



Vermicompost Production Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real vermicompost production line equipment.

6-10 beds entry bed bank	0.5-1 t/h gentle screen	10-25 kg launch bags	5-8 entry workforce
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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 micro/workshop biological line converting source-controlled, pre-composted cattle manure and selected plant residues into mature worm castings through hot pre-composting away from the worms, cooling and feed acceptance, shaded raised-bed vermiculture, moisture and temperature control, staged feeding, gentle harvesting, low-impact screening with worm and cocoon return, maturity and hygiene testing, and breathable bagging. It is not ordinary compost screening and it must never feed fresh hot manure directly to worms.

Why this project fits Afghanistan

- Cattle manure and crop residues are widely available around Afghan livestock and farming areas.
- Vermicompost can serve nurseries and higher-value horticulture when quality is consistent.
- Roofed beds and manual handling keep the credible entry small.
- Pre-compost temperature, salinity, moisture, pathogens and worm recovery decide success.

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

Start with one documented cattle-manure and chopped-plant feed recipe, six to ten roofed masonry beds, separate pre-composting bays, moisture probes, shade and drainage, a gentle 0.5-1 t/h trommel or vibrating screen, worm/cocoon recovery tables, scales and 10-25 kg bagging. Buy a verified local *Eisenia fetida* starter culture and prove one full biological cycle before expanding.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Screened vermicompost soil amendment	Declared feed source, maturity, moisture, pH, EC, organic matter, foreign matter, pathogens and net mass	Nurseries, greenhouses, orchards and intensive horticulture

The biological section is the plant: the screen is only a finishing machine. Supplier acceptance must demonstrate low-impact separation without excessive worm or cocoon loss. Operating records cover feed source, pre-compost peak and cooling temperatures, bed moisture and temperature, feeding date, harvest age, worm health, screen recovery and retained samples. Product claims require local agronomic and hygiene testing.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Separate pre-composting bays	Stabilize and sanitize feed before worms	Temperature log
2	Roofed raised worm beds	Maintain aerated shaded habitat	6-10 entry beds
3	Moisture, temperature and irrigation kit	Controls biological conditions	Every bed
4	Gentle trommel or vibrating screen	Separates castings without crushing culture	0.5-1 t/h
5	Worm/cocoon recovery tables	Returns culture to active beds	Manual inspection
6	Scale, stitcher and test kit	Releases traceable bags	10-25 kg

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



Made-in-China supplier reference: real vermicompost production line equipment.



Made-in-China supplier reference: second real machine configuration for vermicompost production line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Source-controlled cattle manure after hot pre-composting
- Clean chopped crop residues or bedding in an approved ratio
- Verified Eisenia fetida starter culture
- Breathable sacks, thread, labels and retained-sample bags

Utilities & infrastructure

- Stable three-phase electricity with verified connected load
- Guarded machinery, lockout, ventilation and fire protection
- Covered segregated raw-material and finished-goods storage
- Maintenance tools, safe lifting and critical spare parts
- Reliable clean water, shade, drainage and washable floors
- Separated hot pre-compost and worm-bed zones
- Runoff and vector control without worm-toxic chemicals

Quality, safety and environmental controls

- Log pre-compost temperature and cooling before feeding
- Control bed moisture, temperature, odor and pests
- Track feed, bed and harvest lots
- Measure worm and cocoon recovery at screening
- Test maturity, moisture, pH, EC and organic matter
- Verify pathogens, foreign matter, label and bag mass

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

The lowest credible launch uses local roofed beds and labor, one safe feed recipe and a small gentle screen. Automated reactors, municipal waste and enriched fertilizer blends are excluded.

Component	Indicative range	Notes
Pre-compost bays, roofed beds and drainage	US\$5k-14k	Local civil work
Gentle screen, tables and handling tools	US\$5k-13k	0.5-1 t/h
Irrigation, test kit and bagging	US\$3k-8k	One grade
Culture, setup and working tools	US\$2k-5k	Pilot cycle
Indicative installed low-entry total	US\$15k-40k	Land, building and feed stock excluded

Implementation sequence

Phase 1	2-5 weeks	Confirm product specification, representative raw material, buyer, capacity, site and utilities
Phase 2	3-7 weeks	Run supplier trials with the buyer material and freeze the balanced machine, tooling and utility scope
Phase 3	8-22 weeks	Manufacture or refurbish, inspect, document and ship the contracted equipment
Phase 4	3-12 weeks	Install, commission, train operators and pass material-specific acceptance tests

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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