Customer Success Story

Location: US

Applied Membranes' advanced water treatment solutions provide ultrapure water for chip manufacturer

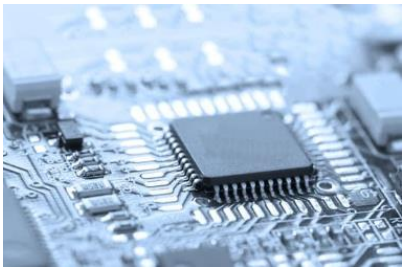
The consistent production of ultrapure water remains a critical need for semiconductor manufacturing.

Challenge

The customer, a leading chipmaker in semiconductor industry, needed ultrapure water for their chip manufacturing processes.

They required an advanced water treatment solution capable of consistently delivering ultrapure water.

In addition, the customer had footprint constraints at the installation site.



Solution

To meet the customer's requirements, Applied Membranes designed a specialized **double-pass RO system to produce 50,000 gallons/day (8 m3/h) of permeate of less than 6 µs/cm**.

Feed to the AMI Skid was softened, de-chlorinated, and at 55-77 deg F with less than 500 PPM TDS.

Each system could function as an independent operation or unified 2-pass water treatment plant.

The first pass RO recovery was more than 75% recovery, and second pass recovery was more than 80% recovery.

Each vessel could be valved off for maintenance without system shutdown, enhancing maintenance efficiency.

The system is PLC-controlled, ensuring data transmission for effective monitoring.

Key Features:

- Skid-mounted RO
- Booster pump
- Pressure and flow transmitters
- Conductivity analyzers

Results

Applied Membranes' system provides a consistent supply of ultrapure water for semiconductor manufacturing, maintaining the highest quality standards.

- **Consistent quality:** AMI system removes contaminants and consistently delivers ultrapure water. This is crucial for chip manufacturing and yielding high-quality electronic components.
- **Cost efficiency:** AMI system maximizes water recovery, contributing to sustainable practices and cost reduction.
- **Versatility:** With the flexibility to operate as individual systems or as a 2-pass system, the solution adapts to varying production needs and efficiency requirements.
- **Compliance:** AMI system is compliant with regulatory standards.

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