PRODUCT SPECIFICATION SHEET

Expandable Folding Container Unit

Factory-prefabricated, fold-out modular living & work space · 20 ft / 40 ft / custom sizes



Fully expanded unit: central core module with glazed double entry doors and two fold-out wings with aluminum sliding windows.

Galvanized Steel
Hot-dip galvanized welded steel structure for corrosion resistance and long service life.

Folds Flat
Compresses to a compact shipping volume; multiple units fit in one container.

Fast Assembly
Wings fold out on site; installation drawing supplied with every unit.

Fully Customizable
Exterior color and finish, window/door layout, and interior finishes to order, with 3D model design support.

OVERVIEW

This unit is built on a “factory prefabrication + site installation” model. The complete house — roof system, floor system, wall panels, and general structure — is manufactured as a set of unit modules in a controlled factory environment, then delivered folded and expanded on site. The result is a modern, weather-tight space suitable for use as an accessory dwelling, home office, guest suite, studio, or commercial room, with the quality consistency of factory production and none of the extended timelines of conventional construction.

The design pairs a rigid central core with two hinged side wings. Once unfolded and secured, the unit presents as a single flat-roofed building with a full-height glazed entry and windows on each wing.

Technical Specifications

STRUCTURE & DIMENSIONS	
Product type	Expandable / folding container house (sandwich-panel construction)
Standard sizes	20 ft and 40 ft base modules; other sizes available on request
Configuration	Central core module with two fold-out wings (expandable both sides)
Main frame	Welded steel structure, hot-dip galvanized
Corner fittings	ISO-style corner castings at all eight corners for lifting, stacking, and anchoring
Roof	Flat roof, integrated steel roof frame; PC (polycarbonate) sheet cover option
ENVELOPE & FINISHES	
Wall panels	Insulated sandwich panel
Exterior decoration	WPC, PVC, or sandwich panel; custom requirement accepted
Exterior color	Customized color (eight standard schemes shown on page 5)
Ceiling	PVC, gypsum board, or sandwich panel
Floor	MGO (magnesium oxide) board, fiber cement board, or PVC
Windows	Aluminum-framed sliding windows, double sash
Entry door	Full-height glazed double doors in the core module
Design style	Modern
SERVICE, DELIVERY & SUPPORT	
Design support	3D model design capability; installation drawing provided
Customization	OEM / ODM service: color, layout, finishes, and logo
Warranty	1 year
After-sale service	Online technical support
Packaging	Ships folded flat, shrink-wrapped, with protective corner posts; loaded by forklift or crane
Origin	Manufactured in Shandong, China

SUITABLE APPLICATIONS

Accessory dwelling unit · Home office · Guest house · Living room / studio · Tea room · Hotel / villa · Office · Shop / kiosk / booth · Guard house / sentry box · Workshop / warehouse

Site notes. As with any prefabricated structure, the unit requires a level, load-bearing foundation (concrete slab, piers, or strip footings) and connection to local utilities. Final dimensions, panel thickness, and electrical/plumbing packages are confirmed at order based on the chosen configuration and local code requirements.

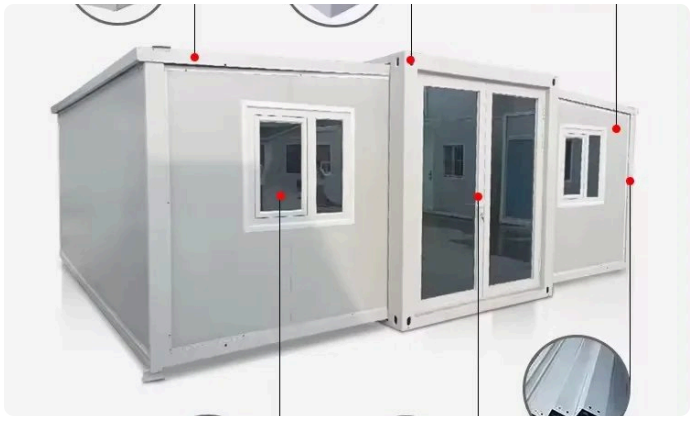
Build Quality



Steel skeleton. Heavy-gauge welded perimeter frame with closely spaced wall studs and floor joists, finished in a protective coating over hot-dip galvanizing.



Insulated panels. Sandwich wall panels are cut to size and staged inside the frame before folding, so every panel is factory-fitted to its opening.



Component system. Steel frame, corner castings, insulated sandwich panel, aluminum window and door units, and galvanized steel profiles.



Factory packing. Units leave the factory folded, shrink-wrapped, with corner protection and lifting points ready for forklift or crane handling.

WHAT SETS THE CONSTRUCTION APART

Whole-house system, built as modules. The roof, floor, and wall systems are each produced as complete unit modules in the factory, which keeps tolerances tight and eliminates the weather exposure and on-site variability of stick-built construction.

Corrosion protection by design. Hot-dip galvanizing is applied to the welded steel structure rather than a paint-only finish, extending structural life in coastal, humid, and freeze-thaw climates.

Weather resistance. Insulated sandwich panels and the PC sheet cover provide a durable, weather-resistant envelope so the unit stays protected across a range of environmental conditions.

Value Proposition

1

Speed to occupancy

Prefabrication moves nearly all labor off-site. Delivery, unfolding, and securing the wings takes a fraction of the time of a framed ADU build.

2

Lower logistics cost

The folded unit travels flat, so several units share a single shipping container and standard freight equipment can handle it on site.

3

Relocatable asset

Corner castings and a bolt-together structure mean the unit can be lifted, moved, or resold rather than written off with the land.



Alternative exterior scheme with horizontal-profile panel cladding and white trim.



Multi-unit installation on strip footings, shown in winter conditions.

FLEXIBLE USE OVER ITS LIFETIME

Because interior finishes (PVC, gypsum board, MGO or fiber-cement flooring) and the exterior cladding are all specified to order, the same shell can be configured as a rental ADU today and repurposed as an office, studio, or guest suite later. Units can also be placed side by side or stacked to grow with demand.

PREDICTABLE QUALITY

Every unit is built on the same jigs from the same steel and panel stock, with a one-year warranty and online technical support after delivery. An installation drawing ships with the unit and 3D design support is available before order, so the finished building matches what was specified.

CUSTOMIZATION WITHOUT CUSTOM-BUILD PRICING

Color, cladding, window and door placement, and even branding can be tailored under an OEM/ODM arrangement, while the underlying modular system keeps production efficient and repeatable.

Exterior Color & Finish Options

Eight standard exterior schemes are available; fully custom colors and cladding can be produced to order.



01 · White horizontal profile



02 · Red



03 · Grey



04 · Beige



05 · Light camouflage green



06 · Deep blue



07 · Dark wood grain



08 · Dark camouflage green

DELIVERY & INSTALLATION SEQUENCE

STEP	WHAT HAPPENS
1	Configuration confirmed (size, color, finishes, openings); 3D model and installation drawing issued.
2	Roof, floor, and wall modules fabricated and assembled in the factory; unit folded, wrapped, and corner-protected.
3	Folded unit loaded by forklift/crane into a shipping container or onto a flatbed for transport.
4	On site, the unit is set on its prepared foundation, wings are folded out and secured, and windows/doors are checked.
5	Utilities connected; interior finishes completed per specification. Online technical support available throughout.

Shipping method, delivery timing, and lead time are confirmed per order and destination.