

# Environmental Burden Reduction Initiatives

## Water Resource Initiatives

### Management of water withdrawal and wastewater discharge

YAMASHIN-FILTER CORP. works actively to reduce our water usage, and sets forth targets for the volume of water used at each of our business sites in line with our belief in the importance of conservation issues and effective use of limited water resources. We have therefore established the following two medium- to long-term targets.

- By FY2032, reduce group water withdrawals by 25% from the FY2022 level.
- Decrease the intensity of water withdrawal volume

In terms of water quality control, our Saga Plant treats its wastewater with microorganisms before filtering (physical treatment) and pH adjustment (chemical treatment), thus discharging it outside the plant only after confirming that it poses no problems with respect to water quality standards. Inspections are conducted by external organizations on a regular basis to keep wastewater quality constantly within the standard parameters. In FY2022, we installed a new wastewater treatment facility to promote increased water recycling rates at our paper manufacturing line. Having fluctuated at around 50% until then, the wastewater recycling rate rose to 100% once the system was adopted.

### Water intake volume (by intake source) (Unit: m<sup>3</sup>)

Water withdrawal source	Scope	FY2019	FY2020	FY2021	FY2022
Water supply	Domestic	8,788	15,786	14,270	14,461
	Overseas	—	10,453	15,833	9,312
Industrial water	Domestic	0	0	0	0
	Overseas	—	0	312	5,764
Other (Underground water, river water, rainwater)	Domestic	0	0	0	0
	Overseas	—	0	0	0
<b>Group</b>		<b>8,788</b>	<b>26,239</b>	<b>30,415</b>	<b>29,537</b>
<b>Intensity (m<sup>3</sup> / millions of yen)</b>		<b>0.69</b>	<b>1.80</b>	<b>1.62</b>	<b>1.59</b>

### Wastewater discharge volume (by discharge destination) (Unit: m<sup>3</sup>)

Wastewater destination	Scope	FY2019	FY2020	FY2021	FY2022
Sewage	Domestic	5,158	10,951	8,315	7,163
	Overseas	—	10,453	16,145	15,076
Wastewater treatment facility*	Domestic	3,630	4,835	5,955	7,298
	Overseas	—	0	0	0
Other (River, ocean)	Domestic	0	0	0	0
	Overseas	—	0	0	0
<b>Group</b>		<b>8,788</b>	<b>26,239</b>	<b>30,415</b>	<b>29,537</b>

\*Wastewater treatment facility within the Saga Branch Office

Scope of data

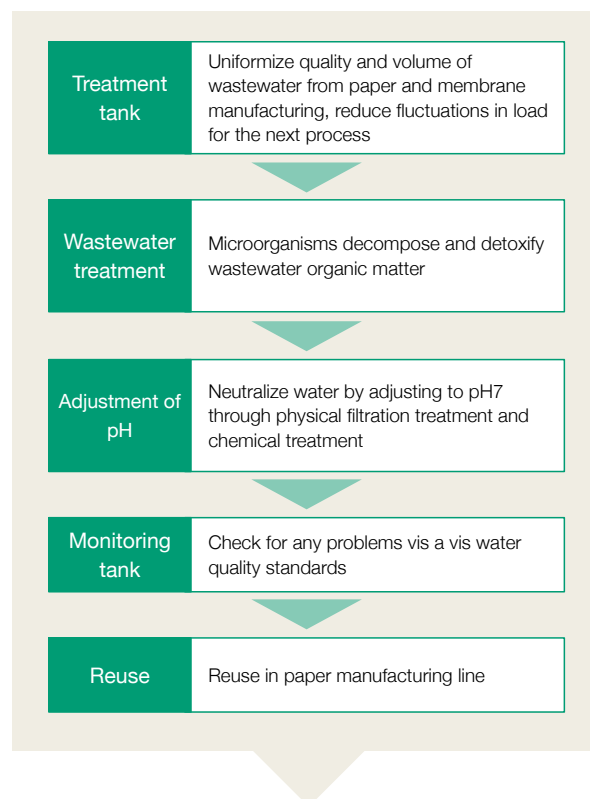
\*FY2019: Yokohama Development Center, Yokosuka Media Lab, Saga Branch Office

\*FY2020: Yokohama Development Center, Yokosuka Media Lab, Saga Branch Office, Suzhou Research Institute, Cebu Plant

\*FY2021: Yokohama Development Center, Yokosuka Media Lab, Saga Branch Office, Suzhou Research Institute, Cebu Plant, Vietnam Plant

\*FY2022: Yokosuka Innovation Center, Saga Branch Office, AQC Corporation, Suzhou Research Institute, Cebu Plant, Vietnam Plant

### Saga Plant Wastewater Treatment Flow



A water recycling rate of **100%** achieved

### Water Risk Assessment

We carried out a water risk assessment in order to understand and properly address various water risks, including those associated with production plant water supply and flooding. Using the Aqueduct global standards tool from the World Resources Institute (WRI), we conducted primary assessments at all four of our domestic and overseas sites. Since these tools are strictly for reference values, we plan to carry out a second round of risk assessments in FY2023, including secondary assessments (checking hazard maps, etc.) and interviews intended to evaluate water risk more accurately.

### WRI Aqueduct Evaluation Results

Production site	Water stress level
Saga Branch Office	Low (1-2)
AQC Corporation	Low (1-2)
Cebu Plant	Very high (4-5)
Vietnam Plant	Very high (4-5)

Note: Five water stress levels: very low [0-1], low [1-2], medium [2-3], high [3-4], very high [4-5]

## Waste Reduction Initiatives

### In-house Initiatives

In working to reduce the environmental impact of day-to-day operations, YAMASHIN-FILTER CORP. sets environmental targets for individual items such as waste separation at production and business sites. We have therefore established the following new medium- to long-term waste reduction targets.

- By FY2032, reduce group waste emissions by 20% from the FY2022 level.
- A waste recycling rate of 95% or more

In FY2022, the group as a whole, including our overseas production sites, took in 5,572 tons of raw materials and discharged 795 tons of waste externally. At our domestic sites, we achieved a recycling rate of 97.1%.

### Primary raw material inputs

(Unit: t)

Raw materials	FY2021	FY2022
Aluminum	1,456	1,022
Steel	2,920	2,205
Stainless steel	288	259
Synthetic fiber	539	335
Cardboards, paper products	435	394
Other	2,272	1,357
<b>Total</b>	<b>7,910</b>	<b>5,572</b>

### Waste emissions and hazardous waste volume

(Unit: t)

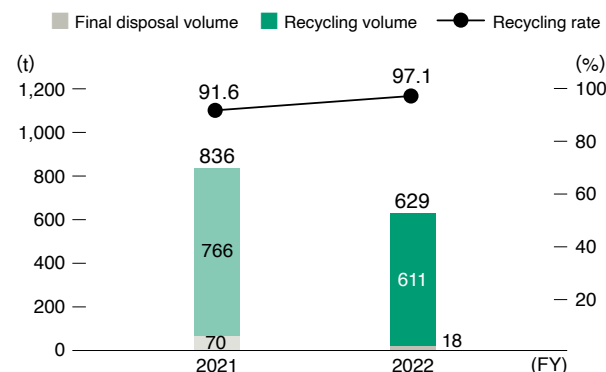
Classification	Scope	FY2021	FY2022
Sludge	Domestic	132.8	127.3
	Overseas	31.5	0
Waste oil	Domestic	60.5	26.6
	Overseas	21.5	47.0
Scrap metal	Domestic	125.8	97.8
	Overseas	0	2.8
Waste plastic	Domestic	474.1	339.0
	Overseas	0	0.6
Other	Domestic	84.2	82.5
	Overseas	39.8	71.5
<b>Group</b>		<b>970</b>	<b>795</b>
<b>Of which, hazardous waste</b>		<b>142</b>	<b>131</b>

Scope of data

\*FY2021: Yokohama Development Center, Yokosuka Innovation Center, Saga Branch Office, AQC Corporation, Suzhou Research Institute, Cebu Plant

\*FY2022: Yokosuka Innovation Center, Saga Branch Office, AQC Corporation, Suzhou Research Institute, Cebu Plant, Vietnam Plant

### Final Disposal Volume, Recycling Volume, Rate (Domestic)



### Initiatives for Management of Hazardous Chemicals and Waste

In order to ensure that chemical substances are properly managed at our company, we use safety data sheets (SDS) and task procedures to keep our employees informed of the importance of handling methods and protective equipment, including in the disposal of chemical substances. A manager in charge of chemical materials is assigned to each plant and works to ensure proper management and disposal of hazardous waste through tasks such as comprehensive management of data on hazardous waste volumes.

### Making a Contribution Through Our Products

YAMASHIN-FILTER CORP. develops environmentally friendly products based on analysis of the product life cycle from raw material selection to disposal. We sell long-life filters featuring extended service life, air filter products with lower CO<sub>2</sub> emissions, and high-performance masks suitable for repeated use (see p. 20). By offering environmentally friendly products, we help conserve energy and resources as we continue to study the potential for recycling systems for products made with nano-fibers.