SECOND DESK

INTERNATIONAL ADVISORY

Tanks, vessels & pumps

Buffer storage, process transfer, booster and backwash duty

WATER & ENVIRONMENTAL TECHNOLOGIES



AI-generated illustration | not an actual project reference

Product scope and commercial role

TECHNICAL SCOPE

- Raw-water / buffer / product tanks
- Centrifugal, vertical multistage and transfer pumps
- Pressure vessels

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

- Peak and average flow
- Static and dynamic head
- Available NPSH
- Fluid chemistry and temperature
- Design pressure

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

Engineering and component selection

DESIGN REVIEW POINTS

- Tank nozzles and overflow
- Suction conditions
- Pump duty point and motor margin
- Isolation and non-return valves

Selection trade-off

Check pump curve at minimum and maximum demand. Confirm NPSH margin and suction-line geometry; review transient and overflow provisions.

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

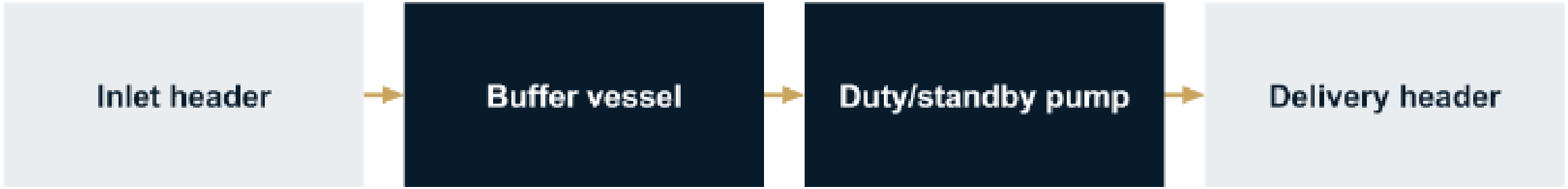
DETAILS TO CONFIRM WITH QUALIFIED SUPPLIER

- Tank nozzles and overflow
- Suction conditions
- Pump duty point and motor margin
- Isolation and non-return valves

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

Peak and average flow / Static and dynamic head

Operating and output boundary

Duty point / Pressure stability

Fabrication and assembly sequence



AI-generated manufacturing scene; illustrative only

TYPICAL CONTROLLED WORKFLOW

01 Plate cutting and rolling

02 Nozzle fit-up

03 Qualified welding

04 Surface finishing

05 Pump base alignment

Inspection and quality control

TYPICAL QUALITY CONTROL POINTS

01 Material traceability

02 Weld inspection as specified

03 Hydrostatic or leak test

04 Rotation and vibration check



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 traceability
- Weld inspection as specified
- Hydrostatic or leak test
- Rotation and vibration check

SAT / performance verification

- Duty point
- Pressure stability
- Dry-run and level interlocks
- Leakage and noise

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 Foundation levels

02 Anchor and grout

03 Pipe stress at nozzles

04 Suction priming and alignment

Packing, logistics and delivery

PRODUCT-SPECIFIC PACKING CHECKS

01 Drain and dry

02 Protect flanges and shafts

03 Secure base frame

04 Tag lifting points

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

Tank storage volume is separate from pump head. Specify whether tank is atmospheric or pressure-retaining; review nozzle schedule and venting.

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.