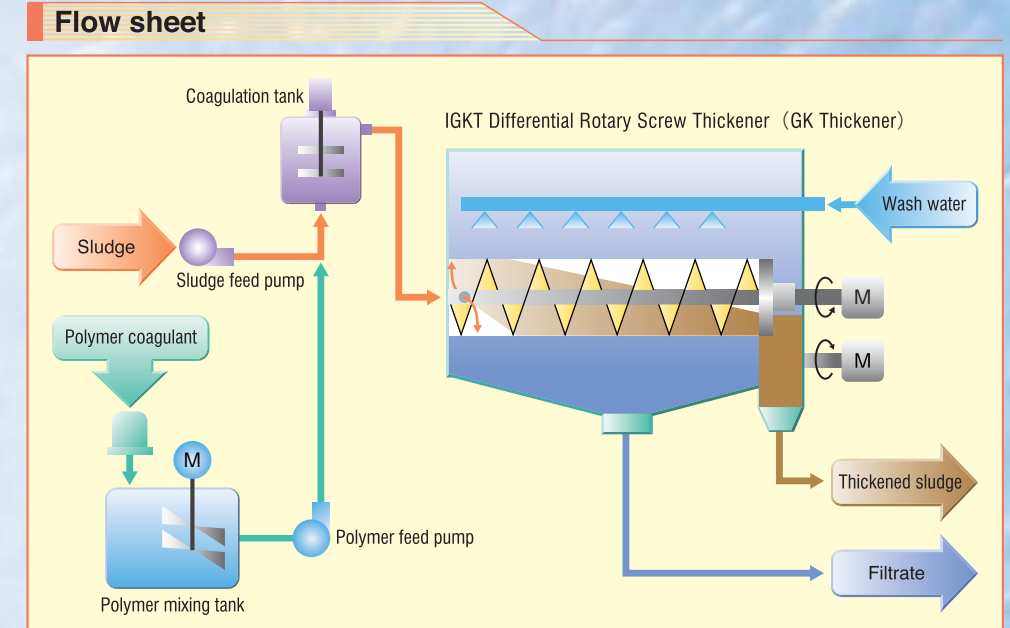
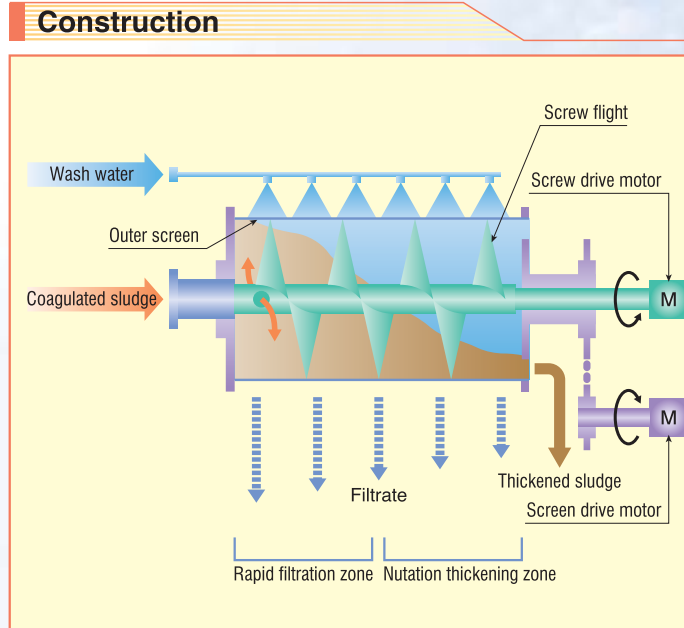
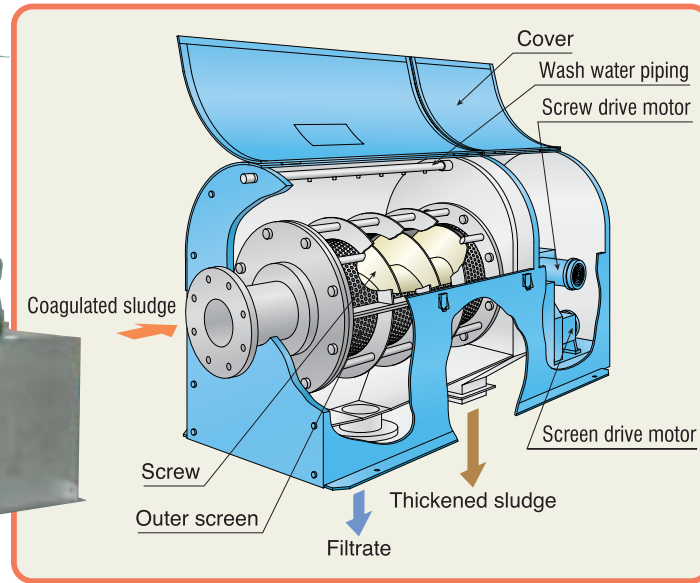
***ISHIGAKI***



# An efficiency-oriented development based on a new filter media meets a next set of needs for sludge thickening.

In recent years, the processing of sewage sludge entails an increase in the organic content of sludge and the corruption of sludge in the treatment process, along with other processes, resulting in sedimentation and concentration. As a result, a specified process of solid-liquid separation is becoming hard to conduct by gravitational concentration alone. Demand is therefore growing for more economical and efficient forcible concentration. To meet these requirements, we have developed a compact, low-rpm, low-motive-force, and high-performance sludge concentrator incorporating a metal thin-plate filter material.

Patent pending



## Features

### 1 An Eco-friendly Mechanical Thickener

- It consumes little power, thus more energy-saving than other models.
- It runs at slow speed, thus producing little vibration and noise.
- It therefore requires no special corrective action.
- It incorporates an enclosure cover having a high odor-control effect, which facilitates odor controls.
- It is made of recyclable metals.

### 2 High Treatment Capacity and Stable Thickening Performance

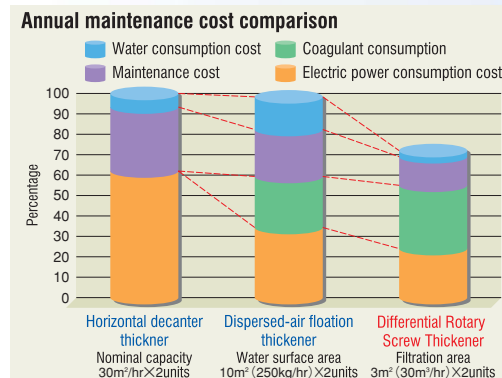
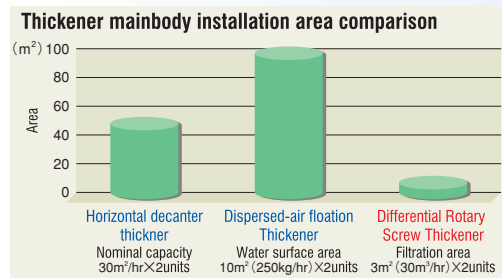
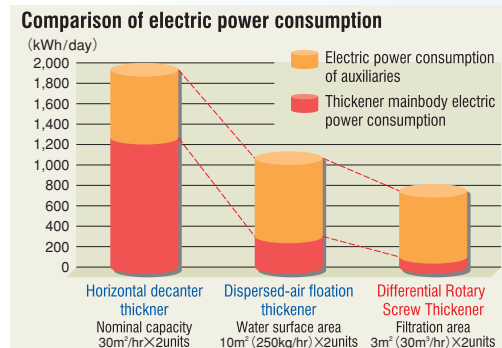
A Thickening mechanism having a screen and screw flight that act in a combined manner ensures a high treatment capacity. This reduces the system in size, thus saving space. The proportional control of injection of chemicals with an SS concentration meter ensures stable thickening performance. In addition, a concentration detector can be installed for the constant control of concentration (optional).

### 3 Easy Maintenance

The system is simply structured, incorporates few parts, and is lightweight. It is thus easy to maintain. It incorporates a metal thin-plate filter media, which makes it hard for the filter to become clogged up. The filter media can be easily restored by cleaning with little water at low water pressure (100kPa).

### 4 Highly Economical

The system is small in size and lightweight. It therefore requires only a little cost for architectural and other construction works. In addition, it entails only a low chemical dose and few consumables, and saves much energy, thus requiring only a little cost for maintenance.

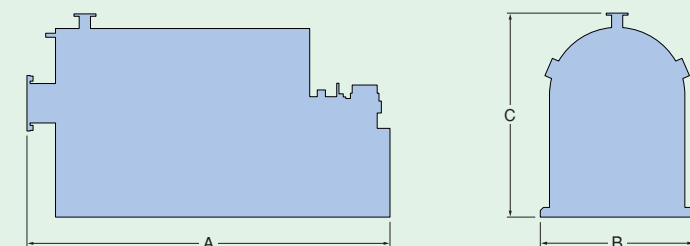


## Typical data

Sludge name	Sludge concentration (%)	Polymer consumption rate (%)	Thickened sludge concentration (%)	Recovery rate (%)	Sludge filtration rate (m <sup>3</sup> /m <sup>2</sup> /h)
Sewage excess activated sludge	0.3~0.8	0.3~0.5	4.0~5.0	95~98	10~15
Sewage mixed sludge	0.7~1.5	0.2~0.4	4.0~9.0	95~98	10~15
Rural sewage excess activated sludge	0.4~0.7	0.2~0.5	4.0~6.0	95~98	10~15

## Standard specification

Model	IGKT-03	IGKT-04	IGKT-05	IGKT-06	IGKT-07	IGKT-08	IGKT-09	IGKT-10	IGKT-11	IGKT-12
Filtration area (m <sup>2</sup> )	0.56	1.0	1.5	2.25	3.0	4.0	5.0	6.28	7.6	9.0
Outer screen	φ300	φ400	φ500	φ600	φ700	φ800	φ900	φ1,000	φ1,100	φ1,200
A : Overall length (mm)	1,270	1,650	2,100	2,330	2,580	2,960	3,240	3,500	4,000	4,230
B : Overall width (mm)	600	740	880	990	1,090	1,200	1,320	1,430	1,560	1,670
C : Overall height (mm)	715	860	1,070	1,220	1,360	1,505	1,650	1,790	1,930	2,070
Output (kW)	0.6	1.15	2.25	2.25	3.0	3.7	3.7	5.9	9.2	9.2
Dry weight (kg)	260	470	840	1,150	1,550	2,250	2,700	3,600	4,300	5,300



※ Specification and dimensions may be changed without notice.