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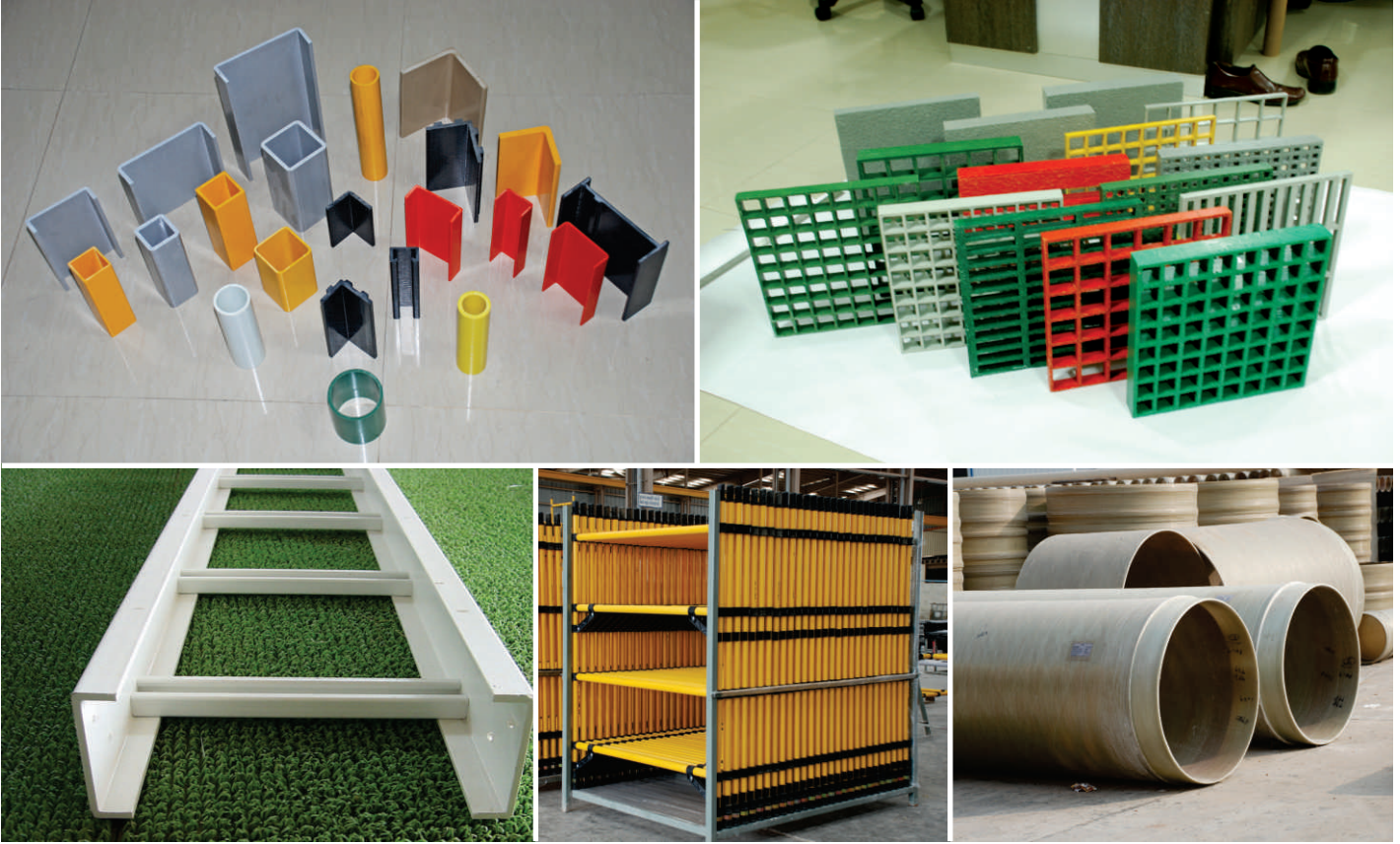
KC-107

Composite Access System - **EASY Reach**



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INTRODUCTION



Established in 1981, **Krystal Composites (India) Pvt. Ltd.** manufactures and exports composite raw material & end user products for industrial sectors such as chemical processing, oil & gas, metals and mining, water and waste treatment, infrastructure, construction, pharmaceuticals, food and beverage, pulp and paper, electronics, railways, aerospace, marine, defense, wind energy, telecommunications and many more. . .

A leader in the field of composites in India, the company delivers standard as well as customized solutions that are ideal replacements for conventional materials particularly those prone to corrosion. The State-of-the-Art facility located close to Vadodara in the western part of India, provides high-quality engineered advanced composite solutions and reliable services, complying with customer specifications as well as national and international standards. Oriented towards continuous improvement, the company operates using principles of Total Integrated Management, ensuring complete customer satisfaction. Dedicated to single point responsibility it encompasses conceptual design, prototype development, testing, manufacturing, logistic support, installation and comprehensive after sales service.

COMPOSITES

Composite materials or Composites are engineered materials made from two or more constituent materials with different physical or chemical properties. In general terms, a composite is a material made from two or more substances which give properties, in combination, that are not available from any of the ingredients alone. The most visible applications are Helmets, F1 Cars and Speed Boats made of FibreGlass. Krystal Composites is engaged in the manufacturing of Glass Fibre Reinforced Plastic (GFRP) at its state of art plant in Gujarat, India. The Indian Composites Industry has been growing at a consistent rate over the last few years allowing us to leverage our expertise & exploiting the opportunities offered by the Indian Market.

WHY ACCESS SYSTEM?

Falls from height in the workplace are the most common cause of fatal injury to workmen. All industry sectors are vulnerable to the risks presented by the hazards. It is impossible to overlook this aspect of fatal and major injuries which has now assumed a key priority in Health & Safety norms of every industry. The paramount object of every industry is to reduce injury rate.

Safety equipment to work at heights are ladders, if modernized equipments are preferred in the industry to suit present day working hazards, the automatic choice is Access System (Scaffolding).

WHAT IS COMPOSITE ACCESS SYSTEM - EASYREACH?

Access System is a temporary platform constructed for performing work or reaching heights above arms' reach for activities relating to building construction, maintenance, or repair. Access System is conventionally made of lumber or steel, however Krystal Composites replaces these conventional materials with Fibre Reinforced Plastic (FRP), with the ease of handling, safety and longer life.



BENEFITS OF - EASYREACH

1. Corrosion Resistant
2. Light Weight
3. Easy Assembling & Dismantling
4. Narrow width allows easier access into smaller or awkward areas
5. Range of heights available
6. Instant assembly with fold-out frame
7. Safety features such as locking castors included as standard
8. Easily folds for transport and efficient storage
9. Non conductive
10. Non sparking
11. Non oxidizing
12. Clean Comfortable to handle in both very cold and warm climates



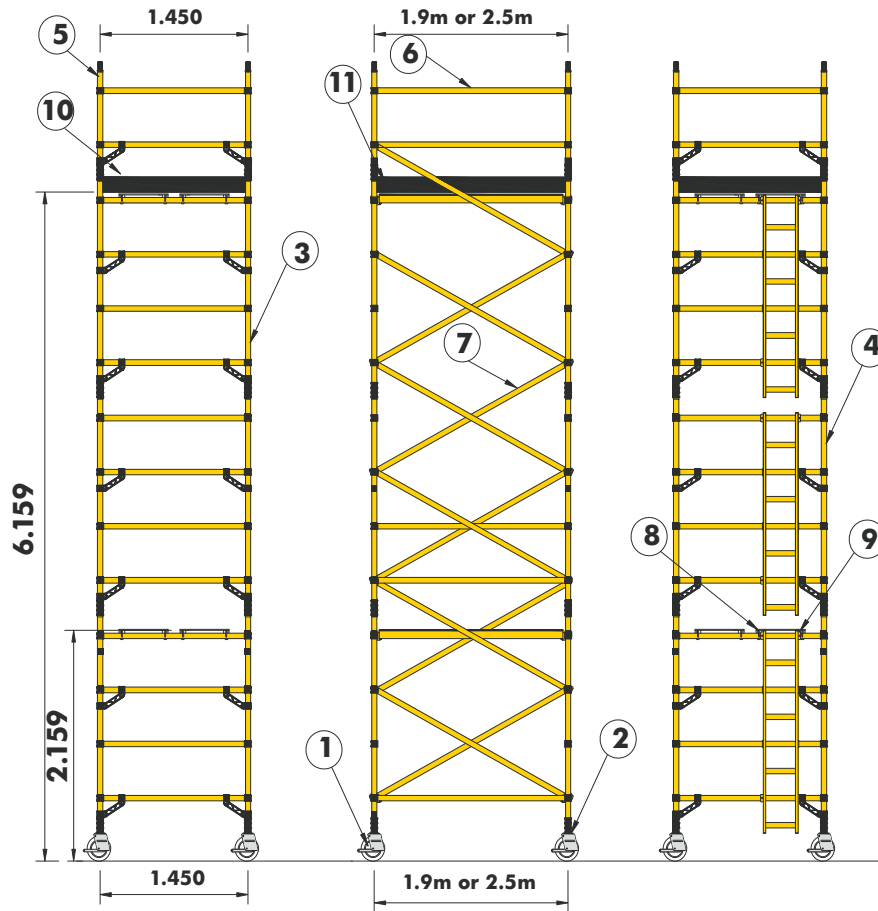
FEATURES OF - EASYREACH

1. Manufactured using tube with an additional circumferential winding for increased compressive and flexural strength (up to 4 times greater than other GRP tower systems)
2. High visibility due to vibrant color
3. Impact resistant claws
4. Integral ladders with 250mm easy climb rung spacing
5. 500mm frame rung spacing in compliance with Work at height regulations
6. Ribbed rung tubing for increased grip
7. 3T – Through the Trap build method
8. Two widths – 850mm Single Width and 1450mm Double Width
9. 2 slip resistant platform lengths – 1.9 and 2.5m with self closing trapdoors and windlocks
10. The maximum platform safe working load is 225kg
11. Primed brace claw mechanism
12. Ease of brace identification:
 - Red – horizontal
 - Blue – diagonal
13. Horizontal braces used as guardrails
14. Self cleaning adjustable legs
15. Castors with compact trail/no trail positive locking brake mechanism
16. Deck board edge protection provided by profile of GRP deck
17. Easy to use toe-board system
18. No scrap value leading to increased security on site
19. Lift shaft/confined space stabiliser available

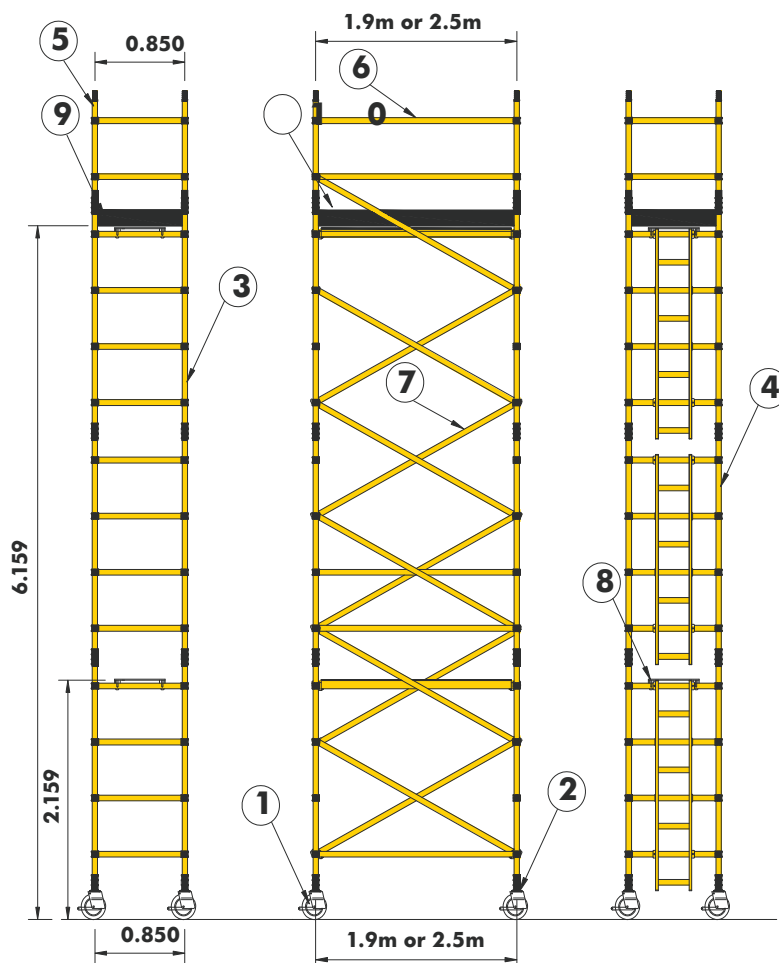


ACCESS TOWER

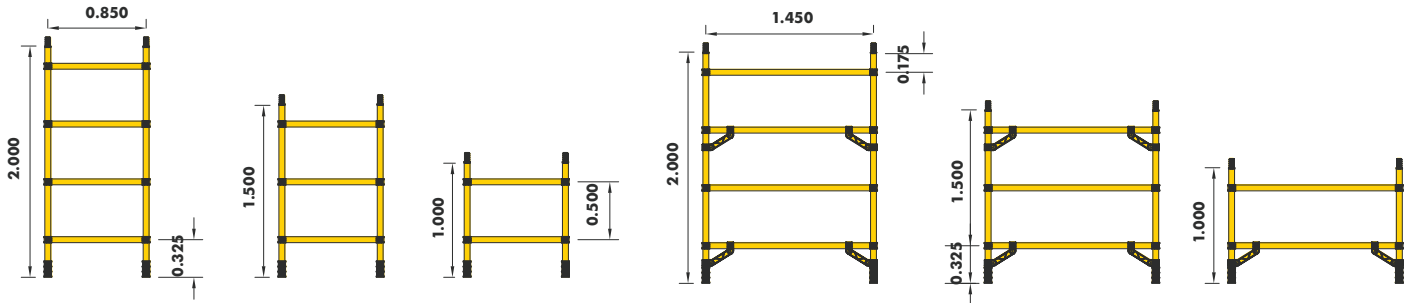
Double Width Tower



Single Width Tower

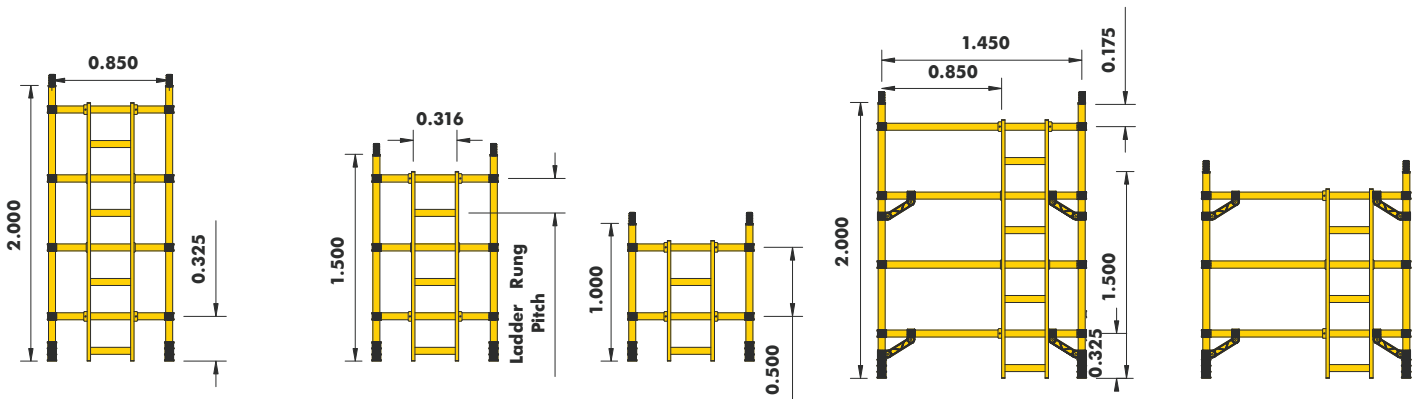


SPAN FRAME



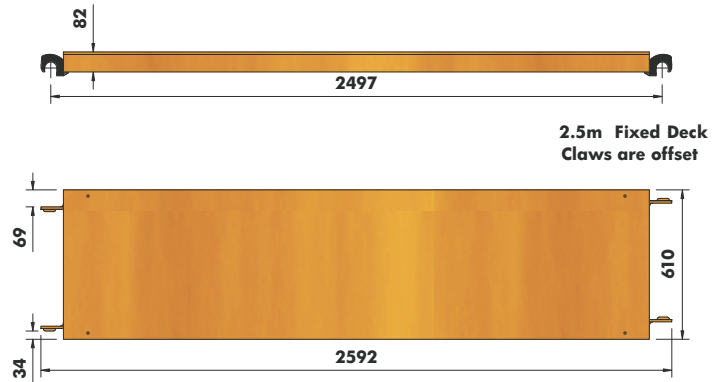
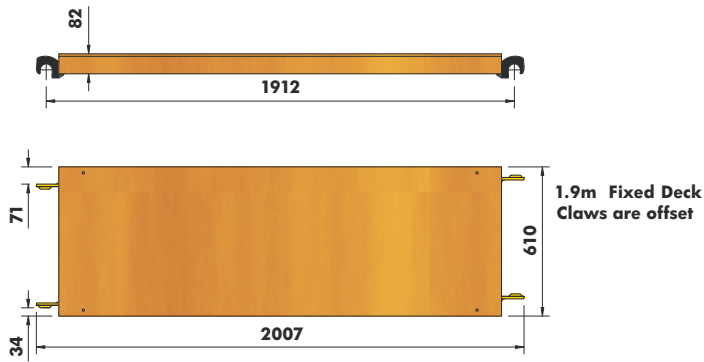
Specification	Frame Rung Pitch :- all 500mm, Tube Diameter :- all 50.8mm Span Rung Pitch :- all 250mm		
	0.85m Span Frame		
Part Code No.	Description	Width	Height
COATSF0851	1.0m 2-Rung Span Frame	0.85m	1.00m
COATSF0852	1.5m 3-Rung Span Frame	0.85m	1.50m
COATSF0853	2.0m 4-Rung Span Frame	0.85m	2.00m
	1.45m Span Frame		
Part Code No.	Description	Width	Height
COATSF1451	1.0m 2-Rung Span Frame	1.45m	1.00m
COATSF1452	1.5m 3-Rung Span Frame	1.45m	1.50m
COATSF1453	2.0m 4-Rung Span Frame	1.45m	2.00m

LADDER FRAME



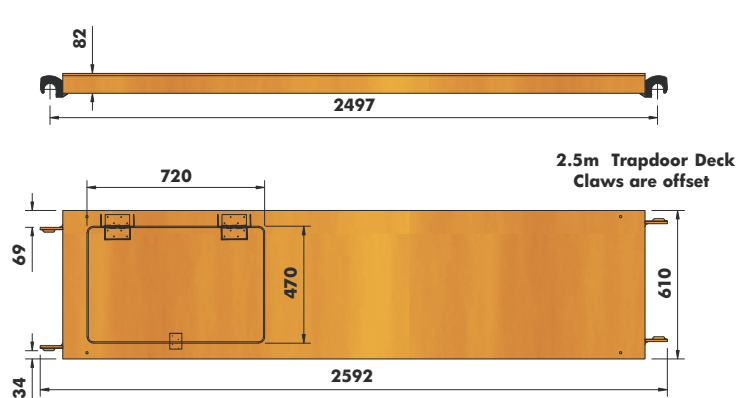
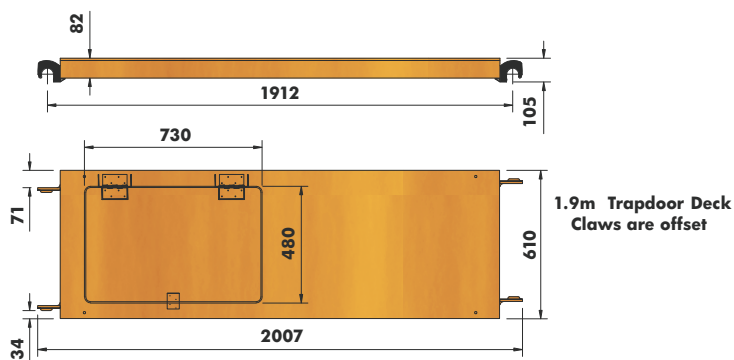
Specification	Frame Rung Pitch :- all 500mm, Tube Diameter :- all 50.8mm Ladder Rung Pitch :- all 250mm		
	0.85m Ladder Frame		
Part Code No.	Description	Width	Height
COATLF0854	1.0m 2-Rung Ladder Frame	0.85m	1.00m
COATLF0855	1.5m 3-Rung Ladder Frame	0.85m	1.50m
COATLF0856	2.0m 4-Rung Ladder Frame	0.85m	2.00m
	1.45m Ladder Frame		
Part Code No.	Description	Width	Height
COATLF1454	1.0m 2-Rung Ladder Frame	1.45m	1.00m
COATLF1455	1.5m 3-Rung Ladder Frame	1.45m	1.50m
COATLF1456	2.0m 4-Rung Ladder Frame	1.45m	2.00m

FIXED DECK



Specification	All Plywood 12mm thick with non-slip surface
Part Code No.	Description
COATFD1219	1.9m Fixed Deck
COATFD1225	2.5m Fixed Deck
COATET1215	End Toeboard - 1.5m
COATET1209	End Toeboard - 0.9m
COATST1219	Side Toeboard - 1.9m
COATST1225	Side Toeboard - 2.5m

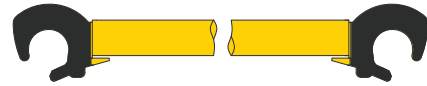
TRAPE DOOR DECK



Specification	All Plywood 12mm thick with non-slip surface
Part Code No.	Description
COATTD1219	1.9m Fixed Deck
COATTD1225	2.5m Fixed Deck

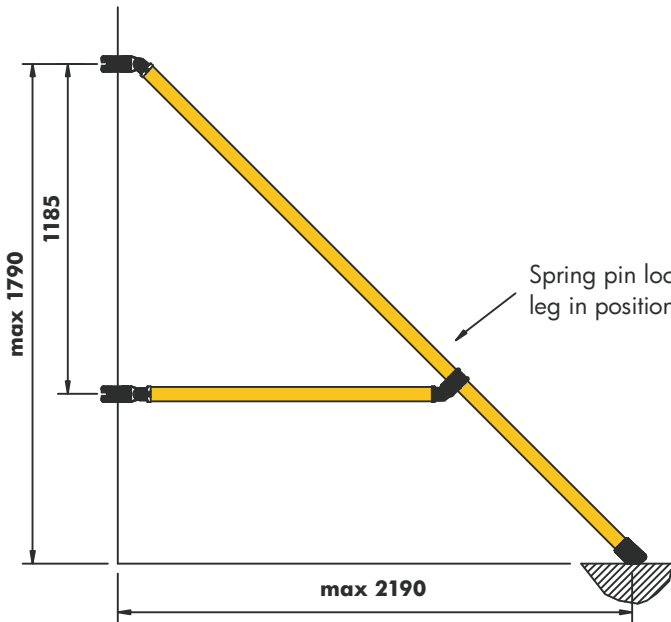
BRACE

Specification	Component	Dimension
Part Code No.	Component	Dimension
COATHB1901	Horizontal Brace	1.9m
COATHB2502	Horizontal Brace	2.5m
COATDB2203	Diagonal Brace	2.2m
COATDB2704	Diagonal Brace	2.7m

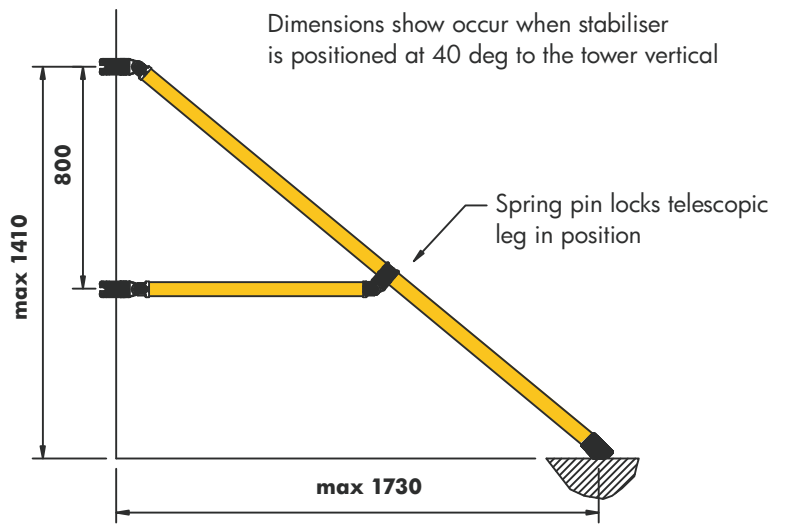
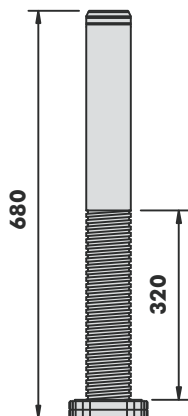


ACCESSORIES

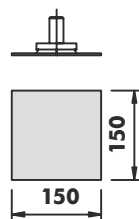
Specification	Component	Dimension
Part Code No.	Component	Dimension
COATAL6001	Adjustable Leg	0.68m
COATCR0824	200mm (8") Castor	0.24m
COATCR0619	150mm (6") Castor	0.19m
COATCR0516	125mm (5") Castor	0.16m
COATSB1501	Swivel base Plate	0.15m
COATLS2190	Large Stabilizer	1.79m x 2.19m
COATSS1730	Standard Stabilizer	1.41m x 1.73m



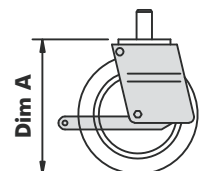
Adjustable Leg



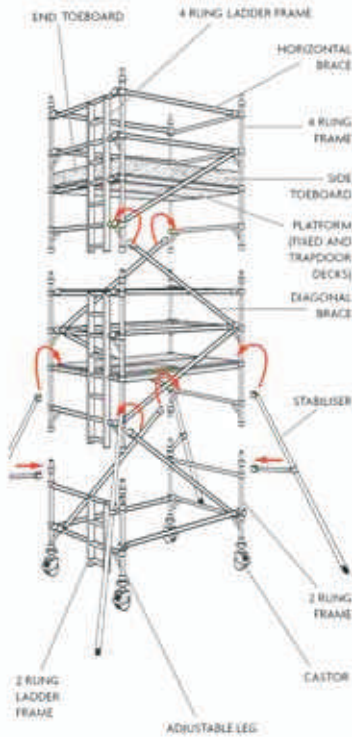
Swivel Base



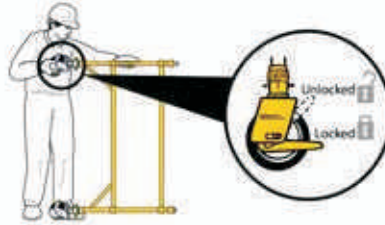
Castor



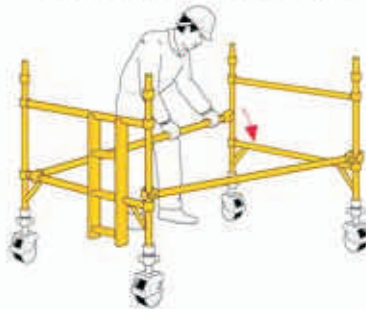
ASSEMBLY PROCEDURE



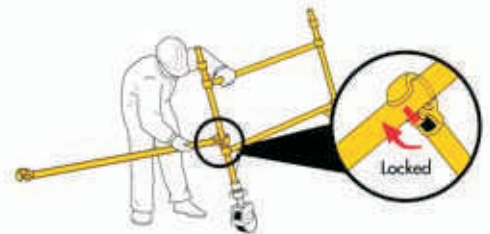
1 Push castor onto adjustable leg to secure. Insert 2 adjustable leg/castor assemblies into span frame. Base plates can be fitted to adjustable legs if it is not necessary to move the tower.



2 Position the ladder frame as shown and fit the other end of the horizontal brace onto the vertical just above the bottom rung. Fit a second horizontal brace between the bottom rungs on the other side of the frames to square the tower.



3 Fit one horizontal brace (red) onto the vertical of the span frame, just above the bottom rung, with the claw facing outwards. The frame will now be self-supporting.



4 Fit 2 additional end frames and check the frame interlock clips are engaged. Fit 2 diagonal braces in opposing directions between the 1st and 3rd rungs. Ensure the frames are vertical and level by checking with a spirit level and setting the adjustable legs as required. **IMPORTANT:** Only use the adjustable legs to level the tower and not to gain extra height. Fit a temporary fixed deck on the lowest rungs of the tower. Fit the stabilisers.



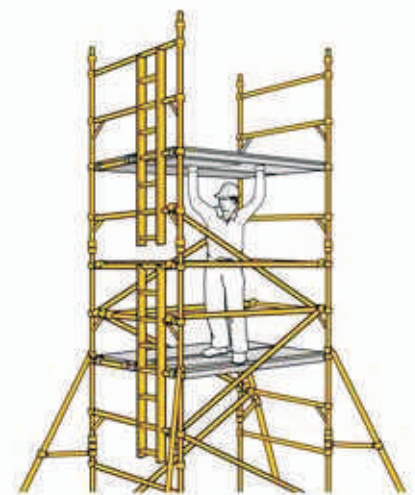
5 Fit 2 more diagonals in opposite directions between the 3rd and 5th rungs of the tower. Fit a trapdoor deck on the 4th rungs of the tower with the trapdoor next to the ladder and opening towards the outside of the tower. Climb the ladder and, from the protected trapdoor position, fit horizontal braces as guardrails on the 5th and 6th rungs, on both sides of the tower. **NEVER** climb on to the platform until it is fully guard railed. Guardrails should be 0.5m and 1.0m (1 and 2 rungs) above the platform in all cases. Remove the temporary deck from the lowest rungs of the tower.



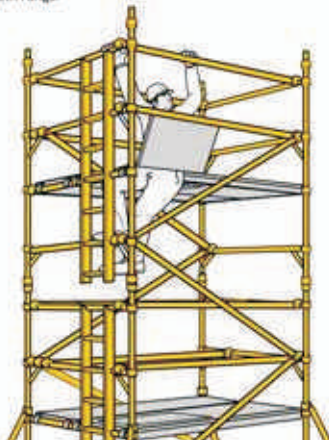
6 Add 2 more frames. Ensure ladders are always positioned one above the other.



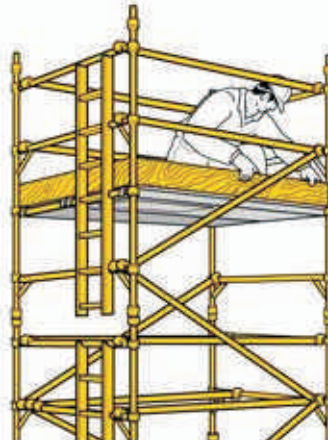
7 Fit 2 more diagonals between the 5th and 7th rungs. Fit a trapdoor deck on the 6th rungs of the tower. Fit a fixed deck next to it.



8 Fit 2 more diagonals between the 7th and 9th rungs. Climb the ladder and from the protected trapdoor position, fit 4 more guardrails on the 9th and 10th rungs.

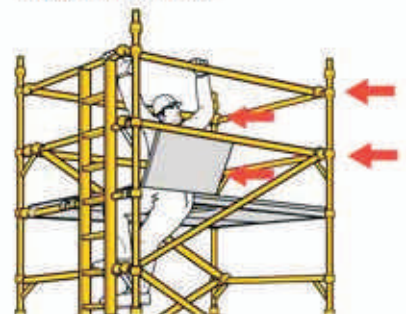


9 Repeat the previous steps until the required height of tower is reached. Fit the toeboards. The tower is now complete.



Dismantling Procedure

To take down the tower reverse the building sequence. When removing guardrail braces, unlock the 4 claws furthest from the trapdoor and then return immediately to the protected position within the trapdoor. You may then unlock the claws at the other ends of the guardrails to remove them from the tower.



OTHER COMPOSITE PRODUCTS IN THE KRYSTAL COMPOSITE RANGE



Lighting Poles & Flag Masts



Piping System



Pultruded Structural Profiles



Cable Management System



Handrails & Ladders



Wind Energy



Rotor Blade



Gratings



Railway Frontend



Railway Interior

- | Phenolic, Unsaturated Polyesters & Epoxy Resins | Piping System |
- | Moulded, Pultruded & Phenolic Gratings | Pultruded Structural Profiles |
- | Access Systems - Easy Reach | Telecom Tower |
- | Rotor Blades, Nacelle Covers & Nose Cones | Carbon Fibre | Sound Barrier |
- | Lighting Poles & Flag Masts | Handrails & Ladders | SMC Doors | Louvres



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