

PP Woven Flour & Fertiliser Sack Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real pp woven flour & fertiliser sack line equipment.

100-150 kg/h starter tape line	4 looms balanced entry weaving	1 sack launch size	22-34 three-shift 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 medium industrial plastics-and-weaving plant converting polypropylene resin into woven sack fabric and finished open-mouth bags through resin blending and drying where required, tape extrusion, quenching, slitting, orientation drawing and winding, circular weaving, roll inspection, optional extrusion coating or lamination, corona treatment and flexographic printing, cutting, bottom sewing, optional liner insertion, inspection, baling and traceable dispatch. Food and fertiliser sacks require separate material controls.

Why this project fits Afghanistan

- Flour, fertiliser, feed, grain and mineral users consume durable woven sacks.
- Four looms create a manageable starter balance with one modest tape line.
- One bag size and fabric gsm simplify tape denier, loom and cutting settings.
- Food-contact and chemical/fertiliser production must not share uncontrolled recycled materials.

Sanaatchi delivery scope

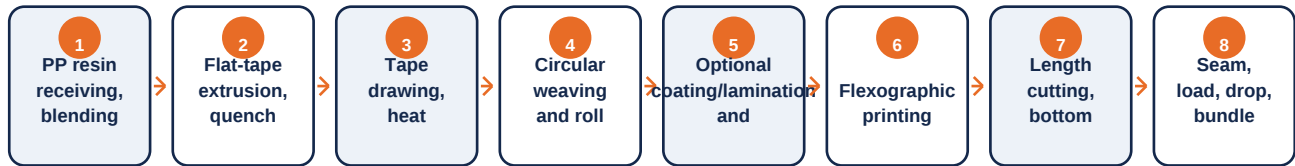
- Factory setup planning, supplier pre-qualification, and technical comparison
- Complete production-line and individual equipment supply
- Factory layout, utilities, civil-work coordination, installation, and commissioning
- Raw-material sourcing, trial-batch qualification, and repeat supply planning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

Recommended configuration

Do not treat a circular loom as a complete plant. Screen one 100-150 kg/h flat-tape extrusion line, four 4- or 6-shuttle looms, roll inspection, one- or two-colour printer and automatic hot-cut/sewing machine for one sack size. Add coating or liner insertion only for confirmed moisture-barrier needs. Food-flour production requires virgin food-contact resin, migration documents and segregation from fertiliser work.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
PP woven fertiliser sack	Approved resin/recycle policy, fabric gsm, coating, print, seam, UV and drop rating	Fertiliser, mineral and agricultural-input packers
Food-contact flour sack	Virgin compliant resin, controlled liner, migration, hygiene and separate production release	Flour mills after food-safety qualification

Tape denier, draw ratio, tensile strength, fabric construction, gsm and seam determine sack performance. Acceptance balances extrusion output with loom demand and measures tape width/denier/tenacity, broken ends, fabric width/gsm, coating, print, cut length, stitch density, seam strength, drop, load and production waste. Food-contact claims require documented resin and migration compliance.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Resin blender and flat-tape extruder	Produces oriented PP tapes	100-150 kg/h entry
2	Tape quench, slit, draw and wind section	Controls tape dimensions and tenacity	Recipe-specific draw ratio
3	Four circular looms	Weaves tubular sack fabric	4- or 6-shuttle
4	Roll inspection and optional coater	Checks fabric and adds barrier	Coating only if required
5	Corona and flexo printer	Prepares and prints sack surface	One/two colours
6	Automatic cutter and sewing machine	Forms finished open-mouth sacks	One launch length
7	Polymer and sack laboratory	Tests tape, fabric and bag performance	Food/chemical separation

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 pp woven flour & fertiliser sack line equipment.



Made-in-China supplier reference: second real machine configuration for pp woven flour & fertiliser sack line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Qualified PP resin and tightly controlled masterbatch
- Approved recycle fraction only for non-food products
- Coating resin or food liner where validated
- Ink, sewing thread, cores, bales, labels and spares

Utilities & infrastructure

- High stable three-phase power and cooling-water system
- Compressed air and controlled extrusion ventilation
- Long weaving hall with humidity and housekeeping controls
- Resin, tape, fabric and finished-bag segregation
- Fire protection and polymer scrap-reprocessing route

Quality, safety and environmental controls

- Release resin, masterbatch and recycle content
- Control extrusion temperature, tape size and draw ratio
- Test tape tenacity and loom fabric gsm/width
- Inspect coating, corona and print adhesion
- Verify cut length, stitch and seam strength
- Run filled drop/load tests and trace every bale

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 integrated plant uses one modest tape line, four looms and one sack format without lamination. Coating, multiple formats, building, transformer and resin working stock are excluded.

Component	Indicative range	Notes
Flat-tape extrusion and winding line	US\$125k-290k	100-150 kg/h basis
Four circular looms and fabric handling	US\$80k-210k	Balanced starter weaving
Printing, cutting/sewing and laboratory	US\$55k-145k	One sack design
Cooling, freight, installation and spares	US\$75k-205k	Power intensive plant
Indicative installed project total	US\$335k-850k	Coater, building and resin 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

- <https://tianfeng-machine.en.made-in-china.com/product/WqzQZCdMGXkc/China-PP-Woven-Sack-Production-Line.html>
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