

GOOD PRACTICES AND TECHNOLOGIES

Reducing Footprint in Water

Water Unites Us - SuizAgua América Latina



Recirculation and color removal waste water treatment plant

Solution Type: Water reduction.
Water reuse.

SDG: 6.3 Improve water quality.
6.4 Water efficiency.



Implementing Company

Fabricato

Sector:

ISIC Code 1312 Weaving of Textiles

Location:

Bello – Antioquia- Colombia 6°19'41.64"N 75°33'20.28"O

Update: 02 Feb. 2018



Results

- 22% water withdrawal reduction. Equivalent to water use of 4000 homes.
- CO² Reduction through wastewater neutralization process, it estimates to capture 723 ton CO² annual.
- 181.065 m³ treated water reused.
- 15% electricity reduction.



Other Benefits

- 11.2 % wastewater reduction to public sewage and 12% savings in wastewater associated costs.
- USD 54.333,3 electricity savings.
- USD 221.000 water withdrawal savings.



Provider References

Provider: ODIS Filtering.

Contact information: <http://www.odisfiltering.com/> - Israel.



Implementing Company:

Implementing Company: Fabricato

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Description Good Practice and Technologies

The Recirculation and color removal waste water treatment plant has modular technology. With 50,000 m³/month recirculation and treatment capacity of wastewater from indigo dyeing process and poplin and drill lines. Wastewater is neutralized with CO₂ from thermoelectric plant before treatment starts, reducing pollutant emissions to atmosphere and carbon footprint.

Water is treated and clarified to meet process water requirement for recirculation on closed loop. The plant has 2000 m³ oxidation tanks, there effluents are oxygenated and prepared for dyes removal, then goes to mechanical and chemical process through 4 reactors. Dyes are collected and delivered to authorized company in solid stated.

Therefore, Denim finishing and dyeing process are done without effluents to public sewerage. Wich is connected to Empresas Publicas de Medellin (EPM) collector.

A first stage allows treatment for 20 liters per second; in 2018 duplicate this capacity to 40 liters per second is intended. This will allow recirculate 100.000 m³ per month.



Operation and Investment Costs

Investment Cost: 3´442 USD year 2016.

Non-monetary costs: operation Human Resource, plant maintenance, and WWTP commissioning



Limitations and Recommendations

No relevant recommendation.



References

https://www.youtube.com/watch?v=Nrp2Xnp_y1s