

# TK High Flow Unit

The Definitive Trust Certified by 30,000 Units sold

Leading Edge of Cyclone Technology  
Elementless Filter FILSTAR

All-in-one, Large-scale Unit That Can  
Separate and Discharge Solid Particles



## 4 Series Based on Processing Quantity

We have prepared 4 varieties of the high-flow type.

*1500L/min*

*2000L/min*

*3000L/min*

*4000L/min*

## Select from 3 Conveyor Types

We have prepared 3 types of conveyors that accommodate different solid discharge levels and usage types.

The new USC type was born from the requests made by our users.

Screw Type

**SC**

Simple Design

Broad application to small discharge quantities of 0.4 m

Uplifting Type

**UC**

3/day or greater

From low to high quantity discharges

Uplifting Separation

**USC**

Dehydration functions added to the UC Type  
Optimal discharge achieved through reducing

## Separable, Easy Storage in Various Containers

The unit can be readily separated into lower and upper portions, and can be stored in a general-use 20-foot dry container. Furthermore, each portion can be slung from cranes and the like after separation, making transportation very easy.

Referenced container type: 20' (8'6" high)

## Freely Rotate and Change Directions of IN/OUT Pipes

Rotation is not taken into consideration at the time of installation or design.

IN/OUT direction can be set freely "from right to right, from left to left, from right to left, from left to right."

By rotating the upper and lower sections of the unit, the discharge direction from the conveyor can be changed easily.

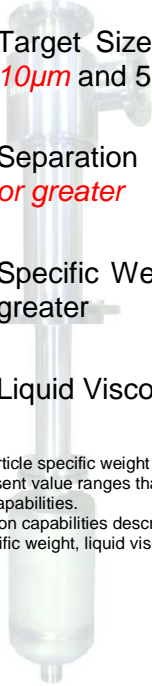
# TK High Flow Unit

## ■ Characteristics

### ■ Separation Characteristics

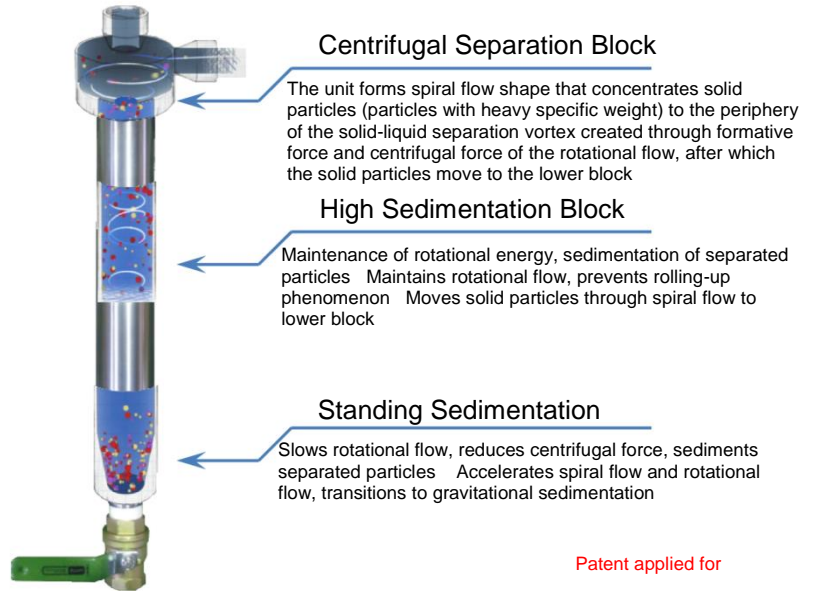
- Target Size: *Particle size between 10µm and 5 mm*
- Separation Capabilities: Max *98% or greater*
- Specific Weight of Particles: 1.5 or greater
- Liquid Viscosity: 2.5 cP or less

The solid particle specific weight and liquid viscosity conditions described above represent value ranges that have a high probability of affecting separation capabilities. The separation capabilities described above may be affected by solid particle specific weight, liquid viscosity, and other conditions.



## 3-Block Technology

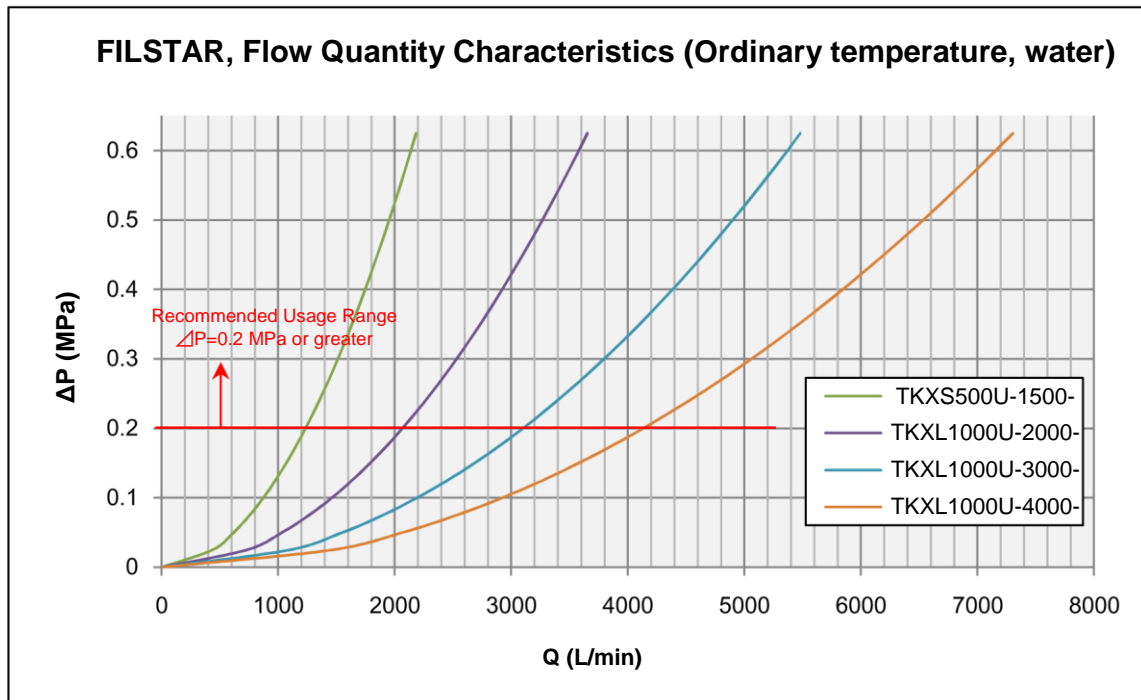
Separation capabilities achieve through control of centrifugal force.



### ■ Flow Quantity Characteristics

For flow characteristics of each unit, please refer to the graph below.

The calculated values in the characteristics graph below were based on actual measurements taken by our company with ordinary-temperature fresh water, so each graphed characteristic may change based on factors such as the actual usage environment. The recommended use ΔP for each unit is 0.2 MPa or greater. At 0.2 MPa or less, the separation characteristics may degrade. (if MPa is 0.2 or greater, there is no concern of degradation.)

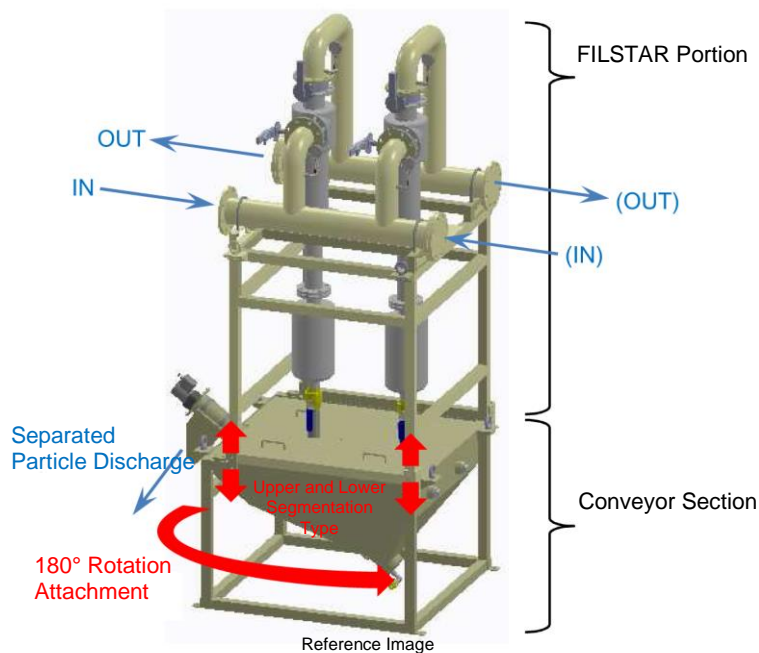


# TK High Flow Unit

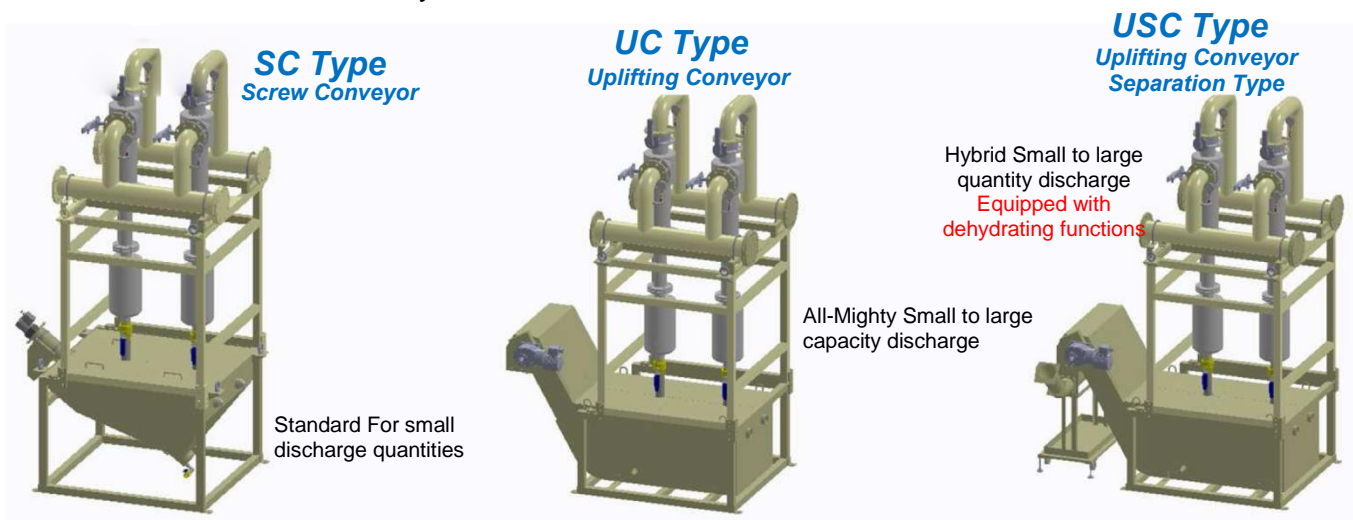
## Advantages of Unit

### Shared Between Models

- IN/OUT Direction:  
Infusion (IN) and discharge (OUT) are possible from either side of the unit. (Please attach the included closing flanges on the side not in use.)
- Upper and Lower Segmentation:  
Unit can be separated into upper and lower sections for storage, transport, etc. (Upper and lower sections can be separated by removing the upper and lower section fittings found in 4 locations.)  
\* Both the FILSTAR portion and the conveyor portion are standardized to allow slinging.
- Rotational Attachment:  
When the upper and lower sections are separated, the conveyor portion can be rotated 180° and then attached. (Direction of separated particle discharge may be changed.)
- FILSTAR Portion:  
This portion has the same shape and specifications among unit series that process the same quantities of particles, regardless of the conveyor type.  
Example: Identical to FILSTAR portion of KXL 1000 U-2000 series
- Conveyor Portion:  
Please select from 3 types based on intended use. (Refer Below)



### Models of Each Conveyor



× For detailed exterior dimensions of each series or type, please refer either separately refer to the exterior blueprints, or ask our company directly.

Reference Image for Each

	SC Type	UC Type	USC Type
Discharge Quantity	0.4m <sup>3</sup> /day or less	About~1.0m <sup>3</sup> /day	
Tank Capacity (1000, 2000L/min Series)	160L	300L	
Tank Capacity (2000, 3000L/min Series)	370L	380L	
Conveyor Power Source	200V (50/60Hz) × Terminal block waiting time		

\*The discharge quantity described above is a reference capacity depicting quantity prior to dehydration. Based on the condition of the subject substance, the actual capabilities of the unit may change.

# TK High Flow Unit

## Types

Types	Standard Processing Flow	FILSTAR	IN/OUT Diameter	Tank with Conveyor
TKXS500U-1500-	1500L/min	TKXS-500x3	JIS10K 125A	SC Type (Capacity 160L)
				UC Type (Capacity 300L)
				USC Type (Capacity 370L)
TKXL1000U-2000-	2000L/min	TKXL-1000x2	JIS10K 125A	(Same specifications as 1500L/min type)
				TKXL1000U-2000-SC-160
				TKXL1000U-2000-UC-300
TKXL1000U-3000-	3000L/min	TKXL-1000x3	JIS10K 150A	SC Type (Capacity 370L)
				UC Type (Capacity 380L)
				USC Type (Capacity 380L)
TKXL1000U-4000-	4000L/min	TKXL-1000x4	JIS10K 200A	(Same specifications as 3000L/min type)
				TKXL1000U-4000-SC-370
				TKXL1000U-4000-UC-380

\* Please inquire separately regarding details for each specification.

\* Units can be constructed in types and specifications other than those described above. Please feel free to ask questions.

### Explanation of Types

Example: TKXL1000 U - 3000 - SC - 370

#### FILSTAR Base Size

TKXS500: Processed Amount 500L/min  
TKXL1000: Processed Amount 1000L/min

#### Breakdown

U: Unit (shared between all)

#### Standard Processing Flow

1500: 1500L/min  
2000: 2000L/min  
3000: 3000L/min  
4000: 4000L/min

#### Conveyor Type

SC: Screw Type Conveyor  
UC: Uplifting Type Conveyor  
USC: Uplifting Separation Type Conveyor

#### Conveyor Tank Capacity

160: 160L  
300: 300L  
370: 370L  
380: 380L

### Shared specifications between each portion [FILSTAR]

Main Body Materials: SUS304 (same for IN/OUT Flange portion materials)

Drain Valve: manual valve (50 A, brass)

\* We accept requests to change the materials used for the drain valve. (Valve material, automated valves, etc.)

[Pipes, etc.]

Pipes: SGP (carbon steel pipe for ordinary piping)

Flanges: JIS10K RF

IN/OUT Valve: Butterfly Valve

Pressure Gauge: 0 to 1.0 MPa scale

[Tank with Conveyor]

Tank Material: SPCC (cold rolled steel sheet)

Overflow diameter: 50A x 2

Motor for Conveyor: 200V (50/60Hz)

Motor for conveyor terminal waiting time \* We accept requests for development of specialized control panels.

[Frame]

Material: SPCC (cold rolled steel sheet)

### Regarding paint color

1. FILSTAR Main Body: No paint (SUS304 surface polishing finish)
2. Unit Frame: Ivory
3. Tank with Conveyor: Ivory
4. IN/OUT Pipes: Ivory

\* When changing the colors of 2 and 3, please designate the Munsell value.

\* Please inquire separately regarding designated paint coat thickness, etc.



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