

# TWT EXPERIENCE

Customer NISHAT MILLS LTD - PAKISTAN

Sector INTEGRATED TEXTILE MILL

Plant MICRO-FILTRATION, ULTRA-FILTRATION SYSTEM

**FOLLOWED BY REVERSE OSMOSIS** 

#### **BACKGROUND**

Nishat Mills Ltd is the flagship company di Nishat Group. It was established in 1951 and now it is one of the most modern, largest vertically integrated textile companies in Pakistan.

Nishat Mills Limited has 303,048 spindles, 959 Toyota air jet looms. The Company also has the most modern textile dyeing and processing units, 2 stitching units for home textile, one stitching unit for garments and power generation facilities with a capacity of 120 MW. The Company's total export for the year 2022 was 422 million USD.

In 2016 Nishat setup a modern Effluent Treatment Plant having a capacity of 9.600 m³/d based on fully biological process to treat waste waters coming from some production units before discharge into channel.

# **PROBLEM STATEMENT**

In 2024 Nishat Mills Ltd according to its green label policy and due fresh water scarcity decided to integrate after the ETP a recovery plant for water reuse.

**TECNOIMPIANTI** have been selected for design and supply the new section granting a production of  $2.400 \text{ m}^3\text{/d}$  of water with best characteristics to be reused in the factory.

#### **PROBLEM SOLVING**

The multiyear experience of **TECNOIMPIANTI**'s staff in textile waste water for similar cases have permitted to design and supply a strong and reliable technological solution for the client.

Site quality test have been executed to characterize the effluent in all the aspects to verify all the possible interference with the recovery plant.

The analysis showed a complete compatibility with the technology proposed and applied in similar cases so pilot plant was not necessary.

## **TECHNOLOGY**

The solution adopted is a multistage process composed by microfiltration, Ultrafiltration and reverse osmosis. With a net production capacity of 2400 mc/day and recovery ratio > 90%.

## **APPLICATIONS**

All textile production plants aiming to recover and reuse their effluent.







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