

# Metal-Asia

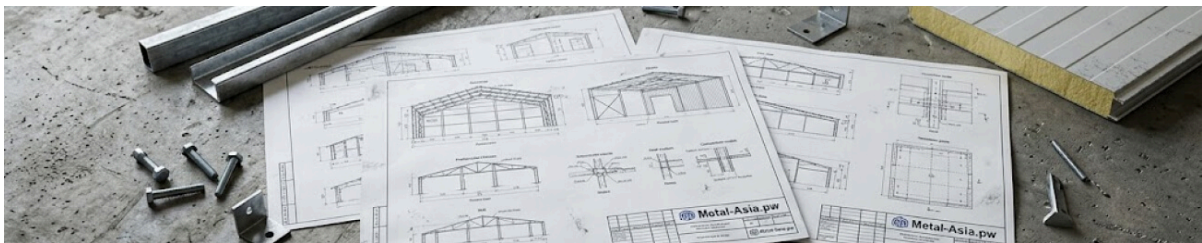
## Commercial Proposal for Supply

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### 20-Foot Dual-Wing Expandable Container with Full Turnkey Configuration

#### Executive Summary

Metal-Asia.pw delivers direct-source procurement of 20-foot dual-wing expandable containers from China with full turnkey configuration. This innovative solution expands usable floor area from 14.8 to 37 m<sup>2</sup> through deployable side wings. The structure includes complete engineering systems: electrical supply, water supply, sewage, bathroom, and kitchen module. All shipments are executed factory-direct with zero intermediary markups, backed by 15+ years of cross-border supply chain operations since 2009.



*Expandable containers with deployable floor area up to 37 m<sup>2</sup>*

#### Why Metal-Asia.pw Delivers Superior Procurement Value

Direct engagement with Chinese manufacturers exposes international buyers to significant operational risks. Metal-Asia.pw eliminates these friction points through structured supply chain compliance and transparent procurement protocols.

Buyer Pain Point	Metal-Asia.pw Solution
Technical specifications lost in translation, causing production defects	Professional <a href="#">Technical Specification drafting for Chinese manufacturers</a> in native technical Mandarin aligned with GB standards
No quality assurance during manufacturing, resulting in defective shipments	<a href="#">Engineering audit for complex orders</a> with NDT, ultrasonic testing, and chemical composition verification to ISO/GB standards
Customs clearance complexity, incorrect HS code classification	Full <a href="#">customs and logistics compliance management</a> with accurate declaration and duty optimization
Inability to participate in public tenders and government contracts	Comprehensive tender documentation preparation for public procurement frameworks and defense sector contracts
Extended lead times for design modifications	<a href="#">Integrated sourcing and procurement</a> with direct engineer-to-engineer factory access

Buyer Pain Point	Metal-Asia.pw Solution
No post-delivery warranty support	Post-warranty support, spare parts supply chain, and 24/7 technical consultation
Payment fraud risk when wiring funds to China	<a href="#">B2B supplier audit</a> with on-site factory verification and video documentation
Engineering system integration and installation challenges	<a href="#">Integrated engineering systems</a> turnkey with certified installation supervision

### Our Competitive Advantage Over Direct Chinese Suppliers

Parameter	Direct China Procurement	Metal-Asia.pw
Supplier verification	Self-managed, high fraud exposure	<a href="#">On-site factory audit</a> with photo/video documentation
Quality control	Absent	<a href="#">Engineering audit</a> with NDT, ultrasonic testing, chemical analysis
Technical specification	Online translator output	Professional <a href="#">TS drafting in technical Mandarin</a>
Customs compliance	Self-managed, delay risk	<a href="#">Customs clearance under our compliance</a> with correct HS classification
Public tender eligibility	Not possible	Full documentation package for government procurement
Installation supervision	Not provided	Included in supply contract, buyer zero hassle
Warranty	12 months without support	12 months + post-warranty supply chain support
Lead time	45-60 days with delay risk	15-30 days with delivery guarantee

### Technical Specifications — 20-Foot Dual-Wing Expandable Container

No.	Parameter	Value
1	Deployed dimensions (L x W x H)	5900 x 6300 x 2480 mm
2	Internal dimensions (L x W x H)	5460 x 6140 x 2240 mm
3	Folded dimensions (L x W x H)	5900 x 2200 x 2480 mm
4	Usable floor area	37 m <sup>2</sup>
5	Layout	2 bedrooms, living room, bathroom

No.	Parameter	Value
6	Occupancy capacity	2-4 persons
7	Electrical power	12 kW
8	Total weight (net)	3500 kg
9	Loading per 40'HQ	2 complete units
10	Frame material	Structural steel Q235B, galvanized
11	Top and bottom longitudinal beam	Rectangular tube 80 x 100 x 2.5 mm
12	End beam	Bent profile 2.0 mm
13	Corner castings	Galvanized 210 x 150 x 160 mm (ISO 1161)
14	Steel columns	Bent profile 2.0 mm
15	Wing top frame	P-shaped tube 40 x 80 x 1.5 mm
16	Wing bottom frame	Rectangular tube 60 x 80 x 2.0 mm
17	Folding hinges	Galvanized 130 mm
18	Protective coating	Electrostatic powder coating, white RAL 9016
19	Main external roofing	EPS sandwich panel Type 950, 50 mm, 0.3 + 0.4 mm
20	Main internal ceiling panel	EPS sandwich panel Type 950, 50 mm, 0.3 mm
21	Wing external roofing	EPS sandwich panel Type 950, 50 mm, 0.3 + 0.4 mm
22	Side walls	EPS sandwich panel Type 950, 65 mm, 0.3 mm
23	Internal partitions	EPS sandwich panel Type 950, 50 mm, 0.3 mm
24	Main floor	Bamboo plywood 18 mm
25	Wing floor	Bamboo plywood 18 mm
26	External wall cladding	Metal carved facade panels, wood grain pattern
27	Entry door	Double-leaf, thermal break aluminum, tempered glass with coating
28	Windows	Thermal break aluminum, tilt-turn, mosquito nets x 6, tempered glass
29	Internal wall and ceiling finish	Bamboo fiber panels, Class E0
30	External floor finish	SPC vinyl laminate 4.0 mm, waterproof
31	Bathroom	Partitions, Ti-Mg door, sink, mirror cabinet, premium toilet, shower, floor drain
32	Bathroom walls	UV panels, 100% waterproof

No.	Parameter	Value
33	Bathroom floor	SPC vinyl laminate 4.0 mm
34	Kitchen module	L-shaped cabinet, sink, water supply and sewage pipes
35	Electrical supply	220 V, 50 Hz, inlet 6 mm <sup>2</sup> , AC 4 mm <sup>2</sup> , sockets 2.5 mm <sup>2</sup> , lighting 1.5 mm <sup>2</sup>
36	Lighting	LED panel 300 x 300 mm, ceiling fixture
37	Sockets and switches	European standard (US, UK on request)
38	Terrace	2 m width with metal railing
39	Terrace canopy	Metal
40	Warranty	12 months
41	Manufacturing lead time	15-30 working days
42	Service life	Minimum 15 years

### Commercial Terms – Full Configuration

**Important:** Prices are valid at the time of this commercial proposal and are indicative. Final pricing is calculated individually upon receipt of detailed buyer requirements, including order volume, configuration specifications, delivery terms, and current market conditions.

No.	Item	Specification	Price, CNY
1	Standard configuration	Frame + EPS + bamboo plywood floor + steel door + PVC windows x 4	20280
2	Upgraded configuration	Black frame + facade panels + thermal break aluminum door and windows	6500
3	Bedroom partitions	Internal partitions + aluminum doors x 2	2080
4	Internal finish	Bamboo fiber panels	3796
5	External floor finish	SPC vinyl laminate 4.0 mm	2340
6	Bathroom with wet/dry separation	Full set with premium toilet, shower, UV panels	4680
7	Kitchen module	L-shaped cabinet, sink, pipes	2340
8	Electrical system	GB wiring, European sockets and switches	832
9	Terrace 2 m with railing	Metal railing	2912
10	Terrace canopy	Metal	1820
<b>TOTAL</b>			<b>47580</b>

### Delivery Terms

Parameter	Value
Incoterms	EXW / FOB / CIP (as agreed)
Packaging	Factory wooden crating, PE film, strapping bands
Transport	Flatbed truck / 40'HQ container (2 units)
Loading	Crane via ISO 1161 corner castings
Storage period	Up to 12 months in factory packaging

### Packing List

No.	Cargo Description	Number of Packages	Packaging Type	Net Weight, kg	Gross Weight, kg	Dimensions (L x W x H), mm	Marking
1	20-foot dual-wing container (folded)	1	Wooden crate, PE film, strapping bands	3500	3850	5900 x 2200 x 2480	Fragile, This Way Up, No.1
2	Hardware and fittings set	1	Wooden box	85	95	800 x 600 x 400	No.2
3	Sealant and gasket set	1	Cardboard box	12	15	400 x 300 x 200	No.3
4	Technical documentation	1	Folder, bag	2	3	300 x 250 x 50	No.4
<b>TOTAL</b>		<b>4 packages</b>		<b>3599</b>	<b>3963</b>		

**Shipper:** Metal-Asia.pw, China **Consignee:** As per buyer instruction **Contract No.:** As agreed **Date of issue:** 02.06.2026

### HS Codes (Harmonized System)

Description	HS Code
Prefabricated modular buildings of metal	9406 10 000 0
Metal frame structures	7308 90 800 0
Electrical equipment (in set)	8537 10 990 0
Aluminum doors	7610 10 000 0
Aluminum windows	7610 10 000 0

Description	HS Code
Sanitary equipment	3922 90 000 0
Ceramic sanitary fixtures	6910 10 000 0
LED lighting fixtures	9405 10 000 0

## Foundation Systems for Modular Buildings

Modular structures can be installed on various foundation types. Selection depends on soil conditions, climate parameters, and intended service life.

### Screw Piles (Recommended)

Screw piles are the optimal foundation solution for modular units. The system consists of galvanized steel shafts with helical plates for ground penetration. Length is determined by frost line depth or bedrock location.

Parameter	Value
Pile type	SVS 89 (single-story), SVS 108 (multi-story)
Shaft diameter	89-108 mm
Wall thickness	3.5-4 mm
Load capacity	2.5-3 tonnes per pile
Length	1500-3000 mm (calculated per frost depth)
Installation spacing	2.0-2.5 m
Installation time	1-2 days
Service life	Up to 80-100 years

### Screw pile advantages:

- Cost-effective: 40-50% below concrete foundation pricing
- Rapid installation: maximum 2-3 days
- All-terrain capability: including wetlands and slopes
- Corrosion-resistant with hot-dip galvanization
- No heavy machinery required
- Year-round construction capability
- Reusable upon dismantling

### Block Foundation (Concrete Blocks)

Parameter	Value
Material	Concrete blocks M200-M300
Block size	400 x 200 x 200 mm

Parameter	Value
Quantity per 5.9x6.3 m module	8-10 blocks at corners and center
Preparation	Leveling, sand base 100-150 mm
Installation time	1 day

**Block foundation advantages:**

- Minimum cost
- Maximum installation speed
- Demountable and relocatable
- No specialized equipment required

**Slab Foundation**

Parameter	Value
Type	Monolithic reinforced concrete slab
Thickness	200-300 mm
Reinforcement	Mesh AIII 12-16 mm
Preparation	Sand base 200 mm, waterproofing
Construction time	7-14 days

**Application:** Permanent installations, multi-story complexes, seismic zones.

**Technical Specification Requirements**

For accurate cost and lead time calculation, the buyer shall provide the following technical specification data:

No.	Section	Content
1	General data	Project purpose, module quantity, project timeline
2	Climate conditions	Installation region, min/max temperature, wind load, snow load
3	Soil conditions	Soil type, frost depth, groundwater level
4	Layout	Room count, room purpose, floor area
5	Configuration	Insulator type and thickness, window/door type, wall and floor finish
6	Engineering systems	Electrical supply (voltage, power), heating, water supply, sewage, ventilation
7	Electrical equipment	Socket and switch standard, socket quantity, lighting
8	Plumbing	Bathroom (type, configuration), kitchen (type, equipment)
9	Additional options	Terrace, canopy, stairs, railings, air conditioning

No.	Section	Content
10	Packaging and transport	Delivery method, Incoterms, marking requirements
11	Documentation	Required certificates, passports, manuals
12	Special requirements	Fire protection, vandal resistance, sound insulation

## Application Sectors for Modular Buildings

### Tourism and Hospitality

Modular structures are extensively deployed in the tourism industry for rapid-accommodation facilities. According to industry data, 34% of travelers seek regional destinations, while acute shortages of quality room inventory in popular locations drive strong demand for modular solutions.

Facility Type	Description	Advantages
Glamping sites	Comfortable eco-tourism cabins	Rapid launch, mobility, minimal environmental impact
Recreation centers	Modular family vacation units	Scalability, seasonal mobility, low operating cost
Mountain shelters	Insulated modules for alpine use	Transportability to remote areas, year-round operation
Roadside motels	Rapid-assembly highway hotels	Minimal construction time, relocation capability
Campgrounds	Temporary tourist accommodation	No permanent construction permit required

### Government and Public Sector

Facility Type	Description	Application
Administrative offices	Modular government facilities	Service centers, tax offices, passport services
Educational institutions	School classrooms and kindergartens	Temporary classrooms during renovation, school expansion
Medical posts	Field aid stations and clinics	Remote settlements, field hospitals
Security posts	Guard booths and checkpoints	Border points, industrial facilities
Fire stations	Modular depots and barracks	Rapid deployment in new districts

### Worker Accommodation and Industrial Camps

Worker accommodation camps are integral to efficient operations for enterprises utilizing rotational workforce methods. Modern full-service camps are constructed in all geographic and climatic zones, including seismic regions.

Facility Type	Description	Features
Residential modules	Worker bunkhouses	2-8 person capacity, heating, ventilation
Dormitories	Multi-story modular complexes	Up to 3 floors, 30-100+ person capacity
Dining facilities	Canteens for rotational workers	Fire safety, sanitary compliance
Administrative buildings	Construction headquarters, project offices	Full furniture and equipment package
Warehouses	Tool and material storage	Reinforced floor, steel frame
Medical points	Field medical stations	Building code compliance requirements

### Commercial Real Estate

Facility Type	Description	Advantages
Retail pavilions	Shops, pharmacies, bakeries	Rapid business launch, minimal bureaucracy
Office buildings	Administrative centers, sales offices	Layout flexibility, relocation capability
Cafes and restaurants	Modular food service units	Full engineering system integration
Car washes and service centers	Auto service facilities	Reinforced floor, ventilation, drainage
Sports complexes	Locker rooms, gymnasiums	Structural strength, sound insulation

### Turnkey Installation Supervision

Metal-Asia.pw provides comprehensive installation supervision services for modular buildings. The buyer receives a fully operational facility with zero operational burden or additional expenditure.

Stage	Scope	Duration
1. Site preparation	Clearing, leveling, marking	1 day
2. Foundation installation	Screw pile or block mounting	1-2 days
3. Module delivery	Transport to site, crane unloading	1 day
4. Module assembly	Deployment, connection, joint sealing	1-2 days

Stage	Scope	Duration
5. Engineering system connection	Electrical, water, sewage, heating	1-2 days
6. Interior finishing	Partition installation, wall and floor finish	2-3 days
7. Commissioning	System testing, trial operation	1 day
8. Handover	Acceptance certificate, personnel briefing	1 day
<b>TOTAL</b>		<b>8-13 days</b>

**Installation supervision scope:**

- Factory acceptance inspection of modular units
- Equipment preparation for installation works
- Buyer personnel briefing on assembly and operation
- On-site installation quality control
- Commissioning per approved working documentation
- Full furniture and equipment package (per specification)

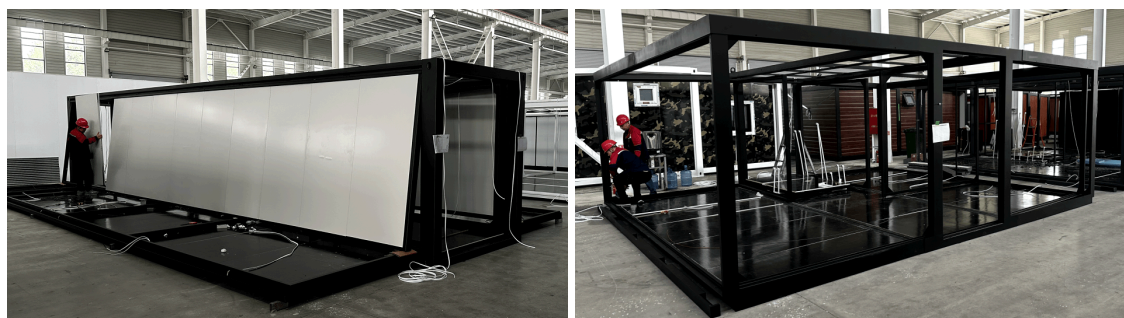
**Metal-Asia.pw installation supervision advantages:**

- Buyer incurs no separate installation crew costs
- Quality assurance for all executed works
- Full compliance with construction norms and standards
- Minimum facility commissioning timeline
- Post-warranty service and technical support

**Services and Solutions**

- [Engineering audit for complex orders](#)
- [B2B procurement services from China](#)
- [Customs and logistics compliance from China](#)
- [B2B order audit](#)
- [Integrated sourcing and procurement](#)
- [Integrated engineering systems](#)
- [Technical specification preparation for Chinese manufacturers](#)
- [What is a Technical Specification \(TS\)](#)

**Project Gallery**



*Expandable homes turnkey with full configuration*

## FAQ: Frequently Asked Questions

**Question 1: What is the actual floor area after wing deployment?** Usable floor area is 37 m<sup>2</sup> with wings deployed. In folded configuration, width is 2200 mm, enabling transport of 2 complete units in a single 40-foot container.

**Question 2: How long does on-site deployment take?** Deployment of one module by two workers requires 2-3 hours. Engineering system connection and final finishing take 1-2 days. Turnkey installation supervision delivers the facility within 8-13 days.

**Question 3: What insulation is used in walls and roofing?** EPS sandwich panels Type 950 with core density 12-16 kg/m<sup>3</sup>, thermal conductivity 0.035-0.040 W/m·K. Wall thickness is 65 mm, roofing 50 mm with additional 0.4 mm corrugated sheet.

**Question 4: Can the container be used in winter at -30°C?** Yes, with additional floor insulation and electric heating. Standard configuration is rated for temperatures down to -25°C. Underfloor heating system and 100 mm insulation thickness are recommended.

**Question 5: What utility connections are required?** Electrical supply 220 V, 50 Hz, power 12 kW. Water supply via flexible hoses 15-20 mm diameter. Sewage via flexible pipes 50 mm diameter. For winter operation, pipe insulation and heated water supply are recommended.

**Question 6: What is the structure service life?** Under standard operating conditions, service life is minimum 15 years. Q235B steel frame with galvanization and powder coating ensures corrosion resistance. Sandwich panels and bamboo plywood maintain properties at humidity up to 85%.

**Question 7: Is custom layout and finish available?** Yes, full customization is available: layout modification, finish material replacement, additional windows and doors, facade panel color change. Custom order lead time extends to 45 working days.

**Question 8: How is warranty service executed?** Warranty period is 12 months from dispatch. In case of manufacturing defects, the supplier organizes free replacement of components. Post-warranty service is available on request with spare parts supply from China.

## Contact Information

For comprehensive service details, visit [Metal-Asia.pw](http://Metal-Asia.pw).

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*Designer solutions for expandable containers with full configuration*