

Greenhouse Frame & Tunnel Production Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real greenhouse frame & tunnel production line equipment.

6-8 m launch tunnel span	10-60 mm screened tube range	1 bay full trial assembly	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 project-fabrication line converting purchased galvanized round or oval tubing into complete hoop-house and crop-tunnel frame kits through farm/site survey, structural design, tube receiving, cut-to-length, CNC arc rolling, end swaging or connector drilling, brace and base fabrication, optional film-lock channel forming, trial-bay assembly, coating repair, kit counting and installation documentation.

Why this project fits Afghanistan

- Protected cultivation can extend Afghan vegetable and nursery seasons.
- Local kit fabrication reduces freight and allows province-specific span and bay length.
- Purchased galvanized tube avoids a tube mill and galvanizing plant.
- Wind, snow, anchoring, ventilation and film attachment determine survival.

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 wide naturally ventilated tunnel kit designed for the target province wind and snow. Buy galvanized tube, then install a servo/CNC nine-wheel arc bender for 10-60 mm tube, cut saw, end swager/drill, brace fixtures and a full-bay assembly pad. Add a dedicated film-lock-channel former only after the channel profile and plastic-film system are approved.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Naturally ventilated hoop-house kit	Span, bay, tube grade/coating, hoops, purlins, braces, anchors, vents and film lock	Vegetable and nursery growers
Low crop-tunnel kit	Crop width, hoop spacing, tube, anchors and cover attachment	Small farms and season extension

A pipe bender alone is not a greenhouse production line. Every kit requires site wind/snow assumptions, corrosion specification, anchor/foundation detail, ventilation and film system. Acceptance gauges each arc against a template, assembles a complete bay, checks diagonal and connector fit, and verifies pull-out on representative soil.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Tube saw and length stops	Cuts coded frame members	Kit cut list
2	CNC nine-wheel arc bender	Forms repeatable hoops	10-60 mm supplier range
3	End swager, drill and punches	Creates nesting and bolted joints	One connection family
4	Brace/base welding fixtures	Produces matched accessories	Corrosion repair required
5	Optional film-lock roll former	Makes cover-retaining channel	Approved profile only
6	Full-bay assembly and anchor test area	Validates fit and site interface	Engineer-approved sample

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 frame & tunnel production line equipment.



Made-in-China supplier reference: second real machine configuration for greenhouse frame & tunnel production line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Galvanized tube by grade, wall, diameter and coating
- Bolts, clamps, bases, anchors, braces and repair zinc
- UV-stabilized film and lock wire sourced to approved system
- Labels, bundles and installation hardware

Utilities & infrastructure

- Stable three-phase power with protected distribution
- Guarded hot-work or forming zones and emergency stops
- Covered raw-material and finished-goods storage
- Fume/dust extraction, fire protection and disciplined housekeeping
- Level outdoor trial-assembly and representative anchor pull-test area

Quality, safety and environmental controls

- Verify tube grade, wall, coating and straightness
- Gauge hoop radius and springback
- Inspect swage, holes, connectors and coating repair
- Assemble full bay and measure span/diagonal/plumb
- Verify film-lock and ventilation interfaces
- Perform anchor pull test and issue complete kit count

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 entry buys galvanized tube and fabricates one engineered tunnel family. Tube making/galvanizing, greenhouse film, land, building and working tube inventory are excluded.

Component	Indicative range	Notes
CNC arc bender and tube saw	US\$9k-24k	One span family
Swage, drill, fixtures and welding	US\$6k-18k	Complete connectors
Trial bay, gauges and installation tools	US\$4k-12k	Structural fit
Freight, commissioning and spares	US\$4k-12k	Compact workshop
Indicative installed low-entry total	US\$23k-66k	Film, building and tube 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://lzyongchuang68.en.made-in-china.com/product/rQbURfjXqqYE/China-CNC-Greenhouse-Arc-Frame-Pipe-and-Tube-Bending-and-Rolling-Machine-with-Servo-Motor.html>

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