

Self-Adhesive Label Printing & Converting Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real self-adhesive label printing & converting line equipment.

320-450 mm starter web width	4 colours entry print deck	2 dies launch label sizes	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 narrow-web printing and converting line producing roll-fed self-adhesive labels from purchased pressure-sensitive label stock through substrate release and conditioning, unwinding, tension and web guidance, flexographic printing, controlled ink or UV drying, optional varnish/lamination, rotary die cutting, matrix waste stripping, slitting, rewinding, camera or strobe inspection, roll counting, packing and traceability. It does not coat pressure-sensitive adhesive.

Why this project fits Afghanistan

- Food, beverage, pharmaceutical, cosmetics and logistics users need short-run local labels.
- Purchased pressure-sensitive stock avoids coating chemistry and release-liner manufacture.
- One web width and a small set of dies limit inventory and tooling cost.
- Colour registration, die-to-print alignment, adhesive suitability and roll winding determine usability.

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 a supported 320-450 mm four-colour narrow-web flexo press with web guide, corona where film stock is used, hot-air/IR and buyer-approved UV only where properly shielded, one varnish or cold-laminate station, inline rotary die cut, matrix rewind and slitting/rewinding. Launch two repeat label sizes for one sector; buy certified label stock and outsource plates/dies initially where practical.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Paper product label roll	Face stock, adhesive, liner, colours, dimensions, unwind direction, core, roll count and application	Food, beverage, household and logistics users
Film label roll	Separate PP/PE/PET face, corona, ink/varnish, adhesive and container compatibility	Cold, wet or high-durability applications after material trials

Label stock is a three-part system: face, adhesive and release liner. Acceptance uses the exact stock and customer applicator and measures colour, density, registration, cure, rub, barcode grade, print-to-die register, kiss-cut depth, liner damage, matrix stripping, slit width, roll tension, splice, count, unwind direction, adhesion and container/surface performance.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Narrow-web unwind and web guide	Feeds label stock with stable tension	320-450 mm width
2	Four-colour flexographic press	Prints repeat label artwork	One supported ink system
3	Drying/UV and optional corona	Cures ink and treats film surfaces	Shielded and ventilated
4	Varnish or cold-laminate station	Protects print surface	One finish route
5	Rotary die cutter and magnetic cylinder	Kiss-cuts label shape	Two launch dies
6	Matrix and trim rewind	Removes surrounding waste safely	Break-free acceptance
7	Slitter/rewinder and inspection	Forms customer rolls and verifies defects	Core/count/unwind direction

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 self-adhesive label printing & converting line equipment.



Made-in-China supplier reference: second real machine configuration for self-adhesive label printing & converting line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Certified pressure-sensitive paper or film label stock
- Matched flexographic ink, varnish or cold laminate
- Printing plates, magnetic/flexible dies and cores
- Cartons, wrap, labels, cleaning materials and critical spares

Utilities & infrastructure

- Stable three-phase power and clean compressed air
- Temperature/humidity-controlled stock and print room
- Ink storage, ventilation and fire-safe solvent controls if applicable
- UV shielding/ozon extraction where UV is installed
- Clean inspection, finished-roll and plate/die storage

Quality, safety and environmental controls

- Release face, adhesive, liner and roll condition
- Control tension, colour and print registration
- Verify curing, rub resistance and barcode grade
- Measure die-to-print register and kiss-cut depth
- Inspect liner damage, matrix stripping and slits
- Confirm roll count, tension, core and application trials

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 line buys finished label stock, prints four colours, uses two outsourced flexible dies and inspects rolls manually. Adhesive coating, wide-web digital systems, building and material stock are excluded.

Component	Indicative range	Notes
Four-colour narrow-web flexo press	US\$28k-70k	320-450 mm entry
Inline die cut, matrix and slitting	US\$12k-36k	Two launch dies
Inspection, plate tools and quality equipment	US\$7k-20k	Barcode and roll release
Freight, ventilation, installation and spares	US\$10k-28k	Ink/UV safety included
Indicative installed low-entry total	US\$57k-154k	Adhesive coating, building and 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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