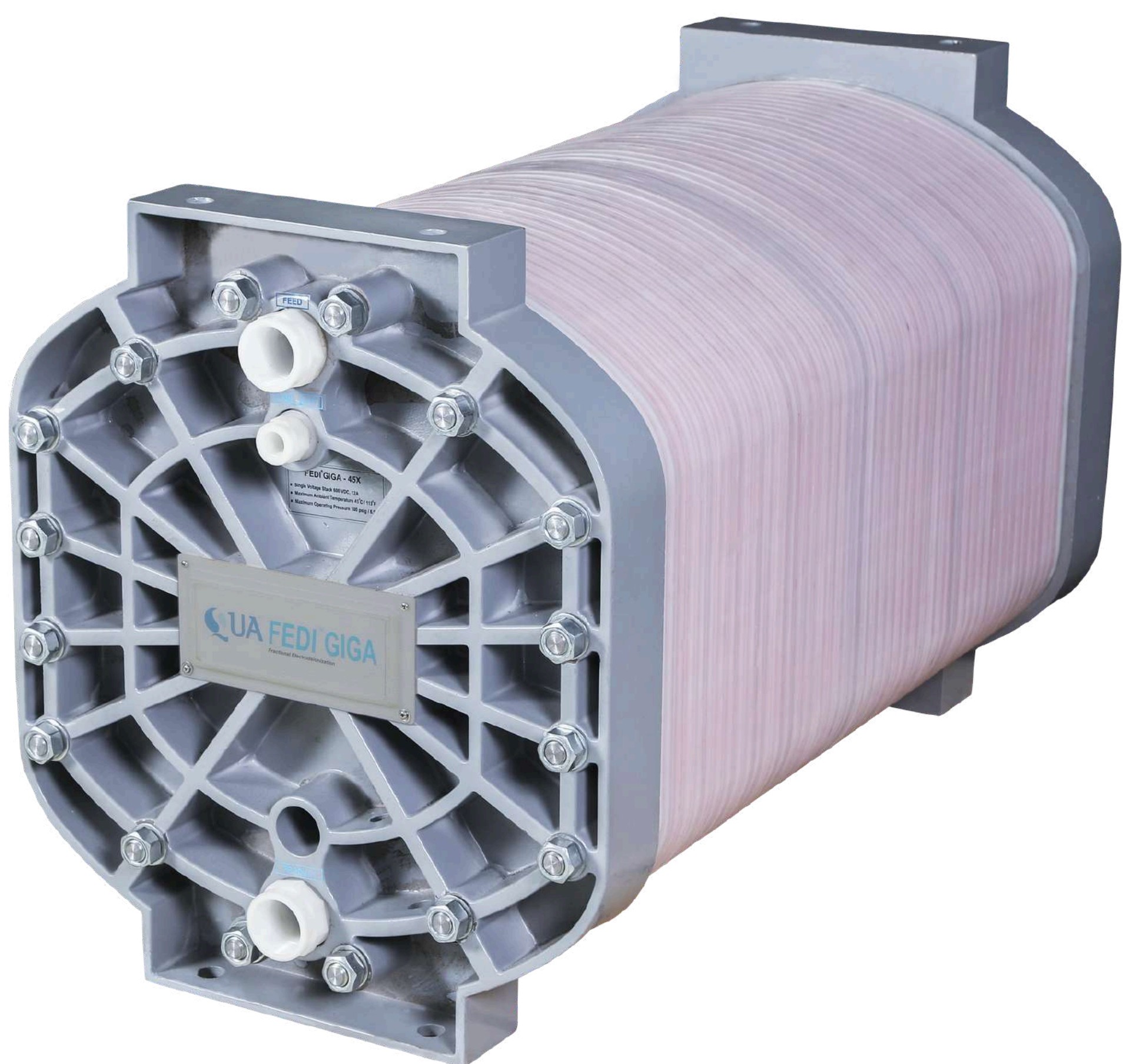




**Ensuring Reliable High-Purity
Water Supply with QUA's FEDI®
GIGA Solution for a Leading
Carbon Black Manufacturer**



Client: Leading Carbon Black Manufacturer

Ultrafiltration Capacity: 44.5 m³/hr

A global leader in sustainable carbon black manufacturing required a reliable, high-performance ultrapure water system for its boiler feedwater application at its facility in Tamil Nadu, India. High-pressure boilers require extremely pure water to prevent scaling, corrosion, and carryover, which can lead to severe equipment damage and operational downtime.

Challenges:

The facility previously relied on an electrodeionization (EDI) system from another manufacturer. However, the existing system struggled to maintain the required flow rate and operational reliability, prompting the company to seek a more efficient and dependable solution.

QUA provided a customized ultrapure water treatment system using its advanced FEDI® GIGA technology, enabling stable production of high-purity water required for the plant's power generation process.

QUA's Solution:

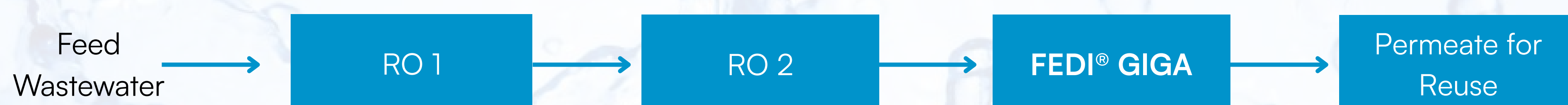
QUA provided a customized solution by replacing the existing system with its FEDI® GIGA 45X model. The new system consisted of FEDI® GIGA 45X stacks, delivering a total flow rate of 45m³/hr, ensuring high-purity water. QUA FEDI® GIGA's unique three port arrangement simplified the system with less instrumentation & hence improved operations.

QUA's FEDI® technology offered:

- Consistent and Reliable Performance - Ensuring uninterrupted ultrapure water production.
- High Efficiency - Optimized performance with reduced operational challenges.
- Superior Service and Support - Addressing the previous service issues with a commitment to reliability.

Feed Water Parameters	Product Water Parameters
Feed FCE :- 17.4 µS/cm	Resistivity :- 10 MOhms.cm
pH:- 7	
Feed Hardness :- 0.38 ppm	
Temperature :- 25 °C	

Process Diagram



Results

The new FEDI® GIGA system was commissioned successfully, and the customer has expressed complete satisfaction with its performance. The QUA FEDI® GIGA system has met the expected flow and quality parameters, providing a dependable solution for the facility.

By choosing QUA's advanced FEDI® GIGA technology, the customer has achieved improved operational reliability, ensuring a continuous supply of high-purity water essential for its manufacturing processes.