Container Shelter Solutions



THE STEEL IS WHAT YOU SEE. THE THINKING IS WHAT YOU RELY ON.

KENZ Al Arabia International Contracting Co.

An equipment room built around its duty

Based in Saudi Arabia, with headquarters in Riyadh, KENZ Al Arabia International Contracting Co. engineers and fabricates purpose-built container shelters for technical equipment across Saudi Arabia.



WORKSHOP REFERENCE

Where the frame meets the brief

For a container-style shelter, the equipment footprint determines where steel supports, service openings and access routes belong.

Structural fabrication and steel-frame assembly.

Communications reach beyond the city

Our vision is to give operators across Saudi Arabia a serviceable equipment room wherever a network or industrial process needs one.



Remote communications: protected equipment supporting connectivity beyond urban networks.

A workable layout before steel is cut



THE DESIGN BRIEF

Give the workshop a drawing it can build.

Our mission is to turn the client’s equipment data and site constraints into coordinated drawings, then carry those decisions through fabrication and inspection.

Engineering and fabrication: translating structural drawings into workshop execution.

The decisions a client can trace



Discipline
Locate the equipment feet before setting the floor supports.

Accountability
Assign an owner to each drawing revision.

Integrity
Record what an inspection actually found.

Collaboration
Review cable entries with the installer who will use them.

Improvement
Carry a workshop correction into the next drawing issue.

Structural integrity: inspecting critical joints before enclosure.

What remote equipment needs on site



Communications

A radio rack needs cooling and an accessible route for cables.

Power and control

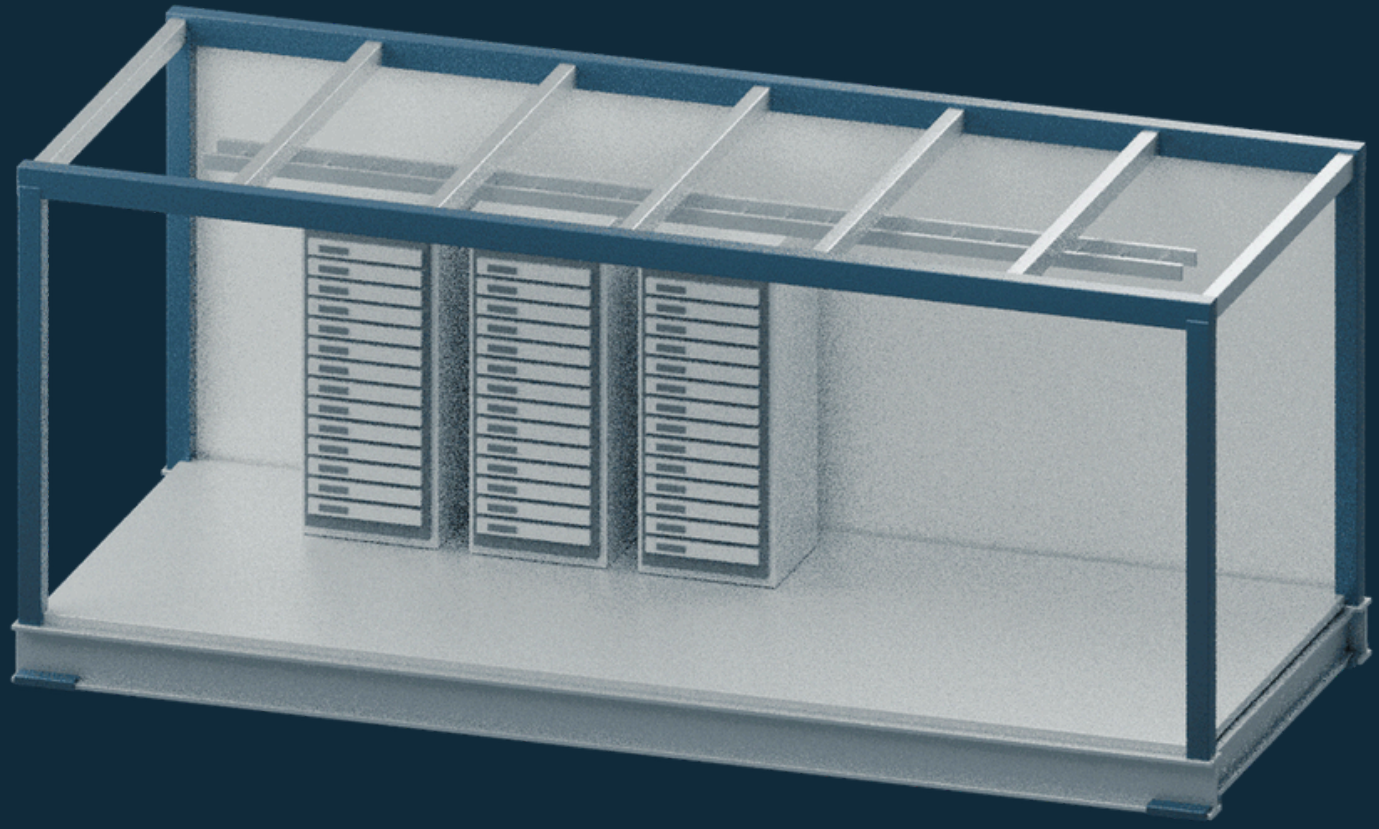
Panel doors need space to open while personnel work in front of them.

Industrial utilities

A replaceable pump or drive needs a route out through the door.

Telecom container: cooling, ventilation and maintenance access.

A rack door needs room to open



Working aisle

Check front and rear access against the rack supplier’s servicing requirements.

Cable entry

Reserve space for bend radii and the route from entry plate to rack.

Cooling selection starts with equipment heat output and the site’s design conditions.

Telecom equipment layout: rack positioning, cable routing and maintenance clearances.

The switchboard sets the working aisle

PANEL ACCESS

Use the switchboard drawings to locate incoming cables, terminations and the clear space for inspection.

EQUIPMENT REPLACEMENT

Check the largest removable section against the door opening and the route outside.



Electrical equipment layout: switchboard access and service coordination.

Different equipment changes the room



Generator module

The package determines combustion air, heat rejection, exhaust routing and the maintenance approach.



Battery or energy-storage support

Chemistry and supplier instructions guide temperature control, ventilation, detection and the response to a fault.

Containerized generator and battery applications: equipment-specific environmental and safety requirements.

Three ways to house technical equipment

Agree the starting structure before defining openings, handling or transport requirements.

Purpose-built container-style shelter

The fabricator builds the chassis and frame around the equipment. The drawings define supports, door positions and lifting provisions.

Modified ISO shipping container

Work starts with an identified freight container. Review its condition, proposed cuts and the effect of modifications on the intended transport approval.

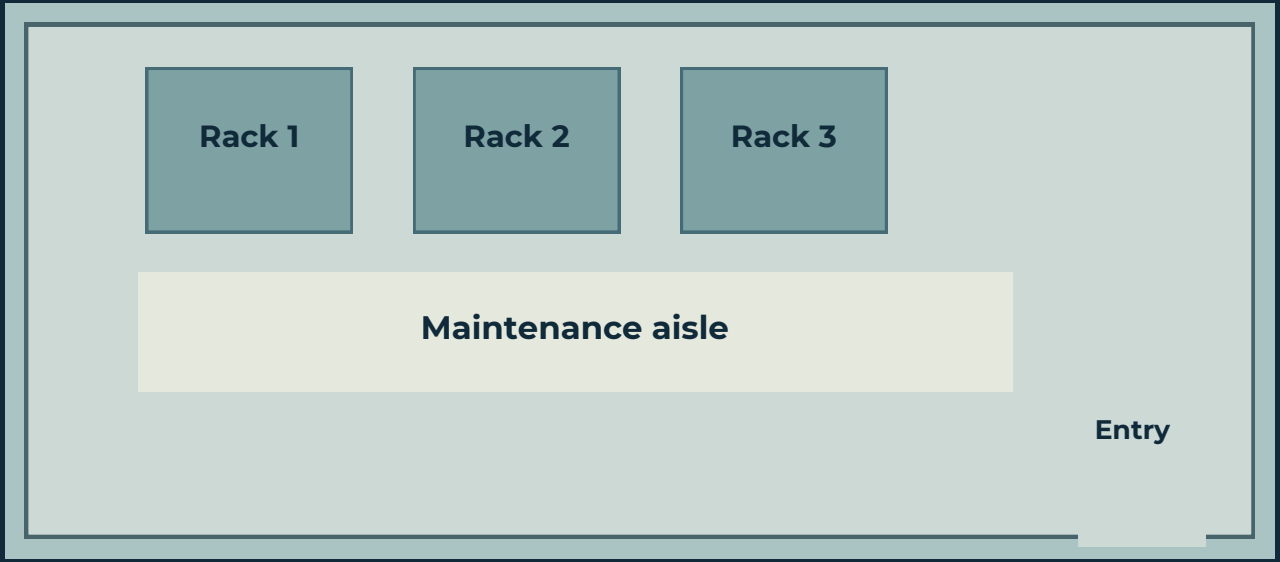
Prefabricated modular enclosure

A factory-built room can use a different footprint or join other modules. Site connections and assembly joints become part of the design.

3D models and application scenes show representative configurations. Final construction follows approved project requirements; SANS photographs document a separate KENZ container shelter project.

Before the first cut

A plan view lets the client test a maintenance visit before approving the layout.



Equipment layout: maintenance aisles, mounting points and service interfaces.

EQUIPMENT FOOTPRINT

Send the equipment schedule, weights and mounting points.

OPERATING CONDITIONS

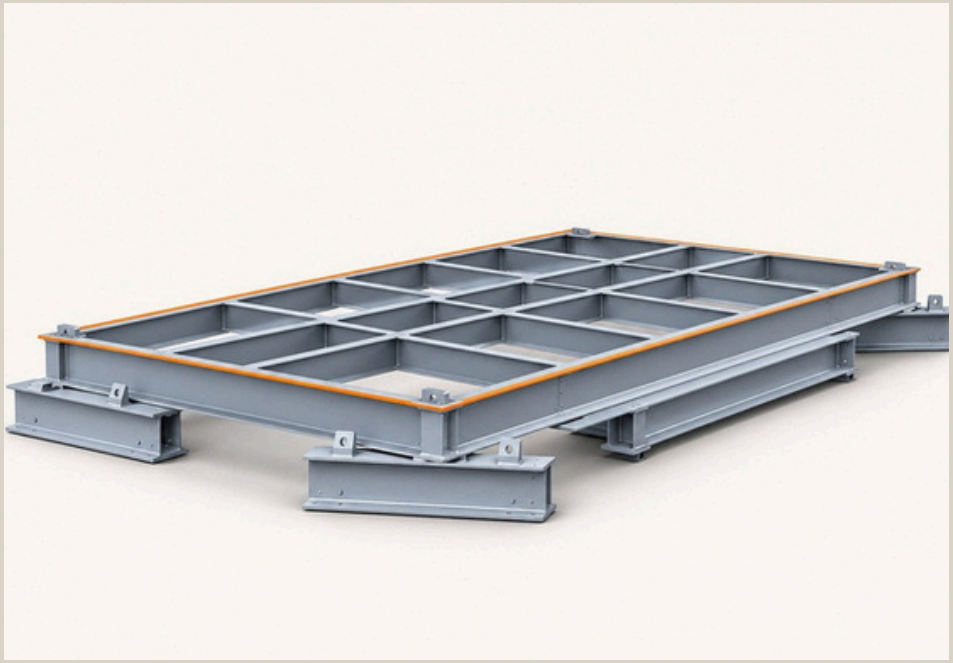
Define heat output, site exposure and the indoor operating range.

SITE INTERFACES

Locate the foundation, incoming supplies and unloading area.

A drawing the workshop can check

In the SANS container shelter, the base-frame model and workshop photograph show how cross-members meet the perimeter beams.



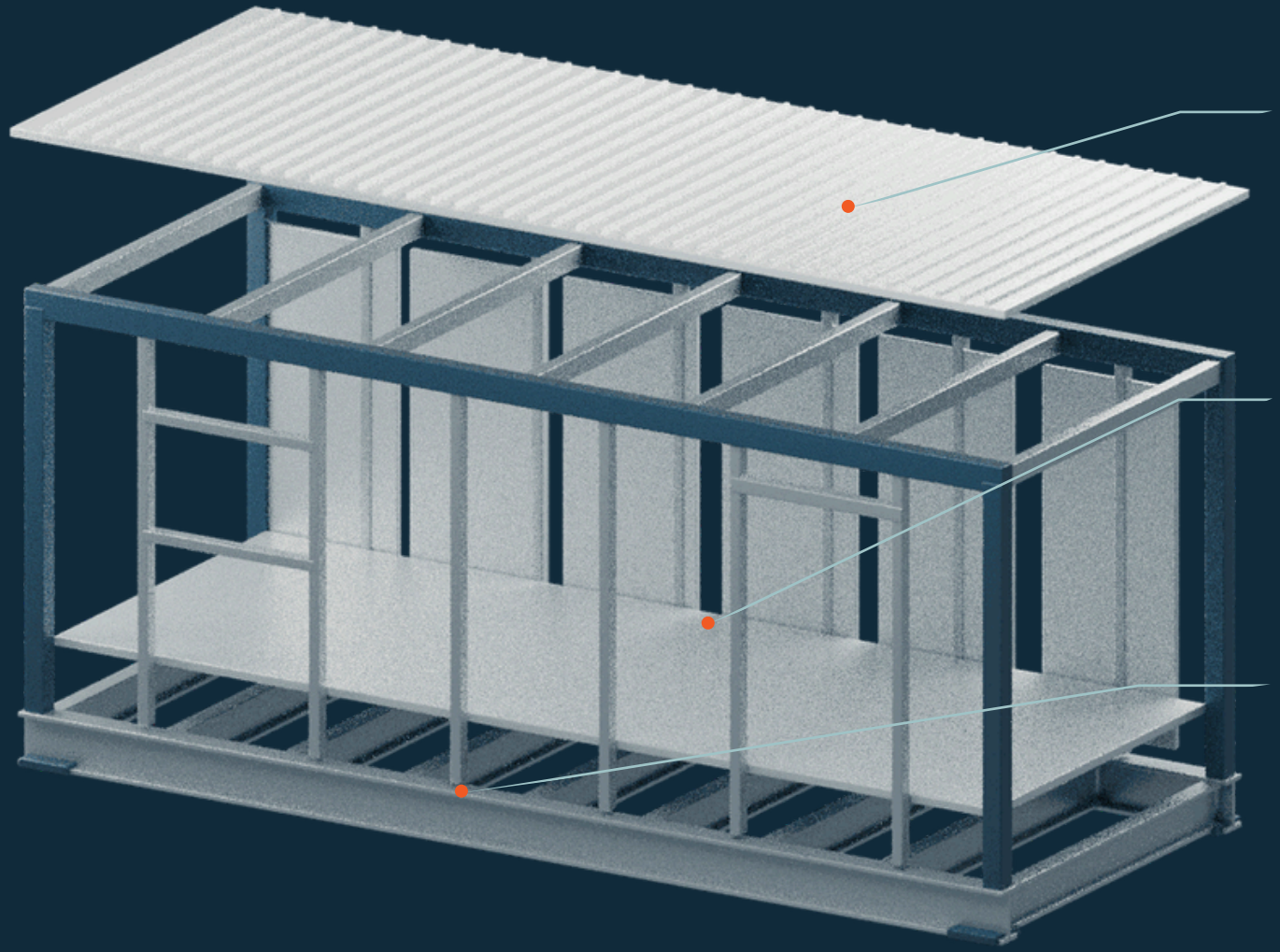
DESIGN MODEL



WORKSHOP PHOTOGRAPH

SANS project: structural design translated into fabricated chassis components.

The load path starts at the equipment feet



Roof and corner posts
Roof members transfer load into the posts and their connections.

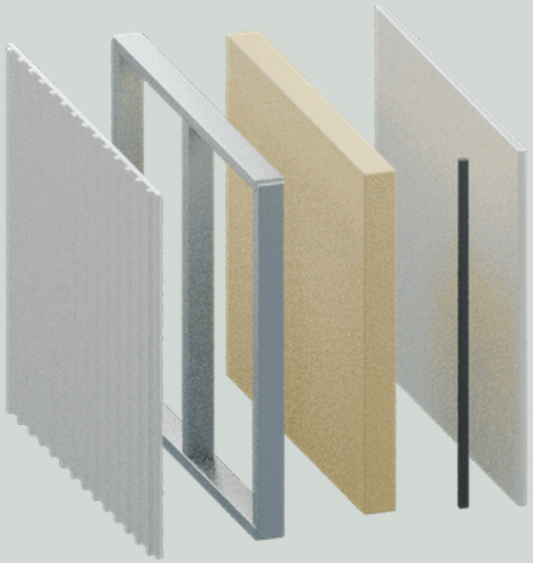
Equipment supports
Align the machine's mounting points with the floor structure.

Base and handling
Cross-members feed the longitudinal rails. Review supports, anchors and lift attachments for each load case.

Structural design: chassis, corner members, roof framework and load transfer.

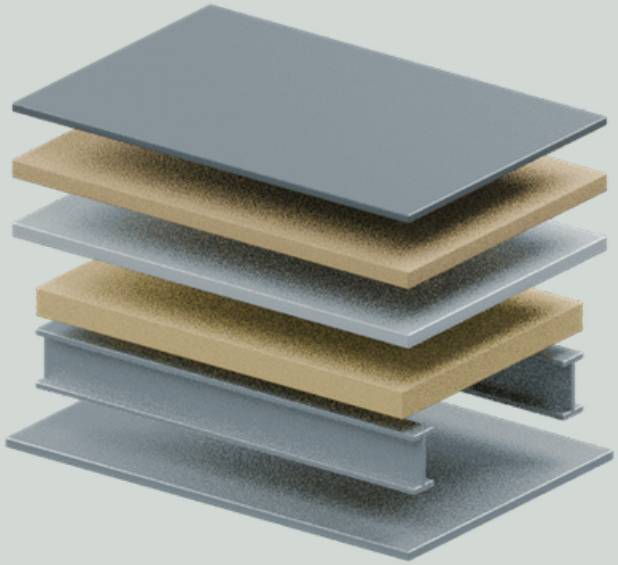
The layers behind the finish

Follow each assembly from its exposed face to the structure behind it.



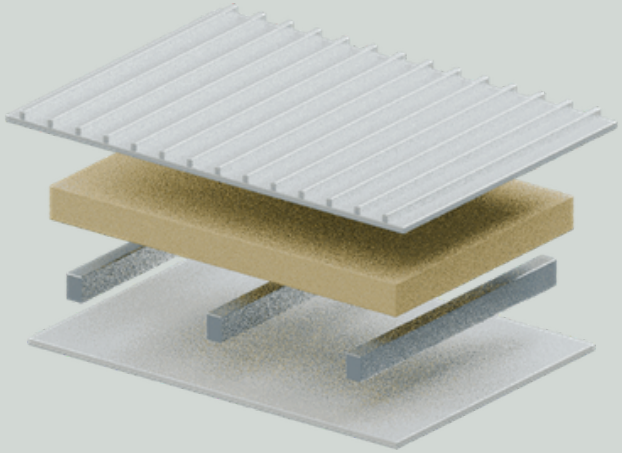
Wall / exterior to interior

Profiled cladding, studs and insulation, sealed joint, internal lining. Detail thermal breaks where the design calls for them.



Floor / wear surface down

Finish and substrate over a supporting deck. Coordinate insulation, joists and underside protection with equipment loads.

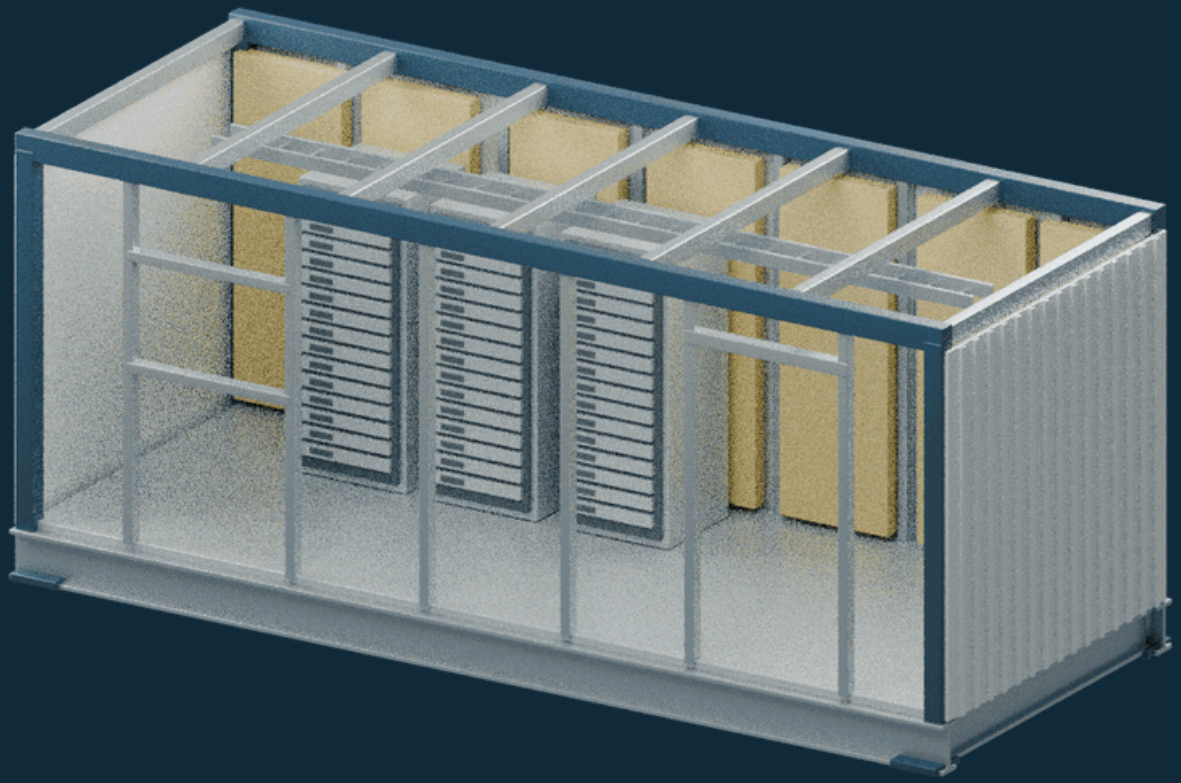


Roof / weather face down

Weather sheet over insulation and supports, with a ceiling liner below. Detail falls, flashings and drainage at the edges.

Wall, floor and roof assemblies: coordinated protection from exterior to interior.

The systems have to fit together



Services and access

Check tray height, cable entries, working space and access to cooling equipment.

Operating and transport loads

Review weight, support reactions, restraints and the effect of lifting the fitted module.

Thermal review

Check heat loads and airflow. Use simulation where the project warrants it.

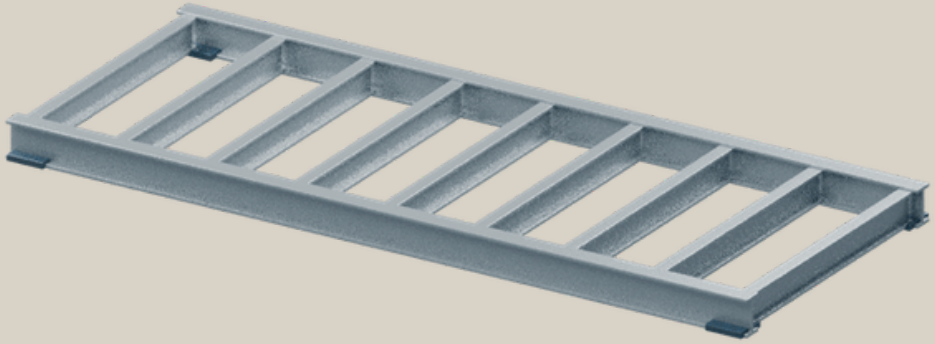
Before enclosure

Agree inspection points for internal joints, protective finish and base fixation.

Integrated engineering: structural design, equipment access and thermal management.

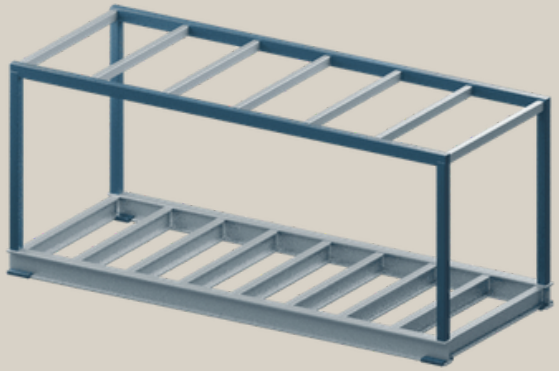
The first members establish the footprint

01 Chassis



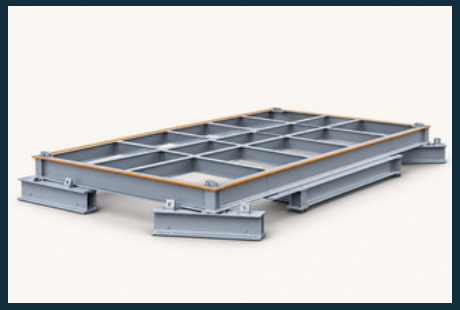
Cross-members carry local loads into the long base rails.

02 Primary frame



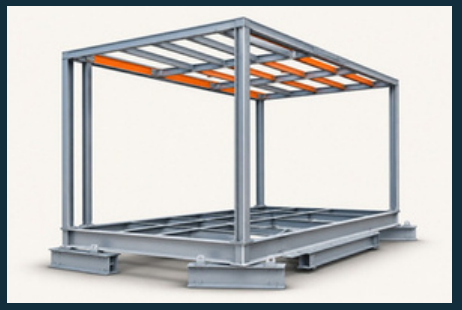
The corner posts connect the base to the roof frame.

KENZ SANS CONTAINER SHELTER / DOCUMENTED FABRICATION EVIDENCE





Chassis



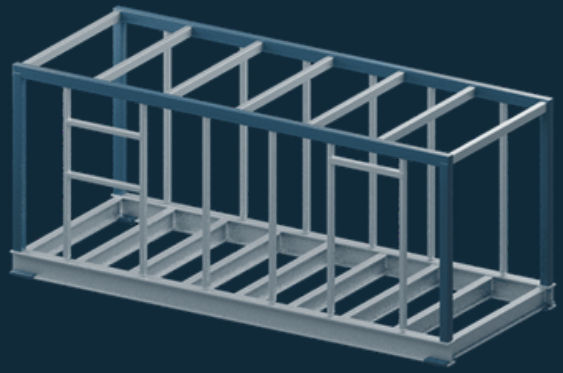


Primary frame

Container engineering sequence (above) | SANS project design and fabrication record (below).

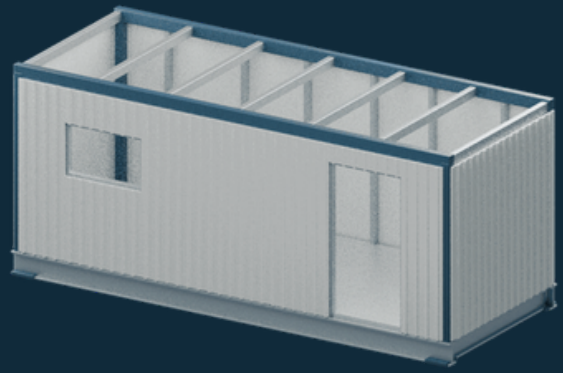
Openings change the framing

03 Secondary framing



Studs and headers frame the door and ventilation openings.

04 Wall enclosure



Cladding closes the wall around the framed openings.

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Frame development



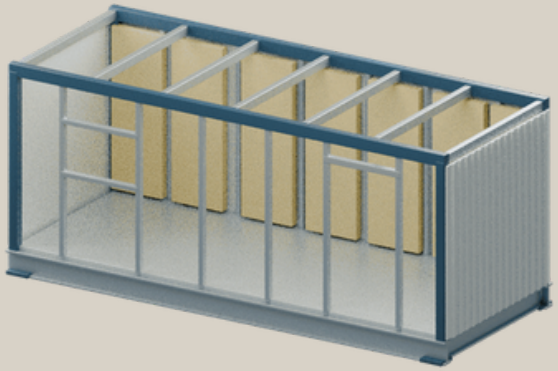


Coated frame

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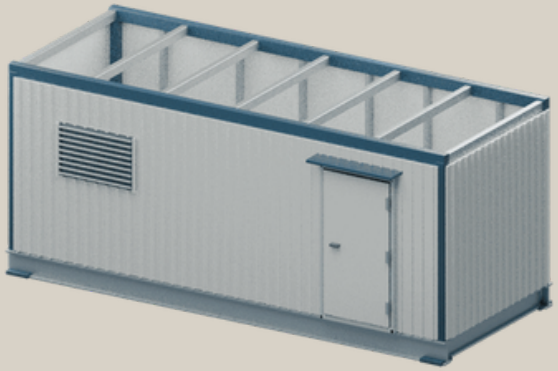
What sits behind the outer skin

05 Insulation bays



A cutaway reveals insulation between structural members.

06 Door and louver



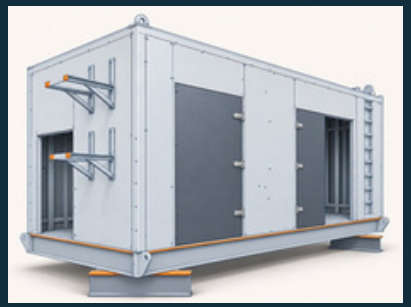
The frame accepts the door seal and weather louver.

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Wall fit-up



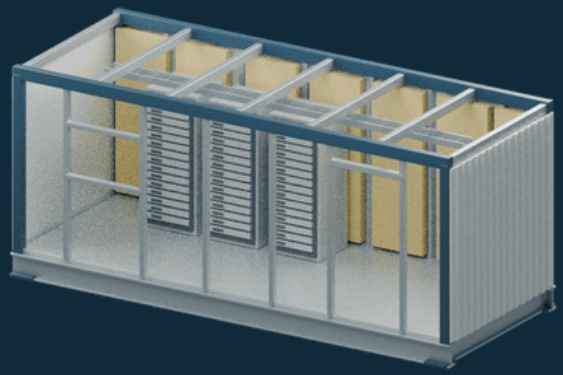


Shell closure

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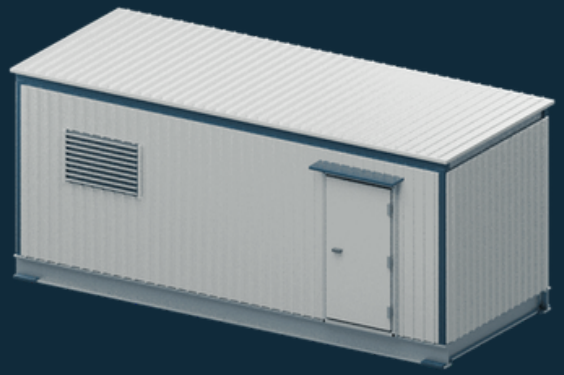
The final skin conceals the service routes

07 Equipment fit-out



The open view reveals rack positions and the overhead tray.

08 Finished shell



The roof and exterior closures complete the concept.

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Service interfaces

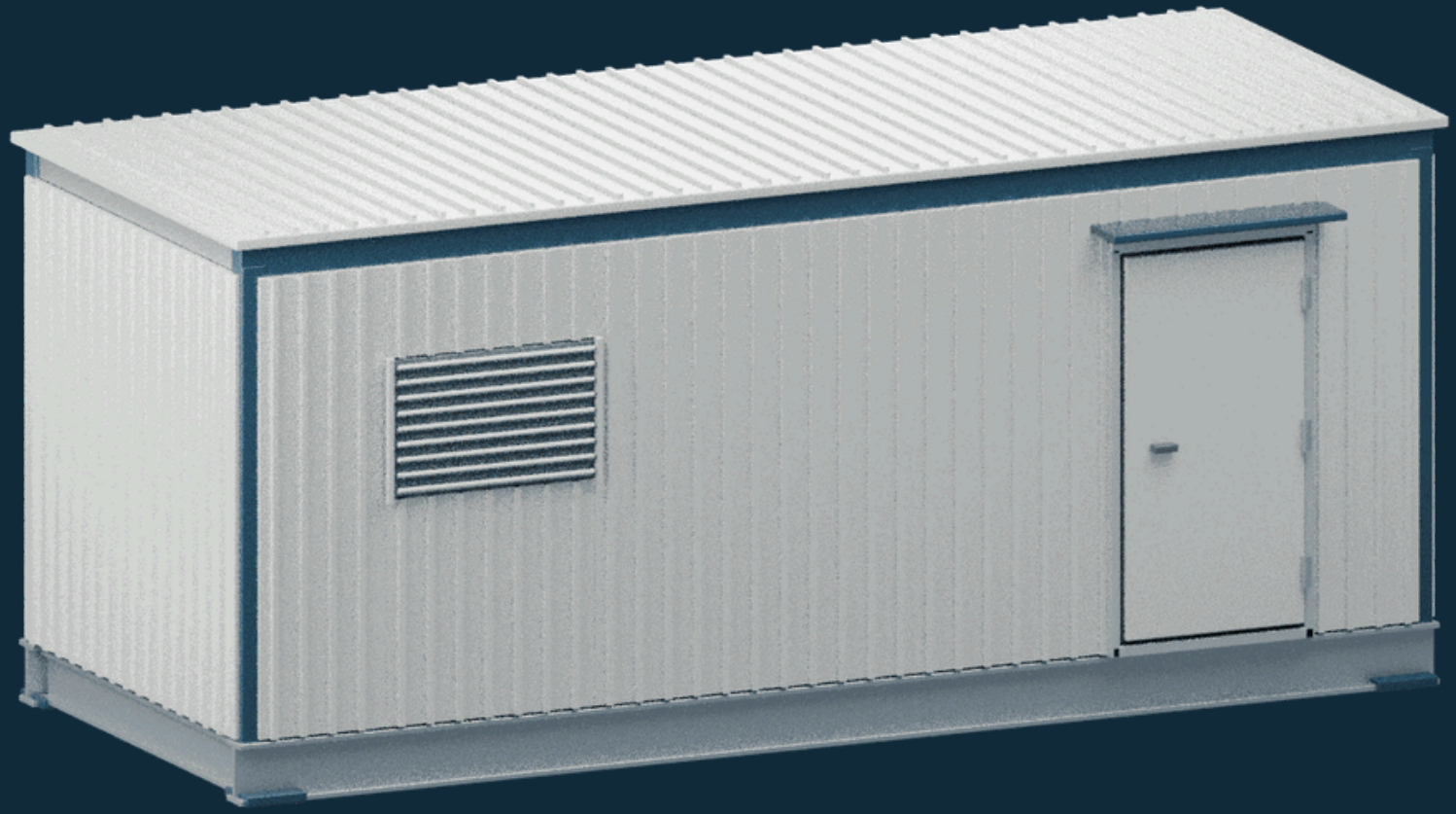




Completed SANS Container Shelter

Container engineering sequence (above) | SANS project design and fabrication record (below).

A completed container-style enclosure



The door, louver and roof overhang

Each detail corresponds to an earlier decision about access, ventilation or weather protection.

Container enclosure design: coordinated doors, ventilation and weather protection.

Where the door meets the frame



Compression seal

The latch draws the leaf against the gasket. Check contact around the full perimeter, including corners.

Hinge and threshold

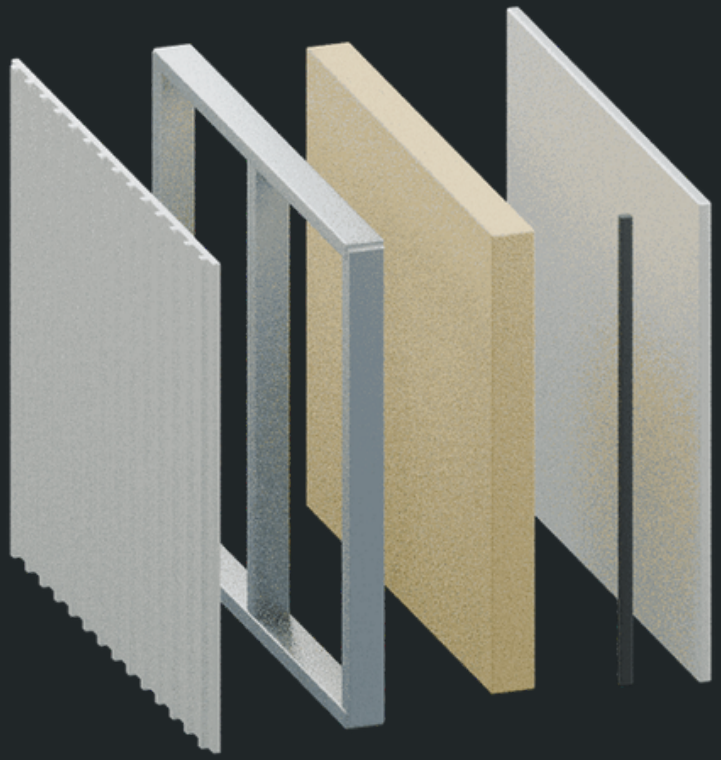
Hinge alignment affects how the leaf meets the seal. The threshold also has to suit the equipment transfer route.

Maintenance opening

Allow room for the door swing, tools and the largest replaceable component.

Door engineering: hinge alignment, sealing, thresholds and maintenance access.

Heat from the site and heat from the racks



HEAT THROUGH THE ENVELOPE

Insulation and the treatment of metal joints affect heat transfer through the wall.

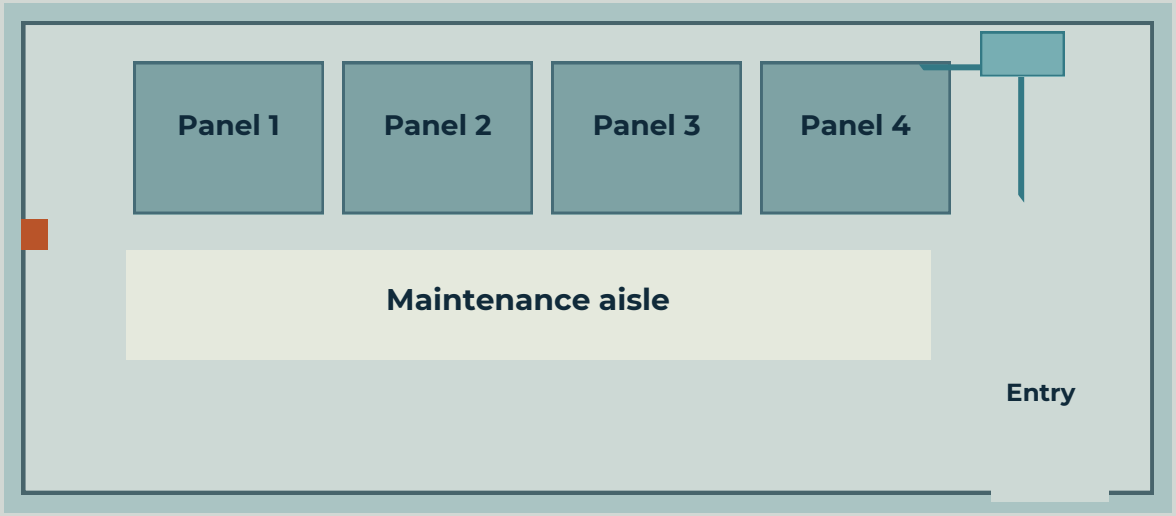


HEAT FROM EQUIPMENT

Compare equipment losses with outdoor conditions and the required indoor range. Then select cooling or ventilation and check the air path at each rack.

Thermal management: controlling heat transfer and equipment cooling demands.

Where cables, air and people meet



Cable entry and tray drops

Cooling interface

A clear aisle also provides a route for replacement parts once the module is on site.

Cable routing

Locate entry plates and tray drops, allowing room for terminations and access to bonding points.

Mechanical services

Coordinate supply and return air, drains and the access needed to remove service panels.

Safety interfaces

Locate lighting, isolation and any specified detection or suppression equipment against the approved layout.

Systems and interfaces vary with the equipment package and the client's safety requirements.

Checks to record before the doors close



SANS WATER-INGRESS TESTING ACTIVITY

The photograph records the test setup. Acceptance depends on the signed inspection record.

Dimensional checks

Measure equipment mounting centres, clear openings and the position of cable entries against the drawing.

Function and finish

Operate doors and latches. Inspect joints, seals, coating and fitted services against the agreed scope.

Handover record

Log findings and close outstanding items against the agreed acceptance criteria.

SANS project: water-ingress inspection activity and pre-delivery quality checks.

The load changes when the shelter leaves the ground

The lifting plan needs the fitted weight, centre of gravity and verified attachment details. At the destination, check the access route, support points and unloading space.

SANS project: crane lifting, handling and transport preparation.



The SANS Container Shelter: From Structural Frame to Finished Engineering.



Saudi Air Navigation Services

KENZ workshop records document enclosure fabrication, equipment access and the construction sequence of the SANS container shelter.



SANS PROJECT / STRUCTURAL FRAME ASSEMBLY

What the SANS project record shows



Frame assembly

The base, posts and roof perimeter are visible before cladding.



Pre-delivery inspection

The open unit gives the inspection team access to the installed equipment.



Load-out

The finished shelter is positioned on a transport trailer.

SANS project: structural assembly, pre-delivery inspection and dispatch preparation.



SAUDI OPERATIONS / COMMUNICATIONS

A connection at opening time

Every morning, a shopkeeper opens his doors, checks his phone and connects beyond his village. At remote sites, purpose-built container shelters can protect telecommunications equipment that supports these everyday connections. Behind a simple moment is infrastructure designed to keep essential services within reach.

One enclosure, different site demands

Remote communications	Allow for infrequent service visits, local dust exposure and access for maintenance vehicles.
Industrial plant	Coordinate cable routes, lifting access and connections with neighbouring equipment and the operator’s work permits.
Energy or utility site	Define the equipment duty, available power and location of external connections before setting the module on its supports.

Ask for the site layout, exposure conditions, utility points and unloading constraints.

A design you can follow into the workshop



Review the design

Start with the equipment footprint and agree the drawings and inspection points.

Follow the fabrication

KENZ's SANS reference pairs the model with workshop views from bare chassis to finished shelter.

Define what handover includes

Agree which drawings, test records and handling documents the project needs before dispatch.

For a container enquiry, send the equipment schedule and proposed site layout.

TRUST LEAVES A TRACE.



ENGINEERING IS A TEAM SPORT.



WHAT YOU CANNOT SEE STILL NEEDS A STANDARD.

Quality and safety are managed through documented systems, not just promises made at delivery.

ISO 9001:2015

Quality management system

ISO 45001:2018

Occupational health and safety


QuayAudit

REGISTRATION CERTIFICATE

This certificate confirms that the management systems of

Kenz Al Arabia International Contracting Company

ARK Building No. 1212, Office No. C9, New Al Kharj Road, Al Manakh 14314-3460, Riyadh, Kingdom of Saudi Arabia

have been audited and approved by Quay Audit UK Ltd to the following management standard:

ISO 9001:2015

The approved management systems apply to the following scope:

Fabrication and Installation of Low Voltage Panels, Supply & Installation of Cold Rooms and its Condensing Units. Modular & FREFAB Insulated Structures, Supply and Installation of Active and Passive Shelters, HVAC, DC, UPS, Commercial Kitchen Equipment Supply and Maintenance, Genset Maintenance, Solar System, MEPF & Low Current System

This certificate is restricted to those scopes of business activity described in the internationally recognised NACE Codes listed below:

2511, 2640, 4322, 4669

Original Approval 18 March 2024
Current Certificate 18 March 2024
Certificate Expiry 18 March 2027
Registration Number 4159431

On behalf of Quay Audit UK Limited

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QUALITY MANAGEMENT


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Let's Build What Protects What Matters.

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Container Shelter Applications



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