



Double-Glazed Insulating Glass Units Line

Complete Turnkey Business Proposal



Made-in-China supplier reference: real double-glazed insulating glass units line equipment.

approved sample market gate	defined range launch scope	performance test release gate	batch records traceability
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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

Produces sealed insulating glass units from cut flat glass, spacer frames, desiccant and sealants through washing, spacer fabrication/filling, primary seal, assembly, gas filling where specified, secondary sealing, curing, edge inspection and packing.

Why this project fits Afghanistan

- Confirm an installed sample and applicable performance standard.
- Launch with a defined product family and documented process settings.
- Keep material and release records for each batch.

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 one or two common IGU thicknesses and a compatible spacer/sealant system. Confirm dew point, seal durability, glass quality, spacer geometry and window-system compatibility on representative installed samples.

Manufacturing Process & Product Portfolio

Integrated process flow



Target products

Product	Typical specification	Primary market
Double-glazed insulating glass units	Glass type/thickness, spacer width, desiccant, sealant system, cavity gas, dew point, edge seal, dimensions and optical quality	Window workshops, façades, homes, offices, hotels and building contractors

Supplier scope, glass compatibility, site utilities and acceptance criteria must be confirmed before purchase.

Core Equipment Schedule

Step	Equipment	Function	Indicative parameter
1	Glass washer	Removes contamination before sealing	Clean dry surface
2	Spacer bender/filler	Builds dry spacer frame	Width/desiccant control
3	IGU press and sealing station	Assembles sealed unit	Seal geometry/pressure
4	Gas filling station	Fills specified cavities	Gas concentration verification
5	IGU test bench	Releases durable units	Dew point/optical/dimension check

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 double-glazed insulating glass units line equipment.



Made-in-China supplier reference: second real machine configuration for double-glazed insulating glass units line.

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

Plant, Raw Materials & Utility Requirements

Raw materials

- Cut flat glass, aluminium/warm-edge spacers, desiccant, butyl, compatible secondary sealant, argon where specified, corner keys, packaging and handling pads

Utilities & infrastructure

- Stable industrial power, clean covered glass storage and protected handling routes
- Guarded machinery, glass-breakage procedures, PPE, maintenance plan and critical spares

Quality, safety and environmental controls

- Check glass cleanliness, spacer fill, seal width, squareness and visual defects
- Test dew point, gas fill where specified, seal durability and edge compatibility
- Confirm glazing block, drainage, gasket and installation detail with window fabricators

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

IGU value comes from clean assembly and durable edge sealing. A fogged or leaking unit cannot be repaired after installation.

Component	Indicative range	Notes
Washing, spacer and IGU assembly	US\$18k-75k	Small/medium IGU workshop
Sealing, gas fill, test and handling	US\$15k-60k	Product quality scope
Freight, setup and spares	US\$12k-45k	Glass/system trials required
Indicative entry total	US\$45k-180k	Workshop and glass 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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