## Rapid Up-flow Moving Bed Filtration

Developer: TAKUMA CO., LTD.

Rapid Up-flow Moving Bed Filtration removes suspended solids (SS) from treated wastewater stably and speedy

## Design filtration rate and SS concentration

		High-speed sand filtration	
	Conventional sand filtration		
		A Design specification	B Design specification
Daily maximum	300 m/day or less	450 m/per day or less	650 m/per day or less
Maximum per hour	450 m/day or less	700 m/per day or less	1000m/per day or less
Raw water SS concentration	20mg/L		10mg/L
Filtrate SS concentration	5mg/L		

Optimized configuration of filtration sand enables highspeed/stable treatment, Applicable to retrofit using existing facilities

Baffle pipe

Orifice plate

Holding trough

Drainage pipe for

elutriated wastewater

Filter media washer

Filter layer surface

Leading-in pipe

Elutriated grid

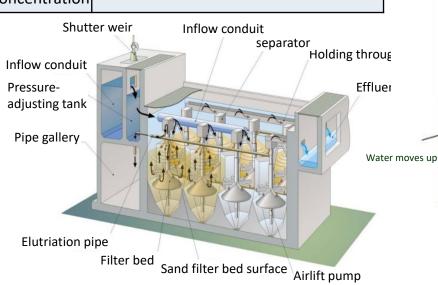
Filter bed

Raw water dispersing device Dirty sand goes down

Air-lift pipe

Separator

Inflow pipe



Configuration of multi-module reinforced concrete

structure (for large-scale WWTP)



## Needs

Space saving and existing facilities' utilization at retrofit or update

## **Benefits**

- High speed system reduces required filtration area and compacts facilities
- Compact facilities saves space, energy, and construction costs