SECOND DESK

INTERNATIONAL ADVISORY

Filtration & conditioning

Pretreatment for process water and membranes

WATER & ENVIRONMENTAL TECHNOLOGIES



AI-generated illustration | not an actual project reference

Product scope and commercial role

TECHNICAL SCOPE

- Multimedia and sand filters
- Activated carbon
- Cartridge filtration
- Iron and manganese removal
- Chemical dosing

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 turbidity
- SDI
- Iron, manganese and organics
- Peak flow
- Backwash-water availability

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

Engineering and component selection

DESIGN REVIEW POINTS

- Media gradation and underdrain
- Service/backwash velocity
- Differential-pressure monitoring
- Chemical compatibility

Selection trade-off

Consider adsorption exhaustion, media fouling and backwash supply. Verify filter-bank duty during backwash.

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

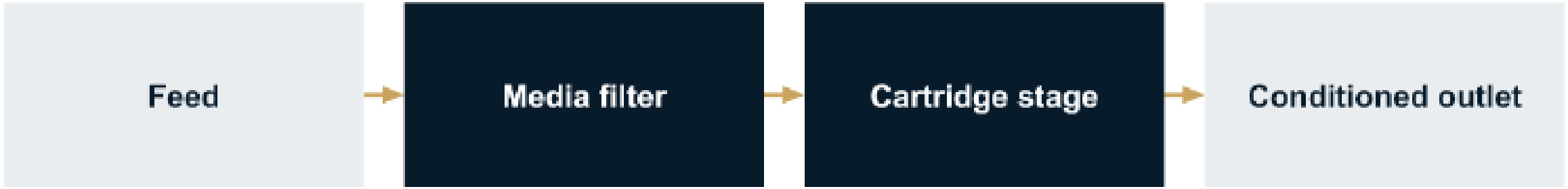
DETAILS TO CONFIRM WITH QUALIFIED SUPPLIER

- Media gradation and underdrain
- Service/backwash velocity
- Differential-pressure monitoring
- Chemical compatibility

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 turbidity / SDI

Operating and output boundary

Effluent turbidity / Differential pressure

Fabrication and assembly sequence



AI-generated manufacturing scene; illustrative only

TYPICAL CONTROLLED WORKFLOW

01 Vessel fabrication

02 Internals installation

03 Media loading plan

04 Valve manifold assembly

05 Instrumentation

Inspection and quality control

TYPICAL QUALITY CONTROL POINTS

01 Media certificates

02 Nozzle and strainer checks

03 Leak test

04 Valve sequence and pressure-drop baseline



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

- Media certificates
- Nozzle and strainer checks
- Leak test
- Valve sequence and pressure-drop baseline

SAT / performance verification

- Effluent turbidity
- Differential pressure
- Backwash cycle and return to service
- Sampling

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 piping

02 Load media per approved procedure

03 Validate drains and backwash flow

04 Calibrate transmitters

Packing, logistics and delivery

PRODUCT-SPECIFIC PACKING CHECKS

01 Ship media separately where required

02 Cap connections

03 Preserve instruments and valve actuators

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

Instrument ΔP across each vessel. Specify service flow, backwash flow, drain capacity and sampling points.

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: containerised SWRO

200 m³/day

Pretreatment capacity

76 m³/day

SWRO product

40 ft

Container format



Source: Second Desk website | provenance not independently verified

Published scope covers pretreatment, factory integration, FAT, transport and site commissioning in North Africa.

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.