SANAATCHI
INDUSTRIAL VISION GROUP

Greenhouse-Film Extrusion Line

Complete Turnkey Business Proposal

Made-in-China supplier reference: real greenhouse-film extrusion line equipment.

6-8 m **opened launch width**	**3 layers** **functional structure**	**120-220 kg/h** **screened output**	**10-16** **entry workforce**

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/large three-layer blown-film line producing UV-stabilized PE greenhouse covering through recipe-controlled LDPE/LLDPE/EVA and additive dosing, three-extruder coextrusion, annular die forming, internal/external bubble cooling, thickness and bubble control, tower haul-off and collapsing, edge/layflat control, tension winding, roll conditioning and optical, mechanical, thermal and accelerated-weathering tests.

Why this project fits Afghanistan

- Protected cultivation needs durable climate-appropriate covering.
- Local wide rolls can support greenhouse kit suppliers.
- Three layers place UV, anti-drip or thermal functions where required.
- Film lifetime claims require recipe control and accelerated weathering plus field trials.

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 6-8 m opened-width, three-layer UV greenhouse film at 120-220 kg/h only after provincial wind, temperature, crop and service-life requirements are fixed. Include gravimetric dosing, three extruders, die and air ring, stable tower, thickness control, gusset/layflat system, surface winder and a polymer/optical weathering laboratory. A packaging-film machine does not by itself prove agronomic film life.

Manufacturing Process & Product Portfolio

Integrated process flow

Target products

Product	Typical specification	Primary market
Three-layer UV greenhouse film	Opened width, thickness, layer recipe, UV life claim, light transmission/diffusion, thermal/anti-drip option and roll length	Greenhouse builders and growers
Validated tunnel-cover film	Separate thickness, width, puncture and installation specification	Season-extension tunnels after field trial

Greenhouse film must be designed for local solar radiation, wind, cold, crop chemicals and fastening method. Acceptance records layer ratios, thickness profile, width, gels, haze/transmission/diffusion, tensile/tear/puncture, shrinkage, anti-drip where claimed, additive dispersion and accelerated UV/thermal ageing. Field trials remain necessary before multi-year guarantees.

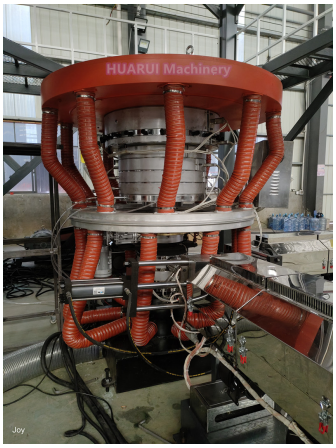
Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Gravimetric multi-material dosing	Controls three-layer recipe	Traceable additives
2	Three extruders and annular die	Builds functional coextruded film	120-220 kg/h
3	Air ring and bubble-control system	Stabilizes cooling and thickness	Wide-film duty
4	Tower, collapsing and layflat system	Produces 6-8 m opened width	Engineered height
5	Tension surface winder	Builds saleable wide rolls	Roll handling included
6	Film/weathering laboratory	Validates optics, strength and life 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 greenhouse-film extrusion line equipment.



Made-in-China supplier reference: second real machine configuration for greenhouse-film extrusion line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Virgin LDPE/LLDPE/EVA grades by layer
- UV stabilizer, anti-drip, IR/thermal and light-diffusion additives only to validated recipe
- Clean documented edge recycle within approved layer limits
- Wide cores, wraps, labels and roll-protection materials

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
- Tall engineered building/tower, controlled air and safe wide-roll lifting

Quality, safety and environmental controls

- Verify resin/additive certificates and dosing
- Map thickness and layer ratio across width
- Inspect gels, die lines, edges and winding
- Measure transmission, haze/diffusion and thermal properties
- Test tensile, tear, puncture and shrinkage
- Complete accelerated weathering and province-specific field trial

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 true wide three-layer greenhouse-film line is a medium/large project. Narrow packaging-film equipment below US$50k is not a credible substitute for wide, weather-qualified agricultural cover.

Component	Indicative range	Notes
Three extruders, dosing, die and air ring	US$145k-330k	Wide three-layer basis
Tower, thickness control and winding	US$90k-240k	6-8 m opened width
Laboratory and roll handling	US$35k-95k	Agricultural-film release
Freight, erection, utilities and spares	US$70k-190k	Tall structure
Indicative installed project total	US$340k-855k	Building, resin and field trials 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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