SECOND DESK

INTERNATIONAL ADVISORY

Wastewater & reuse

Effluent treatment, solids handling and water recovery

WATER & ENVIRONMENTAL TECHNOLOGIES



AI-generated illustration | not an actual project reference

Product scope and commercial role

TECHNICAL SCOPE

- Clarification and lamella
- Biological treatment / MBR
- Sludge handling
- Tertiary filtration and reuse

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

- Influent variability
- COD, BOD, TSS and salinity
- Available land
- Discharge or reuse criteria
- Sludge routing

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

Engineering and component selection

DESIGN REVIEW POINTS

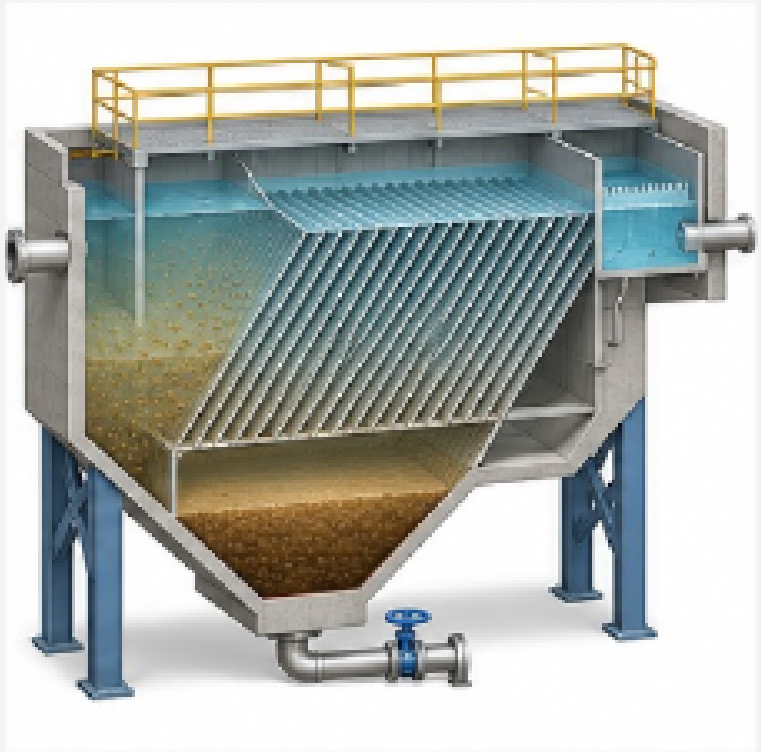
- Hydraulic and organic loading
- Solids separation
- Membrane fouling
- Sludge volume
- Oxygen demand and energy

Selection trade-off

Design for variability and confirm whether biological treatment, clarification or membranes fit the duty. Do not equate nominal flow with guaranteed effluent quality.

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

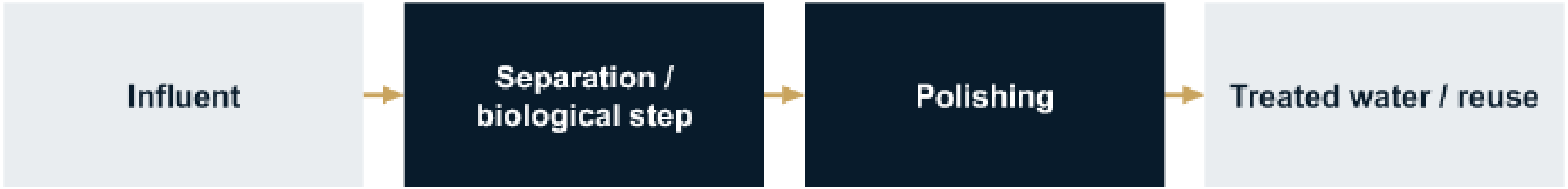
DETAILS TO CONFIRM WITH QUALIFIED SUPPLIER

- Hydraulic and organic loading
- Solids separation
- Membrane fouling
- Sludge volume

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.



Residuals and sludge leave the separation stages through a separately defined handling route.

Input boundary

Influent variability / COD, BOD, TSS and salinity

Operating and output boundary

Measured effluent criteria / Flow and solids balance

Fabrication and assembly sequence



AI-generated manufacturing scene; illustrative only

TYPICAL CONTROLLED WORKFLOW

01 Tank and frame fabrication

02 Plate packs or membrane module mounting

03 Aeration and controls integration

Inspection and quality control

TYPICAL QUALITY CONTROL POINTS

01 Material and weld checks

02 Leak test

03 Mechanical checks

04 I/O and level simulation

05 Defined sample plan



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 and weld checks
- Leak test
- Mechanical checks
- I/O and level simulation
- Defined sample plan

SAT / performance verification

- Measured effluent criteria
- Flow and solids balance
- Alarm and sludge handling checks

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 drainage and utilities

02 Mechanical rotations

03 Controlled startup under qualified process supervision

Packing, logistics and delivery

PRODUCT-SPECIFIC PACKING CHECKS

01 Clean and drain units

02 Secure internals

03 Separate consumables

04 Protect instruments and connections

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

Build the acceptance plan around representative feed, analytical method, sample timing and residual handling.

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.

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.