coronet Scaffold
Building Future!

CORONET

BUILDING FUTURE!

TECHNICAL MANUAL

WE
PROVIDE
SCAFFOLDING
GLOBALLY.

TABLE OF CONTENTS

1. PRESENTATION

This manual provides the necessary instructions for the correct assembly and safety use Coronet Ringlock/Multidirectional Scaffold System.

The company that hires the scaffolding has the responsibility to inform the workers that they are going to use such scaffolding from the information contained in this "Technical Manual" . They must also make sure that the users who mount or use the towers are formed in accordance with current regulations.

Brief introduction of Coronet Group

Since 2004 Coronet® has been a global supplier of premium quality scaffolding products offering complete Scaffolding Solutions to all our clients in the America and throughout the world.

Coronet USA is the America division of the Coronet Scaffolding Group, whose corporate offices are based in Suzhou China with America operations being directed from our New Orleans LA, Los Angeles CA offices and Conception, Chile.

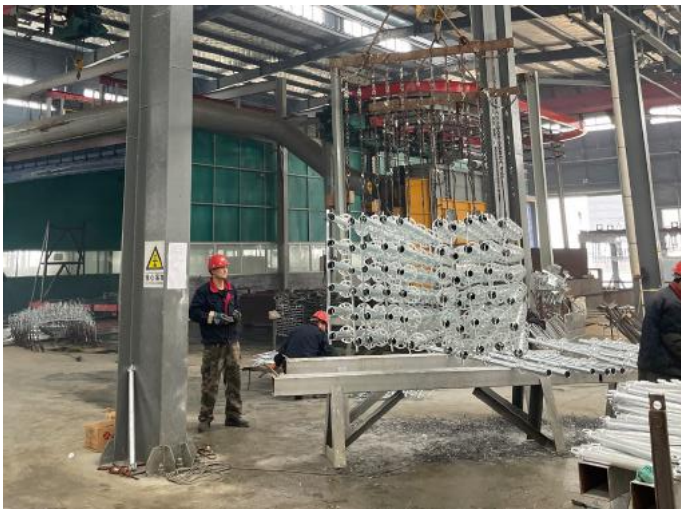
Coronet® is now recognized in the scaffolding industry as one of the premier quality manufacturers of scaffolding products throughout the world. Coronet proven capabilities to provide industry leading sales service and engineering back up along with our certified, high quality scaffolding product lines (Ringlock, Cuplock, Tube and Clamp, Frame and Brace along with the latest Facade frame systems) to our clients, has made Coronet the largest exporter of scaffolding from overseas to the USA over the last 2-years.

Automated Production

Coronet® scaffolding has larger supply chain, with more than $ 100 million annual capacity.

We focus on automated scaffold production, starting with the Phase I, semi-automatic welding machines and steel deck shaping systems. Until now, its include fully automatic hot-dip galvanizing plant, welding and packaging assembly line.

We continue to adopt highly-automated manufacturing to meet high quality and quick delivery requirements.

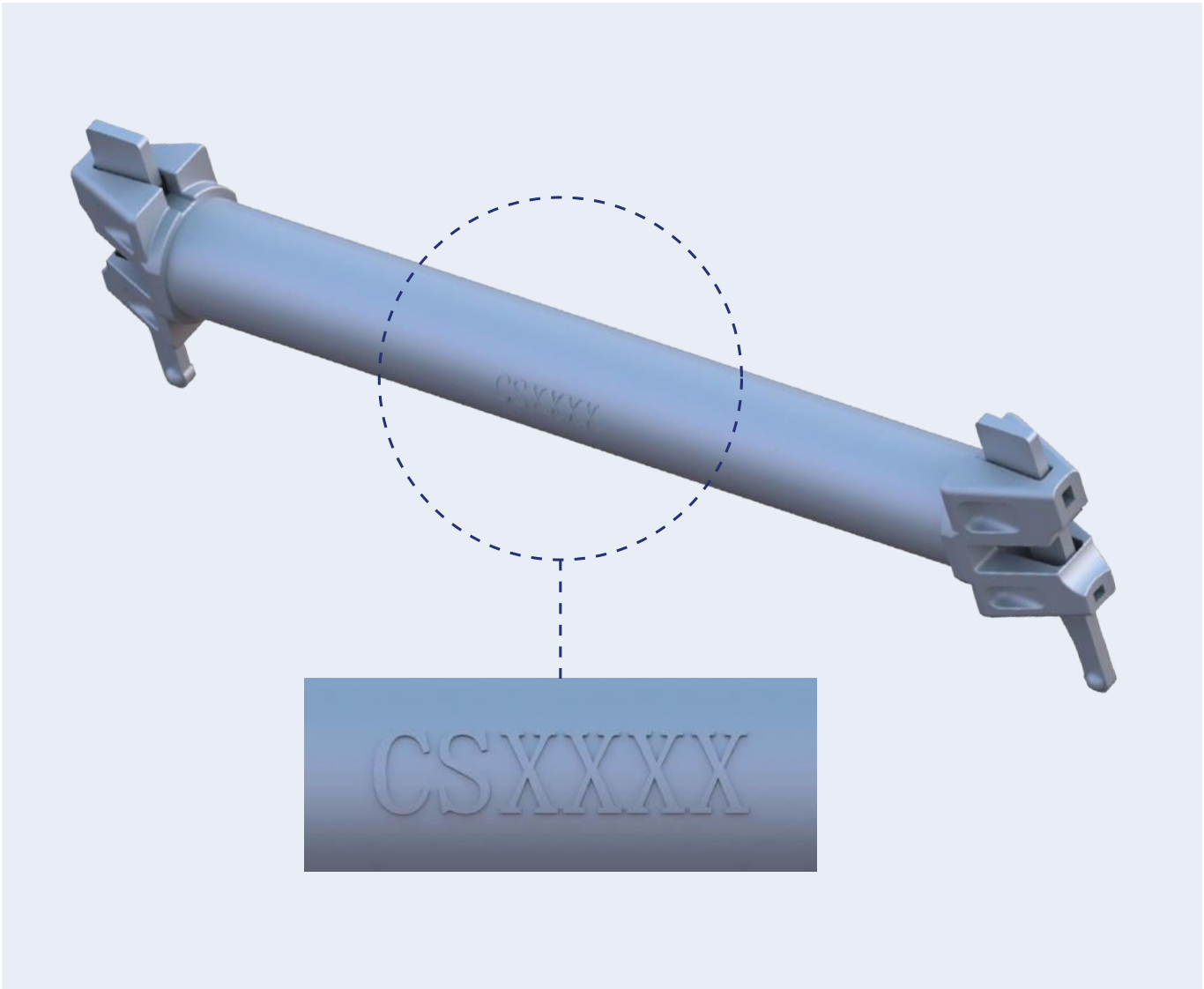


Coronet Ringlock System

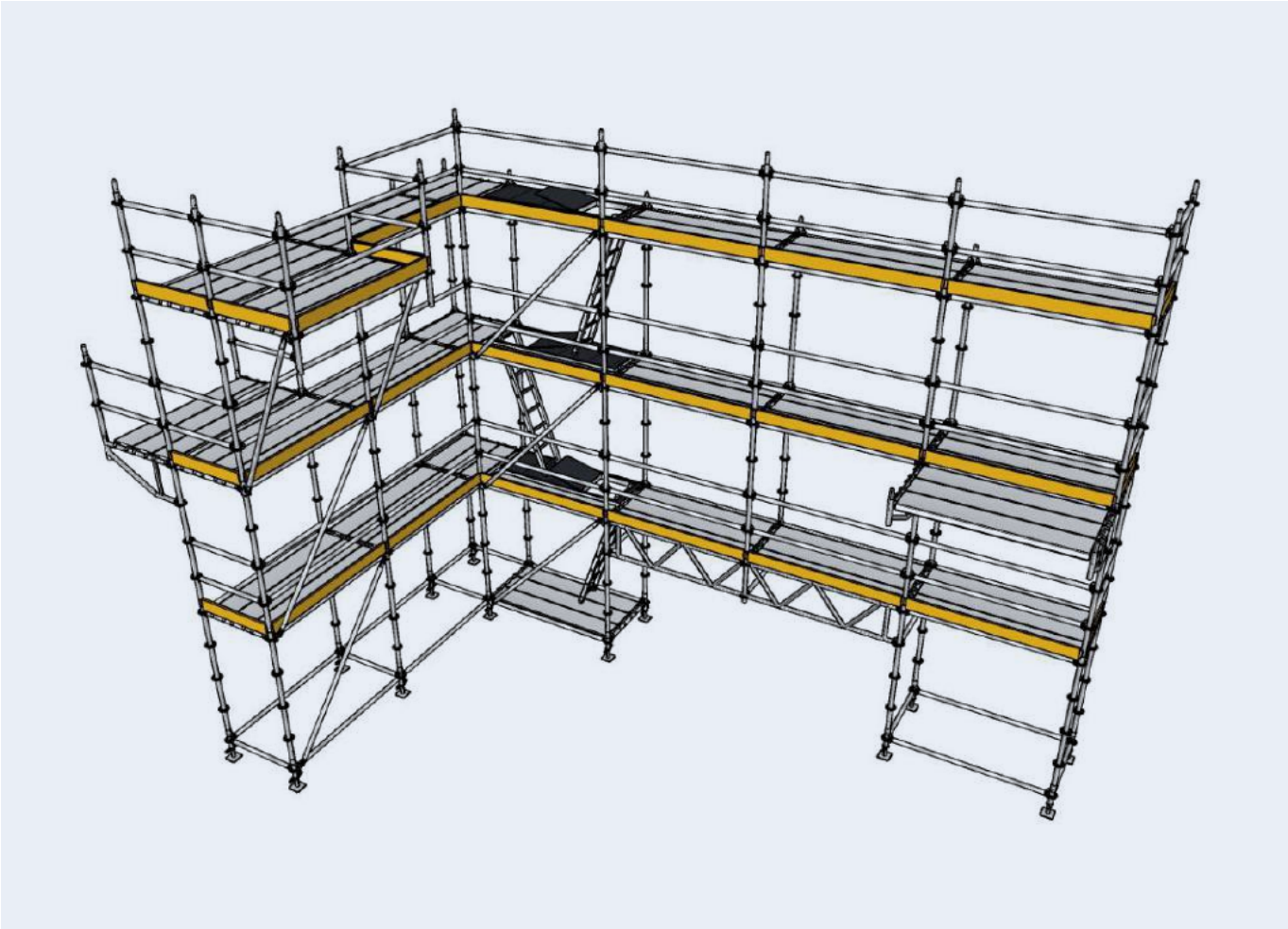
The Coronet ringlock scaffold system uses the highest quality steel and our products are finished and protected by hot-dipped zinc galvanizing.This method of finishing maximizes the utilization and extends the product life.

All coronet components are stamped with traceability marks.

Batch Number : CS XXXX
CS= Coronet Scaffold X= Year of Manufacture XXX= Order Number



The following diagram represents the most common Ringlock components used. Most Scaffold structure are made from these basic components yet the Ringlock system comes with a variety of accessories for all your scaffolding requirements.



The elements that make up the supporting structure of the system, mostly tubular profiles, generally have the following measurements:

Outside Diameter: 48.3 mm,
Wall thickness 3.2 mm
All comply with Europe and Australian standards.

2. SPECIFICATION

DEFINITION AND USE

The Ringlock system is a modular scaffold made up of elements Standard, Ledger and Diagonal brace that are connected to each other forming a rigid structure. The connection is a knot or rosette made up of a disk with 8 positions, located at a distance of 0.50 meters on the verticals.

Coronet ringlock scaffolding systems allow the Ledger of scaffolding to be used in diagonal or multi-angle combinations to facilitate their application on different building facades.

These systems are especially used in the construction industry, building maintenance, power generation, chemical processing, oil refining, aviation, shipbuilding and other industrial fields.

The Coronet ringlock scaffolding system is manufactured with high-strength steels and automatic welding processes. This ensures that the stability of the scaffolding is higher than that of common products.

LOADING CAPACITY

The Coronet ringlock scaffolding system is used in various construction sectors for construction works such as industrial maintenance, refinery, offshore construction, viaducts, etc., and with it safe working platforms can be created for all load classes, from 1 to 6, up to 600 kg/m2, as established by the EN12811 standard, and shown in the following table:

Load class	Type of Work or Activity	Uniformly Distributed Load
1	Works with hand tools, without storage of materials on the platform	75 Kg/m2
2	Low complexity jobs with quick-use material storage. Works with hand tools, without storage of materials on platform.	150 Kg/m2
3		200 Kg/m2
4	Medium complexity jobs with stockpiling of materials or weight on the work platform.	300 Kg/m2
5		450 Kg/m2
6	High complexity jobs with storage of materials and heavy weight on the platform.	600 Kg/m2

The resistance offered by the system as a whole in the platform area varies according to the following tables:

STEEL PLATFORM

Ref. No.	Load class	1	2	3	4	5	6
	Uniformly distributed load(Kn/m²)	0.75	1.50	2.00	3.00	4.50	6.00
ROSP32073	0.73M	X	X	X	X	X	X
ROSP32109	1.09M	X	X	X	X	X	X
ROSP32140	1.40M	X	X	X	X	X	X
ROSP32157	1.57M	X	X	X	X	X	X
ROSP32207	2.07M	X	X	X	X	X	X
ROSP32257	2.57M	X	X	X	X	X	
ROSP32307	3.07M	X	X	X	X	X	

Ref. No.	Load class	1	2	3	4	5	6
	Uniformly distributed load(Kn/m²)	0.75	1.50	2.00	3.00	4.50	6.00
ROSP19073	0.73M	X	X	X	X	X	X
ROSP19109	1.09M	X	X	X	X	X	X
ROSP19140	1.40M	X	X	X	X	X	X
ROSP19157	1.57M	X	X	X	X	X	X
ROSP19207	2.07M	X	X	X	X	X	X
ROSP19257	2.57M	X	X	X	X	X	
ROSP19307	3.07M	X	X	X	X	X	

ACCESS PLATFORMS (ALUMINUM)

Ref. No.	LENGTH	WEIGHT	UNIFORMLY DISTRIBUTED LOAD
	M	KGS	KN/M
RAP109	1.09	20.3	2.00
RAP140	1.40	21.5	2.00
RAP157	1.57	22.8	2.00
RAP207	2.07	24.5	2.00
RAP257	2.57	28.1	2.00
RAP307	3.07	32.3	2.00

Scaffolding designs can be multiple and in the combinations of a scaffolding structure there can be components from other manufacturers. The manufacturer can consider this combination of elements as long as all the parts used belong to a properly certified scaffolding system or approved by the construction management.

The risks of paralysis of the use of the scaffold and its responsibility are present, both in mixed and non-mixed scaffolds. However, the regulations of each country in this regard must be complied with, taking into account that the risks in both situations are the same.

TECHNICAL DATA

Modular connection by knot or rosette

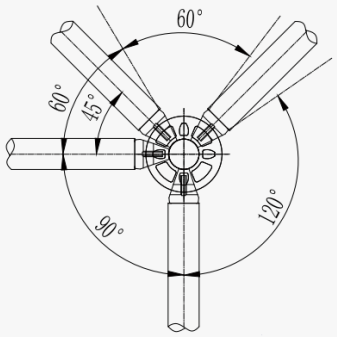
The connection to the standard load-bearing element of various components of the Coronet ringlock scaffolding system is made by means of a specially shaped knot or rosette, welded every 0.50 m on the standards, in combination with the ends of the Ledger pieces, which have a wedge that must be embedded or inserted in the different holes of the rosette.

Flat rosette has four narrow holes and four large holes

Welding details of rose wreath in vertical direction

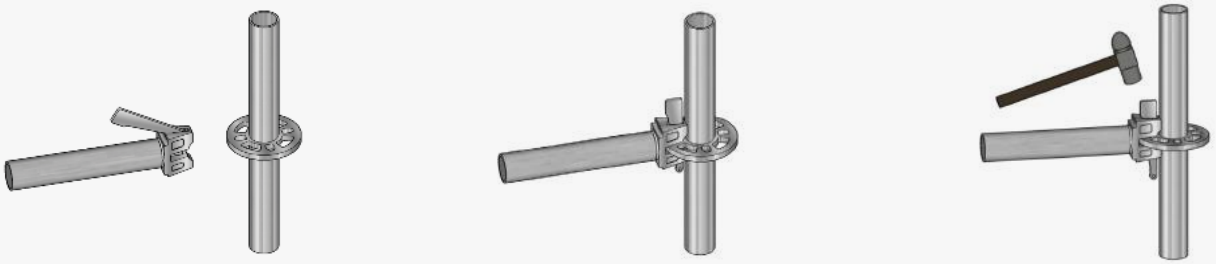
Standard. Finished product

Once the wedge is well secured,the four narrow holes fix the ledger automatically and firmly at the correct angles. Four large holes allow alignment of ledgers and diagonal braces at the required angle.

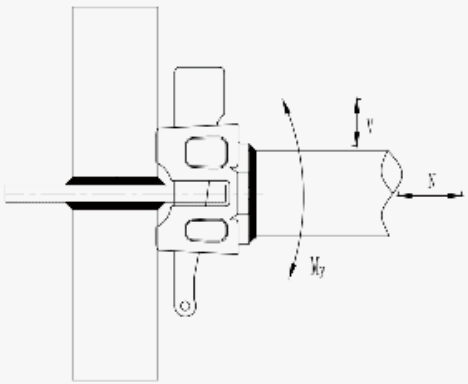


Connection of ledger elements with the rosette

- Slide the end of the ledger that carries the wedge over the flat rosette
- Insert the wedge into one of the holes
- Fix the wedge with a metal hammer until the impact rebounds.



The connection becomes a force-transmitting rigid connection that can immediately carry loads in all directions.



3. MATERIALS

We only use the highest quality steel in our products. Our steel is certified and tested in Element and MTS laboratories respectively and it conforms to or exceeds industry standards no matter the location or climate.

Steel Grade	Q345	
Lab.	Element	MTS
Test Method	ANSI/SSFI SC100-5/05	[AS/NZS 1576]
Yield Strength	63750psi(440Mpa)	484Mpa
Tensile Strength	75525psi(521Mpa)	575Mpa
Elongation	/	22%

Element Laboratory (United States) Testing Report:

element

Element Materials Technology
222 Cavalcade Street
Houston, TX
77009-3213 USA

P 713 692 9151
F 713 696 6307
T 888 786 7555
info.houston@element.com
element.com

Coronet Scaffold Group Suzhou Co., Ltd.
SIFC SIP, Suzhou City
Jiangsu Province, China
P: +86-512-85557000 / F: +86-512-85557111

TEST CERTIFICATE — EAR-CONTROLLED DATA

Date: 01/15/2013
P.O. No.: EHO0006255O/0
W/O No.: COR006-12-12-09683-3

RING-LOCK SYSTEM

TENSILE TEST RESULTS

Specifications: n/a
Test Method: ASTM A370

Direction: Longitudinal / Full Section

Specimen Identification	Dimensions OD x Wall Thk. (in.)	Total Load (lbs)	Yield Strength (psi)	Ultimate Tensile Strength (psi)
1	1.928 x 0.130	56,100	64,000	76,400
2	1.923 x 0.130	55,300	64,000	76,500
3	1.923 x 0.130	54,500	65,000	74,400
4	1.926 x 0.130	54,800	62,000	74,800

MTS Laboratory (Australia) Testing Report:

MELBOURNE TESTING SERVICES

Melbourne Testing Services Pty Ltd
Delivery Address: 1/15 Pickering Road Mulgrave Vic 3170 3150
Postal Address: PO Box 5111 Brandon Park Vic
Telephone: 61 3 9560 2759
Facsimile: 61 3 9560 2769
Email Address: info@melbtest.com.au
Web Address: www.melbtest.com.au

Tensile Test Report

Report No: MT-15/392-G
Report Date: 27-Nov-15
Specimen Description: Scaffolding Parts
Testing Machine: TE Universal

Client:
Coronet Group Suzhou Co Ltd
No1,Suhua Rd, Sip Suzhou
Jiangsu , 215021 China

TEST DETAILS				
Test Date:		*6/11/2015*	1	2
Specimen I.D:			**Standard**	**Transom**
Extensometer Gauge Length:	L_e	(mm)	50	50
SPECIMEN DETAILS				
Thickness:	a	(mm)	3.00	3.02
Width:	b	(mm)	12.60	12.59
Area:	S_o	(mm^2)	37.80	38.02
Gauge Length:	L_o	(mm)	35	35
Parallel Length:	L_c	(mm)	70	70
TENSILE PROPERTIES				
Tensile Strength:	R_m	(MPa)	575	491
Proof Stress:	$R_{p0.2}$	(MPa)	484	414

Chemical data

We used S355 grade steel is a medium tensile, low carbon manganese steel which is readily weldable and possesses good impact resistance (also in sub-zero temperatures.)

The following you will see the test result of the chemical analysis of our Q345 steel.

RING-LOCK SYSTEM
RV 910 Verticals

Two separate verticals were tested

CHEMICAL ANALYSIS RESULTS
Specification: Q345A

Element		Result %	Min. %	Max. %
*C	=	0.17	0.02	0.20
Mn	=	1.38	1.00	1.60
P	=	0.018	-	0.045
*S	=	0.005	-	0.045
Si	=	0.32	-	0.55
Cr	=	0.11	-	NS
Ni	<	0.01	-	NS
Fe	=	Balance	Balance	Balance

Element		Result %	Min. %	Max. %
*C	=	0.18	0.02	0.20
Mn	=	1.39	1.00	1.60
P	=	0.018	-	0.045
*S	=	0.006	-	0.045
Si	=	0.32	-	0.55
Cr	=	0.11	-	NS
Ni	<	0.01	-	NS
Fe	=	Balance	Balance	Balance

Chemical Analysis Performed by Optical Emission per SOP 30.01
*Carbon and Sulfur were determined by Infrared Combustion per ASTM Method E1019

4. WORK SAFE REGISTRATION

Occupational Health and Safety Act 2004, OHS Regulations 2007
Equipment (Public Safety) Act 2004, Equipment (Public Safety) Regulations 2007

NOTICE OF PLANT DESIGN REGISTRATION

Plant Type	Prefabricated Scaffolding
Representational Drawing(s)	CR0001 to CR0014 Rev 18/06/2015
Design Description and Extent	Model/ID No. Modular Ringlock System
Technical Information	Modular Type, Ringlock Scaffolding System Heavy Duty 6.6kN Live Load per Working Bay, Maximum Height – One working platform up to 20 metres; Two working platform up to 10 metres.
Maker	CORONET GROUP SUZHOU CO. LTD
Confirmation Number	**V1601010**
Date of Confirmation	7 June 2016
Published technical standards or engineering principles (as listed by designer and confirmed by design verifier)	AS/NZS 1170-2002 Structural Design Actions AS/NZS 4600-2005 Cole Formed Steel Structures AS 4100-1998 Steel Structures

IMPORTANT INFORMATION

1. This notice applies only to the above design, which has been registered according to the above-named Regulations. WorkSafe has not verified that the designer has complied with the design obligations prescribed by the Regulations or the above mentioned technical standards or engineering principles.
2. The plant owner will require this confirmation and, therefore, a copy of it should be supplied to the manufacturer, so that it can in turn be provided to the supplier and owner with the plant or equipment.
3. The Regulations require the designer to keep and maintain, in a suitable state for examination, all records that the Regulations require for 10 years.
4. WorkSafe reserves the right to audit the registered design at any time to assess compliance with the above Acts and Regulations. If an audit is undertaken, WorkSafe may ask the person seeking registration or the plant owner or both to supply detailed information relating to the design of the plant. Design systems of work and documentation may also be audited. If an audit identifies non-compliance with the Acts and Regulations, all plant built to that design may require modifications and may be prohibited from use.
5. This notice is automatically invalidated if the design is altered to an extent that requires new measures to control risk. A person must not use, or cause or allow plant manufactured to the altered design to be used at a workplace unless WorkSafe has confirmed registration of the alteration.
6. You should quote the registration number in all correspondence to WorkSafe regarding this design. Any queries should be addressed to the WorkSafe's Licensing Branch, 1300 852 562.
7. This notice will also be considered a notice of Plant Design Registration under the Equipment (Public Safety) Regulations 2007.

Tristan Gallus
Technical QA Coordinator
Licensing Branch

2 of 2

LTR PLA 5.52 (06/12)

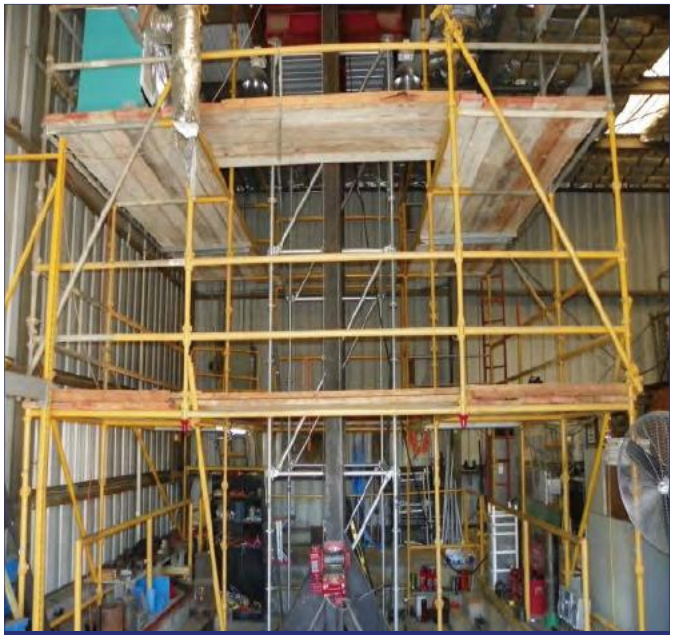
5. LOADING CAPACITY OF COMPONENTS

In our Coronet Ringlock Scaffolding system, we achieve the highest levels of stability and robustness, based on the great load capacity of the components that form it, together with the optimal union system by means of a knot or rosette defined above.

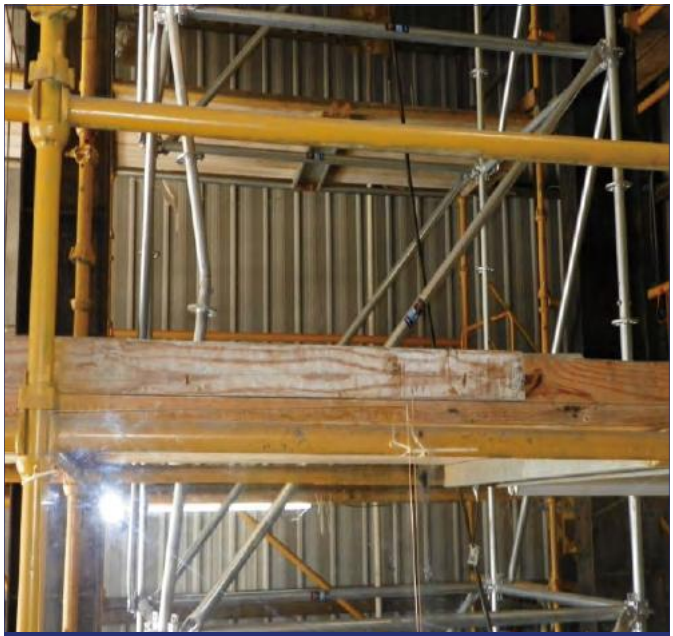
3 Tier Ringlock System Tower

Laboratory & Standard:
ANSI/SSFI SC100-5/05, Element Laboratory in Huston, United States
Part No.: 3 Meter Vertical RV910, 5' (1.52m)Horizontal RH50, 7' (2.13m)Horizontal RH70
Test Method: ANSI/SSFI SC100-5/05

Set#	Max Load	WEIGHT	Load per Leg at 4:1 Safety Factor	Average Deviation
	[KN]	[KN]	[KN]	%
1	379	94.8	23.7	7%
2	331	82.6	20.7	6%
3	351	87.8	22.0	1%
Average	354	88.5	22.1	4.6%



Representative view of system setup



Typical deflection of leg at failure

Rosette

ANSI/SSFI SC100-5/05--Element Laboratory in Huston,the US.
Part No.: RV910 Verticals with RH50 and RH70 Horizontals
Test Method: ANSI/SSFI SC100-5/05

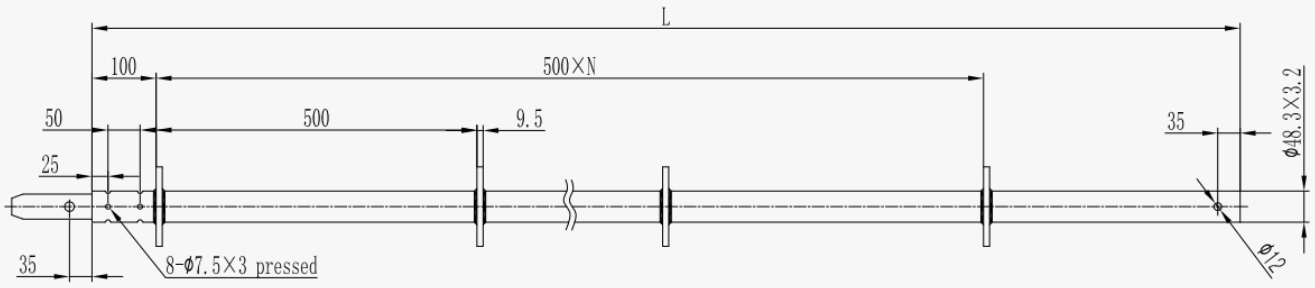
A ledger was connected to the rosette, and the ledger was pulled at a 90 degree angle away from the vertical leg
to create an axial loading test on the rosette and ledger head connection.

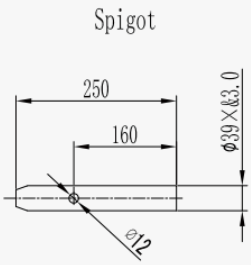
AXIAL LOAD TEST RESULTS

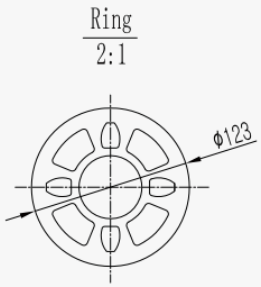
SPECIMEN IDENTIFICATION	DIMENSIONS ODXWALL THK.	TOTAL LAOD	FAILURE
	MM	KN	
1	48.3x3.2	67.2	Rosette
2	48.3x3.2	75.6	Rosette
3	48.3x3.2	73.5	Rosette
Average	48.3x3.2	73.2	Rosette

STANDARD

Ringlock Standard(Vertical) with spigot has rosettes at 500mm interval, Tube size: OD48.3x3.2mm,
Steel Grade:S235 or S355. Surface treatment: Hot dip galvanized.







Ref. No.	LENGTH	WEIGHT	SAFE AXIAL LOAD
	M	KGS	KN
RV20	2.0	10.10	28
RV15	1.5	7.78	42
RV10	1.0	5.50	55
RV05	0.5	3.19	65

Desde la Fotografía 7.2.2.1 hasta la 7.2.2.6, se muestran imágenes de las probetas durante el ensayo y una vez terminado el ensayo, en las fotografías se puede apreciar la falla por pandeo y plastificación de las probetas.

Fotografía 7.2.2.1: Probeta CPD–RD66–01 durante el ensayo

Fotografía 7.2.2.2: Plastificación probeta CPD–RD66–01

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INGENIERÍA ESTRUCTURAL

Informe Nº 1536940
Fecha 09/03/2020
ORIGINAL

Fotografía 7.2.2.3: Probeta CPD–RD66–02 durante el ensayo

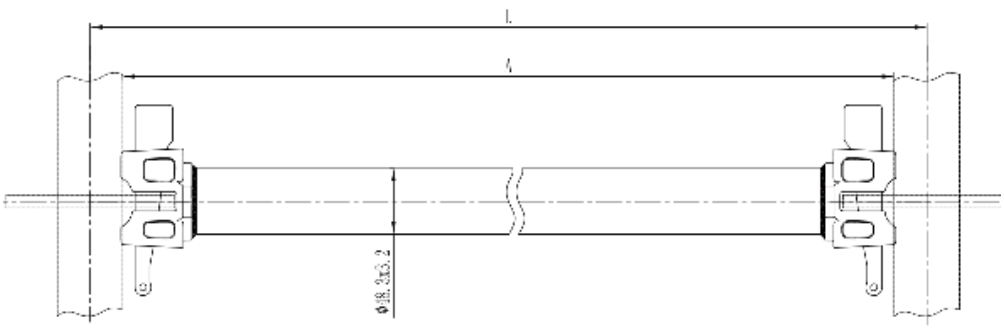
Fotografía 7.2.2.4: Plastificación probeta CPD–RD66–02

Fotografía 7.2.2.5: Probeta CPD–RD66–03 durante el ensayo

Fotografía 7.2.2.6: Plastificación probeta CPD–RD66–03

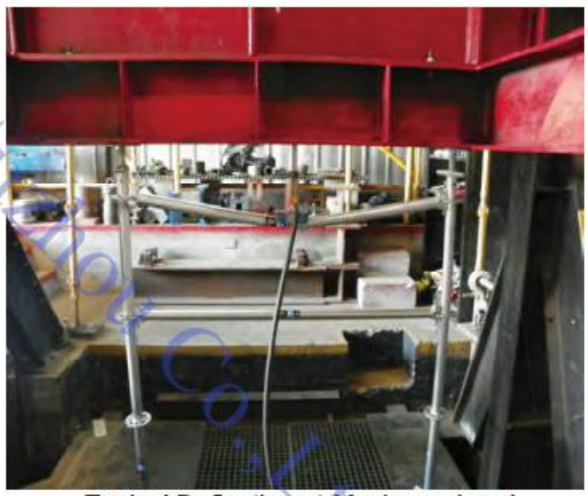
LEDGER

Ringlock Ledger, Tube size: OD48.3x3.2mm, Steel Grade: S235 or S355. Surface treatment: Hot dip galvanized.Shorter Ledgers are used as horizontal support for Ringlock Planks. Ledgers O-Type are also typically used as mid rail and top guard rails.



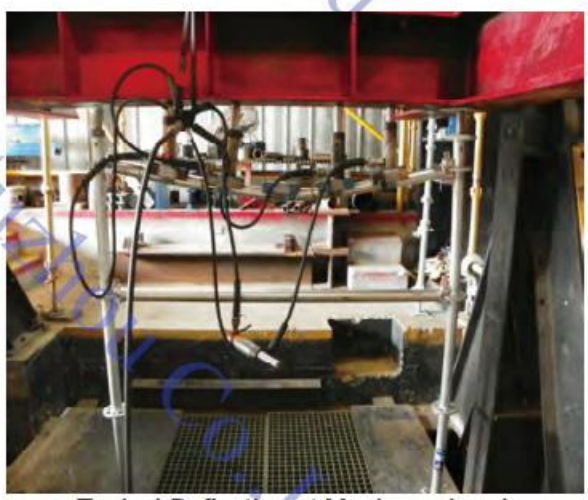
Ref. No.	LENGTH	WEIGHT	POINT LOAD CAPACITY	UNIFORM DISTRIBUTED LOAD CAPACITY
	M	(KGS)	KN	KN/M
RH042	0.42	2.13	15.00	30.00
RH073	0.73	3.24	9.00	22.00
RH109	1.09	4.53	6.50	10.50
RH140	1.40	5.65	5.00	6.50
RH157	1.57	6.24	4.25	5.50
RH207	2.07	8.02	3.50	3.30
RH257	2.57	9.81	2.70	2.25
RH307	3.07	11.59	2.30	1.60

Point Load Test Setup



Typical Deflection at Maximum Load

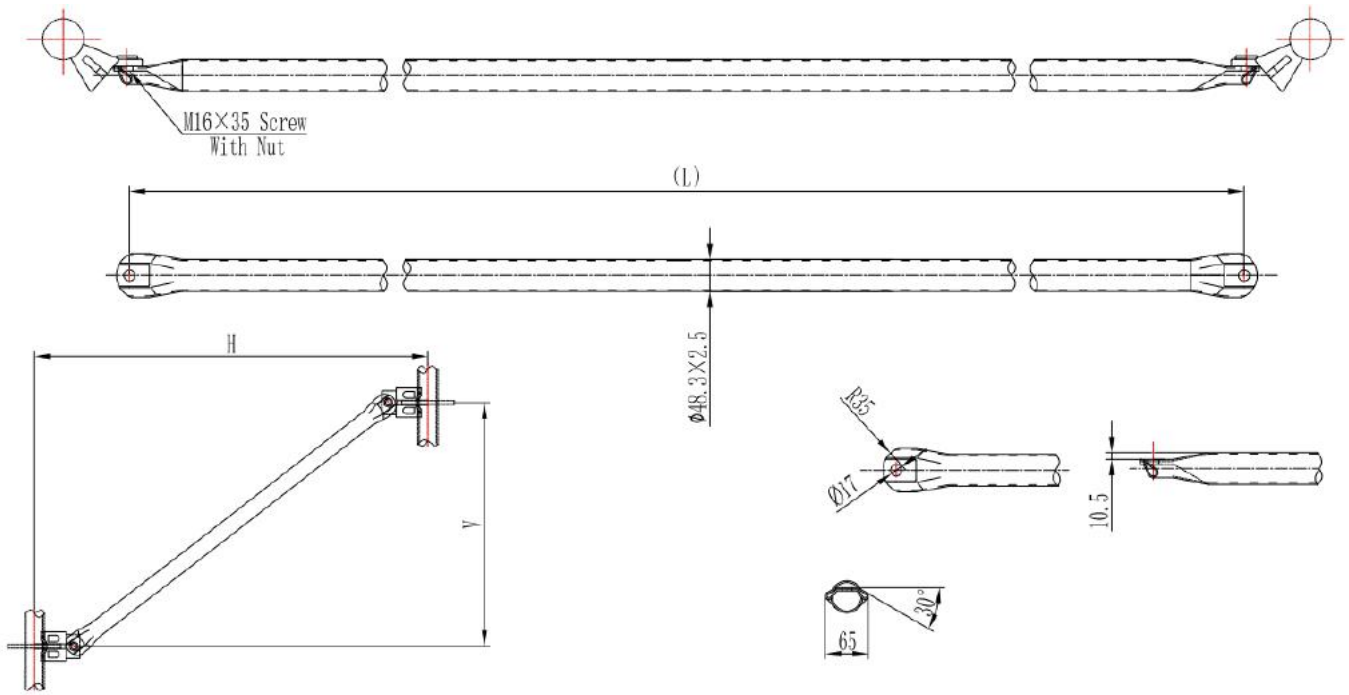
Distributed Load Test Setup



Typical Deflection at Maximum Load

DIAGONAL BRACE

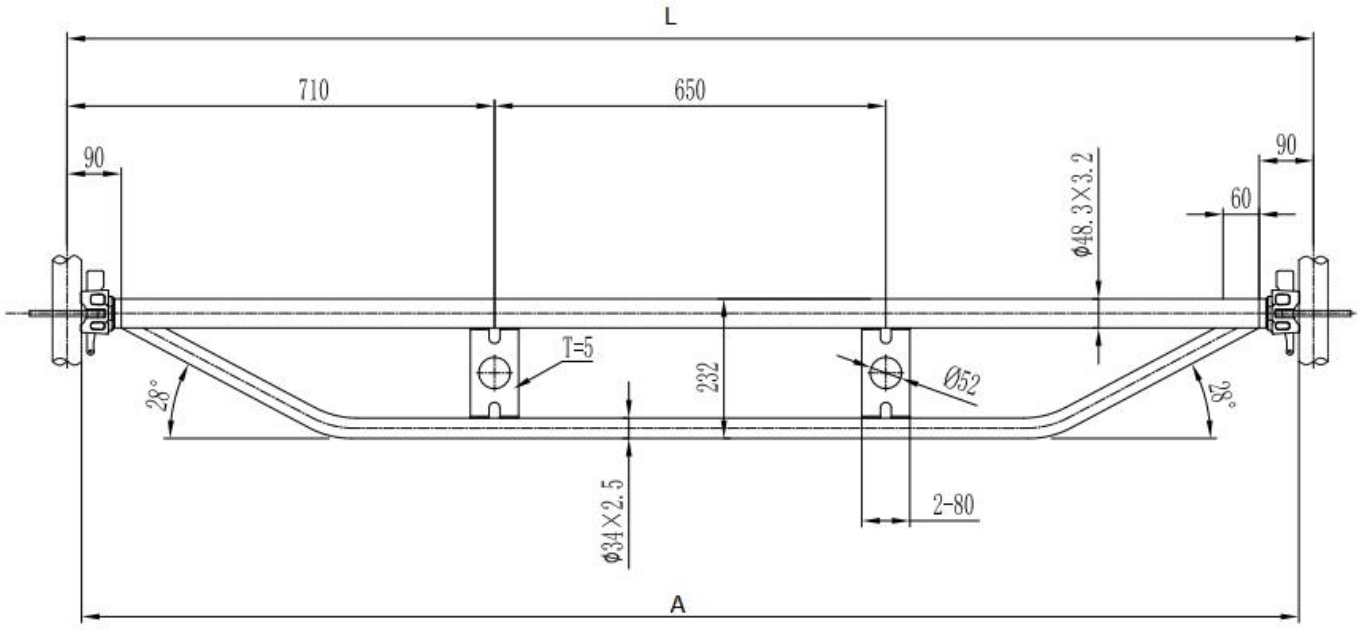
The Diagonal Brace is used for the lateral bracing of Ringlock Scaffold. Tube size: OD48.3X2.5mm, Steel Grade: S235 or S355. Surface treatment: Hot dip galvanized.



Ref. No.	LENGTH DIAGONAL	LENGTH DIAGONAL	HEIGHT	WEIGHT	POINT LOAD CAPACITY	UNIFORM DISTRIBUTED LOAD CAPACITY
	[L]	[H]	[A]	(KGS)	KN	KN
RDB073	2.12	0.73	2.00	7.89	12.20	10.90
RDB109	2.25	1.09	2.00	8.26	12.20	10.70
RDB140	2.40	1.40	2.00	8.69	12.20	10.40
RDB157	2.49	1.57	2.00	8.96	12.20	10.20
RDB207	2.81	2.07	2.00	9.89	12.20	8.50
RDB257	3.18	2.57	2.00	10.95	12.20	6.80
RDB307	3.58	3.07	2.00	12.11	12.20	5.70

TRUSS LEDGER

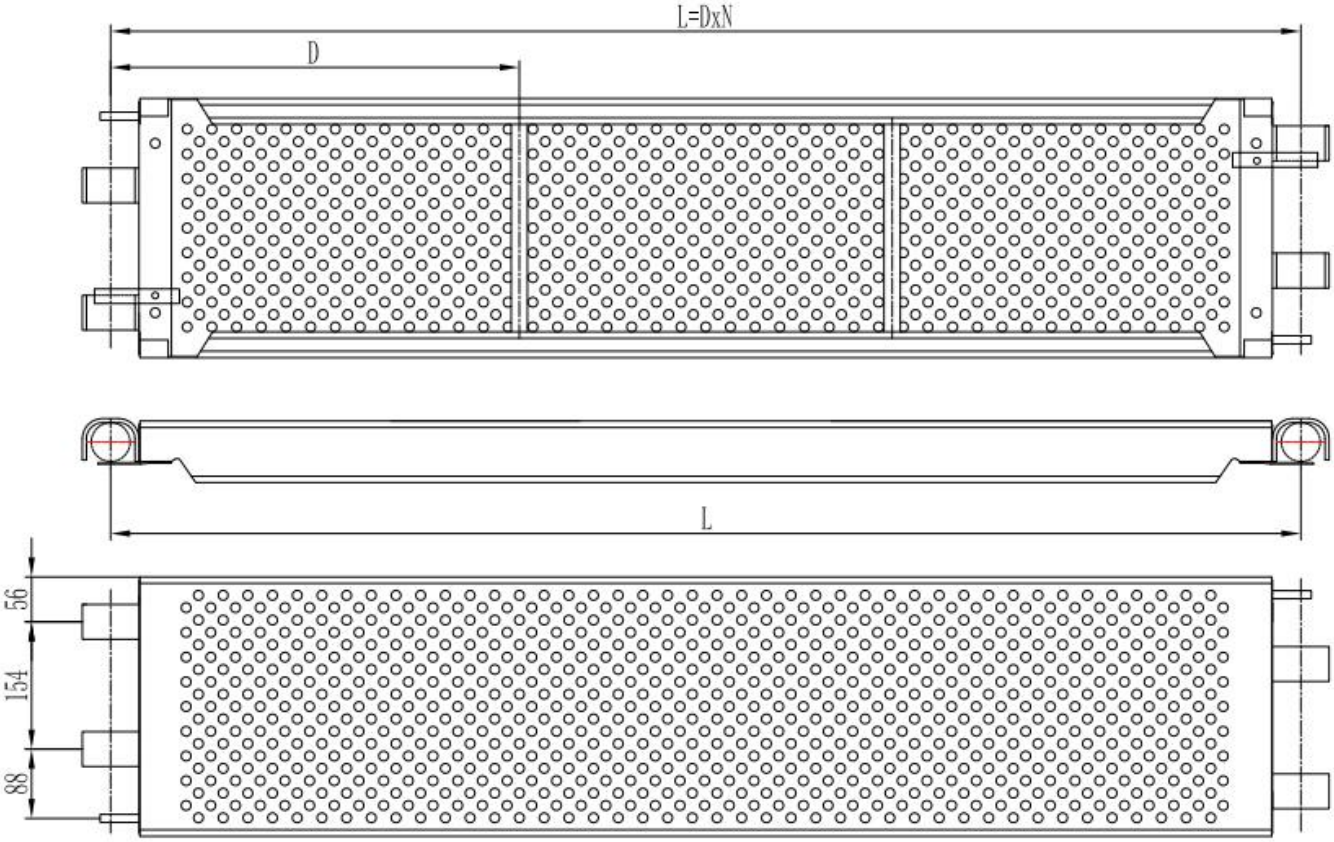
Ringlock Truss Ledger is engineered to enable higher service loads to the working platform. Tube size: OD48.3x3.2mm, Steel Grade:S235 or S355. Surface treatment: Hot dip galvanized.



Ref. No.	LENGTH	WEIGHT	POINT LOAD CAPACITY	UNIFORM DISTRIBUTED LOAD CAPACITY
	M	(KGS)	KN	KN/M
RDL157	1.57	9.47	14.20	15.10
RDL207	2.07	12.29	9.85	9.92
RDL257	2.57	15.45	7.50	7.70
RDL307	3.07	18.44	5.30	5.50

STEEL PLANK

Ringlock Steel Plank, Width:320mm, Height:76mm, Thickness:1.5mm. S235 Steel sheet, Surface treatment: Hot dip galvanized or Pre-galvanized.



Ref. No.	Clase de andamio	1	2	3	4	5	6
	UNIFORMLY DISTRIBUTED LOAD(KN/m²)	0.75	1.50	2.00	3.00	4.50	6.00
ROSP32073	0.73M	X	X	X	X	X	X
ROSP32109	1.09M	X	X	X	X	X	X
ROSP32140	1.40M	X	X	X	X	X	X
ROSP32157	1.57M	X	X	X	X	X	X
ROSP32207	2.07M	X	X	X	X	X	X
ROSP32257	2.57M	X	X	X	X	X	X
ROSP32307	3.07M	X	X	X	X	X	

Test Photo(s):

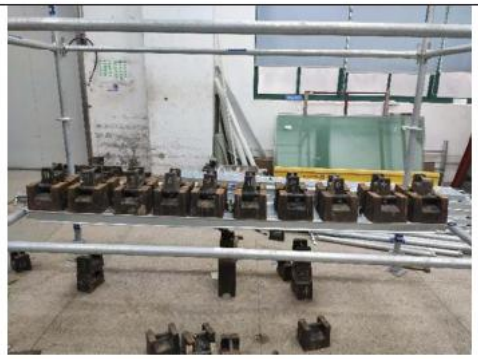
Sample 1 In Test

Sample 2 In Test

Sample 3 In Test

Sample 4 In Test

Sample 5 In Test

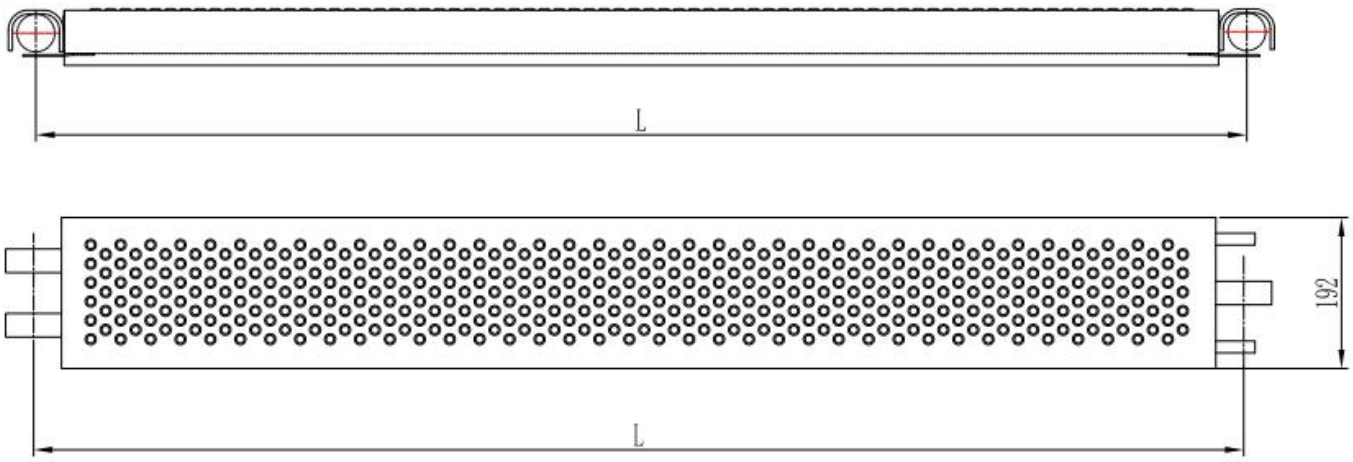


Sample 6 In Test

Sample 7 In Test

STEEL PLANK

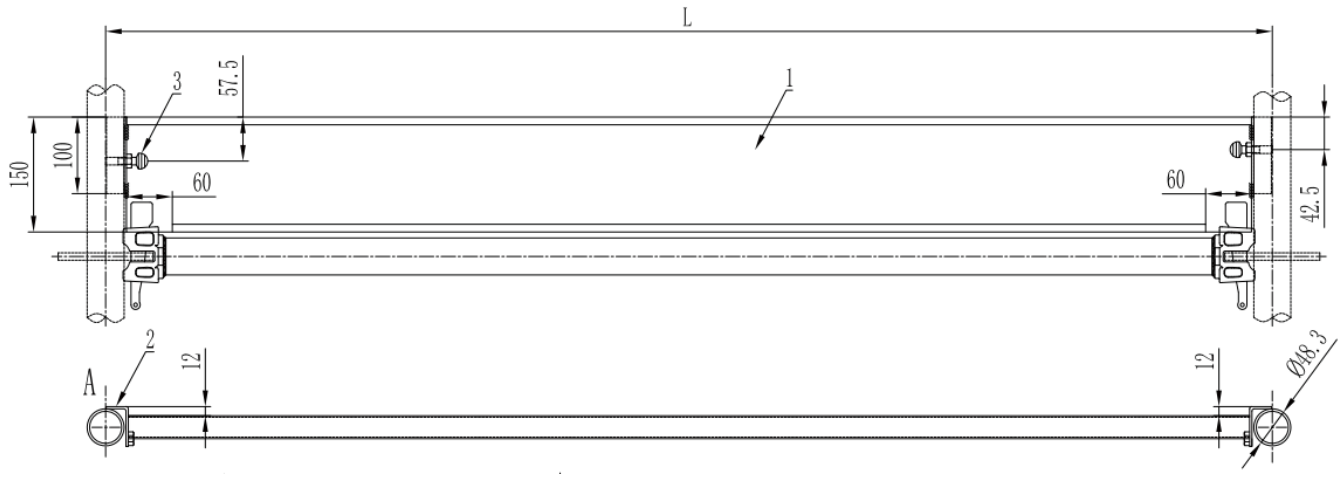
Ringlock O-Steel Plank, Width:190mm, Height: 76mm, Thickness: 1.5mm. S235 Steel sheet, Surface treatment: Hot dip galvanized or Pre-galvanized.



Ref. No.	Clase de andamio	1	2	3	4	5	6
	UNIFORMLY DISTRIBUTED LOAD(KN/m²)	0.75	1.50	2.00	3.00	4.50	6.00
ROSP19073	0.73M	X	X	X	X	X	X
ROSP19109	1.09M	X	X	X	X	X	X
ROSP19140	1.40M	X	X	X	X	X	X
ROSP19157	1.57M	X	X	X	X	X	X
ROSP19207	2.07M	X	X	X	X	X	X
ROSP19257	2.57M	X	X	X	X	X	X
ROSP19307	3.07M	X	X	X	X		

TOE BOARD

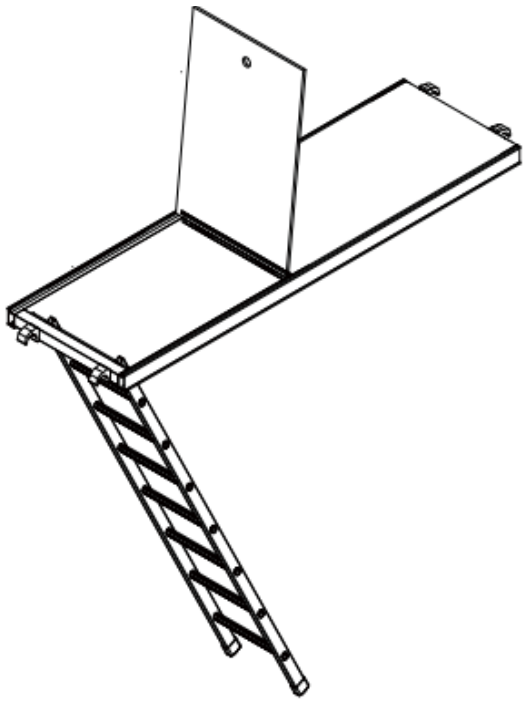
Ringlock Toe Board, Height: 150mm, S235 Steel sheet, Surface treatment: Pre-galvanized.

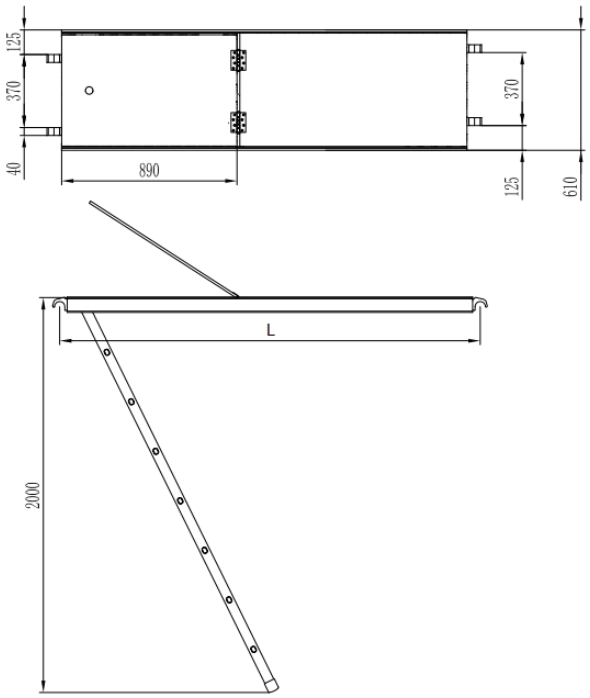


Ref No.	LENGTH	WIDTH	WEGHT
	M	MM	KGS
RTB073	0.73	150	2.42
RTB109	1.09	150	3.52
RTB140	1.40	150	4.60
RTB157	1.57	150	4.98
RTB207	2.07	150	6.50
RTB257	2.57	150	8.02
RTB307	3.07	150	9.54

ALUMINUM HATCH ACCESS PLATFORM

Aluminum Plywood or All Aluminum Platform with hatch ladders made with a 3mm thick aluminum frame.With anti-skid sheet work surface,with anti-skid texture and O-type or U-type metal hooks.That allows the grip on the horizontal elements that support the platform with a trapdoor,allows the free passage of the vertical ladder and easy folding.Dimension 0.61 wide.
*U HOOK AVAILABLE, 3 HOOKS AT EACH END AVAILABLE

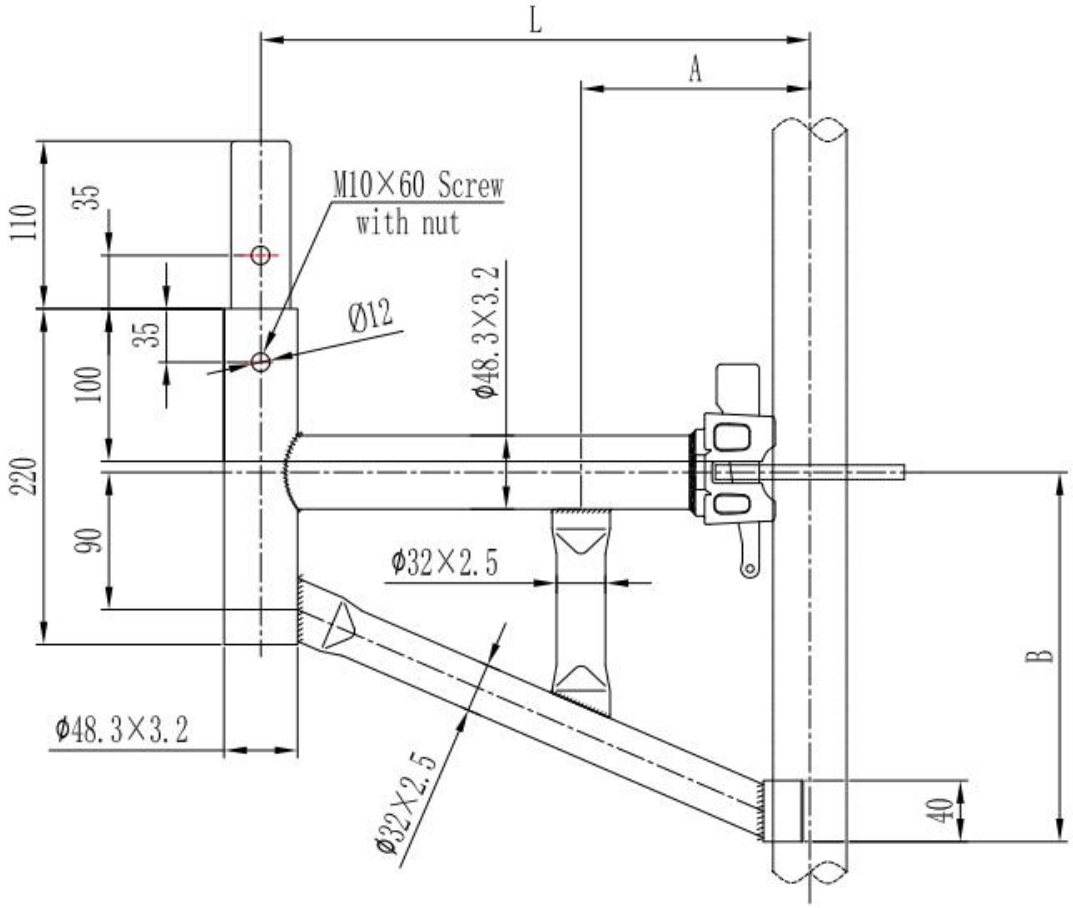




Ref No.	LENGTH	WEGHT	UNIFORMLY DISTRIBUTED LOAD
	M	KGS	KN/m2
RAP109	1.09	20.3	2.00
RAP140	1.40	21.5	2.00
RAP157	1.57	22.8	2.00
RAP207	2.07	24.5	2.00
RAP257	2.57	28.1	2.00
RAP307	3.07	32.3	2.00

SIDE BRACKET

The side/hop-up bracket is used to extend the working platform closer to the building structure. Steel Grade: S235 or S355. Surface treatment: Hot dip galvanized

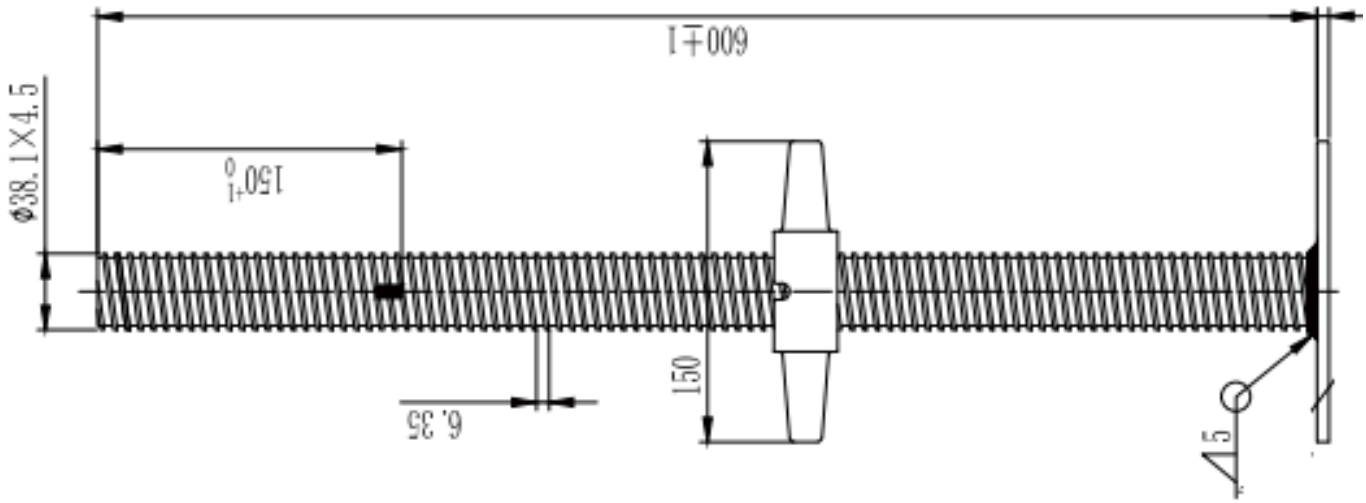


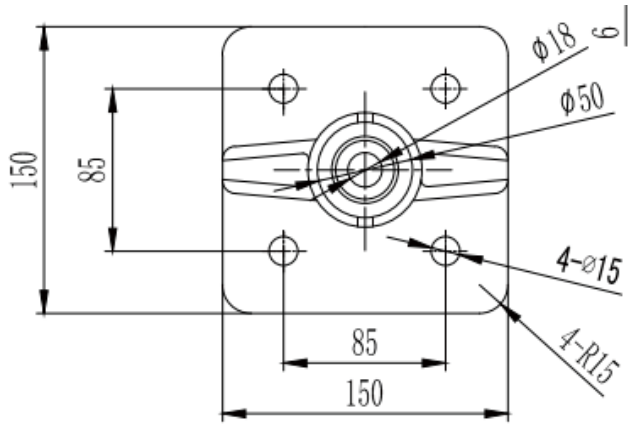
Ref. No.	LENGTH	WEGHT	UNIFORMLY DISTRIBUTED LOAD
	M	KGS	KN/m2
RSB1	0.42	4.92	4.89
RSB2	0.73	6.7	4.89
RSB3	1.09	9	4.89

FIG.4
TWO (2) BOARD PLATFORM
(HOP-UP) BRACKET TEST SETUP

ADJUSTABLE BASE JACK

Ringlock adjustable base jack is used for leveling the scaffold-standards at the same height. OD: 38.1x4.5mm. Base plate: 150x150x6mm. Surface treatment: Hot dip galvanized or Electroplated.





Ref. No.	LENGTH	WEIGHT	POST-TEST PROOF LOAD CHANGE IN STRAIGTNESS	POST-TEST PROOF LOAD CHANGE IN STRAIGTNESS	ULTIMATE FAILURE LOAD
	M	KGS	mm	Pass/Fail	KN
CSJB	0.61	3.7	0.3	Pass	212.1

PROOF LOAD TEST:

Ringlock adjustable base jack is used for leveling the scaffold-standards at the same height. OD: 38.1x4.5mm. Base plate: 150x150x6mm. Surface treatment: Hot dip galvanized or Electroplated.

ULTIMATE STRENGTH TEST:

The strength for the jacks, calculated in accordance with AS/NZS 1576.2:2009 CLAUSE 4.2(C) was computed to be 84.8kN ≈ 8.64 tonnes. (Requirement:75kn)

FIG.1
ADJUSTABLE SCAFFOLDING JACK

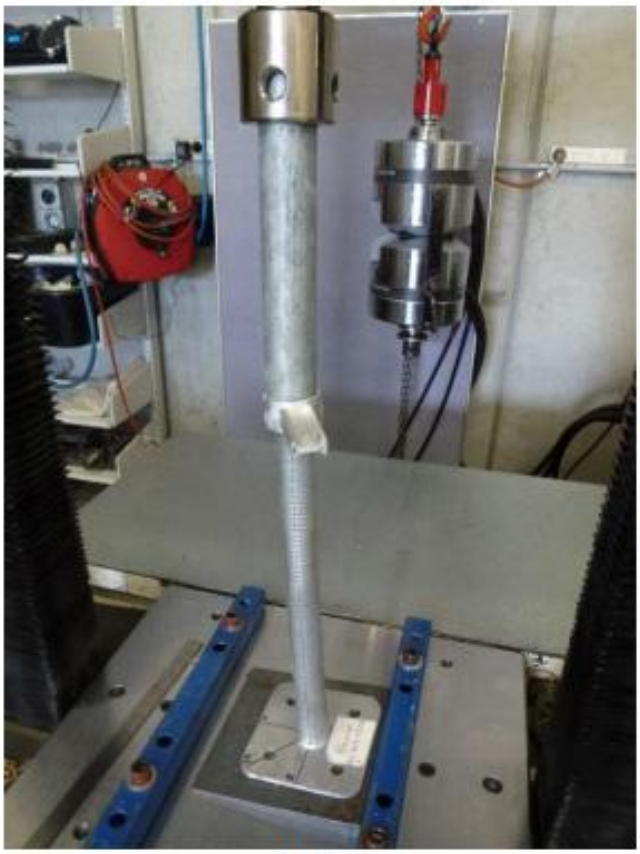
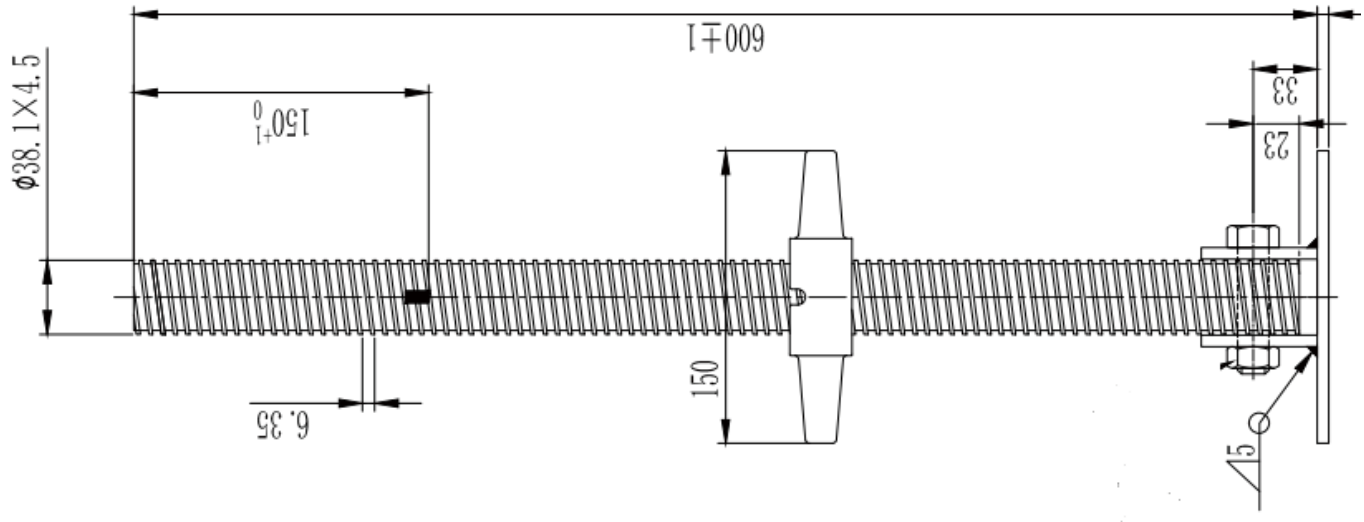


FIG.2
TEST SETUP

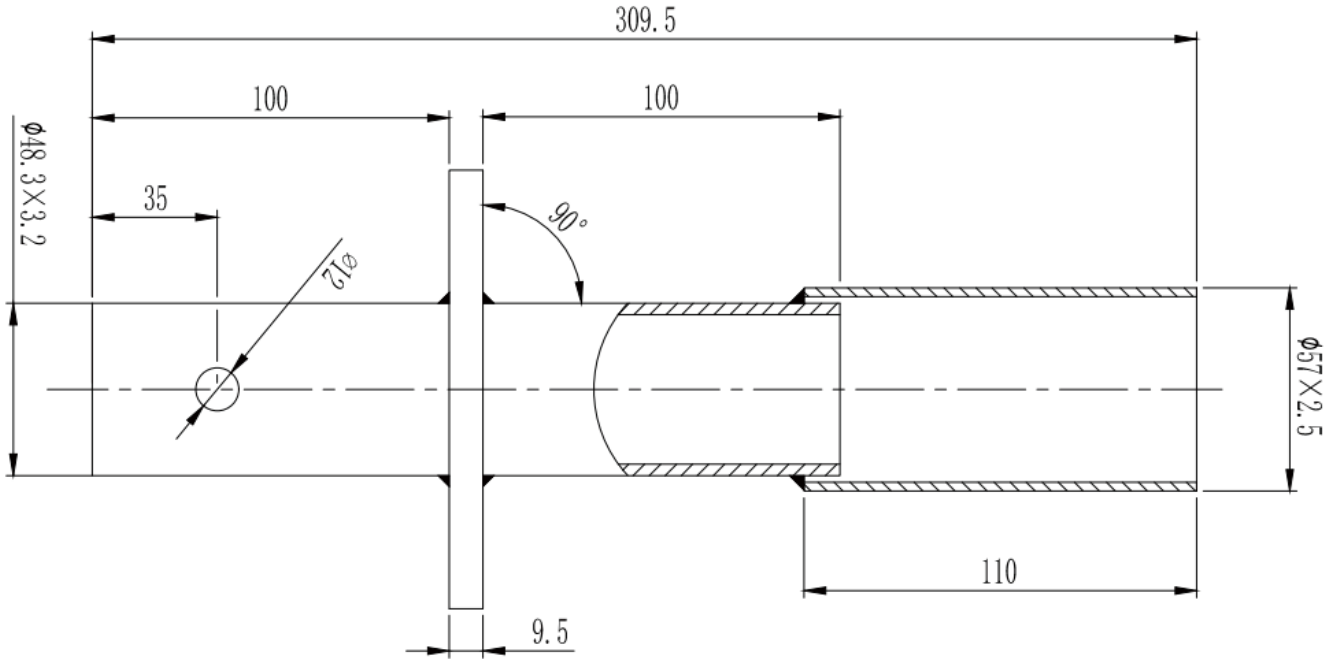
SWIVEL BASE JACK

Ringlock adjustable base jack is used for leveling the scaffold-standards at the same height. OD: 38.1x4.5mm. Base plate: 150x150x6mm. Surface treatment: Hot dip galvanized or Electroplated.



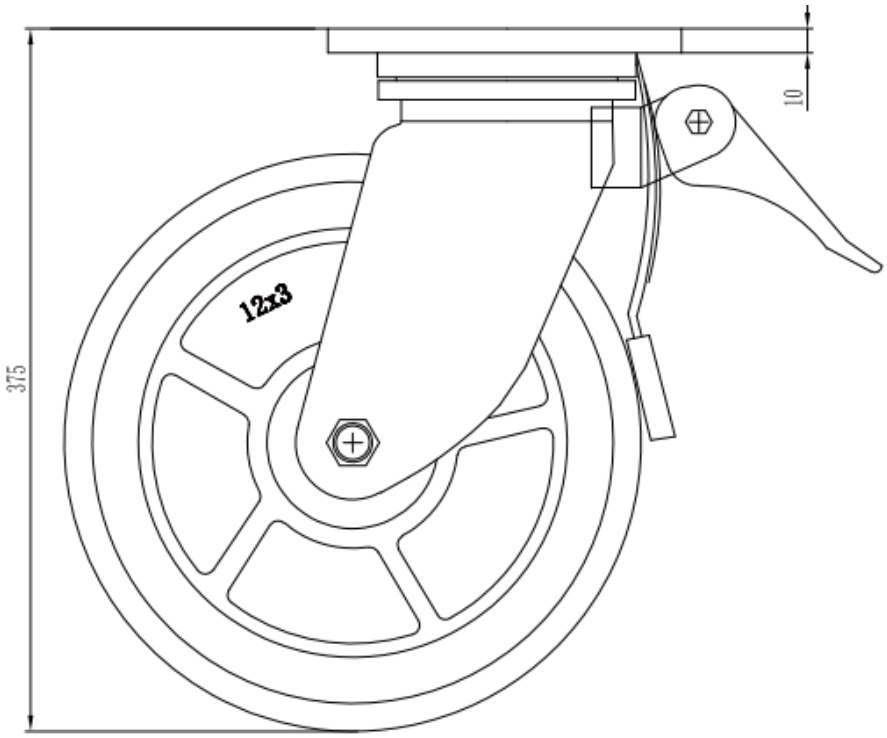
START COLLAR

The base collar is the beginning of the Ringlock scaffolding system. It sits upon a fixed or adjustable base. OD:48.3x3.2mm&57x2.5mm. Length:0.31m or 0.24m. Hot dip galvanized



CASTER WHEEL

Scaffolding caster wheel is used at bottom of scaffolding vertical tube, enabling the scaffolding system to be a mobile Platform.



FIXED CLAMP

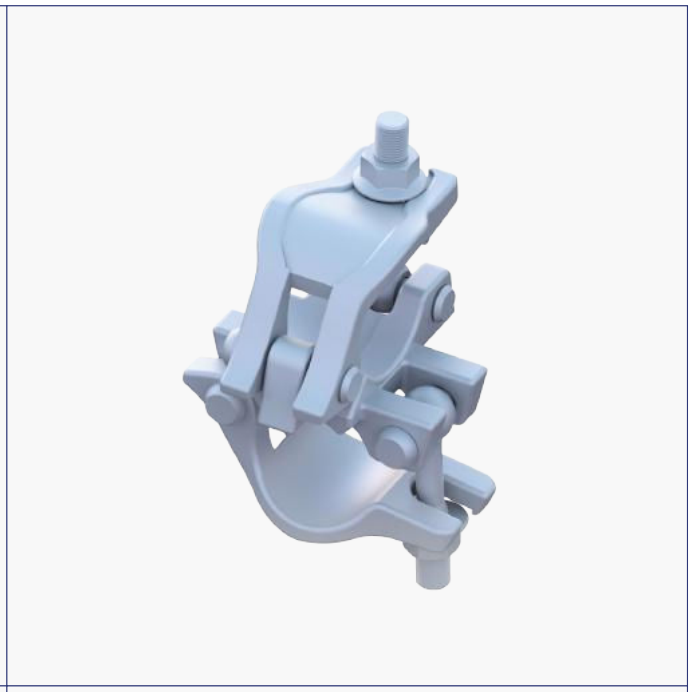
The right angle clamp is designed to be used in conjunction with scaffold tube to create 90 degree angles.Complies with EN 74-1:2005 Class B standards and AS/NZS 1576.2.2009

* Product available in a Nut Size of 21mm (UK), 22mm (7/8" N. America) and 23mm (AUS)

SWIVEL CLAMP

The swivel clamp is designed to be used in conjunction with scaffold tube to create a variety of angles. Complies with EN 74-1:2005 Class B standards.

* Product available in a Nut Size of 21mm (UK), 22mm (7/8" N. America) and 23mm (AUS)



Ref. No.	WEIGHT	SLIPPING FORCE	FAILURE FORCE
	KGS	KN	KN
ARC	1.00	△1=7mm, Fs,5%=17.3KN and 1mm≤△²≤2mm, Fs,5%=17.6KN	Ff,5%=50.1KN
ASC	1.00	△1=7mm, Fs,5%=11.1KN and △2<1mm, Fs=30.0KN	Ff,5%=27.2KN

Test photos:

Test arrangement for slipping force test

Test arrangement for failure force test

Test arrangement for pull-apart force test

Test arrangement for indentation test

******** End of report ********

SCAFFOLD STORAGE RACK

Standard Rack

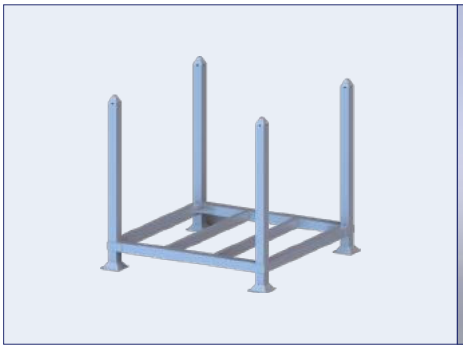
Tube Size:60x60x3.0mm,Square Tube.Size:1.06mx1.06x0.87m, feet:0.15x0.15m.Surface Treatment:Hot dipped galvanized or Painted. Storage Capacity:3500 KG.

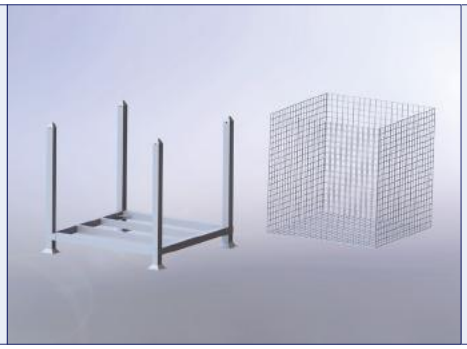
Standard Net Rack

Tube Size:60x60x3.0mm,Square Tube.Size:1.06mx1.06x0.87m, feet:0.15x0.15m. .Surface Treatment:Hot dipped galvanized or Painted.Storage Capacity 2000 KG.

High Steel Rack

Q235, Tube Size:48.3 X3.0mm, Round Tube.Size 2.0 m X 1.095 m X 2.5 m.Surface Treatment:Painted.Storage Capacity:3000kgs.





6. SECURITY INSTRUCTIONS

This guide and all the handling procedures detailed in it are intended for everyone who works with the Coronet ringlock system. It contains information on standard configurations of the system and on its correct use according to the principles established by the UNE EN 12810 and UNE EN 12811 standards.

01	The property and/or the optional addresses of the construction sites and premises where the system is used must ensure that all technical documents are available to all users of the scaffolding.
02	In all cases, users are obliged to comply with national legislation, standards and regulations throughout the project and take additional or alternative workplace safety precautions, where necessary.
03	This document may serve as a basis, support or complement at the time of writing, by the company responsible for the work or client, of the risk assessment or safety plan necessary in each of the works where it is going to be carried out. use the Coronet ringlock scaffolding system. In addition, it may be used for instructions provided to users on how to set up and use the system. However, it will never replace the indications reflected in the aforementioned documents related to safety and health in construction sites.
04	If at any time the possibility of modifying the instructions, steps, advice or simply part of these, described in this guide for the assembly of the system, is foreseen or studied, new revised static calculations must be carried out for their verification, as well as instructions for complementary assembly.
	**Failure to follow the instructions, technical data, warnings, data on loads and other advice for the correct use of the system can lead to or cause serious accidents and significant material and personal damage.**
05	If the weather conditions during the assembly of the system are adverse, such as strong winds, rain or frost, the work must be stopped or in any case the steps must be carried out with an adequate rhythm in order to safeguard the equipment and the adjacent areas of the equipment and protect the operators.
06	The installation of the system, once assembled and in use, must be constantly reviewed by the operators or by personnel responsible for the assembly guarantee, certifying at all times the correct arrangement of all the joints, fixings, parts and components that the system has.

Safety procedure prior assembly

To handle scaffolding, it is important to take into account the safety procedure during all the assembly steps.

Safety equipment

All the people dedicated to the assembly and disassembly of scaffolding must have and will be obliged to use the individual protection elements that are observed in the following image..

Suggestions:

Prior to the assembly and use of the scaffolding, the following recommendations must be followed:

1.Inspect all components.

Analyze the requirements that are demanded for work at height before starting the project.

3.Prepare all the protection equipment and safety elements, hammer and spirit level.

4.Mark the work area with a warning notice in order to avoid accidents.

5.Make sure of your position and balance before releasing the equipment. Always have one hand on the ladder or a support element.

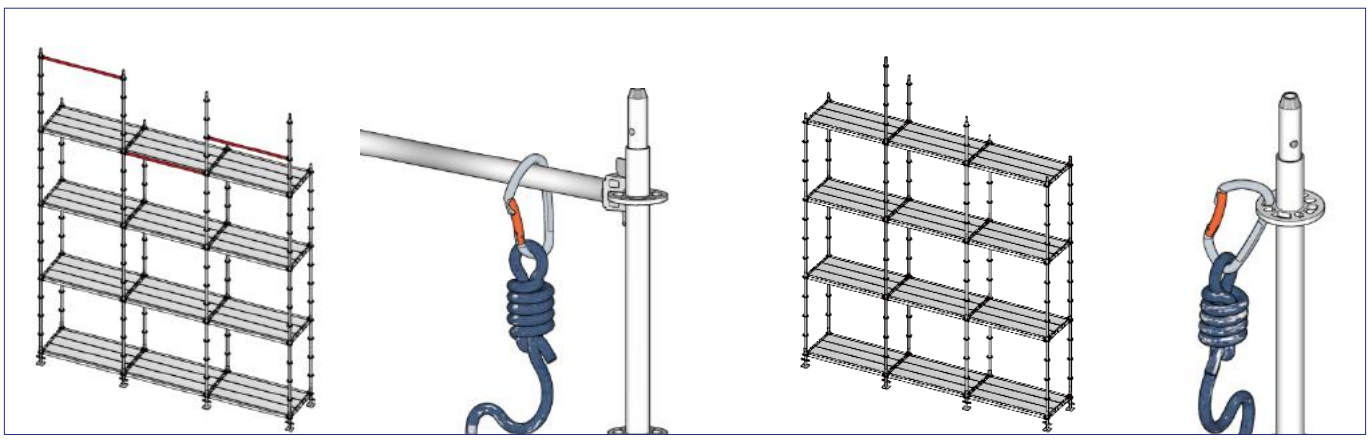
SUSPEND work on the scaffolding during strong winds, rain and other inclement weather conditions.

Use of the harness:

If you work with a safety harness, you need to have a height rescue plan at the construction site.

The harness fixing system can be made in the following elements:

- **Ledger:** at the point of highest available height. Both ends must be anchored.
- **Standard:** anywhere on the standard, including the rosette.



NOTES

THE CONNECTION POINTS:

- They must respect the laws of each country / region
- They will be carried out as high as possible above the actual work floor (minimum height of 1 meter from the work platform)

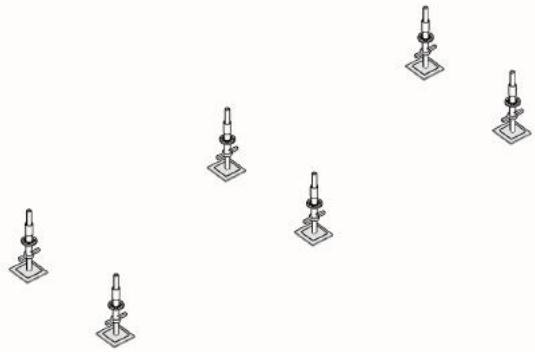
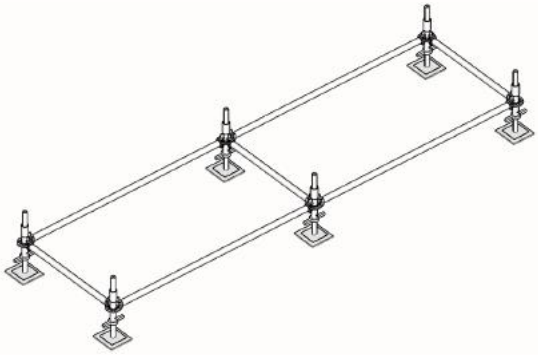
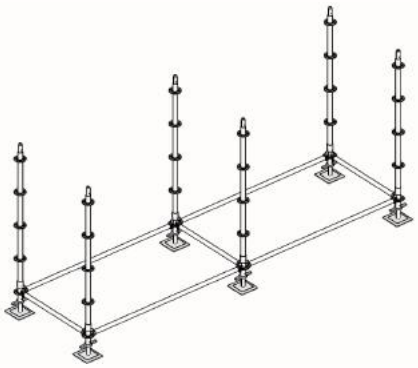
Connect the carabiner hook to the safety harness to the closed parts of the scaffold that prevent the hook from slipping.

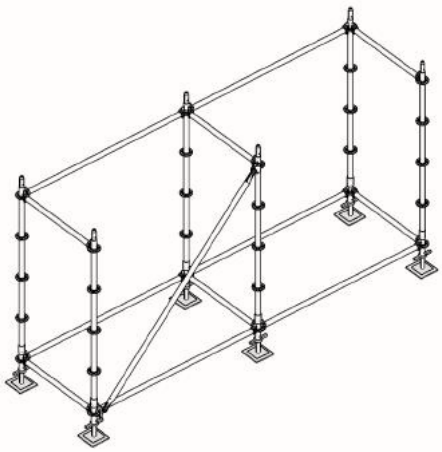
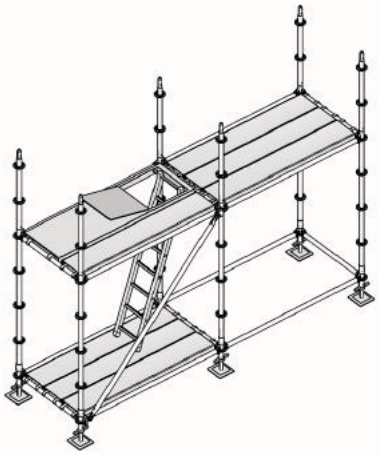
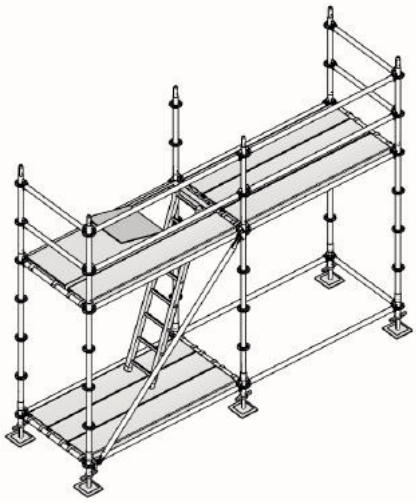
INITIAL INSPECTION

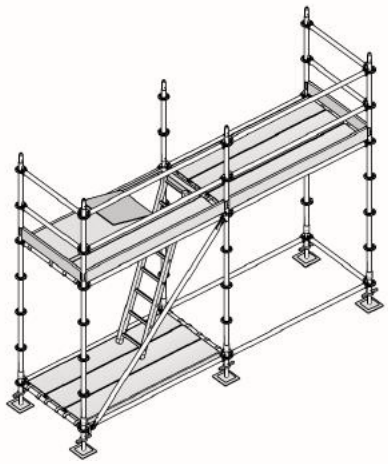
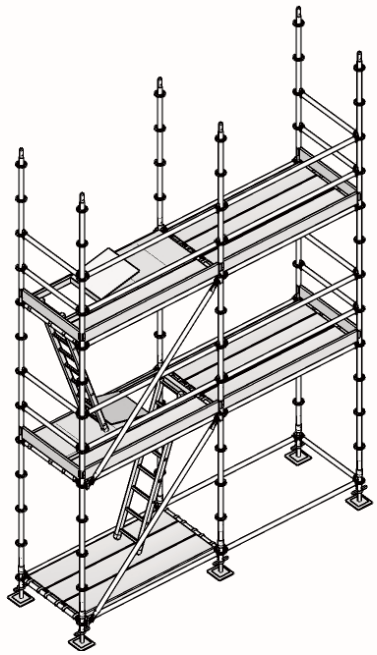
- The elements that denote a technical failure or a bad structural behavior will be dismantled immediately, proceeding to its repair or replacement.
- In addition, assembly tools or protective equipment that are defective must be replaced by others. Those parts of the scaffolding that are not ready for use, mainly during assembly and disassembly, must be marked and conveniently delimited by means of physical elements that prevent access to the danger zone.
- Check all loads imposed on the scaffold erection and its surroundings, and ensure the position of the loads on the scaffold and its surroundings. The various loads are:
  - Weight of scaffold structure
  - Workload of the work platform
  - Wind load.
- Check the condition of the ground scaffold and the elevation condition of the anchor point
  - Understand all safety regulations (local)
  - Understanding the potential risks of an explosion or fire
- Check the training of workers.
- Correct repositioning is essential for safety work and must always be done in accordance with assembly drawings or technical personnel instructions. Check that the ground is strong and flat without any uneven or easily deformed for placement of spirit level.

7. ASSEMBLY PROCESS

STANDARD ASSEMBLY PROCEDURE FOR FACADE SCAFFOLD

Step 1	**Prepare the foundation for the scaffold.** The base collars and base Jacks are placed on a flat surface to distribute the pressure exerted by the scaffolding on the ground. Place the base jack or base collar (optional) to serve as support for the standard of the ringlock scaffolding and to facilitate the placement of the ledger and diagonal brace.	
Step 2	**Connect the Ledgers** Connect the Ledgers head to the little hole position of the rosette on the Base Collar,making a angle of 90º between ledgers.In order to ensure the ledgers are horizontal, use a spirit level to adjust the base jack if necessary. Also check the distance from the scaffolding to the facade. **IMPORTANT: When installing platforms, they must be protected with safety equipment.**	
Step 3	**Place the Standard** The bottom of the Standards fit into the socket tube at the top of the Base Collar.The Spigot on the Standards always point upwards.	

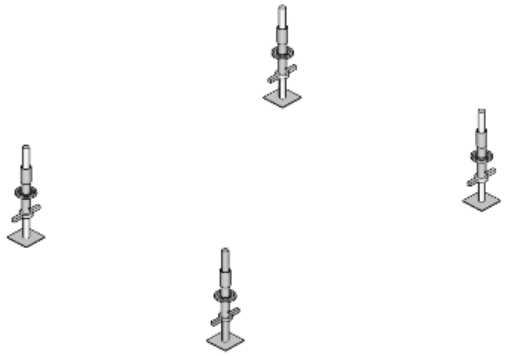
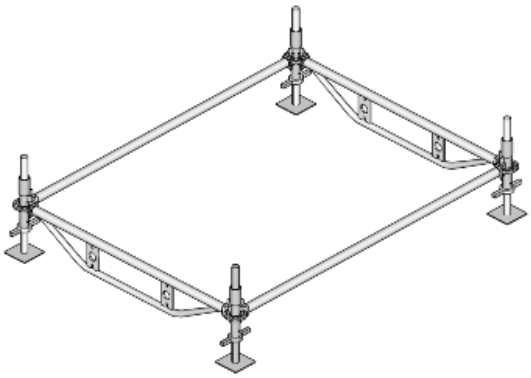
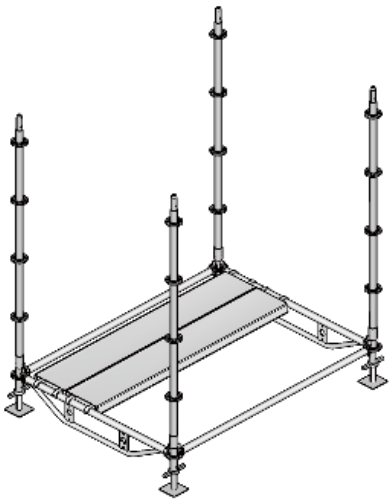
Step 4	**Place the Ledgers and Diagonal Brace** The ledger is placed at the maximum distance of 2 meters from the previous level. The diagonal brace along the entire standard of the scaffolding and every 4 rosette as standard. Tighten the wedges to ensure the definitive rigidity of the structure.	
Step 5	**Place the platform and access platform** Non-slip platforms are placed on the crossbars to form a work surface with a minimum width of 60 cm. **Important: when installing the platforms, they must be secured with the security equipment.**	
Step 6	**Place the Guardrail** Guardrail should be installed at a height of 0.5m and 1.0m in relation to the work platform in order to guarantee safety against falls from height. **Important:Before starting to climb and assemble the upper levels, the scaffolding must be tied to the structure to the vertical wall.**	

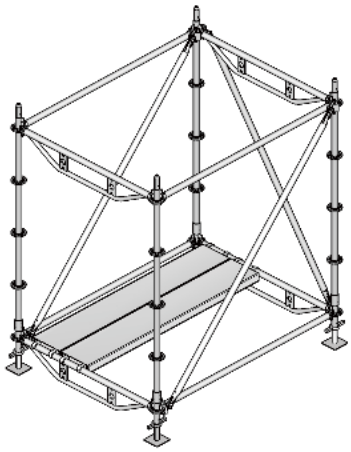
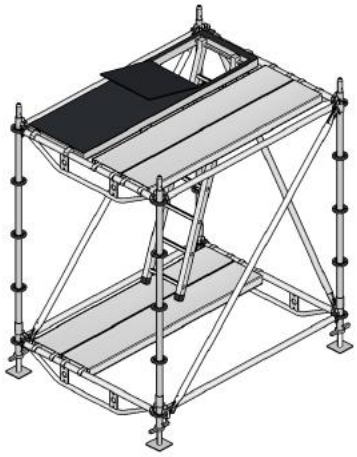
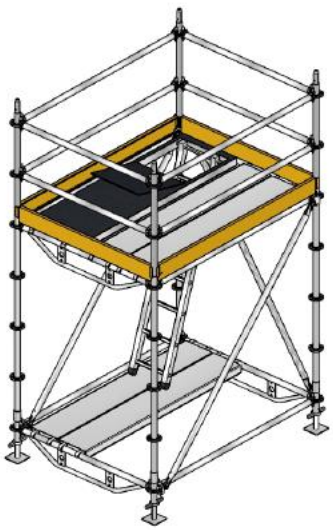
Step 7	**Place the Toe Board** Add the toe boards which slot behind the wedge to protect falling objects.	
Step 8	**Assembly the upper level** The process for the assembly of the upper levels is the same. The assembly is then resumed from point 5 to point 7 of this assembly manual.	

Disassembly and storage of the system:

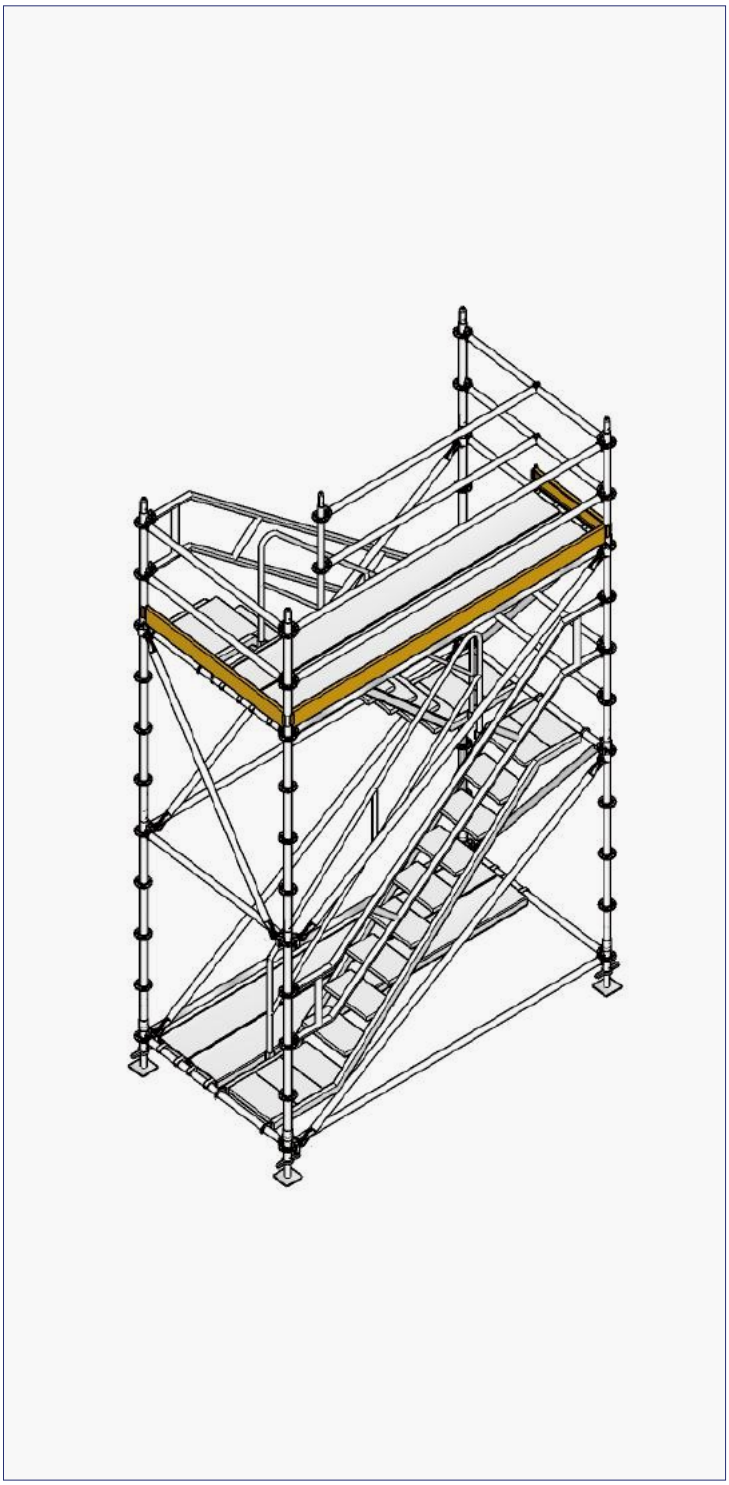
- The disassembly and storage of the Coronet ringlock system must be carried out by professional operators and always in the reverse order of assembly.
- Items should NEVER be dropped from the top of the scaffold.
- The scaffold must be signaled not to use and always use individual protection equipment during dismantling.

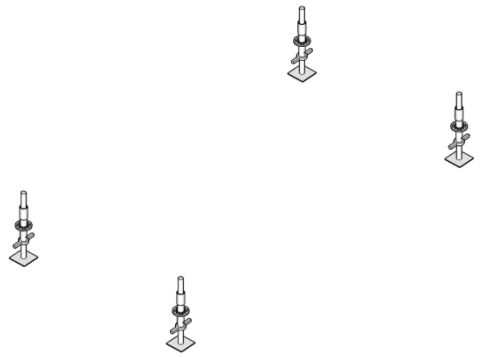
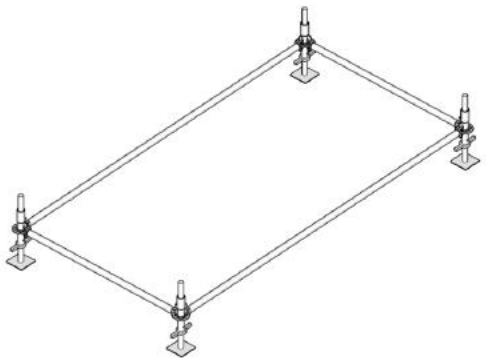
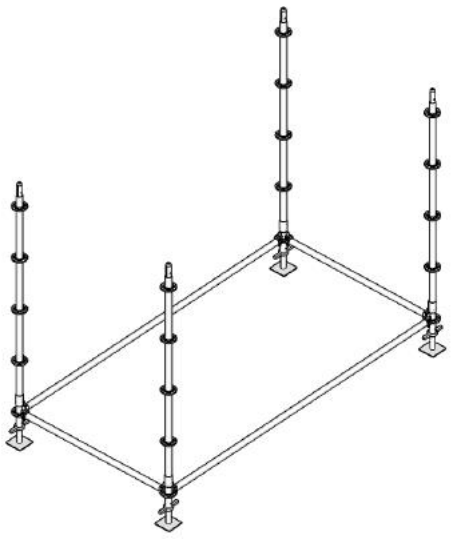
STANDARD ASSEMBLY PROCEDURE FOR SCAFFOLD TOWERS

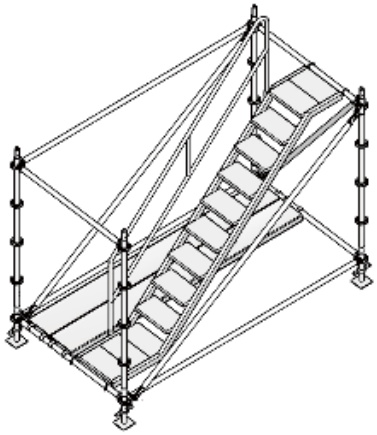
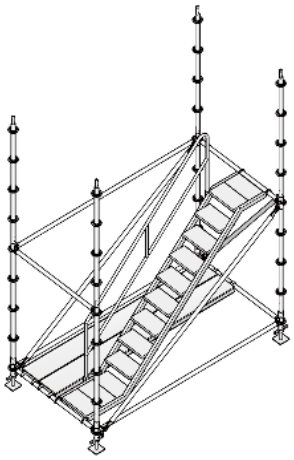
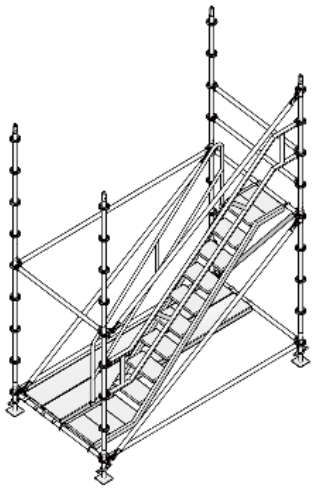
Step 1	Place the Base Collars over the Base Jacks(If necessary).Use wooden sole plates boards as necessary depending on the ground conditions.	
Step 2	Assemble the Ledgers and make sure this setup is level.	
Step 3	Thread the vertical standards onto the base collars (Preferably 3 meters).	

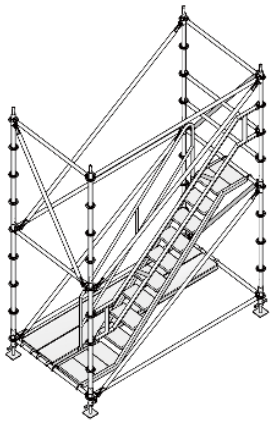
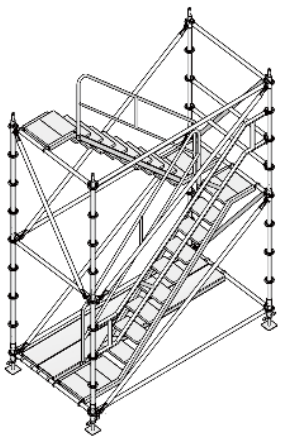
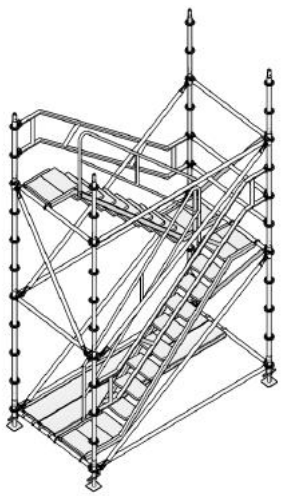
Step 4	Assemble the 2nd level structure: bridging Ledger (1.57 meters wide) to support the platform and diagonal brace.Also assemble the Braces on the two outer sides.	
Step 5	Assemble the 1st landing including the access platforms,steel planks and toe boards. Repeat the sequence until the desired level is reached. Use the wall tie if the scaffold tower is not stable.	
Step 6	Assemble the 1.0m standard and guardrail on the landing.	

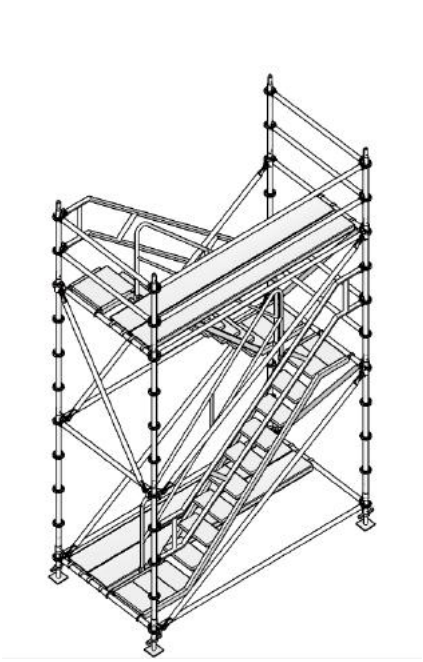
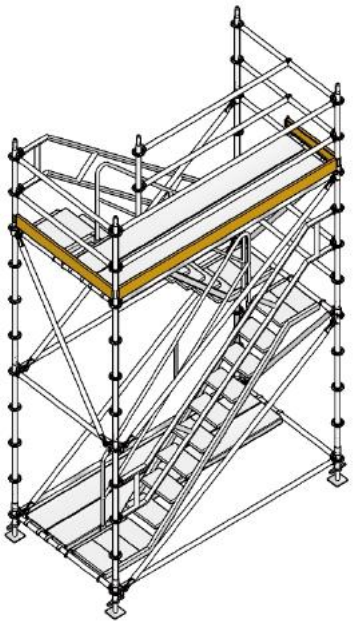
STANDARD ASSEMBLY PROCEDURE FOR ACCESS STAIR



Step 1	Place the Base Collars over the Base Jacks(If necessary).Use wooden sole plates boards as necessary depending on the ground conditions.	
Step 2	Assemble the Ledgers and make sure this setup is level.Also Assemble steel plank.	
Step 3	Thread the vertical standards onto the base collars(Preferably 3 meters).	

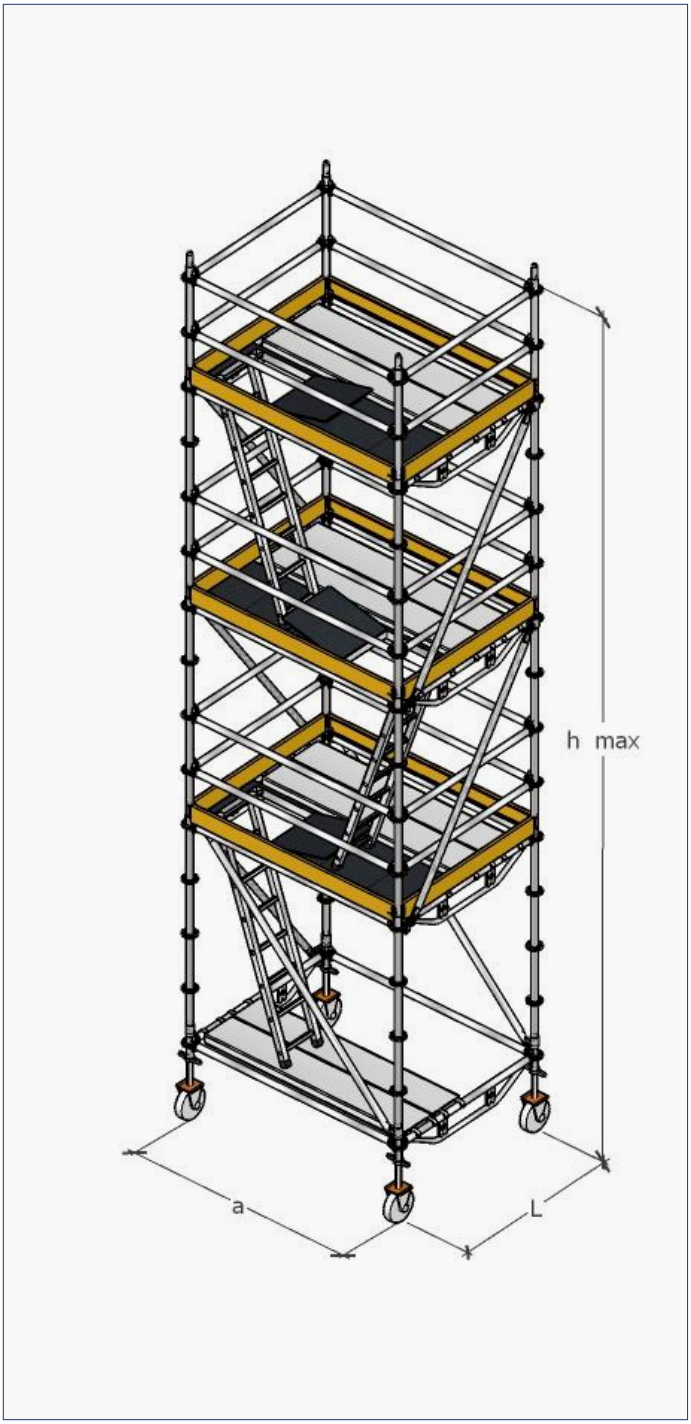
Step 4	Place 2nd level ledger and diagonal brace and place the first level of access stair.	
Step 5	Place the2nd level Standards.	
Step 6	Assemble the 1st level internal and external handrail along the stair,as well as place safety guardrails along the next landing.	

Step 7	Assemble the 2nd level: place standards, ledgers and diagonal braces. (Use the Scaffold Step to assemble a temporary platform and single advanced Guardrail such that this can be used to erect the second landing).	
Step 8	Assemble the 2nd access stair.	
Step 9	Assemble 2nd level safety elements: guardrails at 0.50 & 1.00 meters and external & internal handrails along the stairs. For the assembly of the upper levels repeat the sequence from step 6.	

Step 10	Assemble the last level steel planks and guardrail.	
Step 11	Assemble toe boards if necessary. Then install horizontal fall protection - 1.0m standard+ tube +clamp - 1.0 m standard I + ledger	

SAFE-STABLE SCAFFOLDING

Scaffold structures that are used as mobile or fixed scaffold towers are subjected to the same loads as any other type of scaffold. For towers made of steel without any type of cover, an indicative method to prove that it is self-stable is the following:



AUTOESTABLES

01 The maximum height (H) can not exceed four times the minimum side (L) in an indoor space without wind.

- H (max)<=4* L(smaller)

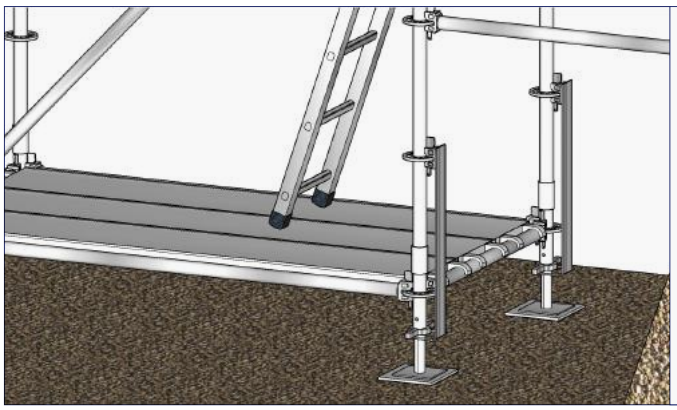
02 The maximum height (H) is three times the minimum side (L) in outdoor space

- H (max)<=3* L(minimum)

03 If this standard can not be met due to working conditions:

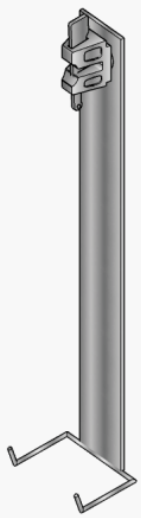
- Increase the size of the base by placing stabilizers.
- Installation of counterweight.
- Secure the scaffold to a solid structure.

STANDARD FOR THE USE OF CRANES IN SCAFFOLDING

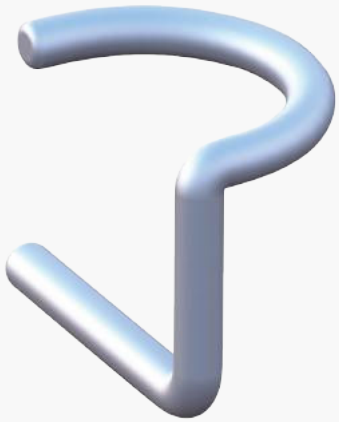


TO SECURE THE BASE GRADER, YOU MUST:

- The leveler fixer
- Pin.
- Use safety pin locking strut

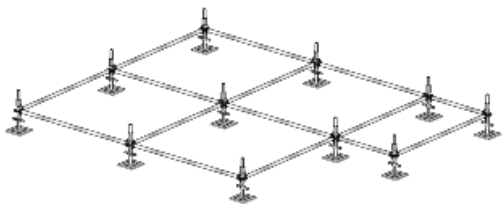
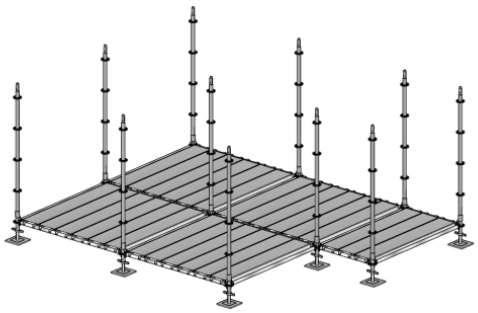
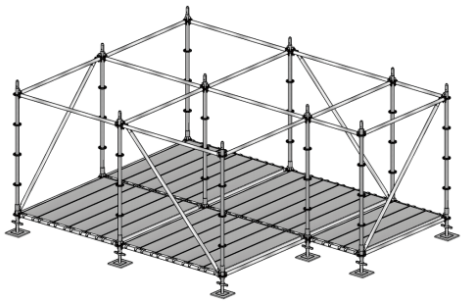


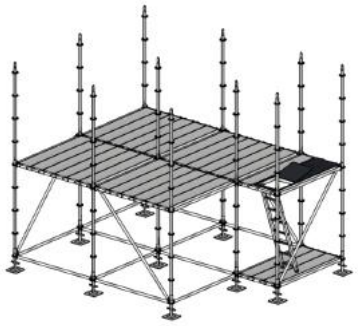
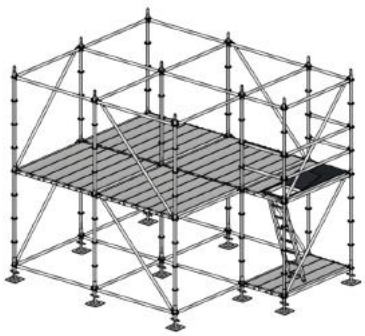
The leveler fixer



Pin.

STANDARD ASSEMBLY PROCESS OF VOLUME SCAFFOLDING

Step 1	**Prepare the foundation for the scaffold** The base collars and base Jacks are placed on a flat surface to distribute the pressure exerted by the scaffolding on the ground. Place the base jack or base collar (optional) to serve as support for the standard of the ringlock scaffolding and to facilitate the placement of the ledger and diagonal brace.	
Step 2	**Assemble the foundation** Assemble the ledger of the first level.	
Step 3	**Assemble Standard and platform** The bottom of the Standards fit into the socket tube at the top of the Base Collar.Place Planks of the correct bay length into the end bay to fully deck out the bay.	
Step 4	**Assemble ledgers and diagonal brace** Assemble the 1st level ledgers (at 2 m. height) Optionally, the protection ledgers can also be installed at a level of 1 m height.	

Step 5	**Assemble planks and access platform** Remove low level auxiliary platform and place the platform on the height of 2.0m. Assemble the access platform.	
Step 6	**Assemble horizontal guardrails** Assemble the horizontal guardrail. These can be removed when upper levels are assembled.	
Step 7	**Assemble the upper levels** Place a bridging ledger to replace the ledgers as support for the platforms (spans greater than 1.50 meters).	
Step 8	**Assemble toe boards** For the assembly of the upper levels the process is the same. The assembly is then resumed from step 5 to step 7 of this assembly manual.	

ASSEMBLY AND LOAD CAPACITY OF THE PLATFORMS

The main purpose of our Coronet Ringlock Scaffolding system is to create work platforms, where the operators who are going to use it can carry out the necessary tasks with total confidence, stability and rigidity, so when the work is being carried out at height, is not a decrease in the quality and execution time of the same.

The work surfaces that we define are created by joining steel or aluminum and wood platforms, in combination with protection elements such as side bracket and toe board, all supported and fastened to the tubular bearing structure of our Coronet system.

According to the European standard for facade scaffolding (EN12811-1), the minimum width of the work platform must be:

Clase	MINIMUM WIDTH.
W06	0.6
W09	0.9
W12	1.2

The following outlines how each scaffold structure must be designed, constructed, and maintained to ensure that it will not collapse or shift unintentionally and can be used safely. This applies to all stages of use, including assembly, modification, and even complete disassembly.

- Scaffold components must be designed to be transported, installed, used, maintained, dismantled and stored safely.
- The structure in use must have a support or foundation capable of resisting the required loads and movement limitations.
- The lateral stability of the scaffolding structure, as a whole and punctually, must be verified when it is subjected to the different possible forces, such as wind.

To cover the different working conditions, the EN 12811-1 standard specifies different load classes and work areas. The service classes of our Coronet Ringlock system are arranged in the following table:

Load Class	Uniformly Distributed Load	Concentrated load on a surface of 500mmx500mm	Concentrated load on a surface of 500mmx500mm	Load on a partial surface	
				KN/m2	Partial Surface.
1	0,75	1,50	1,00	N/A	N/A
2	1,50	1,50	1,00	N/A	N/A
3	2,00	1,50	1,00	N/A	N/A
4	3,00	3,00	1,00	5,00	0,4
5	4,50	3,00	1,00	7,50	0,4
6	6,00	3,00	1,00	10,00	0,5

Depending on the study and dimension of these loads, we must take into account the study of the possible actions that influence the calculation of our load.

8. ANCHORING AND DIAGONAL BRACE

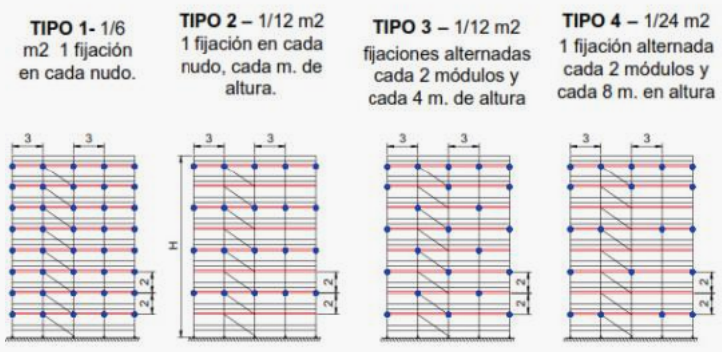
The anchor of our system are the connection points that we make of it to the facade. Its function is to guarantee the immobility of the scaffolding, even in adverse conditions caused by strong winds or great efforts of a different nature.

- In general, the anchors or fixings support horizontal loads parallel and perpendicular to the facade.
- It is essential to check the solidity of each fixing point of the facade, since a scaffolding, due to the fact that it is the union of several loose components, is a "weak" system and therefore, to create a solid and stable construction, it is necessary to stabilize the scaffold with additional components.
- In general, the fixings must be placed one for every 24m2 on uncovered scaffolding or one for every 12m2 on net scaffolding.
- The anchor to stabilize our Coronet Ringlock System must be executed, whenever possible, perpendicular to the facade to be covered and using a connection point that will be attached to each row of studs in our system.

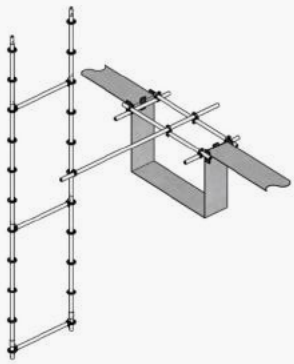
The connection points or anchoring systems used are made up of a special anchoring tubular profile that has a system at one of its ends to be able to embed it on site in the facade (chemical plug, anchor bolt, etc.) or simply a special hook that makes the tube can be fixed to a bolt or eye bolt that we have previously embedded in our facade and on the other hand we have the clamps or staples that fix the anchor tube to the vertical tubular profiles of the scaffolding.

As we have indicated previously, the fixings must be placed one for every 24m2 in uncovered scaffolding or one for every 12m2 in net scaffolding, but for a correct design the number of them must be determined by calculations or fixed according to a standard configuration, and they should always be placed in a regular pattern throughout the scaffold.

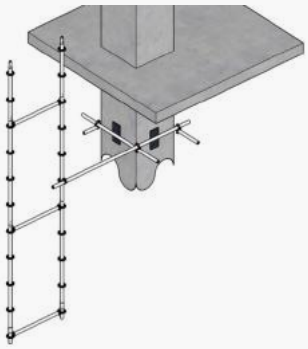
4 TYPES OF BASIC PATTERNS ARE GENERALLY USED:



However, below are possible variants that we can find on site during the installation of our system and its fixing elements:



Fixing to window or balcony



Column fixing

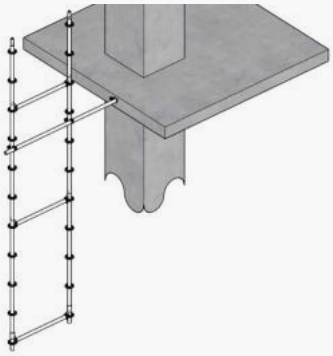
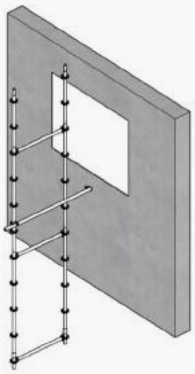
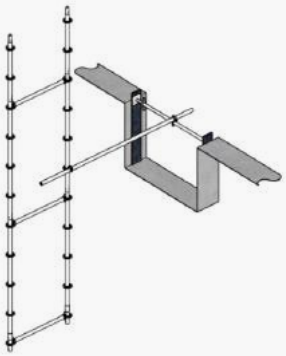


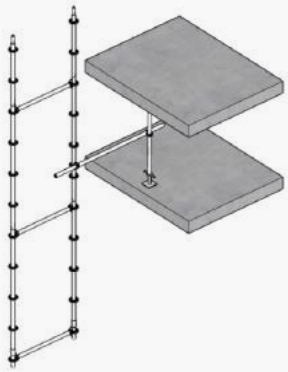
Plate fixing



Facade fixing



Strut fixing 1



Strut fixing 2

The other fundamental part when it comes to guaranteeing the stability offered by the Coronet Ringlock system is the bracing system carried out by means of the diagonal brace.

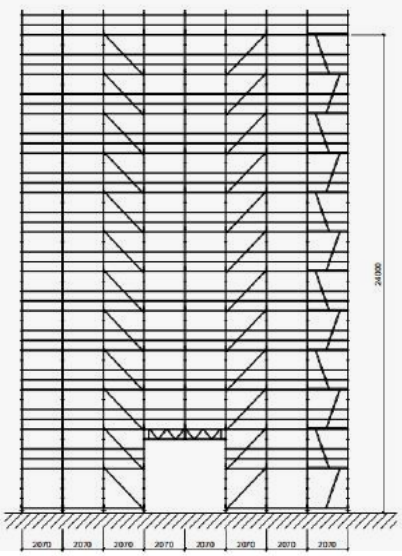
The diagonal brace has three main functions of:

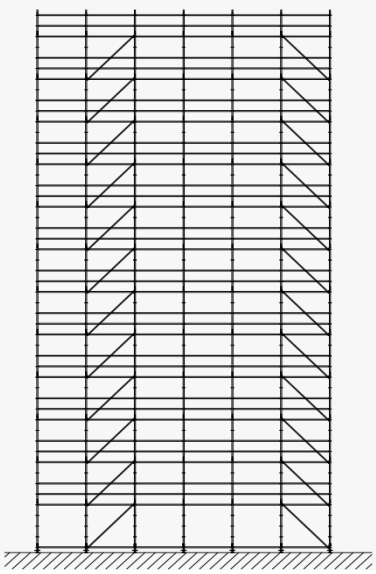
- **Stability -** Supporting much of the effort (in terms of weight);
- **Counter wind -** Guaranteeing the rigidity of the structure even with strong winds;
- **Geometry -** Avoiding the deformation of the geometric configuration of the scaffolding.ing.

We must also emphasize that, as support for the diagonals, the actions carried out by the platforms for stability in the horizontal plane are very important.

However, in the vertical plane, the rigidity of the scaffolding is supplanted by the joint action of the diagonals and the crossbars (or the railings, as necessary).

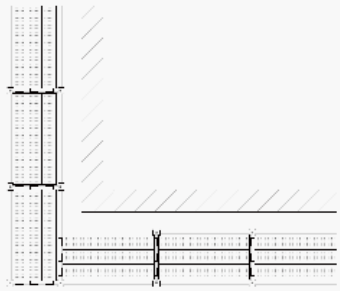
The number of steps or sections of scaffolding without diagonals will be studied according to the specific work to be carried out, recommending, however, not to leave more than 3 sections without bracing as a minimum.



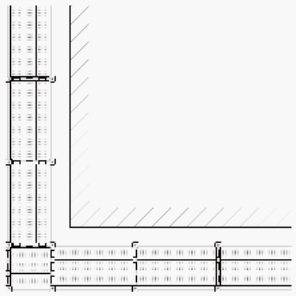


9. TYPICAL SOLUTIONS

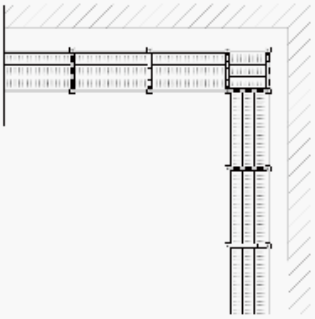
Below, we offer various examples or solutions that can be achieved with our Coronet Ringlock system, according to its different combinations or mounting methods:



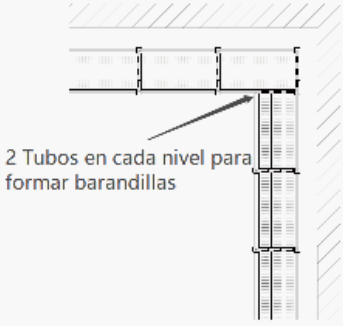
UNION EXTERIOR A 90°(1)



UNION EXTERIOR A 90°(2)



UNION INTERIOR A 90°(1)



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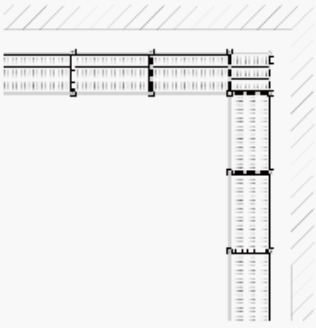
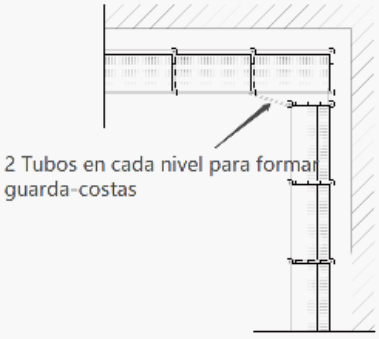
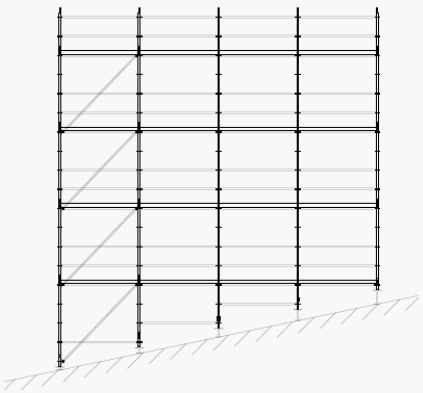


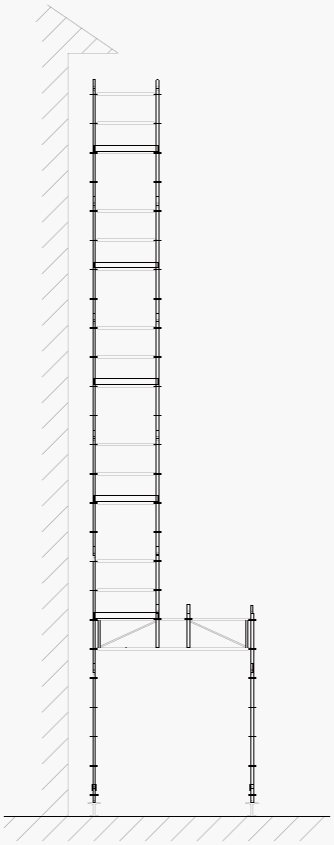
UNION INTERIOR A 90°(3)



UNION INTERIOR A 90°(4)

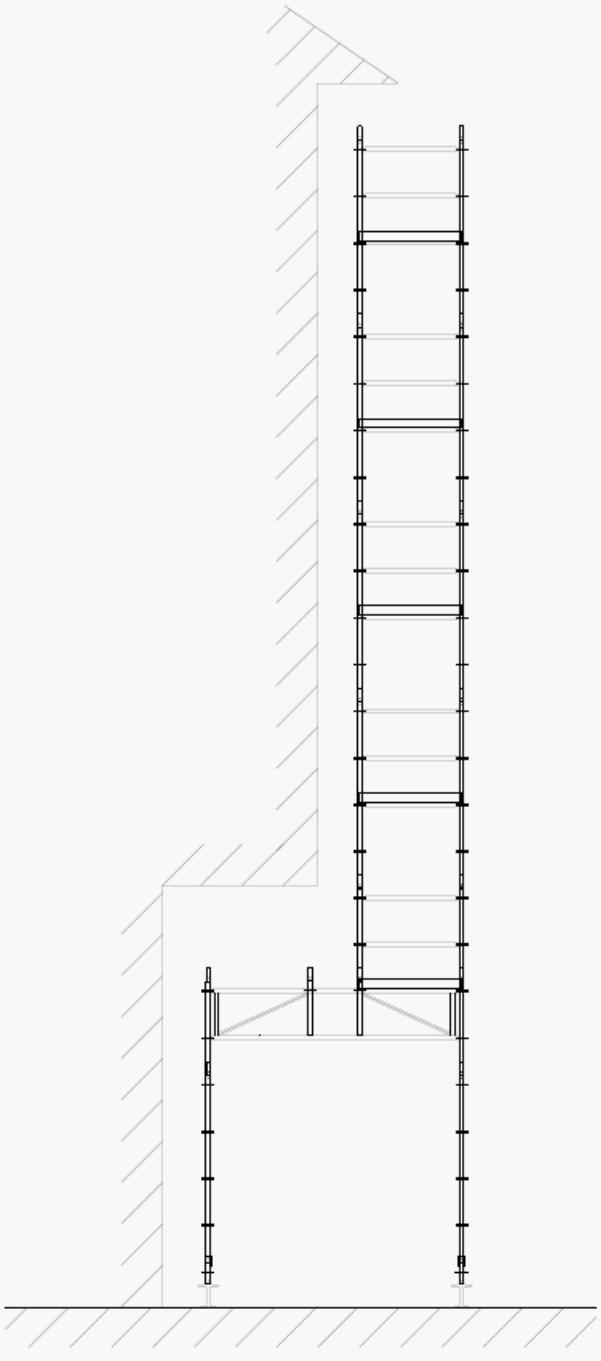


FACADE LEVELING WITH A 2 METERS DROP



FACADE WITH STEP BEAM

SOLUTION FOR FACADE WITH HIGHLIGHT AND USE OF STEP BEAM



10. MAINTENANCE

Inspection, care and maintenance

- Scaffolding components must be handled with care during transportation and use, to avoid damage.
- All components must be checked for damage prior to use and assembly.
- The correct operation of all moving components and the existence of contaminants must be supervised.
- The correct operation of all moving components and the existence of contaminants must be supervised.

General inspection and maintenance criteria:

01	1.The uprights, horizontals, diagonals, horizontals, steel decks, side supports may not show visible damage such as scuffs, cracks and dents; tubes must be visibly straight.
02	2.Tube-to-diagonal contact areas, bottom and bottom of rosettes, must be flat and free of contaminants (to ensure proper use of horizontals and diagonals). The diagonal must be visibly straight. The spigot should sit straight and tight without play inside the down tube.
03	3.The components of the scaffold can not be rusty.
04	4.Tubes/shafts must be visibly straight (deflection < l/300).
05	5.The adjustable nut on the plates must be undamaged and must rotate freely through the full length of the thread from the bottom to the stop position. The threaded axles of the platforms must not show any damage, such as wear, cracks or dents. The plate (base) must be visibly flat and flush with the plumb on a flat surface.
06	The welds of the verticals, horizontals, platforms, horizontals, among other components, cannot have cracks.
07	Wedges must be able to move freely and be fixed to prevent displacement; wedges must not be bent or cracked.
08	The steel deck must be visibly straight and must rest flat on the horizontals with its reinforcing hooks. Reinforcing hooks must not be bent or cracked. Anti-lift devices must be in place and operational.
09	Scaffold components must be cleaned regularly to prevent the presence of concrete or other contaminants.

11. APPLICABLE REGULATIONS

Current legislation and applicable regulations

Coronet Ringlock Scaffold System holds the Australia Registration, DITUC Certification in Chile and the Bureau Veritas Certification in Columbia. Also meets the the requirements of ANSI/SSFI SC100-5/ 05 approved by Element Materials Technology, the best and most reliable materials and products testing laboratory in the US.

International Certifications:

Item	Testing Laboratory	Testing Standard	Year
01	Sangberg in UK	EN12811	2007
02	Element in USA	ANSI/SSFI	2013
03	INTI in Argentina	UNE EN12811	2014
04	MTS in Australia	AS/NZS 1576 &AS/NZS 1577	2015
05	Escuela Colombiana De Ingenieria Julio Garavito	NTC	2017
06	Dictuc in Chile	NCH2501	2020
07	SGS Shanghai	EN12811	2020

TEST CERTIFICATE →

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TEST CERTIFICATE

FOR REPORT MT-15/392-B

CLIENT: CORONET GROUP SUZHOU CO. LTD.
SIFC SIP, SUZHOU CITY
JIANGSU PROVINCE, CHINA

EQUIPMENT DESIGNATION: CORONET RINGLOCK MODULAR SCAFFOLD SYSTEM

TEST METHOD REFERENCE: AS/NZS 1576.3:2015 APPENDIX B

FULLY PLANKED AND SCREENED SCAFFOLD ASSEMBLY:

MAXIMUM ASSEMBLED HEIGHT	10M	20M
MAXIMUM NUMBER OF PLANKED PLATFORMS	5	10
MAXIMUM NUMBER OF WORKING PLATFORMS	2	1
NUMBER OF CLOSED PLATFORMS	3	9
MAXIMUM NUMBER OF PLATFORM BRACKETS	5	10
MAXIMUM JACK HEIGHT	452MM	452MM

TEST COMMENTS:
THE CORONET SCAFFOLD SYSTEM TESTED AND DESCRIBED IN REPORT MT-15/392-B COMPLIES WITH THE LOADING REQUIREMENTS OF AS/NZS 1576.3:2015 APPENDIX B FOR AN ASSEMBLED SCAFFOLD HEIGHT OF 20 METRES (ONE WORKING PLATFORM) AND 10 METRES (TWO WORKING PLATFORMS). THIS RESULT IS VALID SPECIFICALLY FOR THE LIMITS SPECIFIED IN THE MT-15/392-B TEST REPORT AND IS SUBJECT TO THE CONDITIONS LISTED BELOW.

Notes:
1. Melbourne Testing Services Pty Ltd shall not be liable for loss, cost, damages or expenses incurred by the client or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Melbourne Testing Services Pty Ltd be liable for consequential damages including, but not limited to, lost profit, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested.
2. This report only indicates compliance of the scaffold assembly in its state at the time of testing. It should not be taken as a statement that all similar scaffolds or components of scaffolds in all states of repair, would also be found to comply.
3. It remains the responsibility of the client to ensure that the scaffolding components as reported herein are representative of the entire production batch.
4. As described and reported herein, the load capacity of the Coronet Ringlock modular scaffold assembly is specific to the requirements of AS/NZS 1576.3:2015 APPENDIX B.
5. MTS shall take no responsibility for the load performance attributes of scaffold assemblies which are erected other than as specifically described under the "Test Scenario" headings on Page 3 of the MTS test report MT-15/392-B.
6. MTS shall take no responsibility for the load performance of scaffold assemblies constructed from scaffolding components other than those specifically described in Table A1 of the MTS test report MT-15/392-B.
7. MTS shall take no responsibility for the procurement and authenticity of the scaffold as described herein.
8. MTS shall take no responsibility for the installation procedures used for the scaffold described herein.

DR. SIVA NAIDOO
APPROVED SIGNATORY
DATE: 18/12/2015

MELBOURNE TESTING SERVICES

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TEST CERTIFICATE

FOR REPORTS MT-15/392-A1, MT-15/392-A2 & MT-15/392-A3

CLIENT: CORONET GROUP SUZHOU CO. LTD.
SIFC SIP, SUZHOU CITY
JIANGSU PROVINCE, CHINA

EQUIPMENT DESIGNATION: CORONET MODULAR PRESSED METAL SCAFFOLD PLANKS
1.2M, 1.8M & 2.4M

TEST METHOD REFERENCE: AS/NZS 1577:2013 SCAFFOLD DECKING COMPONENTS

TEST COMMENTS:
CORONET MODULAR PRESSED METAL SCAFFOLD PLANKS, AS REPORTED IN MT-15/392-A1 (1.2M PLANKS), MT-15/392-A2 (1.8M PLANKS) & MT-15/392-A3 (2.4M PLANKS), HAVE BEEN LOAD TESTED FOR A UNIFORMLY DISTRIBUTED WORKING LOAD LIMIT OF **250KG** (UDL) AND COMPLY WITH THE PERFORMANCE REQUIREMENTS FOR:

- ***STIFFNESS:*** *AS/NZS 1577:2013 APPENDIX A*
- ***STRENGTH:*** *AS/NZS 1577:2013 APPENDIX B*
- ***SLIP:*** *AS/NZS 1577:2013 APPENDIX D*

Notes:
1. Melbourne Testing Services Pty Ltd (MTS) shall not be liable for loss, cost, damages or expenses incurred by the client or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall MTS be liable for consequential damages including, but not limited to, lost profit, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested.
2. This certificate only indicates compliance of the scaffold plank in its state at the time of testing. It should not be taken as a statement that all similar scaffold planks in all states of repair, would also be found to comply.
3. It remains the responsibility of the client to ensure that the sample tested is representative of the entire product batch.
4. This certificate only covers the structural integrity of the scaffold plank and not a complete scaffold assembly.
5. MTS shall take no responsibility for the procurement and authenticity of the test plank as described in MT-15/392-A1, A2 & A3.
6. MTS shall take no responsibility for the installation procedures used for the scaffold plank as described in MT-15/392-A1, A2 & A3.
7. MTS shall take no responsibility for the compliance of the scaffold plank as described in MT-15/392- A1, A2 & A3 other than for the specific requirements as specified in AS/NZS 1577:2013 SECTION 2, APPENDIX A, B & D.
8. As per the design of the Coronet modular pressed metal plank consisting of end hooks, testing to AS/NZS 1577:2013 SECTION 2, APPENDIX C for sliding performance was not carried out.

DR. SIVA NAIDOO
APPROVED SIGNATORY
DATE: 18/12/2015

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TEST CERTIFICATE

FOR REPORT MT-15/392-D

CLIENT: CORONET GROUP SUZHOU CO. LTD.
SIFC SIP, SUZHOU CITY
JIANGSU PROVINCE, CHINA

EQUIPMENT DESIGNATION: CORONET ADJUSTABLE SCAFFOLD SCREW JACK

TEST METHOD REFERENCE: AS/NZS 1576.2:2009

TEST COMMENTS:
CORONET ADJUSTABLE SCAFFOLD SCREW JACKS HAVE SUCCESSFULLY ACHIEVED THE TEST LOADS AS PER AS/NZS 1576.2:2009 SCAFFOLDING COUPLERS AND ACCESSORIES CLAUSE 4.2 AND APPENDIX H.
THE ADJUSTABLE SCAFFOLD SCREW JACKS SUPPORTED A 60KN (6116KG) PROOF LOAD AT ITS MAXIMUM HEIGHT OF 452MM WITHOUT FAILURE OR EXCESSIVE DISTORTION. THE ADJUSTABLE SCAFFOLD SCREW JACKS EXCEEDED THE MINIMUM STRENGTH REQUIREMENT OF 75KN AS SPECIFIED IN AS/NZS 1576.2:2009 CLAUSE 4.2 (C).

Notes:
1) Melbourne Testing Services Pty Ltd shall not be liable for loss, cost, damages or expenses incurred by the client or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Melbourne Testing Services Pty Ltd be liable for consequential damages including, but not limited to, lost profit, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested.
2) This certificate only indicates compliance of the screw jack in its state at the time of testing. It should not be taken as a statement that all similar screw jacks in all states of repair, would also be found to comply.
3) It remains the responsibility of the client to ensure that the samples tested are representative of the entire product batch.
4) As described and reported in MT-15/392-D, the load performance attributes of the adjustable height screw jacks is specific to the requirements of AS/NZS 1576.2:2009 APPENDIX H.
5) MTS shall take no responsibility for the installation procedures used for the screw jacks as described in MT-15/392-D
6) As described and reported in MT-15/392-D, all comments regarding conformance with dimensional and configurational attributes are strictly limited to those dimensions or properties stated in AS/NZS 1576.2:2009 CLAUSE 3.3.
7) MTS shall take no responsibility for the compliance of adjustable height screw jacks as described in MT-15/392-D other than for the specific requirements as stated in AS/NZS 1576.2:2009 CLAUSE 3.3, CLAUSE 4.2, CLAUSE 4.3 & APPENDIX H.

DR. SIVA NAIDOO
APPROVED SIGNATORY
DATE: 18/12/2015

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TEST CERTIFICATE

FOR REPORT MT-15/392-E

CLIENT: CORONET GROUP SUZHOU CO. LTD.
SIFC SIP, SUZHOU CITY
JIANGSU PROVINCE, CHINA

EQUIPMENT DESIGNATION: CORONET RINGLOCK SCAFFOLD GUARDRAIL SYSTEM

TEST METHOD REFERENCE: AS/NZS 1576.1:2010

TEST COMMENTS:
THE TESTS CONDUCTED ON THE CORONET SCAFFOLD GUARDRAILING SYSTEM CONFIRM THAT THE COMPONENTS CAN SUPPORT THE TEST LOADS AND MEET THE SERVICEABILITY REQUIREMENTS AS SPECIFIED IN AS/NZS 1576.1:2010 CLAUSE 2.5.3.2 (C), (D) & (E) AND CLAUSE 2.7.4 (A), (D) & (E), RESPECTIVELY.

Notes:
1. Melbourne Testing Services (MTS) Pty Ltd shall not be liable for loss, cost, damages or expenses incurred by the client or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Melbourne Testing Services Pty Ltd be liable for consequential damages including, but not limited to, lost profit, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested.
2. It remains the responsibility of the client to ensure that the samples tested are representative of the entire product batch.
3. MTS shall take no responsibility for the procurement and authenticity of the test product as described in MT-15/392-E.
4. This certificate is specific to the test items in their state at the time of testing. It should not be taken as a statement that all products in all states of repair, would also perform in the same manner.
5. MTS shall take no responsibility for the interpretation or misinterpretation of the procedures or calculation methods as provided in MT-15/392-E or for the appropriateness or validity of the test procedures for the test items described and reported in MT-15/392-E.
6. MTS shall take no responsibility for the installation procedures used for the test items as described in MT-15/392-E.
7. The scaffold guardrailing tests as described and reported in MT-15/392-E are specific to the requirements of AS/NZS 1576.1:2010 CLAUSE 2.5.3.2 (C), (D) & (E) and CLAUSE 2.7.4 (A), (D) & (E).

DR. SIVA NAIDOO
APPROVED SIGNATORY
DATE: 18/12/2015

VERIFICATION OF CONFORMITY

Certificate No.: IN-SH-CP-5627-20126

Applicant: Coronet Group **Suzhou Co., Ltd.**
Address: **Ascendas Xinsu Square, 5 Xinghan Street, Suzhou, Jiangsu, China**
Manufacturer: **Q/IN-SH-CP-5627-20110**
Address: **Q/IN-SH-CP-5627-20110, China**

It has been verified that
Product(s): **Ringlock Scaffold**
Specifications: **are shown in second page**

are submitted by the applicant to the testing of the product in accordance with **the applicant's requirements**

The product is deemed to be in conformity with the requirements of **Steel Tubes(circular)** according to **EN 12810-1:2003 – clause 6.2.2, Further Requirements**-General according to **EN 12810-1:2003 – clause 7.3.1, Side Protection** according to **EN 12810-1:2003 – clause 7.3.2, Base Jacks** according to **EN 12810-1:2003 – clause 7.3.3, Platform** according to **EN 12810-1:2003 – clause 7.3.4** and **Actions** according to **EN 12810-1:2003 – clause 8.1** on basis of the test report of **SHIN2006035526CM**.

This verification is valid from **31 July 2020** until **30 July 2023**

Issue 1. Verified since **31 July 2020**
Authorised by

scan to see the report
IN-SH-CP-5627-20126

Bob Wang
Deputy Director
Industrial Services

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SGS

VERIFICATION OF CONFORMITY

Certificate No.: IN-SH-CP-5627-20126

··continued··

Specifications are shown as following:

Reference Number	Sample Name
RV33	Ringlock Standard 1.0m
RV66	Ringlock Standard 2.0m
RH207	Ringlock Ledger 2.07m
RH109	Ringlock Ledger 1.09m
RDB207	Ringlock Diagonal Brace 2.07x2.0m
RDB109	Ringlock Diagonal Brace 1.09x2.0m
ROSP32207	Ringlock Steel Plank 2.07x0.32m
ROSP32109	Ringlock Steel Plank 1.09x0.32m
RTB207	Ringlock Steel Toeboard 2.07m
RTB109	Ringlock Steel Toeboard 1.09m
CSJB600	Ringlock Base Jack 600mm
RSC-L	Ringlock Base Collar 310mm
RUHEAD600	Ringlock U Head Screw Jack 600mm

Issue 1. Verified since **31 July 2020**

Authorised by

Bob Wang

Bob Wang
Deputy Director
Industrial Services

SGS

VERIFICATION OF CONFORMITY

Certificate No.: IN-SH-CP-5627-20126

··continued··

Results of examinations are as following:

Test Items	Test Method	Requirements	Results	Verdict
Steel Tubes(circular)	EN 12810-1:2003 – clause 6.2.2	See Test Report SHIN2006035526CM	See Test Report SHIN2006035526CM	Pass
Further Requirements-General	EN 12810-1:2003 – clause 7.3.1	See Test Report SHIN2006035526CM	See Test Report SHIN2006035526CM	Pass
Side Protection	EN 12810-1:2003 – clause 7.3.2	See Test Report SHIN2006035526CM	See Test Report SHIN2006035526CM	Pass
Base Jacks	EN 12810-1:2003 – clause 7.3.3	See Test Report SHIN2006035526CM	See Test Report SHIN2006035526CM	Pass
Platform	EN 12810-1:2003 – clause 7.3.4	See Test Report SHIN2006035526CM	See Test Report SHIN2006035526CM	Pass
Actions	EN 12810-1:2003 – clause 8.1	See Test Report SHIN2006035526CM	See Test Report SHIN2006035526CM	Pass

Statement: Unless otherwise stated the results shown in this verification refer only to the sample(s) tested. The manufacturer is obligated to guarantee stability of product performance.

Issue 1. Verified since **31 July 2020**

Authorised by

Bob Wang
Deputy Director
Industrial Services

VERIFICATION OF CONFORMITY

Certificate No.: IN-SH-CP-5627-20118

Applicant: **Coronet Group Suzhou Co., Ltd.**
Address: **Ascendas Xinsu Square, 5 Xinghan Street, Suzhou, Jiangsu, China**
Manufacturer: **Q/IN-SH-CP-5627-20109**
Address: **Q/IN-SH-CP-5627-20109, China**

It has been verified that
Product(s): **Ringlock Scaffold**
Specifications: **are shown in second page**

are submitted by the applicant to the testing of the product in accordance with **the applicant's requirements**

The product is deemed to be in conformity with the requirements of **Uniformly Distributed Load Test** according to **EN 12811-1:2003 – clause 6.2.2.2, Concentrated Load on Area 200mmX200mm** according to **EN 12811-1:2003 – clause 6.2.2.3** on basis of the test report of **SHIN2006035527CM**.

This verification is valid from **23 July 2020** until **22 July 2023**

Issue 1. Verified since **23 July 2020**
Authorised by

scan to see the report
IN-SH-CP-5627-20118

Bob Wang
Deputy Director
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VERIFICATION OF CONFORMITY

Certificate No.: IN-SH-CP-5627-20118

··continued··

Specifications are shown as following:

Reference Number	Sample Name
RV66	Ringlock Standard 2.0m
RH307	Ringlock Ledger 3.07m
RH257	Ringlock Ledger 2.57m
RH207	Ringlock Ledger 2.07m
RH157	Ringlock Ledger 1.57m
RH140	Ringlock Ledger 1.40m
RH109	Ringlock Ledger 1.09m
RH073	Ringlock Ledger 0.73m
ROSP32073	Ringlock Steel Plank 3.07x0.32m
ROSP32257	Ringlock Steel Plank 2.57x0.32m
ROSP32207	Ringlock Steel Plank 2.07x0.32m
ROSP32157	Ringlock Steel Plank 1.57x0.32m
ROSP32140	Ringlock Steel Plank 1.40x0.32m
ROSP32109	Ringlock Steel Plank 1.09x0.32m
ROSP32073	Ringlock Steel Plank 0.73x0.32m
CSJB600	Ringlock Base Jack 600mm
RSC-L	Ringlock Base Collar 310mm

Issue 1. Verified since **23 July 2020**

Authorised by

Bob Wang

Bob Wang
Deputy Director
Industrial Services

VERIFICATION OF CONFORMITY

Certificate No.: IN-SH-CP-5627-20118

··continued··

Results of examinations are as following:

Test Items	Test Method	Requirements	Results	Verdict
Uniformly Distributed Load Test	EN 12811-1:2003 – clause 6.2.2.2	EN 12811-1:2003 The working area shall be capable of supporting the uniformly distributed load	See Test Report SHIN2006035527CM	Pass
Concentrated Load on Area 200mmX200mm	EN 12811-1:2003 – clause 6.2.2.3	See Test Report SHIN2006035527CM	See Test Report SHIN2006035527CM	Pass

Statement: Unless otherwise stated the results shown in this verification refer only to the sample(s) tested. The manufacturer is obligated to guarantee stability of product performance.

Issue 1. Verified since **23 July 2020**

Authorised by

Bob Wang

Bob Wang
Deputy Director
Industrial Services

Disclaimer

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TECHNICAL MANUAL

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