SECOND DESK

INTERNATIONAL ADVISORY

Water treatment & disinfection

Fit-for-purpose irrigation water for crop and nutrient management

GREENHOUSE & AGRI-TECH



AI-generated illustration | not an actual project reference

Product scope and commercial role

TECHNICAL SCOPE

- Media filtration
- RO
- UV or other disinfection
- Storage and dosing interfaces

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

- Source-water analysis
- Crop requirements
- EC, alkalinity and hardness
- Seasonal water availability

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

Engineering and component selection

DESIGN REVIEW POINTS

- Treatment target and flow
- Blending
- Filter backwash
- Waste route
- Compatibility with fertigation

Selection trade-off

Compare treatment versus blending against crop requirements and seasonal source variation. Confirm analytical method and source representative sampling.

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

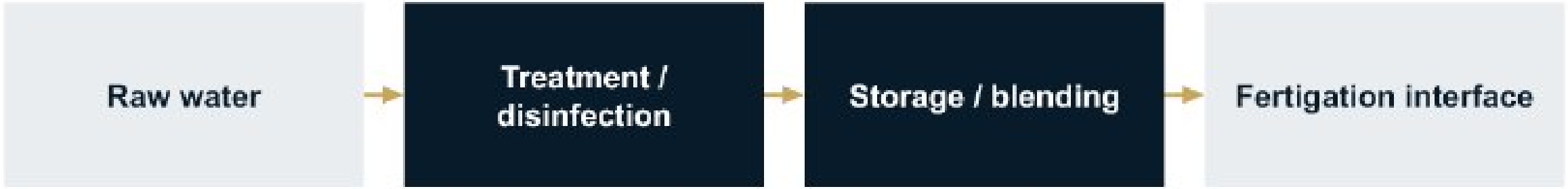
DETAILS TO CONFIRM WITH QUALIFIED SUPPLIER

- Treatment target and flow
- Blending
- Filter backwash
- Waste route

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

Source-water analysis / EC, alkalinity and hardness

Operating and output boundary

Agreed treated-water quality / Flow and alarms

Fabrication and assembly sequence



AI-generated manufacturing scene, illustrative only

TYPICAL CONTROLLED WORKFLOW

01 Skid fabrication

02 Filter and pump mounting

03 Piping

04 Instrument and control integration

Inspection and quality control

TYPICAL QUALITY CONTROL POINTS

01 Pressure and leak tests

02 Instrument calibration

03 Functional sequence

04 Water quality verification



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

- Pressure and leak tests
- Instrument calibration
- Functional sequence
- Water quality verification

SAT / performance verification

- Agreed treated-water quality
- Flow and alarms
- Irrigation interface
- Operator handover

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 Verify flow, drainage and utilities

02 Flush

03 Calibrate EC/pH

04 Coordinate with agronomist

Packing, logistics and delivery

PRODUCT-SPECIFIC PACKING CHECKS

01 Drain and preserve

02 Protect sensors and membranes

03 Include tie-in and operating documents

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

Account for rejected water and backwash; verify delivered EC and alkalinity with agronomic input.

Design compliance

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

Technical evidence

Request relevant engineering documents, inspection plan and test records.

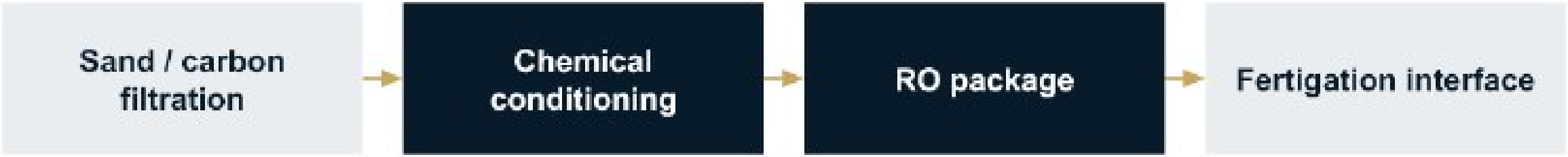
Execution risk

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

Published scope: greenhouse RO

50 m³/h

Published RO package capacity for controlled agriculture.



The website describes sand and activated carbon filtration, dosing, automatic flushing and CIP.

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 • FAO: good agricultural practices for greenhouse vegetables • ICC Incoterms® guidance

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