Sustainable denim manufacturing at a large scale unit

Best practices at Arvind Ltd., Mysore Road unit, Bengaluru
Background

Arvind Ltd (earlier Arvind Mills) was founded in 1931 by the Lalbhai family, who were pioneers in the textile industry and one of the first few industrial manufacturers in the country.

Over the next decades, Arvind has grown into a USD 1.7 bn conglomerate, with several brands and manufacturing facilities under its wings.

"We at Arvind try to reduce our water and other environmental footprint through a combination of latest technologies and collaborations with ecosystem players."

- Shrinivas Naik, Head, Sustainability

Organization background and motivation

Arvind Ltd. is an industry leader in sustainability practices. The organization focuses on R&D to continually improve both its products and its environmental and social performance.

At its Mysuru Road facility, Arvind utilizes around 1000 cu. m. water per day. To avoid depletion of freshwater sources, the entire demand is met through tertiary treated municipal sewage water.

Arvind is leading an ecosystem transformation through industrial symbiosis. It receives 100 kilolitres of RO treated wastewater from pharmaceutical units and uses the water in the boiler and washing units.

Arvind also uses automated systems to improve water use efficiency in its processes.
Recovery and recycling

In-house Effluent Treatment Plant treats wastewater as per Karnataka State Pollution Control Board norms. Treated water is blended with water supplied by Bengaluru municipality. This has reduced the net water consumption by around 2 lakh litres per day.

A sand filter is installed to recover the backwash water of Process Inlet filter, thereby saving around 25,000 litres/day.

60% of the boiler feed water is recycling back through condensate recovery system

Installed catalytic water softener to process water input line for better quality and efficiency

Water sustainability

The unit on Mysuru Road, Bengaluru uses 100% recycled water for processing activities, sourced from Bengaluru Municipal Corporation’s sewage treatment plant.

This initiative had been started in 2006 as a sustainability project. A pipeline was laid from the municipal plant which is almost 4 kms away from Arvind’s premises and successfully carried out with Arvind’s own funds of about INR 1 crore. This was a big milestone in Arvind’s sustainability programs.

Arvind is the first and only denim industry in Bengaluru to start such a initiative. There is a plan to further reduce the water footprint by installing a Zero Liquid Discharge (ZLD) facility.

Overall, this initiative saves about 8 lakhs litres per day of groundwater in Bengaluru.
Sustainable technology and practices

- Using E flow and E Soft advanced technology machines which consumes less water
- Using water efficient washing machines
- Adopted EIM software technology for washing
- Adopted best practices like conscious and water less washings
- No stone washing
- Advance ozone and laser machines
- Implemented rain water harvesting system by installing rooftop catchments in May 2016 for 44,500 Sq feet. The maximum rainwater can be harvested is 80 lakh litres per year on an average basis. This collected rainwater is used for the laundry purposes

Measures and incentives

- Awareness among stakeholders on different ways to use wastewater can help the industry adopt best practices. The early movers should be suitably incentivized to encourage them to make investments. Also, a cost-benefit analysis can be done to compare costs of using water tankers as opposed to investing in pipelines to use treated sewage.

- The government can support creating infrastructure such as pipelines between Bengaluru Water Supply and Sanitation Board’s facilities and the industries. This will enable the industries to utilize treated wastewater.

- An ecosystem can be created where industries are able to exchange or supply excess water with other units. Such a synergistic relation will enable maximum utilization of treated wastewater, and minimize freshwater use.
Contact us

CENTRE FOR RESPONSIBLE BUSINESS

USO House, USO Road, 6 Special Institutional Area
Off Shaheed Jeet Singh Marg, New Delhi-110067 (India)

Phone : +91 7838953577
E-mail: info@c4rb.in