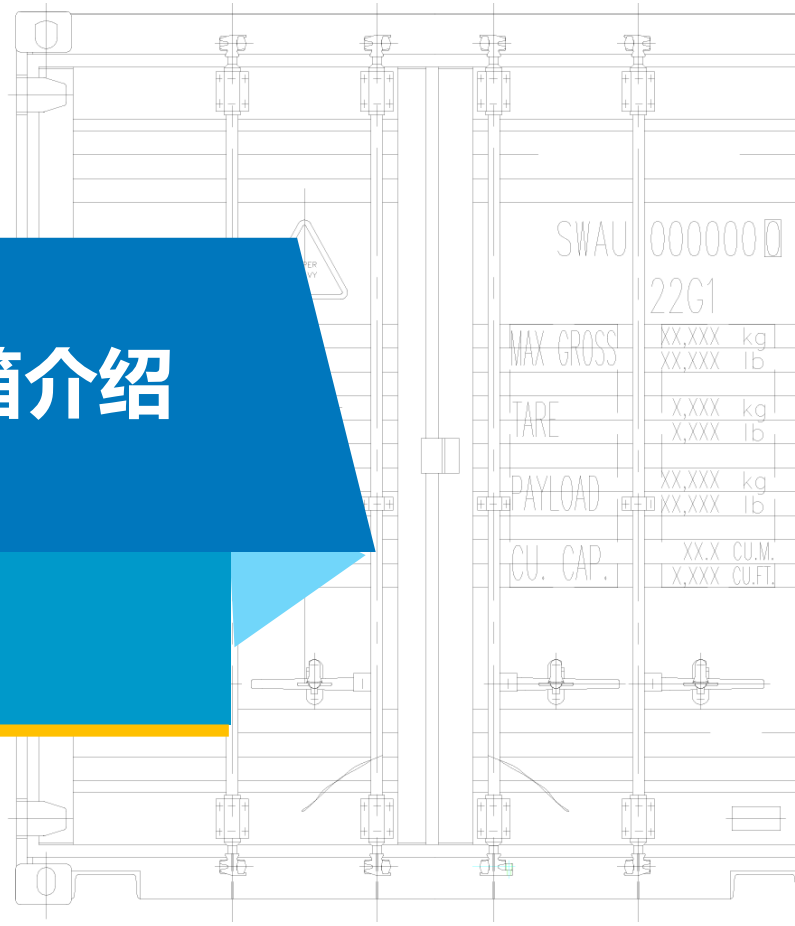
SITC

SITC COWIN

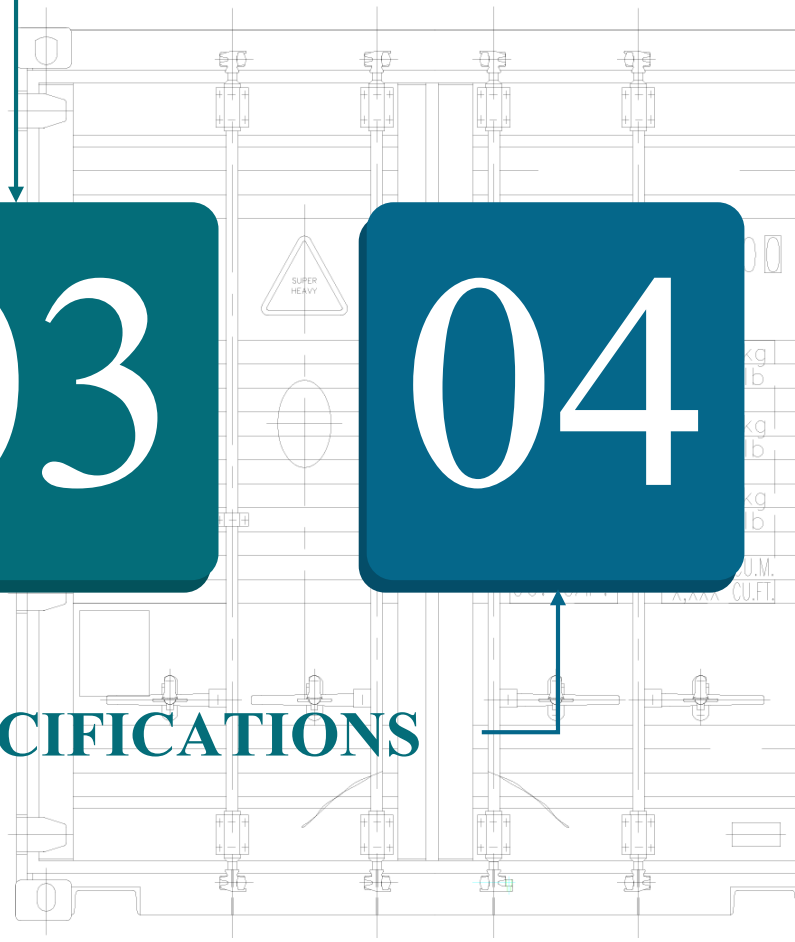


SITC COWIN 小卷箱介绍

SITC COWIN Small Coil Container Introduction

Version： 8.2 20250502

CONTENTS



OVERVIEW

SITC COWIN

Accredited Certification SITC COWIN containers are officially registered and certified by the International Container Bureau (BIC).The entire production process is jointly supervised by BV (Bureau Veritas) Classification Society and IICL-certified container inspectors from the group, ensuring full compliance with the technical specifications and standards set by the classification society. The containers have obtained official accreditation and possess complete qualification certificates.

Finely Manufactured SITC COWIN containers utilize Q550 high-strength steel plates, combined with laser cutting and hydraulic forming technologies, to construct side walls with impact-resistant buffer structures. The tensile strength is 29% higher than traditional corten steel. Each container undergoes multiple precision manufacturing processes, with its tare weight strictly controlled within 2800kg ±2%.

Iterative Optimization SITC COWIN Containers incorporate innovative design concepts and have undergone multiple product iteration validations. This ensures not only secure stowage for steel coils but also maintains full compatibility with general cargo transportation requirements.

① The container will be built generally in accordance with the following documents but varied according to agreed design criteria.
ISO 688-Series 1 freight containers-Classification, external dimensions and ratings
ISO 6346-Coding, identification and marking for freight containers
ISO 1161-Specification of corner fittings for series 1 freight containers
ISO 1496-1-Specification and testing of series 1 freight containers

Part 1: General cargo containers for general purpose
ISO 830-Freight containers-Terminology

ISO 3874-Freight containers-Handing and securing
1) The International Union of Railway(UIC) code 592 OR
2) The Customs Convention on the International Transport of Goods(T.I.R.)
3) The International Convention for Safe Containers(CSC)
4) Transportation Cargo Containers and Unit Loads Quarantine Aspect and Procedures by Commonwealth of Austr
Department of Health(T.C.T.)

GENERAL CARGO COMPATIBLE

SITC COWIN Small Steel Coil Containers (referred to as "Small Coil containers") feature an innovative convertible floor system to enhance operational efficiency and scenario adaptability. By adjusting the floor configuration, these containers achieve full compatibility with general cargo, including palletized goods, carton shipments, hand-loaded packages and so on. Compared to previous-generation Large Coil containers, the optimized lowered floor height ensures identical internal cubic capacity to standard 20' containers.

This design breakthrough reduces empty repositioning costs, enables energy-efficient return trips to steel coil export hubs, and maximizes container turnover rates.

MAX GROSS	32,500 kg 71,650 lb
TARE	2,700 kg 5,950 lb
PAYLOAD	29,800 kg 65,700 lb
CU. CAP.	33.2 CU.M. 1,172 CU.FT.

DETAILS

EYE SKY COILS VANNING

Securing Measures:
Place wooden pallets beneath the steel coils to ensure tight contact with the container floor and side walls. If necessary, add H-shaped wooden frames, inflatable dunnage bags, or foam fillers on both sides of the coils to eliminate gaps between the cargo and container walls, minimizing movement during transit.

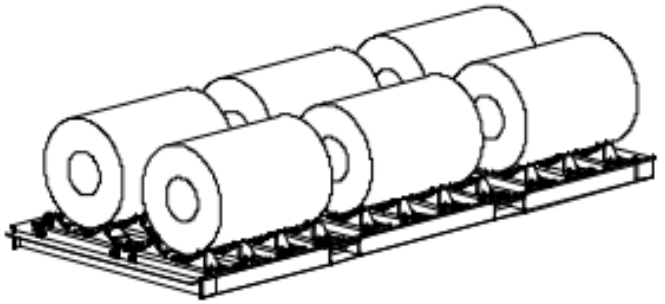
Lashing & Reinforcement:
Secure the steel coils using steel wire ropes or lashing straps for added stability.

*** Total cargo weight must not exceed 29.8 MT, with load evenly distributed inside the container to avoid off-center loading.

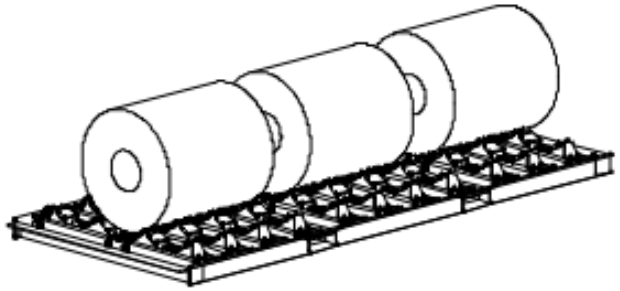
DETAILS

EYE SIDE COILS VANNING

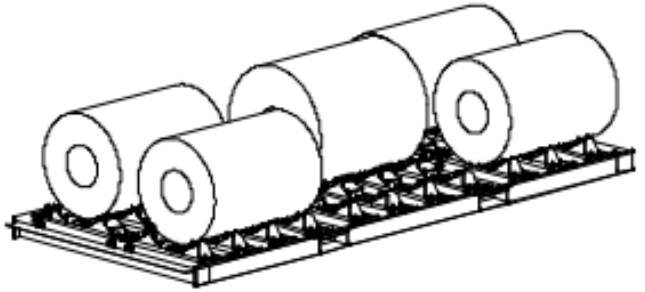
The container enables multiple small coil stowage configurations to accommodate diverse vanning requirements.



6 coils stowed on both sides flip boards



3 coils stowed on the middle flip board



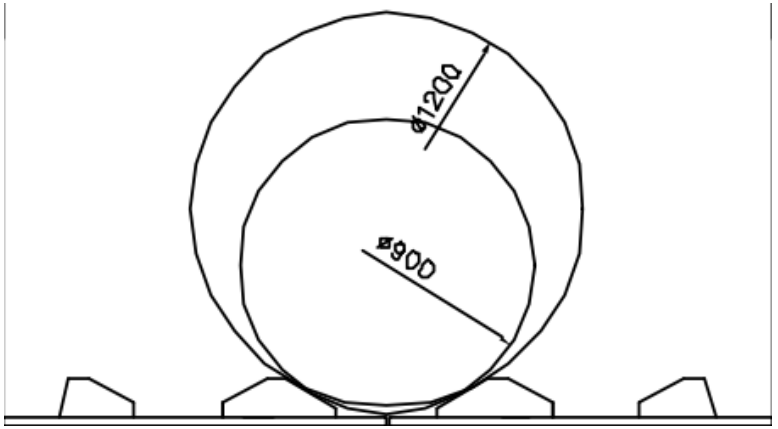
5 coils stowed on both sides and middle flip boards

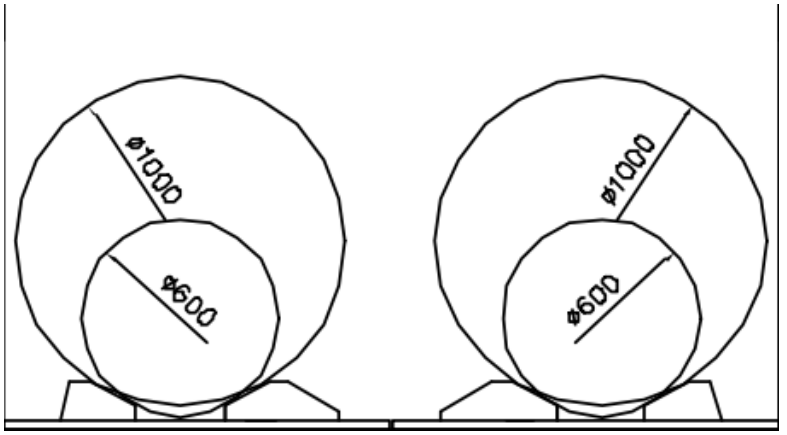
*** Total cargo weight must not exceed 29.8 MT, with load evenly distributed inside the container to avoid off-center loading.

DETAILS

FLIP BOARD STRUCTURE

Retractable flip board, compatible with steel coil diameters ranging from 600mm to 1200mm (single coil weight capacity: 1 MT to 12 MT).

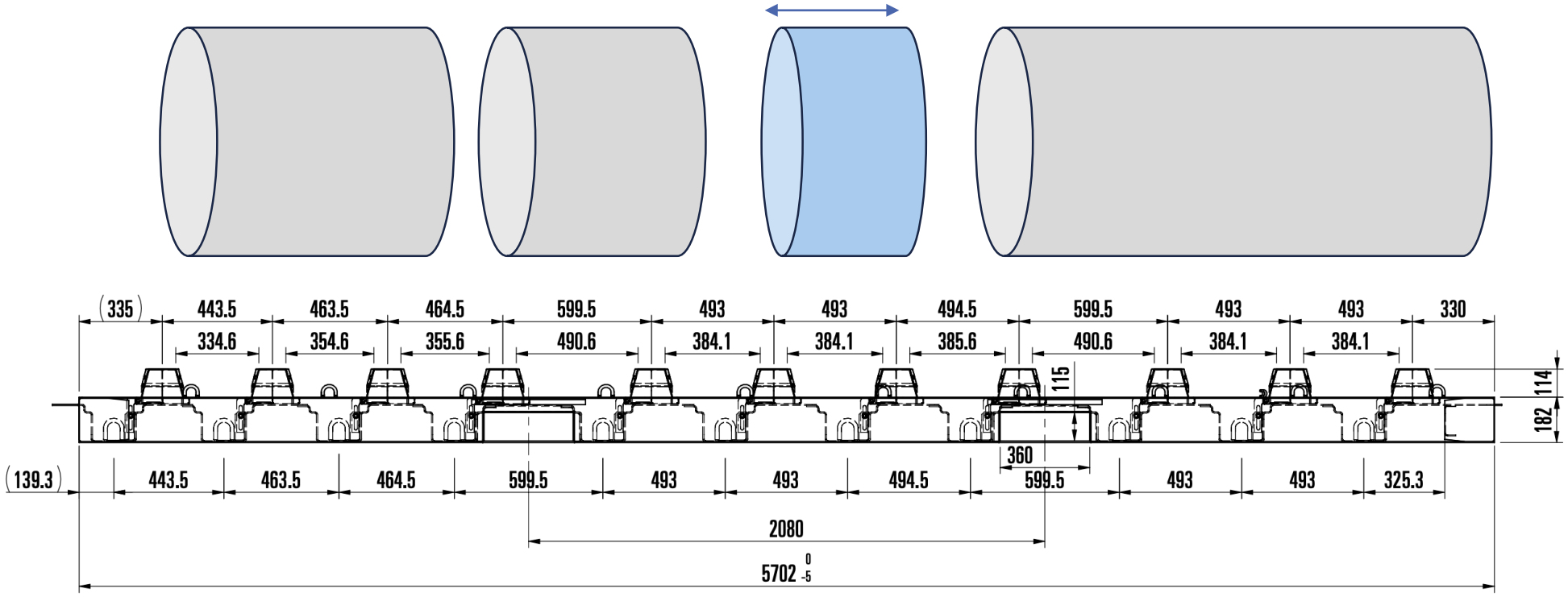




SITC COWIN

FLIP BOARD SPACING SPECIFICATIONS

Coil width shall be ≥490mm and span at least 2 flip boards

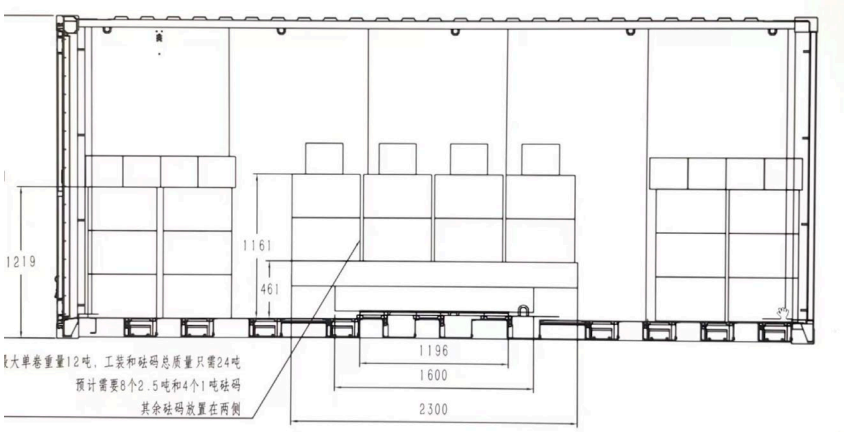


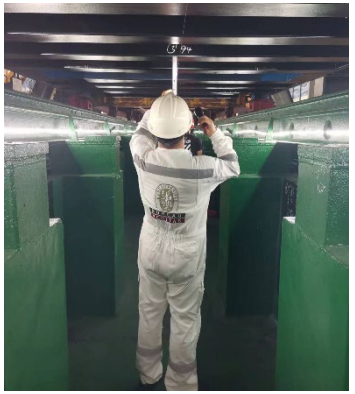
DETAILS

SITC COWIN

ENHANCED CONCENTRATED LOAD CAPACITY

Maximum payload: 29.8 MT
Maximum single coil：≤12MT





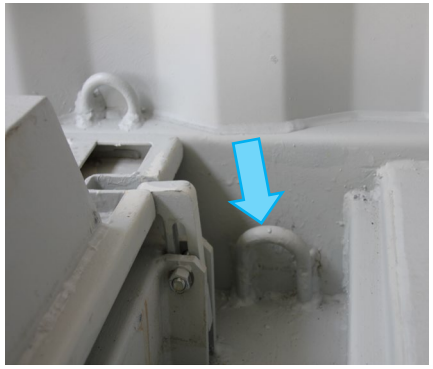
DETAILS

SITC COWIN

TIGHTENING ABILITY:

22 coil lashing rings and 20 bottom side lashing rings , used with lashing belts or wires for cargo securing.

Lashing Ring (Coil ring)
Max pull test 3000kg， 11x2 both sides



Lashing Ring (Bottom side rails)
Max pull test 2250kg，10x2

Lashing Ring (Top side rails)
Max pull test 2250kg，10x2

DETAILS

TILT TEST:

Lateral Tilt 30°. The lateral tilt test (using the "V"-notch at the center of the base frame) applies to coils ≤12 tons each. Place a 1,200mm-diameter steel coil in the "V"-notch at the base frame center and secure it with lashing straps. Lift two upper corners on one side while keeping the opposite bottom corner grounded (achieving 30° lateral tilt).

DETAILS

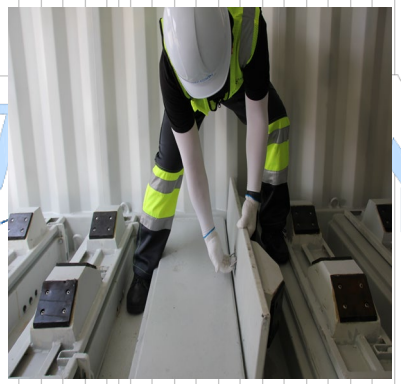
TILT TEST:

Longitudinal Tilt Test: 15°. Test Procedure (for coils ≤12 tons each): Position a 1,200mm-diameter steel coil in the center "V"-notch near the door end of the base frame. Secure the coil with ISO-standard lashing straps. Lift two front upper corners of the frame while maintaining contact between the rear bottom corner and ground (achieving 15° longitudinal tilt).

VANNING PREPARATIONS

1. Inspect container interior or exterior surfaces and components for abnormalities with doors opened;
2. Deploy floor flip board supports according to required coil quantity;
3. For forklift vanning: First open innermost flip board, load coil, then retract forklift before activating additional flip boards as needed.






SHORT FORKLIFT

■Vanning process

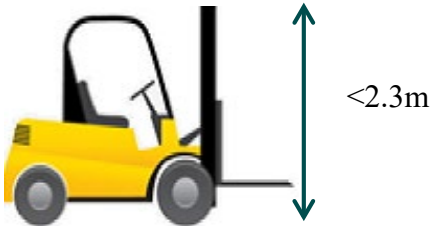
1. Install steel ramp plates with a maximum height of 180mm at the apex (ramp height matches standard container thresholds);
2. Workers enter the container and flip up 2-3 innermost flip boards;
3. The forklift lifts the coil, enters the container directly, places the coil onto the deployed flip boards, then exits;
4. During vanning, the forklift must maintain parallel alignment with the container floor supports, avoiding any scraping between the coil and flip boards;
5. Ensure even cargo distribution inside the container to prevent off-center loading.

■ Equipment requirements

Container vanning equipment: Enter to Container （Short forklift）

Equipment height：<2.3m

Recommended Load: 5 – 20 MT (select appropriate capacity based on cargo weight)



LONG ARM FORKLIFT

■Vanning process

1. Workers enter the container and deploy all flip boards;

2. Load coils directly to designated positions using long arm forklift (non-entry method);

3. During vanning, maintain parallel alignment between long-arm forklift tines and container floor supports, preventing coil-to-flip board contact;

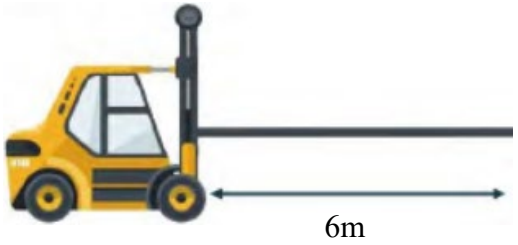
4. Ensure even cargo distribution to eliminate eccentric loading risks.

■ Equipment requirements

Container vanning equipment： Long arm forklift (Non enter into containers)

Equipment length： 6m

Recommended Load: 5 – 25 metric tons (select appropriate capacity based on cargo weight)



< CONTAINER VANNING VIA DOCK LEVELER >

■Vanning process

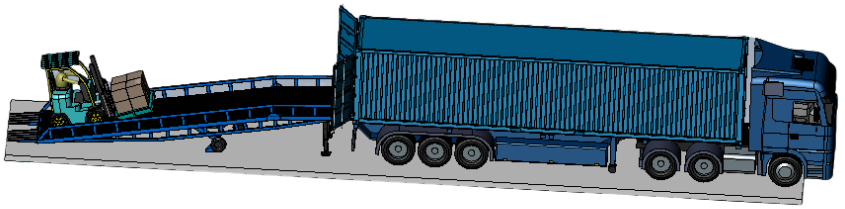
1.Truck Positioning: The container truck must be parked in the designated zone with wheel chocks deployed to prevent rolling.

2.Height Calibration: Precisely adjust the dock leveler height prior to vanning to ensure Flush contact between leveler platform and container floor and Maximum incline ≤10° to prevent forklift tip-over.

■ Equipment requirements

Height Adjustment: 1.1-1.5 meter range (compatible with standard container ground clearance)

Load Capacity: Select a dock leveler with adequate load rating based on combined cargo and forklift weight (minimum recommended capacity: ≥10 metric tons)



< CONTAINER VANNING VIA DOCK LEVELER >

■Vanning process

1.Forklift/Short-Arm Coil Grab Positioning: The forklift/short-arm coil grab shall approach the dock leveler at low speed (≤5 km/h).

2.Vanning: The forklift picks up the steel coil from the ground, smoothly drives across the dock leveler into the container, aligns the coil center with the container floor centerline, and lowers it at a steady speed.

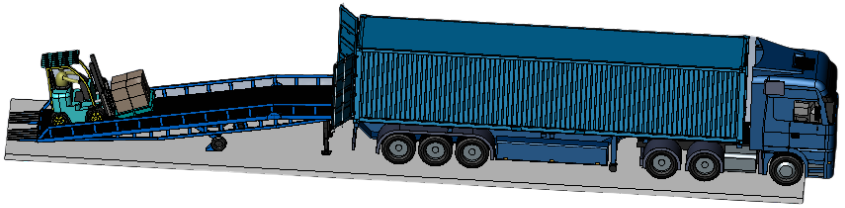
Devanning: Reverse the procedure. When exiting the container, the forklift must keep its forks low (≤200mm above the platform).

The forks shall engage the coil bore, lift the coil slowly, reverse out of the container, and retreat along the dock leveler to the ground. Avoid any contact between the cargo and container during the process.

■ Equipment requirements(forklift)

Load Control: The forklift's load capacity must meet/exceed the cargo weight.

Forklift/Short-Arm Coil Grab Requirements: Fork length inspection (minimum recommended: ≥1.5 meters) and Verified load capacity (must exceed steel coil weight).

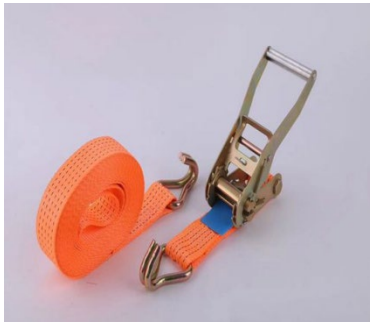


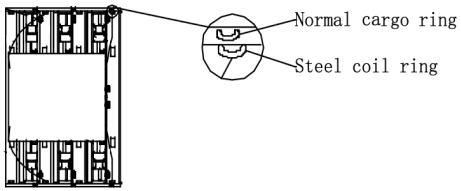
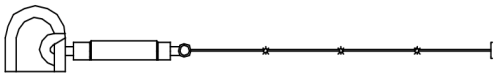
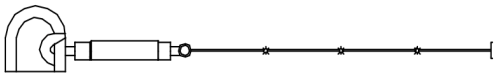
LASHING MODE

■ Lashing process

1. Steel coils may be secured using either lashing belts or wires;

2. It is recommended to apply two lashing belts or wires per coil, tensioned symmetrically on both sides.



COIL FASTENING GUIDE 钢卷紧固操作指南	①  The straps are threaded through the coil, and the lashing rings inside the groove are specially used to fasten the coils. 将绑扎材料穿过钢卷，凹槽内的的拉环是专用于绑固卷钢	②  At least 3 pins(clasp) at each of the wire rope. The wire rope is connected to a turnbuckle at one end, the other end is fastened to the bottom lashing ring. 钢丝绳每一端至少3个扎头（卡扣） 钢丝绳一端是花篮螺栓，另一端是固定在底部拉环上	③  Tighten the turnbuckles to ensure the coils are tight. 拧紧螺栓，确保钢卷被紧固

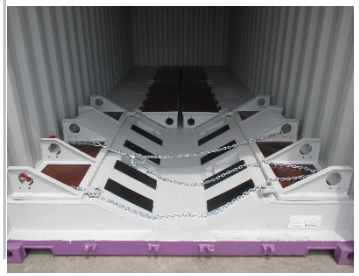
SPECIFICATIONS

SITC COWIN

VER / ITEMS	General container	Big coil container Ver 1.0-4.0	Big coil container Ver 6	Small coil container Ver 8	Small coil container (Open-top) Ver 9
BIC Code	/	CWFU	CWFU	SWAU	/
Appearance					
Securing materials	Dunnage wood, timber, wooden floorboards	Direct van, no need timber	Direct van, no need timber	Direct van, no need timber	Direct van, no need timber
Lashing materials	Wire or lashing belt	Wire or lashing belt	Container with built-in lashing chains	Wire or lashing belt	Wire or lashing belt
Vanned picture					

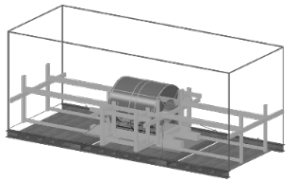
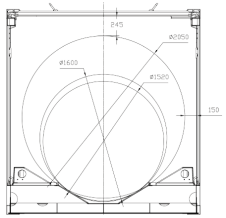
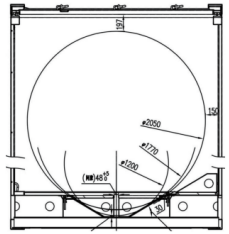
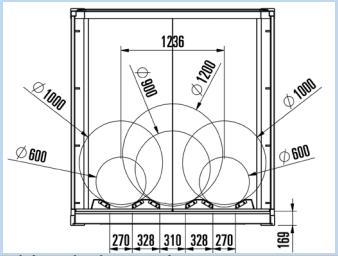
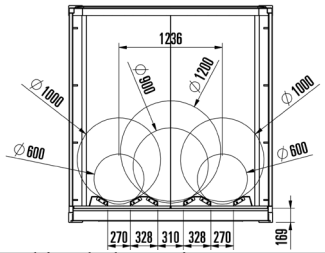
SPECIFICATIONS

SITC COWIN

VER / ITMES	General container	Big coil container Ver 1.0-4.0	Big coil container Ver 6	Small coil container Ver 8	Small coil container (Open-top) Ver 9
Roof panel	Non-openable top 	Open-top container with openable hard top 	Open-top container with openable hard top 	Non-openable top 	Open-top container with openable hard top 
Roof lock	Non-openable top 	Webbing ratchet, Lightweight and rapid-operation 	Webbing ratchet, Lightweight and rapid-operation 	Non-openable top 	Webbing ratchet, Lightweight and rapid-operation 
Floor structure	Flat wooden flooring designed for general cargo (non-reinforced base). Risk of container floor damage when vanning steel coils. 	118° V-channel with 12 filler plates for base angle adjustment 	Upgraded to a whole row of rubber through-lay, movable flip board support, can be opened and used according to needs 	22 pieces of flip board for vanning coil 	22 pieces of flip board for vanning coil 

SPECIFICATIONS

SITC COWIN

VER / ITMES	General container	Big coil container Ver 1.0-4.0	Big coil container Ver 6	Small coil container Ver 8	Small coil container Ver 9
Coil diameter	Generally weight limit: <10 MT/coil, based on carrier limitations 	Suitable for 1100mm (small flip board) ~ 2050mm (large flip board) coil steel 	The distance between two hinge is 1950mm, and the coil diameter is 1200mm-2050mm. 	600mm-1000mm 800mm-1200mm 	600mm-1000mm 800mm-1200mm 
Securing material	Based on carrier requirements and coils' weight, usually requires a large amount of wood. 	Lashing belt or wire 	Upgrade from 4.0, the chains have PVC to protect coils surface. 	Lashing belt or wire 	Lashing belt or wire 
Compatible for general cargo	Floor height: 167mm Cubage: 33.2m 	Floor height: 372mm Cubage:28.5m³ 	Floor height: 394mm Cubage: 28.9m³ 	Floor height: 169mm Cubage: 33.2m³ 	Floor height: 169mm Cubage: 32m³ 

SPECIFICATIONS

SITC COWIN

Container Specifications		General container	Big coil container Ver 1.0-4.0	Big coil container Ver 6	Small coil container Ver 8	Small coil container (open top) Ver 9
Open-top / Fixed-roof		Fixed-roof	Open-top	Open-top	**Fixed-roof**	Open-top
Cargo securing ring load capacity		1.5-2MT	>8MT	>8MT	**>3MT**	>3MT
External	length	6058 MM	6058 MM	6058 MM	**6058MM**	6058MM
	width	2438 MM	2438 MM	2438 MM	**2438MM**	2438MM
	height	2591 MM	2591 MM	2591 MM	**2591MM**	2591MM
Internal	Length	5898 MM	5897 MM	5897 MM	**5898 MM**	5898 MM
	Width	2352 MM	2351 MM	2352 MM	**2352 MM**	2352 MM
	Height	2393 MM	2139 MM	2087 MM	**2391 MM**	2312 MM
Door opening	Width	2340 MM	2340 MM	2340 MM	**2340 MM**	2340 MM
	Height	2280 MM	2300 MM	2300 MM	**2278 MM**	2258 MM
Internal cubic capacity		33.2 CU.M	28.5 CU.M	28.9 CU.M	**33.2 CU.M**	32 CU.M
Max gross		30480 KGS	32500 KGS	32500 KGS	**32500 KGS**	32500 KGS
Tare weight		2220 KGS	3150 KGS	3200 KGS	**2700 KGS**	3200 KGS
Payload		28260 KGS	29350 KGS	29300 KGS	**29800 KGS**	29200 KGS
Maximum weight of single coil		Standard weight limit: <10 MT/coil, based on carrier limitations	6-29.35MT	6-29.3MT	**≤12MT/coil**	≤12MT/coil
Coil diameter		No standard limited to Internal width	1100MM/1450MM-2050MM	1200MM-2050MM	**600-1000MM 800-1200MM**	600-1000MM 800-1200MM
Floor height		167 MM	372MM	394MM	**169 MM**	169MM
Flip board weight		/	43 KGS	47.5 KGS / 42.4 KGS	**21 KGS**	21 KGS

SITC COWIN SUPPLY CHAIN LIMITED

cowin-sales@sitc.com

www.sitc-cowin.com

SITC COWIN 多功能卷钢集装箱

卷钢专用 | 普货两用

SITC COWIN TRANSFORMABLE COIL CONTAINER

DESIGN FOR STEEL COIL | FLEXIBLE FOR DRY CARGO