

Saffron Weighing & Dose-Packing Line

Complete Turnkey Business Proposal



Real protected precision balance representative of controlled saffron dose verification.

0.25-5 g launch net-weight range	0.001 g primary scale readability	2-3 launch pack formats	4-8 entry operators
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Prepared for investment planning in Afghanistan and regional export markets. Final specifications, pricing, civil works, and utility loads require supplier quotation and site survey.

Executive Summary

A precision packing cell for released saffron grades, using protected micro-weighing, manual or assisted dosing, container inspection, sealing, tamper evidence, coding and check-weighing. The line is designed for very small declared net weights where drafts, static and thread bridging can cause serious giveaway.

Why this project fits Afghanistan

- Small packs multiply the retail value of verified Afghan saffron.
- Precision control reduces costly product giveaway.
- Tamper evidence and lot coding support buyer confidence.
- A manual-assist cell can start below the cost of fragile full automation.

Sanaatchi delivery scope

- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning
- International logistics, customs documentation, operator training, spare parts, and after-sales support

Recommended configuration

For the lowest credible entry, use two draft-shield 0.001 g balances, anti-static hand tools, a validated manual dosing bench, jar or sachet sealer, label coder and independent check-weigh station for two or three launch weights.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Retail saffron jars	Declared net weight, sealed inner barrier and tamper evidence	Retail, gift and hospitality buyers
Barrier saffron sachets	Light- and moisture-protected small dose with lot code	Retail, food-service and export buyers

Saffron threads bridge and are affected by air movement and static. Acceptance must use the chosen saffron grade and every launch package, then report mean weight, standard deviation, underweight frequency, giveaway and seal integrity.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Draft-shield precision balances	Measures sale doses without air-current error	0.001 g readability and legal verification
2	Anti-static dosing bench	Supports controlled manual placement	Dark food-grade surface and protected tools
3	Low-dose assisted weigher	Pre-portions suitable thread grades	Only after product trials
4	Container inspection station	Checks jars, lids, sachets and labels	Two or three launch formats
5	Jar induction or band sealer	Applies inner barrier and tamper evidence	Matched to selected closure
6	Sachet heat sealer	Seals high-barrier pouches	Validated temperature, time and pressure
7	Coder and label applicator	Applies lot, date and declared grade	Readable permanent code
8	Independent check-weigh station	Releases packs and records control results	Separate calibrated balance

Equipment models are indicative and will be matched to the selected capacity, local raw-material tests, available utilities, and preferred automation level.

Reference Equipment Gallery



Real protected precision balance representative of controlled saffron dose verification.



Supplier reference: real low-dose combination weigher marketed for saffron and delicate dry leaves.

Images are supplier references for configuration discussion; final equipment appearance and model may differ.

Plant, Raw Materials & Utility Requirements

Raw materials

- Released and traceable Afghan saffron grades
- Food-grade jars, lids and induction liners
- High-barrier sachets and tamper bands
- Approved labels, cartons and security seals

Utilities & infrastructure

- Stable three-phase electricity
- Clean compressed air where specified
- Potable process water where required
- Washable food-grade processing room with dust control
- Dry segregated raw-material and finished-goods storage

Quality, safety and environmental controls

- Calibrate balances with certified check weights
- Control drafts, vibration, static and operator technique
- Set target fill from legal tolerance and measured process variation
- Reconcile issued saffron, packed weight, samples and waste
- Verify every code, label, closure and tamper feature
- Store finished packs cool, dry, dark and access controlled

A final factory layout must reserve safe forklift routes, maintenance clearances, raw-material segregation, finished-goods storage, fire protection, ventilation, and future expansion space.

Indicative Investment & Implementation Plan

LOW-ENTRY CONFIGURATION

Lowest entry uses protected manual dosing and independent check weighing. Fully automatic thread feeding, multihead systems, decorative packaging stock, building and saffron inventory are excluded.

Component	Indicative range	Notes
Precision weighing and dosing benches	US\$2k-6k	Two protected weighing stations
Jar and sachet sealing	US\$2k-7k	Two or three launch formats
Coding, labeling and check weighing	US\$2k-5k	Independent release control
Quality, security and handling tools	US\$1k-3k	Calibration and reconciliation
Freight, installation and spares	US\$2k-5k	Compact packing-cell shipment
Indicative low-entry total	US\$9k-26k	Building, packaging stock and saffron working capital excluded

Implementation sequence

Phase 1	2-3 weeks	Confirm raw-material specification, product grades, capacity and packs
Phase 2	2-4 weeks	Run trials with representative Afghan raw materials and approve samples
Phase 3	5-9 weeks	Manufacture, inspect and ship the selected equipment
Phase 4	3-5 weeks	Install, train and validate process controls and shelf life

Ranges are planning targets for a low-cost entry configuration, exclude land, and remain subject to confirmed capacity, supplier quotation, freight, duties, exchange rates and site conditions.

Next Steps & Contact Information

Recommended next steps

- Confirm target products, hourly output, and packaging formats
- Test representative raw materials and document quality requirements
- Complete site survey covering electricity, water, fuel, drainage, roads, and warehouse space
- Request comparable technical and commercial quotations from shortlisted suppliers
- Finalize financing, logistics, installation, training, and spare-parts plan

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Research and image references

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