



Plastic Agricultural Twine & Rope Production Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real plastic agricultural twine & rope production line equipment.

2-3 ply launch construction	300-600 kg/day entry output	1 product controlled recipe	6-10 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 small/medium line producing one PP raffia baler or crop-support twine family through resin blending, flat-film extrusion, quenching, slitting and fibrillation, hot drawing and annealing, yarn winding, controlled primary and secondary twisting, ball/spool winding, length/mass checking, tensile and knot-strength testing and protected packing.

Why this project fits Afghanistan

- Farm tying, baling and crop support create distributed repeat demand.
- A small complete line can serve local pack sizes.
- One twine construction controls twist and winding recipes.
- UV life, knot strength and length-per-package must be verified.

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

Launch one UV-stabilized 2-3 ply crop-support or general agricultural twine from certified PP at 300-600 kg/day. Contract the complete route from raffia extruder through drawing/fibrillation, bobbins, twister and ball/spool winder. Recycled PP may be trialled only for non-safety general-purpose twine after contamination, strength, elongation and weathering validation.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
PP crop-support twine	Linear density, ply, twist, breaking/knot strength, elongation, UV class, colour and package length	Orchards, vineyards and greenhouse growers
General agricultural tying rope	Diameter, strand count, lay, breaking load and coil mass	Farms and merchants after separate tooling

A twisting machine alone does not make twine from polymer. The complete scope needs raffia extrusion/drawing, bobbin control, twisting and package winding. Baler twine used in mechanized balers has demanding knot and uniformity requirements and should not be claimed until machine trials pass. Acceptance verifies titre, twist, length/mass, strength, knot retention, elongation and accelerated UV ageing.

Core Equipment Schedule

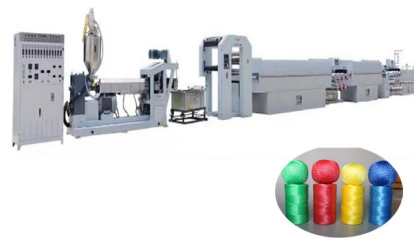
Step	Equipment	Function	Indicative parameter
1	Raffia extruder and quench	Forms oriented flat-film yarn feed	One PP recipe
2	Slitter/fibrillator and drawing oven	Develops yarn structure and strength	Controlled draw ratio
3	Bobbin winders	Build uniform feed packages	Tension controlled
4	Ring twister/strand machine	Creates 2-3 ply twine	One construction
5	Ball/spool winder	Makes retail/agricultural packages	Length counter
6	Twine laboratory	Releases titre, twist, strength and UV basis	Named methods

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 plastic agricultural twine & rope production line equipment.



Made-in-China supplier reference: second real machine configuration for plastic agricultural twine & rope production line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Certified PP raffia grade
- UV stabilizer and approved colour masterbatch
- Controlled clean recycled PP only for validated non-safety grade
- Cores, bags, labels and cartons

Utilities & infrastructure

- Stable three-phase electricity with verified connected load
- Closed-loop cooling water with chiller or cooling tower
- Dry covered resin/additive storage and segregated finished goods
- Ventilation, fire protection, safe lifting and guarded machinery

Quality, safety and environmental controls

- Verify resin and additive batches
- Control draw ratio, fibrillation and yarn titre
- Measure twist and package tension
- Check length and mass per ball/spool
- Test straight and knot breaking strength/elongation
- Validate UV retention and baler compatibility where claimed

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

A near-US\$50k entry is possible only for one modest-output twine construction with manual handling. Heavy rope, certified baler twine and multiple polymer routes require added machines and trials.

Component	Indicative range	Notes
Raffia extrusion, drawing and yarn winding	US\$24k-58k	300-600 kg/day
Twisting and package winding	US\$12k-32k	One 2-3 ply family
Laboratory, utilities and safety	US\$6k-18k	Strength and UV basis
Freight, installation and spares	US\$8k-22k	Complete route
Indicative installed low-entry total	US\$50k-130k	Building and resin 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

- <https://cnrmropemachine.en.made-in-china.com/product/wKuJOopClvUg/China-PP-Agriculture-Packing-Baler-Rope-Twine-Production-Line-Bale-Twine-Machine-Tomato-Plant-PP-Raffia-Extruder.html>

- <https://cnrmropemachine.en.made-in-china.com/product/XJNpFRoxZkUy/China-Plastic-PP-PE-Twisted-Rope-Making-Line-Machine-De-Fabrication-De-Cordes-En-Polyethylene-PP-PE.html>