

# Almond Blanching & Slicing Line

Complete Turnkey Business Proposal



*Supplier reference: real compact nut grading and processing equipment representative of almond-kernel preparation.*

|                                             |                                               |                                            |                               |
|---------------------------------------------|-----------------------------------------------|--------------------------------------------|-------------------------------|
| <b>100-200 kg/h</b><br>starter kernel input | <b>0.5-2 mm</b><br>adjustable slice thickness | <b>2</b><br>peeled whole and sliced grades | <b>6-9</b><br>entry operators |
|---------------------------------------------|-----------------------------------------------|--------------------------------------------|-------------------------------|

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

This wet-processing line converts released edible almond kernels into peeled whole kernels and uniform almond slices. Controlled hot-water blanching loosens brown skin, followed by rapid cooling, mechanical skin removal, surface drying, moisture conditioning and slicing. It must receive shelled food-grade kernels; it does not replace the shelling line.

### Why this project fits Afghanistan

- Blanched kernels and slices command different buyers than in-shell almonds.
- Afghan bakeries and confectioners can use uniform slices for decoration and formulations.
- Skin removal and controlled slicing create higher-value grades from released kernels.
- A compact line can operate to confirmed orders without duplicating shelling equipment.

### Sanaatchi delivery scope

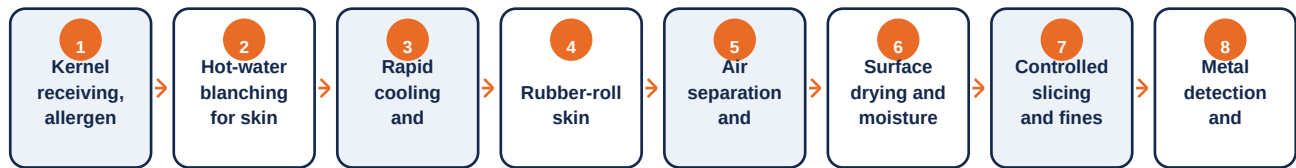
- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning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

#### Recommended configuration

For the lowest credible entry, select a 100-200 kg/h kernel line with feed inspection, hot-water blancher, cooler, rubber-roll skin peeler, air separator, surface dryer, conditioning bins, 0.5-2 mm slicer and semi-automatic packer.

## Manufacturing Process & Product Portfolio

### Integrated process flow



### Target products

| Product                | Typical specification                                           | Primary market                              |
|------------------------|-----------------------------------------------------------------|---------------------------------------------|
| Blanched whole almonds | Buyer-approved skin removal, moisture, defects and microbiology | Confectionery, bakery and ingredient buyers |
| Sliced almonds         | Controlled 0.5-2 mm thickness and low fines                     | Bakeries, cereal, dessert and retail buyers |

Blanch time and temperature depend on variety, kernel moisture and skin adhesion. Over-blanching softens kernels and increases slice breakage; under-blanching leaves skin. Conditioning after surface drying is essential for clean slicing.

## Core Equipment Schedule

| Step | Equipment                          | Function                                   | Indicative parameter                 |
|------|------------------------------------|--------------------------------------------|--------------------------------------|
| 1    | Kernel inspection conveyor         | Rejects shell, rancid and damaged kernels  | Allergen-controlled clean area       |
| 2    | Hot-water blancher                 | Loosens brown almond skin                  | Recorded time and temperature        |
| 3    | Cooling and draining conveyor      | Stops heating and removes free water       | Potable cooling water                |
| 4    | Rubber-roll skin peeler            | Removes loosened skins with limited damage | Adjustable roll pressure             |
| 5    | Air separator and inspection table | Removes skins and remaining defects        | Variable airflow                     |
| 6    | Surface dryer                      | Reduces water before conditioning          | Low-temperature filtered air         |
| 7    | Almond slicer                      | Cuts conditioned kernels uniformly         | 0.5-2 mm adjustable setting          |
| 8    | Detector and pouch sealer          | Checks and packs released product          | Moisture-barrier bulk or retail pack |

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



*Supplier reference: real compact nut grading and processing equipment representative of almond-kernel preparation.*



*Supplier reference: real stainless nut handling and separation equipment applicable around blanching and slicing.*

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

## Plant, Raw Materials & Utility Requirements

### Raw materials

- Released food-grade Afghan almond kernels
- Potable hot and cooling water
- Moisture-barrier pouches or bulk liners
- Labels and cartons

### Utilities & infrastructure

- Stable three-phase electricity
- Potable process water and hygienic drainage
- Food-grade heat source where required
- Ventilated washable processing room
- Clean dry packing and finished-goods storage

### Quality, safety and environmental controls

- Accept only tested food-grade kernels from an approved shelling source
- Validate blanch time and temperature for each variety
- Measure skin removal, breakage and slice fines
- Control surface moisture before slicing
- Verify thickness, foreign matter, microbiology and rancidity
- Maintain almond-allergen controls and validate shelf life

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 receives already shelled edible kernels and uses semi-manual inspection and packing. Shelling, roasting, optical sorting, automatic retail packing, building and kernel inventory are excluded.

| Component                                | Indicative range | Notes                                                         |
|------------------------------------------|------------------|---------------------------------------------------------------|
| Kernel inspection, blanching and cooling | US\$7k-16k       | 100-200 kg/h wet section                                      |
| Skin peeling and separation              | US\$5k-11k       | Rubber-roll and aspiration                                    |
| Surface drying and conditioning          | US\$4k-10k       | Low-temperature system                                        |
| Slicing, detection and packing           | US\$5k-12k       | Whole plus sliced grades                                      |
| Freight, installation and spares         | US\$4k-9k        | Hot-water and drainage interfaces                             |
| Indicative low-entry total               | US\$25k-58k      | Shelling line, building, kernels and working capital excluded |

### Implementation sequence

|         |            |                                                                  |
|---------|------------|------------------------------------------------------------------|
| Phase 1 | 2-3 weeks  | Confirm raw material, product, capacity and pack specifications  |
| Phase 2 | 2-4 weeks  | Run supplier trials with representative Afghan material          |
| Phase 3 | 6-10 weeks | Manufacture, inspect and ship the selected equipment             |
| Phase 4 | 3-5 weeks  | Install, train, validate the process and start shelf-life checks |

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

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### 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

- <https://machineking.en.made-in-china.com/product/TAcYUKzvatWS/China-Multifunctional-Almond-Processing-Machine-Almond-Sheller-Peeler-Cutter-Grinder-Almond-Cutter-Machine.html>