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Client review
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HAGIHARA 萩原工業株式会社
№2
December 2023

The first domestic project to recycle used blue tarps was successful thanks to FILSTAR®.

Hagihara Industries Inc.

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・A manufacturer of plastic products and machinery based on flat yarn* technologies. In 2020, the company launched Japan's first used blue tarps recycling project, “ReVALUE+” and is actively working to promote eco-friendliness throughout the plastics industry and to solve environmental problems caused by waste plastic. (flat yarn: synthetic fibers)

・What we do: Manufacture and sale of products using synthetic fibers, industrial machinery applying related technologies

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Summary

What was your company's issue?

Contaminations in the Water Tank

The plastics industry is basically dependent on petroleum-derived raw materials. As a result, we face global environmental issues such as CO2 emissions from manufacturing and incineration, and waste plastic problems. As a leading manufacturer of blue tarps, we have launched "ReVALUE+," a project to recycle used blue tarps. This was the first attempt in Japan. However, we had difficulty removing contaminants (e.g, sludge) from the water that was used to wash blue tarps.

Why FILSTAR®?

Improved Functionality and Productivity

There are multiple methods for separating contaminants from water. Our company actually experimented with various methods but could not obtain satisfactory results. When we were about to give up on it, we heard about FILSTAR®. We immediately conducted experiments and found that the separation performance was better than expected. Moreover, it is very easy to maintain, requiring no cleaning and replacement of dirty filters. Thus, it has the potential to greatly improve work efficiency and work environment, and we decided to introduce it to our company.

How FILSTAR® Works?

Reduced the Amount of Water Usage by Recycling

The use of FILSTAR® made it possible to continuously and constantly separate contaminants smaller than 20μ (*1) from water, which was a prerequisite, and accelerated the realization of our "ReVALUE+" project in deed. Since used water can be used again after conducting the separation, the amount of water consumption has been greatly reduced. As a result, this has contributed to greater environmental friendliness within plastics industry overall.

※1：μ(micron): 1/1000th of a millimeter.
FILSTAR® can separate contaminant as small as 5μ.

Issues Plastics Industry Is Facing Now

Blue Tarps Reproduction Requires Innovative Separation Technology

Lately, there has been increasing concern about environmental issues such as climate change and the reduction of CO2 emissions. That is why we have started an activity to recycle used blue tarps called “ReVALUE+.” This is an activity to recycle used blue tarps and transform them as new ones.

Blue tarps are used for a variety of purposes, so in order to recycle them, the tarps must be crushed and washed with clean water to remove sediments and other contaminants. For this reason, contaminants in the water must be separated so that large amounts of water is needed to be consumed. In our case, we needed to continuously and constantly separate contaminants larger than 20 microns. Of course, there are various technologies for separating, but none of them has a method or product with performance that satisfies us.

How did you know FILSTAR®?

High Separation Performance and Easy Maintenance

Our company investigated and researched various separation technologies to ensure the success of the “ReVALUE+” project. We consulted with professors at universities and technical colleges, but could not get good answers. When I was thinking about what we could do, I suddenly remembered that a machine parts processing company I knew was filtering and separating contaminants from cutting fluid. So, I called them and they told me that they had a good one, which was FILSTAR®.

We immediately contacted industria Co.Ltd. to conduct a separation experiment. We found that the numerical results were stable. It was more accurate than we had anticipated. The excellent thing about FILSTAR® is that it has no filter, so there is no need to clean or replace dirty filters. This has significant advantages in terms of work efficiency and work environment. As mentioned above, high separation performance and easy maintenance were the reasons why we chose FILSTAR®.

The Benefits FILSTAR® Brings You

Improved quality of the recycled material with clean water

Blue tarps may be used at construction and engineering sites, or indoors in factories and workshops. Therefore, the degree of deterioration and the type of contaminations can vary. We have now purchased two FILSTAR® units, both of which are performing as expected, and we are considering adding more.

When circulating, you can visibly see a remarkable change in the water tank. Cleaner water also improves the quality of the recycled material. In addition, once water is used, it can be reused, greatly reducing the amount of water discharged.

FILSTAR® is still a few examples in the plastics industry, but it is very capable and we hope that the product will spread throughout the industry to promote eco-friendliness.

For the Bright Future

Be Innovative with industria Co.Ltd.

As a blue tarps manufacturer, we want to carry out this “ReVALUE+” project not only for our own sake, but also to promote eco-friendliness in the plastics industry as a whole. So, we are disclosing all information on new technologies obtained through the project. FILSTAR® has become an integral part of the “ReVALUE+” project. Separating contaminants from used water has a significant impact on the quality of the recycled plastic. It also affects the quality of the recycling itself.

Our company’s slogan is to “be innovative and creative.” In a sense, FILSTAR® is truly helping us to create new technologies. Solving environmental problems requires cooperation with multiple companies with specialized technologies. We will continue to create new technologies through collaboration with industria Co.Ltd. and contribute to the realization of a sustainable society.