



Basca washing machine to clean IBC's dirty of water treatment chemicals

Discover how our client, a manufacturer of water treatment chemicals, has improved the process of washing IBC's, reducing washing cost by **79,8%** increasing cleaning quality, operator safety and gain.

Initial situation

The customer has the need to wash about 10 IBC's per day, the initial situation involved a third party that was collecting the IBC giving back clean IBC's. The customer said to us **"Nice service, but I need to cut that cost to increase my profit to become more competitive"**. The cost he was talking about was exceeding € 250 per day (about € 25/IBC). In addition the truck was collecting the waste IBC's just once per week, so he had to keep busy an area of the company to store the empties, about **20 m²**.

The applied solution



Basca supported the client to analyze facts and figures of his situation, suggesting possible solutions to wash the IBC's in automatic, enviro friendly and safe way. Then a washing test at Basca facilities has been done to find the most suitable machine configuration. Once the desired machine configuration has been finalized, we have supplied a Basca Washing Machine equipped with a 200 bar pump to spray the water on the tank surface granting a perfect cleaning in about 5 to 8 min/IBC.

Because the water consumption was so small the customer decided not to implement a wastewater recovery system, that anyway can be easily installed in a second step and connected to the washing machine.

The whole system is managed by a single operator less than 2 hours/day, which allowed the company to let him perform other tasks, thanks to time savings, generating great value for the company itself.

How it works

The operator brings the dirty IBC to the machine, selects the program in the control panel, brings down the washing head and starts the cycle.

The washing head starts its rotation and contemporary spray of the washing water in recirculation at 160 Bar 70°C. The washing machine has 3 different programs, Eco Wash, Normal Wash, Intensive Wash, that can be chosen according to the type of product to be washed away and dirt.

At the end of the washing cycle, the machine automatically switches to the rinsing mode and injects clean water into the system. Rinsing water is sucked from the wastewater treatment stocking tank.

Applying this technology, a single operator manages all the operations of the system, the company has the possibility of washing a greater number of mixing tanks in short time, the risk of health problems is reduced by eliminating the exposure of workers to toxic products and simplifies the management of dangerous products.

Results obtained

DESCRIPTION	UNIT VALUE	TOTAL VALUE PER YEAR
Cost of external IBC wash	€ 25,00	€60.000,00
Cost of in house IBC wash*	€ 5,05	€ 12.120
Savings	€ 19,95	€ 47.880
Payback time	less than 12 months	

Energy cost (€KWh) + labor cost + water disposal cost + maintenance

- Energy cost €/KWh 0,15

1 cycle of 10' is consuming about 3.33 KW -> $0,15\text{KWh} \times [(20\text{KW}/60') \times 10'] = € 0,50/\text{cycle}$

- Labor gross cost €/year 23.000 -> €/h 13,00

1 operator involved 2 hours per day = € 26,00 -> € 2,60/Cycle

- Water disposal cost €/m³ 100

1 cycle consumption is about 15l -> $[(100 \text{ €/l} / 1000l) \times 15l] = € 1,5/\text{cycle}$

- Maintenance cost €/year 1.000

Filters, washing nozzles, pump diaphragm -> $(1000/220 \text{ working days} / 10 \text{ IBC}/\text{day}) = € 0,45/\text{cycle}$

[DOWNLOAD BASCA VALUE REPORT TO CALCULATE YOUR OWN COST FOR CLEANING IBC'S](#)

Benefits

Increase in production - a greater number of tanks that can be washed.

Increase in efficiency - less dispersion of resources and controllable processes.

Labor cost reduction - reduction of low added value activities.

Increased safety - no more jobs at high risk to health and elimination of the transport of hazardous substances.

Greater flexibility - the ability to wash different types of containers

Large savings – in house washing is more sustainable and much cheaper