SECOND DESK

INTERNATIONAL ADVISORY

Process & mechanical equipment

Mechanical package qualification for plant procurement

ENERGY & INFRASTRUCTURE



AI-generated illustration | not an actual project reference

Product scope and commercial role

TECHNICAL SCOPE

Pumps, vessels, exchangers, valves and mechanical assemblies

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

- Process data sheets
- Mechanical design conditions
- Materials
- Code basis
- Installation loads

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

Engineering and component selection

DESIGN REVIEW POINTS

- Duty, pressure and thermal criteria
- Nozzle loads
- Maintainability
- Spares strategy

Selection trade-off

Review materials, nozzle loads and corrosion allowance where applicable. Confirm guaranteed duty, performance tolerance and test 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

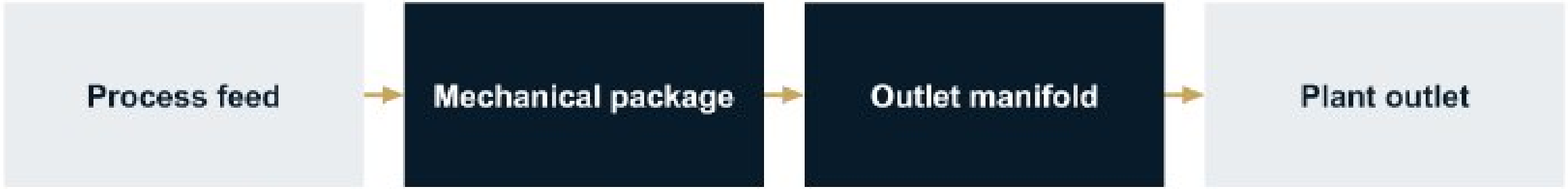
DETAILS TO CONFIRM WITH QUALIFIED SUPPLIER

- Duty, pressure and thermal criteria
- Nozzle loads
- Maintainability
- Spares strategy

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.



Controls, power and utility services are coordinated as separate interfaces.

Input boundary

Process data sheets / Mechanical design conditions

Operating and output boundary

Mechanical run / Duty checks

Fabrication and assembly sequence



AI-generated manufacturing scene, illustrative only

TYPICAL CONTROLLED WORKFLOW

01 Material receipt and traceability

02 Fabrication and qualified welding as applicable

03 Machine critical interfaces

04 Mechanical assembly and alignment

05 Surface finishing and inspection release

Inspection and quality control

TYPICAL QUALITY CONTROL POINTS

01 MTC and traceability

02 Dimensional and specified NDT

03 Pressure and mechanical tests



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

- MTC and traceability
- Dimensional and specified NDT
- Pressure and mechanical tests

SAT / performance verification

- Mechanical run
- Duty checks
- Vibration and leakage
- Turnover dossier

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 civil and piping interface

02 Alignment

03 Lubrication

04 Safe commissioning

Packing, logistics and delivery

PRODUCT-SPECIFIC PACKING CHECKS

01 Protect flanges and shafts

02 Preservation

03 Package list with tag numbers

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

Specify ITP witness points and vendor data requirements before order. Check spare parts and servicing access.

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 • ASME B31.3: process piping (where applicable) • ICC Incoterms® guidance

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