

Commercial Proposal for Supply

Modular Buildings & LSF-Frame Residential Units for Global Procurement

Company: www.metal-asia.pw

Author: Milosh Kovachevi

Date: May 2026

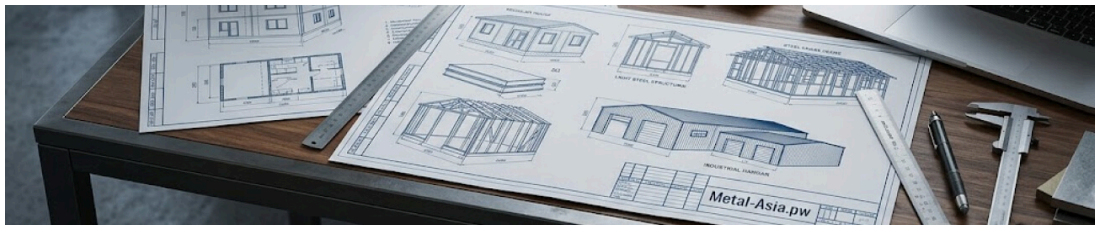
B2B / B2C | GLOBAL PROCUREMENT

Commercial Proposal for Supply

Modular Buildings & LSF-Frame Residential Units for Global Procurement

Executive Summary

The global modular construction market is expanding at a CAGR exceeding 7%, driven by housing shortages, ESG commitments, and the demand for rapid site deployment. Factory-built modules achieving 90% completion prior to shipment reduce on-site assembly to 3–7 days and deliver a design service life of 50+ years when fabricated to ISO 9001 and EN 1090 standards. Metal-Asia.pw operates as your **Global Procurement** partner, delivering turnkey modular housing from verified Chinese manufacturing facilities to project sites across EMEA, North America, Southeast Asia, and the Middle East.



Modular residential buildings and LSF-frame homes for residential complexes

Client Pain Points in Direct China Procurement

International developers, housing associations, and EPC contractors sourcing directly from Chinese manufacturers consistently encounter structural supply-chain risks that erode margin, timeline, and compliance:

- **Trade-Finance & Payment Risk.** Chinese vendors increasingly demand 100% TT advance payment with limited recourse instruments. Letters of credit are often rejected, and escrow mechanisms are poorly enforced, exposing buyers to non-shipment and quality fraud.
- **Absence of Independent Quality Assurance.** Without third-party inspection, delivered steel frames frequently exhibit wall-thickness deviations of ± 0.3 mm and non-conforming steel grades (e.g., Q235B substituted for Q355B). Without mill-certificate verification and spectrometric analysis, structural capacity becomes a liability.
- **Regulatory Non-Compliance (CE / UKCA / Local Codes).** Chinese fabrication drawings are typically produced to GB 50017 and lack adaptation to EN 1993, EN

1090, ASTM A500, or local seismic/wind codes. As a result, modules fail local authority approval, necessitating costly redesign or rejection at port.

- **Certification & Customs Complexity.** Modular buildings classified under HS Code 9406.90 require CE/UKCA marking for the EU/UK, ICC-ES evaluation reports for North America, and country-specific fire-safety classifications (e.g., Euroclass A2-s1,d0). Misclassification triggers port detention, demurrage, and penalty duties.
- **No Installation Supervision.** Direct FOB/EXW deliveries place assembly risk entirely on the buyer. Improper module-to-module sealing, MEP integration, and thermal-bridge mitigation lead to air-leakage, mould, and warranty claims.
- **Supply-Chain Opacity.** Buyers lack real-time visibility into production milestones, QC hold points, and vessel scheduling, making milestone-based payment impossible and project cash-flow unpredictable.

Our Professional Solution: Supply Chain Compliance & Direct Access

Metal-Asia.pw delivers **Transparency** and **Compliance** across the entire procurement lifecycle. We function as your international procurement office in China, not a broker:

- **Vendor Technical Audits** covering ISO 9001, EN 1090 EXC2/EXC3 execution class, and welder qualification to EN ISO 9606.
- **Independent Materials Verification** (NDT, UT, spectrometric chemistry verification against EN 10025 or ASTM A572) conducted before shipment release.
- **Full Customs & Trade-Compliance Brokerage**, including correct HS classification, duty-drawback advisory, and origin-certificate management.
- **Installation Supervision** at the buyer's site anywhere in the world, with qualified supervisors trained to EN 1090 and local codes.
- **Project-Based Procurement** with milestone payment terms (30/40/30) tied to Factory Acceptance Testing (FAT) gates.
- Public-tender support under FIDIC, IFC, and World Bank procurement frameworks, including full documentation packages for BOQ validation.

Complete Product Range

Table 1. Modular Residential Buildings & Homes

Model	Frame	Insulation	Dimensions, m	Area, m ²	Design Life	FOB Price, USD
MD-01 "Compact"	LSF 1.5 mm + bracing	Rock wool 150 mm	6.0 x 3.0 x 3.2	18	50 yrs	8,500 – 10,200
MD-02 "Standard"	LSF 1.8 mm + corner posts	Rock wool 200 mm	9.0 x 3.0 x 3.2	27	50 yrs	12,800 – 15,500
MD-03 "Family"	LSF 2.0 mm + double bracing	PIR 150 mm + wool 50 mm	12.0 x 4.0 x 3.3	48	50+ yrs	22,000 – 26,500
MD-04 "Premium"	LSF 2.0 mm + galvanised	PIR 200 mm	14.0 x 4.5 x 3.5	63	60 yrs	31,000 – 37,000
MD-05 "Eco Dacha"	Glulam + LSF nodes	Cellulose 200 mm	7.5 x 4.0 x 3.2	30	50 yrs	16,500 – 19,800
MD-06 "Mini-Hotel"	LSF 1.8 mm	Rock wool 200 mm	18.0 x 6.0 x 3.3	108	50 yrs	48,000 – 56,000
MD-07 "Townhouse"	LSF 2.0 mm + composite deck	PIR 200 mm	15.0 x 6.0 x 3.5	90	60 yrs	58,000 – 68,000
MD-08 "Barn Loft"	LSF 1.5 mm + exposed trusses	Rock wool 150 mm	10.0 x 5.0 x 4.0	50	50 yrs	28,000 – 33,000

Table 2. MEP & Smart-Home Packages (Optional)

System	Specification	Package Price, USD
Electrical	Main panel 220/380 V, breakers, LED lighting, RCD protection	1,200 – 2,800
Heating	Electric convectors or underfloor heating	1,500 – 3,500
Water & Sanitation	Cold/hot tanks 200 L, pump station, septic package	1,800 – 4,200
Ventilation	Supply-extract unit with heat-recovery core	2,200 – 5,000
Air Conditioning	Inverter split system 09–18 kBTU	900 – 1,800
Smart Home	Controller, temperature/smoke sensors, remote app	2,500 – 6,000

Technical Specifications & Compliance

All modules are engineered for the buyer's target climate zone and verified against international structural and thermal codes:

- **Structural capacity:** Floor live load 1.8–2.5 kN/m² (residential) and 3.5 kN/m² (commercial), with snow-load mapping to EN 1991-1-3 / ASCE 7-22.
- **Thermal transmittance:** Wall U-value 0.18–0.22 W/(m²·K) with 200 mm PIR, achieving *R-value* = 4.5–5.0 m²·K/W, equivalent to Passive House criteria.
- **Airtightness:** Q50 < 1.0 m³/(h·m²) at 50 Pa when module joints are sealed with EPDM gaskets and membrane tape.
- **Acoustic insulation:** Internal partition *R_w* = 45–52 dB with double-layer plasterboard + mineral-wool cavity.
- **Fire reaction:** Euroclass A2-s1,d0 or B-s1,d0 for non-combustible insulation and metal cladding; EN 13501-1 test reports provided.
- **Seismic resistance:** Frame verified for PGA 0.3g–0.5g (equivalent to 7–8 MMI) with diagonal bracing and hold-down anchors.

HS Codes, Customs & Trade Compliance

Product Category	HS Code	Typical Duty EU/US	VAT/GST	Key Compliance Document
Prefabricated wooden buildings	9406.10.10	0–3%	20% / state VAT	FSC/PEFC chain-of-custody, phytosanitary certificate
Prefabricated non-wooden buildings	9406.90.10	0–3%	20% / state VAT	CE/UKCA (CPR), Declaration of Performance (DoP)
LSF steel sections (separate supply)	7308.90.80	0–7.5%	20% / state VAT	Mill test certificate EN 10204 3.1
Sandwich panels (wall/roof)	7610.10 / 7308.90	0–7.5%	20% / state VAT	CE marking, fire-classification report
PVC window units	3925.20	0–6.5%	20% / state VAT	CE marking, REACH SVHC declaration

Our [Trade Compliance & Logistics](#) team manages full brokerage: HS classification, customs valuation, duty-drawback optimisation, and origin-certificate alignment for bilateral trade agreements (e.g., GSP, EU-China CAI, RCEP where applicable).

Metal-Asia.pw vs Direct China Sourcing

Evaluation Criterion	Direct China Supplier	Procurement via Metal-Asia.pw
Independent QA / QC	Absent; limited to WeChat photos	NDT, UT, spectrometric chemistry at factory pre-shipment
Code Compliance	GB 50017 only; no local adaptation	Full adaptation to EN 1993, EN 1090, ASTM, local codes
Customs Brokerage	Buyer secures local broker	End-to-end brokerage, correct HS, duty optimisation
Logistics & Insurance	Port-to-port; uninsured gaps	CIF/DDP with full marine cargo insurance
Installation Supervision	Not available	On-site supervisors worldwide
Project Finance Security	100% TT advance	Milestone payment 30/40/30 tied to FAT
Public Tender Support	None	FIDIC / IFC / World Bank compliant documentation
After-Sales Warranty	Limited; remote support only	Local warranty 24 months, spare-part pipeline

Integrated Services Portfolio

- [Factory Technical Audit](#) — ISO 9001, EN 1090 EXC class, welder qualification.
- [Global Procurement Services](#) — contract-to-commissioning programme management.
- [Trade Compliance & Logistics](#) — multimodal freight, customs brokerage, origin management.
- [B2B Supplier Due Diligence](#) — credit, litigation, and reputation checks in China.
- [Engineered Procurement](#) — specification optimisation for climate zone and budget.
- [Materials Testing](#) — mechanical, macro/microstructural, and corrosion assessment.
- [Coating & Alloy Verification](#) — zinc thickness, adhesion, salt-spray compliance.
- [MEP Engineering](#) — HVAC, plumbing, electrical, low-voltage design.
- [Installation Supervision](#) — on-site assembly management, commissioning, O&M handover.

Frequently Asked Questions (FAQ)

1. What is the typical lead time for a modular home?

Production: 25–40 working days after drawing approval. Ocean freight to Europe/North America: 25–35 days. On-site assembly: 3–7 days. Total door-to-door: 55–80 days.

2. Do modular buildings require planning permission?

Regulations vary by jurisdiction. In the EU, permanent modules require building permits and CE/UKCA marking under the Construction Products Regulation. We provide full technical files, DoP declarations, and structural calculations to support planning submissions.

3. What foundation types are compatible?

Approximately 80% of modules are installed on helical piles (steel screws) or shallow strip footings (400×400 mm), reducing civil costs by 30–40% versus reinforced slabs. We supply foundation design briefs calibrated to geotechnical reports.

4. Can modules be erected in sub-zero temperatures?

Yes. All assembly is a "dry" process using bolted and screwed connections; installation is feasible to –25°C without concrete curing delays or admixture costs.

5. How is thermal performance assured in cold climates?

200 mm PIR insulation plus thermal-bridge-free junction detailing achieves $R = 4.5\text{--}5.0\text{ m}^2\cdot\text{K}/\text{W}$. Combined with high-performance glazing (low-E argon-filled), heating demand is reduced by 35–45% versus baseline construction.

6. What warranty coverage do you provide?

Structural frame: 10 years. MEP systems: 2 years. Internal finishes: 1 year. Post-warranty support includes remote diagnostics and spare-part supply from regional hubs.

7. Do you support public-sector tenders and framework agreements?

Yes. We prepare full tender documentation compliant with FIDIC, IFC, and World Bank procurement guidelines, including performance bonds, advance-payment guarantees, and milestone-based invoicing.

8. Can you deliver bespoke dimensions or architectural finishes?

Yes. Our **Engineered Procurement** team develops custom modules: non-standard footprints, green roofs, composite facades (timber cladding, metal cassettes, HPL panels), and multi-storey configurations.

Contact Information

For procurement enquiries, technical specifications, and project-specific quotations, contact our Client Services team:

- WhatsApp: +86 132 50100874
- Telegram: @China_metal_supply
- Email: zakaz@metal-asia.pw
- Official Website: www.metal-asia.pw
- Publication Author: [Milosh Kovachevi](#)

For the complete service catalogue, visit Metal-Asia.pw.



Order modular buildings turnkey with global delivery and on-site supervision