SECOND DESK

INTERNATIONAL ADVISORY

Irrigation & fertigation

Precise water and nutrient delivery to crop zones

GREENHOUSE & AGRI-TECH



AI-generated illustration | not an actual project reference

Product scope and commercial role

TECHNICAL SCOPE

- Dosing units
- Mixing tanks
- Irrigation manifolds
- Drip distribution
- EC/pH automation

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

- Crop and substrate
- Zone demand
- Emitter flow
- Source-water chemistry
- Nutrient programme by agronomist

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

Engineering and component selection

DESIGN REVIEW POINTS

- Pressure uniformity
- Filtration
- Injection method
- Sensor location
- Backflow protection
- Zone control

Selection trade-off

Check injection accuracy over the full flow range. Validate hydraulic uniformity at the farthest emitters and confirm filtration specification.

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

- Pressure uniformity
- Filtration
- Injection method
- Sensor location

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

Crop and substrate / Zone demand

Operating and output boundary

Zone flow and pressure / Dosing consistency

Fabrication and assembly sequence



AI-generated manufacturing scene, illustrative only

TYPICAL CONTROLLED WORKFLOW

01 Manifold assembly

02 Tank and dosing pump installation

03 Tubing and valve assembly

04 Calibration

Inspection and quality control

TYPICAL QUALITY CONTROL POINTS

01 Leak checks

02 Dosing pump output

03 I/O and alarms

04 Emitter uniformity checks



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

- Leak checks
- Dosing pump output
- I/O and alarms
- Emitter uniformity checks

SAT / performance verification

- Zone flow and pressure
- Dosing consistency
- EC/pH trends
- Acceptance by crop operator

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 mains and laterals

02 Verify pressure

03 Calibrate instruments

04 Confirm recipe control with grower

Packing, logistics and delivery

PRODUCT-SPECIFIC PACKING CHECKS

01 Protect sensors

02 Cap irrigation lines

03 Label zones

04 Include spares and manuals

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

Crop recipe, pH and EC targets remain the agronomist's responsibility. Define control authority and alarm response.

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 • 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.