

PET Bottle Washing System

Complete Turnkey Business Proposal



Real supplier equipment reference for PET Bottle Washing System

1 machine entry phase	2-4 operators	Modular future expansion
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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

This proposal presents a practical low-entry pet bottle washing system for Afghanistan. Sorting, hot washing and centrifugal drying line that prepares clean PET flakes. The starting configuration prioritizes economical Chinese machinery, local fabrication of noncritical items, affordable local labor, simple buildings and phased automation.

Why this project fits Afghanistan

- Local production can replace selected imported finished goods.
- Affordable land, labor and local fabrication reduce the entry threshold.
- A one-shift starting model limits working-capital pressure.
- Modular equipment allows capacity to grow with confirmed sales.

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

Start with one semi-automatic shift and the minimum core equipment needed for pet bottle washing system; add automatic handling and higher-speed packing after demand is proven.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Cold-washed PET flakes	Confirm size, grade, formulation and pack specification for cold-washed pet flakes	Afghanistan and nearby regional buyers
Hot-washed PET flakes	Confirm size, grade, formulation and pack specification for hot-washed pet flakes	Afghanistan and nearby regional buyers
Separated caps and labels	Confirm size, grade, formulation and pack specification for separated caps and labels	Afghanistan and nearby regional buyers
Dried clean PET flakes	Confirm size, grade, formulation and pack specification for dried clean pet flakes	Afghanistan and nearby regional buyers

The proposed flow is derived from the website product scope: Sorting, hot washing and centrifugal drying line that prepares clean PET flakes. Final machine models, recipes, output and quality standards must be confirmed against local raw materials and buyer requirements.

Core Equipment Schedule

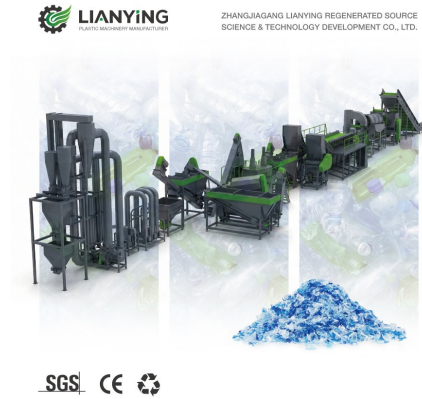
Step	Equipment	Function	Indicative parameter
1	Bale breaker	Performs the defined bale breaker operation within the pet bottle washing system process.	Confirm capacity, working range, utilities, construction material, controls and acceptance test.
2	Sorting conveyor	Checks incoming material or finished pet bottle washing system against the agreed acceptance criteria.	Define defect limits, test method, sampling rate and reject arrangement.
3	Label remover	Measures, closes, identifies or groups finished pet bottle washing system for sale and transport.	State pack sizes, packaging material, speed, coding and change-parts required.
4	Wet crusher	Reduces or prepares material to the size required by the next pet bottle washing system stage.	State feed size, finished size, throughput, blade or wear-part material.
5	Hot-wash tank	Cleans or conditions the process stream to the hygiene or purity required for pet bottle washing system.	Confirm flow, water quality, treatment stages, recovery and sanitation method.
6	High-speed friction washer	Cleans or conditions the process stream to the hygiene or purity required for pet bottle washing system.	Confirm flow, water quality, treatment stages, recovery and sanitation method.
7	Float-sink separation tank	Performs the defined float-sink separation tank operation within the pet bottle washing system process.	Confirm capacity, working range, utilities, construction material, controls and acceptance test.
8	Centrifugal dewaterer	Performs the defined centrifugal dewaterer operation within the pet bottle washing system process.	Confirm capacity, working range, utilities, construction material, controls and acceptance test.
9	Thermal pipe dryer	Applies the controlled thermal treatment required for stable pet bottle washing system quality.	Confirm temperature range, residence time, heat source, capacity and insulation.
10	Clean-flake collection silo	Performs the defined clean-flake collection silo operation within the pet bottle washing system process.	Confirm capacity, working range, utilities, construction material, controls and acceptance test.

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 supplier equipment reference for PET Bottle Washing System



Real supplier equipment reference for PET Bottle Washing System



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

Plant, Raw Materials & Utility Requirements

Raw materials

- Selected fiber feedstock
- Binders or treatment chemicals where required
- Packaging film and straps
- Lubricants and wear parts
- Labels and pallet materials

Utilities & infrastructure

- Three-phase power
- Compressed air
- Dust and fiber extraction
- Dry production hall
- Fire detection and suppression
- Material and finished-goods storage

Quality, safety and environmental controls

- Incoming-material inspection and supplier records
- Documented machine settings and production batches
- Routine dimensional, visual and functional checks
- Safe guarding, emergency stops and operator training
- Final product sampling before release and dispatch

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

Afghanistan entry case: economical Chinese equipment, locally fabricated noncritical items, local civil works and labor, phased automation, and land excluded. Optional automation can be added after sales are established.

Component	Indicative range	Notes
Entry machine package	US\$18k-85k	Economy configuration using local labor where practical
Local utilities and workshop	US\$8k-30k	Economy configuration using local labor where practical
Dust control and tooling	US\$6k-25k	Economy configuration using local labor where practical
Freight and installation	US\$8k-28k	Economy configuration using local labor where practical
Working capital	US\$5k-20k	Economy configuration using local labor where practical
Low-entry project total	US\$45k-188k	Economy configuration using local labor where practical

Implementation sequence

Phase 1	2-3 weeks	Confirm products, entry capacity and buyer requirements
Phase 2	3-5 weeks	Compare suppliers and finalize the economy configuration
Phase 3	6-12 weeks	Manufacture equipment and prepare the local workshop
Phase 4	3-6 weeks	Shipping and customs clearance
Phase 5	2-4 weeks	Installation, training, trials and market launch

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

- Made-in-China supplier image reference:

<https://image.made-in-china.com/2f0j00vahSHuCWYIoU/PP-PE-Pet-Bottle-Waste-Plastic-Shredding-Crushing-Washing-Recycling-Production-Line.jpg>

- Made-in-China supplier image reference:

<https://image.made-in-china.com/2f0j00yaOShLIBwcqJ/Pet-Bottle-Crushing-Washing-Drying-Recycling-Line-for-RPET-Flakes-Production.jpg>

- Made-in-China supplier image reference: <https://image.made-in-china.com/2f0j00TQCbEpaFRoWY/lvima-Factory-Pet-Plastic-Bottle-Flakes-Washing-System-Production-Line-Crushing-Drying-Sorting-Remove-Label-Dewatering-Separating-Waste-Recycling-Washing-Line.jpg>