SECOND DESK

INTERNATIONAL ADVISORY

Double-pass RO & EDI

Low-conductivity and high-purity process water

WATER & ENVIRONMENTAL TECHNOLOGIES



AI-generated illustration | not an actual project reference

Product scope and commercial role

TECHNICAL SCOPE

- Double-pass RO
- Electrodeionisation
- Mixed-bed polishing
- Online conductivity and silica monitoring

SECOND DESK ROLE

Technical-commercial qualification, market development and manufacturer or partner coordination.



Source: Second Desk website | sector image, not project evidence

Design basis and operating envelope

INPUTS REQUIRED BEFORE A COMPARABLE QUOTATION

- Feed analysis
- Power or process-water specification
- Conductivity/resistivity
- Silica
- Carbon dioxide
- Peak demand

The owner and qualified manufacturer confirm operating conditions and applicable design basis before engineering release.

Engineering and component selection

DESIGN REVIEW POINTS

- Stage arrangement
- Interstage pH strategy
- EDI feed limits
- Recirculation
- Sampling points and materials

Selection trade-off

Assess interstage pH, dissolved CO_2 and EDI hardness limits. Confirm product spec at the battery limit under defined feed conditions.

Project drawings, tolerances and design details remain subject to the responsible supplier or engineer.

Representative technical section



AI-generated technical concept | not to scale or for fabrication

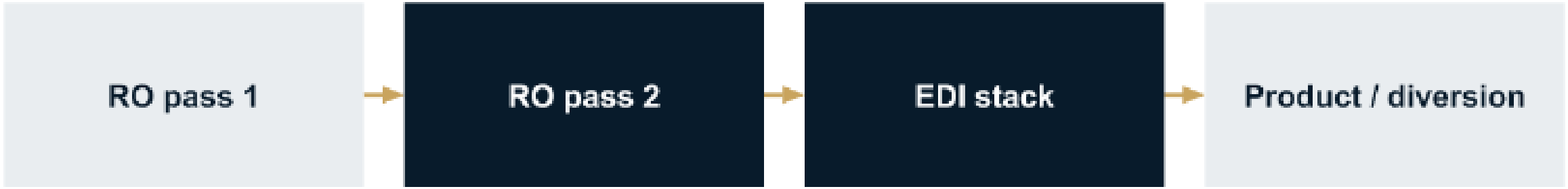
DETAILS TO CONFIRM WITH QUALIFIED SUPPLIER

- Stage arrangement
- Interstage pH strategy
- EDI feed limits
- Recirculation

Confirm the actual construction and dimensions from controlled supplier drawings or approved samples.

Representative functional arrangement

Conceptual sequence for technical discussion. Actual layout and interfaces depend on the approved specification.



Input boundary

Feed analysis / Power or process-water specification

Operating and output boundary

Product conductivity and silica as specified / Stable flow

Fabrication and assembly sequence



AI-generated manufacturing scene; illustrative only

TYPICAL CONTROLLED WORKFLOW

01 High-purity pipe fabrication

02 RO and EDI installation

03 Hygienic connections where specified

04 Controls panel

Inspection and quality control

TYPICAL QUALITY CONTROL POINTS

01 Material verification

02 Instrument certificates

03 Pressure test

04 Loop checks

05 Performance test with defined feed



AI-generated sector inspection scene; illustrative only

Inspection methods, sampling, hold points and sign-off depend on the order and approved quality plan.

Factory acceptance and site acceptance

FAT / manufacturing release

- Material verification
- Instrument certificates
- Pressure test
- Loop checks
- Performance test with defined feed

SAT / performance verification

- Product conductivity and silica as specified
- Stable flow
- Alarm and diversion
- Baseline log

Agree test conditions, tolerances, witness authority and punch-list closeout before testing. SAT is distinct from factory release.

Site integration and commissioning readiness



AI-generated application scene; illustrative only

SITE PREREQUISITES

01 Flush and sanitize as applicable

02 Verify EDI feed condition

03 Calibrate conductivity and temperature

Packing, logistics and delivery

PRODUCT-SPECIFIC PACKING CHECKS

01 Preserve modules

02 Protect sensors

03 Cap clean lines

04 Bundle electrical and utility drawings

Define the Incoterms® rule, named place, export documents, insurance responsibilities and site receipt process in the commercial agreement.



AI-generated logistics scene; illustrative only

Technical and commercial risk review

Compare redundant capacity, recirculation and instrument accuracy; require a start-up and out-of-spec diversion plan.

Design compliance

Compare the same data sheets, duty and explicitly agreed exclusions.

Technical evidence

Request relevant engineering documents, inspection plan and test records.

Execution risk

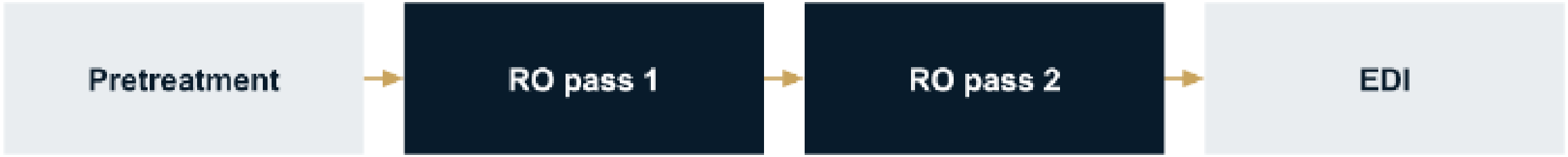
Check site access, spares, service scope and the manufacturer's support plan.

PUBLISHED ANONYMISED EXAMPLE

Published scope: high-purity water

5 m^3/h

Published capacity for a high-purity power-generation package.



The website describes PLC automation, SCADA-ready infrastructure and on-site commissioning.

Self-published, anonymised scope. Customer and project identity, role details and independent verification are not disclosed.

Responsibilities across the supply chain

OWNER / EPC	SECOND DESK	MANUFACTURER / CONTRACTOR
Defines duty, project constraints, site interfaces and acceptance authority.	Clarifies the opportunity, identifies suitable suppliers and coordinates technical-commercial communication.	Owns engineering, production, testing, guarantees, site execution and contractual obligations as agreed.

Supplier names, manufacturing capability, certificates, references and country-specific approvals are verified for each enquiry; no standing partner or factory is implied.

RFQ and evidence package

01	**Technical definition**	Duty and design basis, data sheets, scope boundaries and tie-in information.
02	**Supplier evidence**	Capability, drawings, applicable compliance, inspection plan and relevant references.
03	**Commercial offer**	Scope and exclusions, lead time, payment, Incoterms® rule, optional services.
04	**Handover plan**	FAT/SAT where applicable, documentation, spares, training and after-sales.

SECOND DESK

INTERNATIONAL ADVISORY

Discuss your next requirement

Share the application, target market or project, technical specification and expected delivery scope.

seconddeskinternational.com

Contact form: seconddeskinternational.com/#contact | Denizli, Türkiye | Meetings by appointment

SOURCE AND EVIDENCE NOTES

Second Desk sector page • US EPA: drinking-water treatment technologies • ICC Incoterms® guidance

Visuals: generated sector illustrations and Second Desk website imagery. Project provenance, supplier capabilities and certification remain unverified unless separately confirmed.