



Wastewater clarification unit Nihon Kasettsu NWC

Coagulation, flocculation and sedimentation compact machine

Wastewater contains suspended particles in a wide variety of shapes, sizes, densities and composition. Many chemical and microbiological contaminants found in wastewater are absorbed or incorporated into the solid particles. Therefore, the efficient removal of suspended solids is essential for the treatment and recycling of waste and industrial water.

At **NIHON KASETSU**, in addition to our innovative, naturally occurring, inorganic flocculant, we have developed compact and light water treatment equipment that offers high efficiency and performance, while being extremely environmentally friendly. It can be installed almost anywhere and is very easy to assemble and operate.

The **NIHON KASETSU** equipment is used to treat a wide range of wastewater in sectors such as industry, construction and mining.



Main features

- **Compact size**
 The innovative interior cell design optimizes the water flow and sludge settling; thus, achieving the most effective treatment with minimum space requirements. Suitable for temporary use, such as in construction projects or cleaning areas affected by natural disasters.
- **Easy to install**
 Weighing up to 2 tons, the NWC-60 can be moved by a crane truck and is easy to load and unload. The NWC-6 weighs 600kgs and can be placed almost anywhere. They need little labour for installation and can be removed quickly in an emergency.
- **Easy to use**
 It is very easy to connect and use. There are few controls, handling is intuitive and lights for the main indicators mean it can be used by any operator.



Process steps

1. Entry of raw water

With two input types, 3" or 4", depending on the flow of water to be treated.

2. Flocculant dispenser

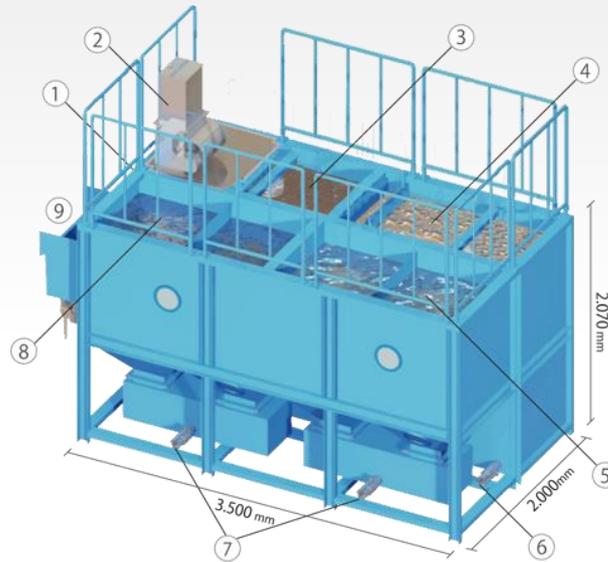
Tank with dosing system that controls the amount of flocculant depending on the water turbidity.

3. Primary coagulant tank

The water is stirred vigorously with the coagulating agent in this first flocculation stage.

4. Secondary coagulant tank

The water is stirred more moderately to optimize sedimentation in the second flocculation stage.



5. Primary sedimentation tank

First gross sedimentation stage, with an intermediate filter.

6. Water drainage

Both flocculation tanks have outlets to drain out the water.

7. Sludge outlet

2 x 3" outlets. The sludge exits under the pressure of the water without needing a pump.

8. Secondary sedimentation tank

Last sedimentation stage, with fine honeycomb filtration.

9. Water outlet

Clean water exits via a channel type waterfall or via 2 x 4" or 6" pipes.

Small NWC-6 model features only two tanks for the whole process.

Models

Model	Length [mm]	Width [mm]	Height [mm]	Performance [m ³ /h]	Power [kW]	Weight [Tons]
NWC-6	2.000	1.000	1.500	6-12	0,5	0,6
NWC-60	3.500	2.000	2.070	30-90	3,3	2,0

Accessories

The NIHON KASETSU Water Treatment may include different equipment and accessories to complete the water clarification process, such as:

- pH meters
- pumps
- turbidity measuring devices
- various filters for different types of sludge
- tanks
- hoses
- flow meters
- more...



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