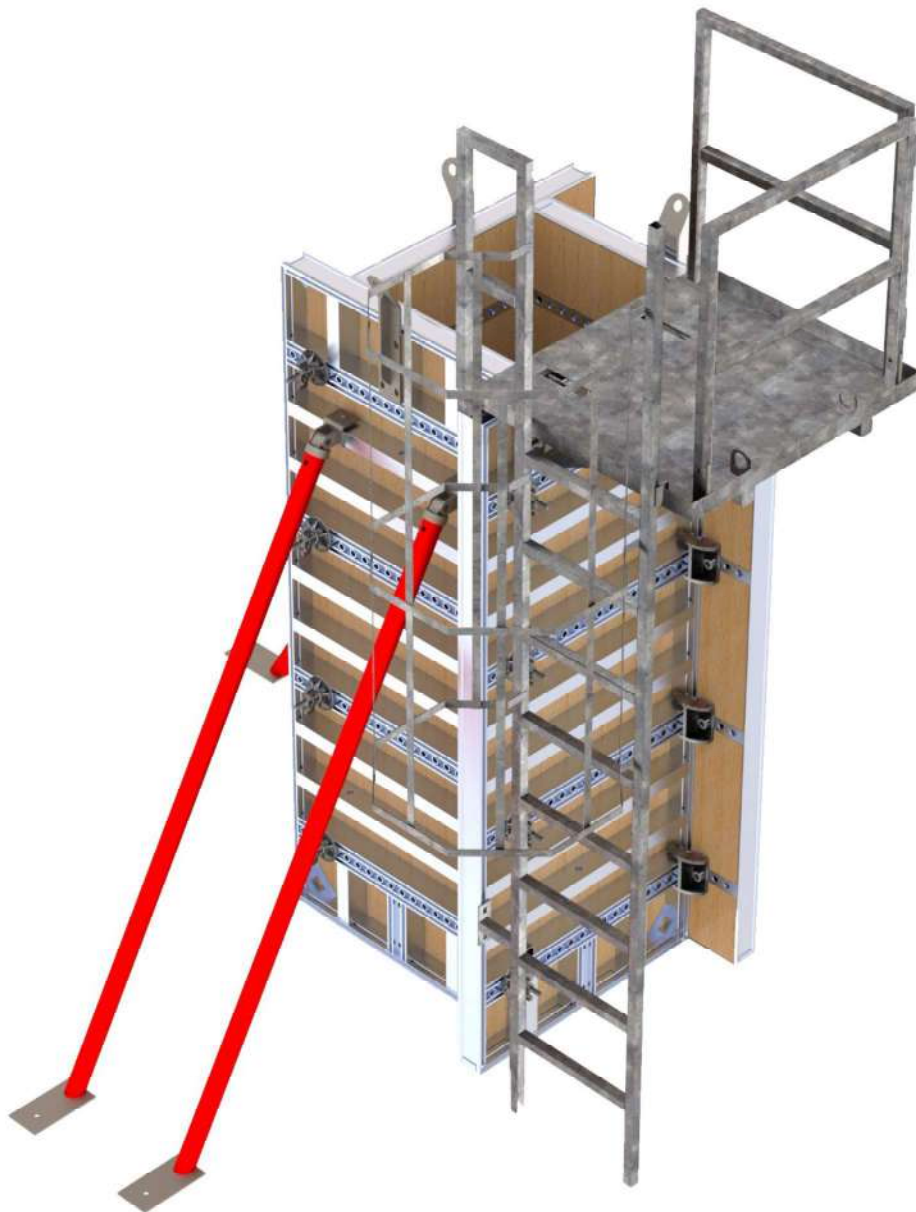


The Formwork Professionals

ALPAN UNIVERSAL Column Form

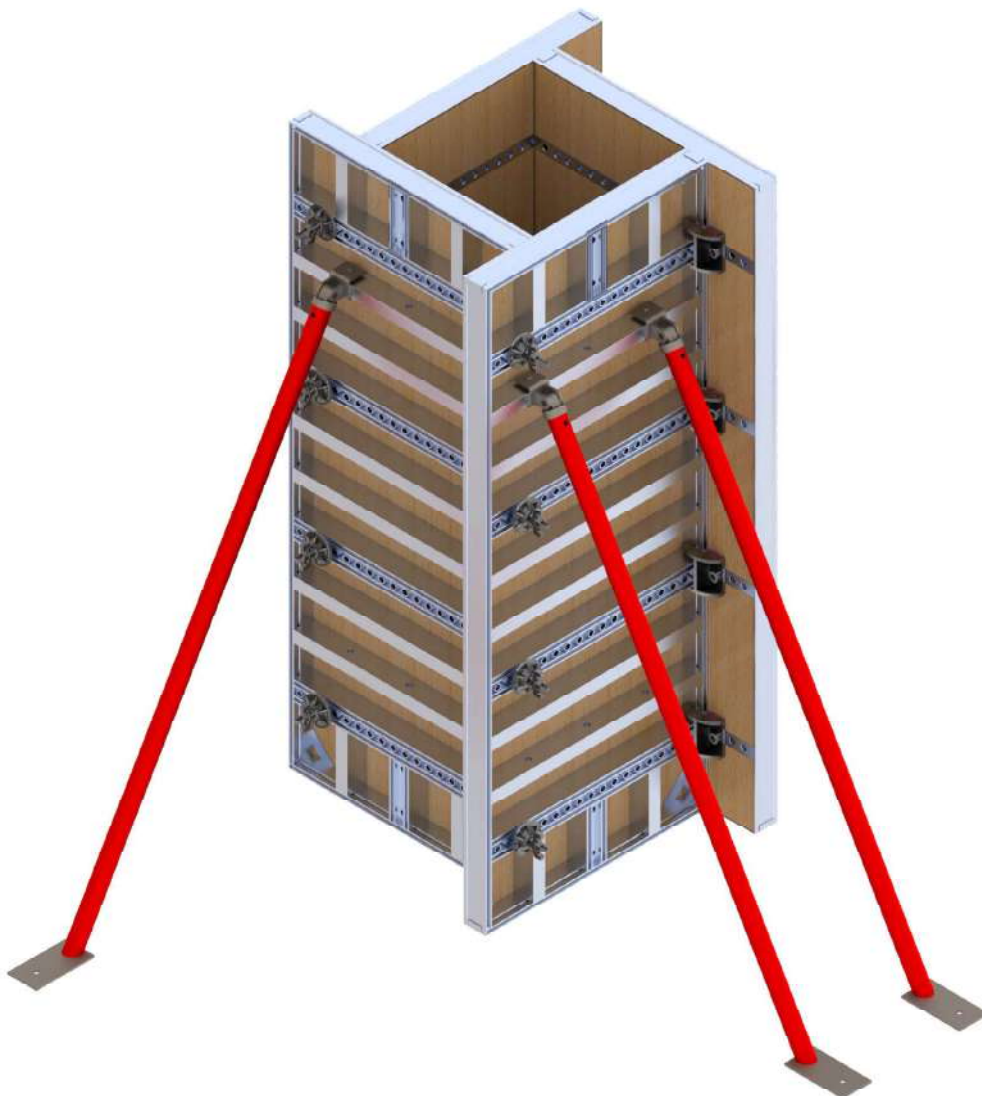
User Manual

Instructions for assembly and use



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System Description

ALPAN UNIVERSAL formwork is a light weight column form, allowing easy and fast handset installation as well as crane set installation on the job site.

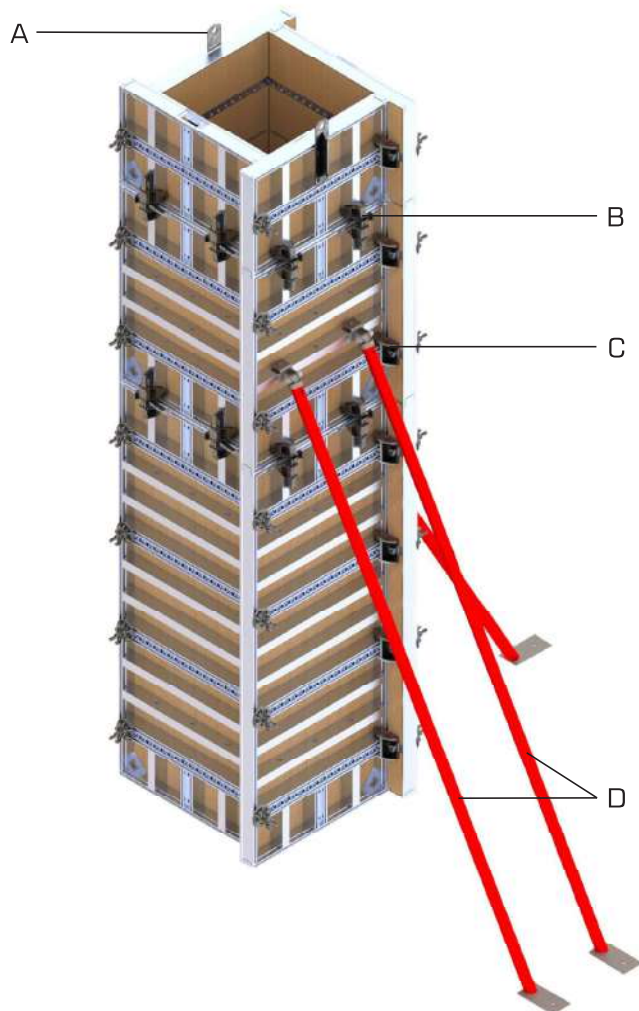
Structural frame of ALPAN Universal panel is made of high strength aluminum alloy, faced with high density plastic coated plywood.

ALPAN UNIVERSAL panel allows column forming with a variety of dimensions up to 30" x 30", in 2" increments.

ALPAN UNIVERSAL panels are 40" wide and are produced with three different heights: 8'-0", 4'-0" and 2'-0".

Vertical arrangement of three different heights of panels covers construction demands.

**Constant concrete pressure:
1,850 psf (90 kN/m²)**



- A Lifting Lug
- B Aligner Wedge Clamp
- C Connection Bolt Bracket
- D Pipe Brace

Note:

To accomplish exact plumbing and aligning of the ALPAN UNIVERSAL Column Form, position two Pipe Braces on one side of column form and one or two additional Pipe Braces, depending on of column form height, to perpendicular column Panel.

Always attach first standing column form panel, while it is still supported by crane, with two Pipe Braces, to prevent falling over.

Work with ALPAN UNIVERSAL Column Form

Note:

Close off all unused universal bolt holes on panels with **Alpan plug P25**

Assembling and Dismantling

Assembling:

- Position first ALPAN UNIVERSAL column panel upright and install two Pipe Braces. If necessary keep column panel in upright position with crane.

Note:

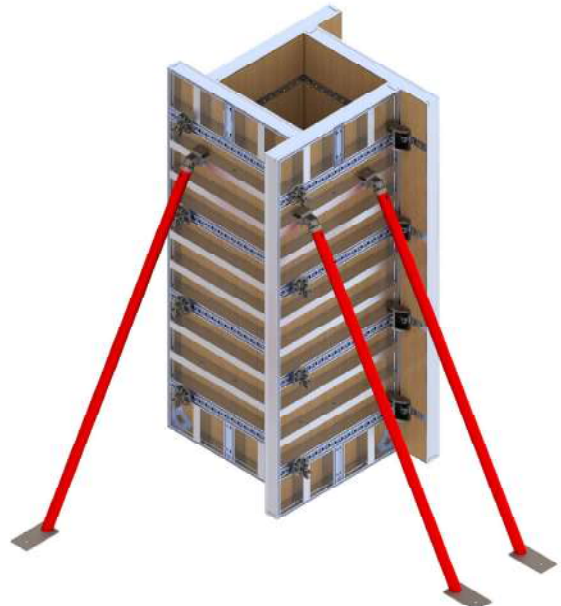
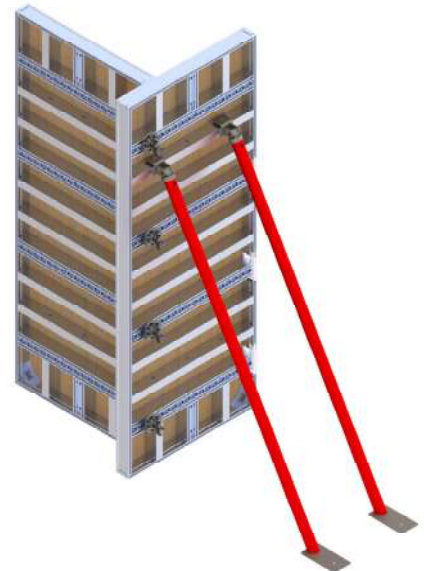
If ALPAN UNIVERSAL Column Form height requires stacking of column panels, connect stacking panels, horizontal, on the ground and lift in upright position with crane, and install two Pipe Braces.

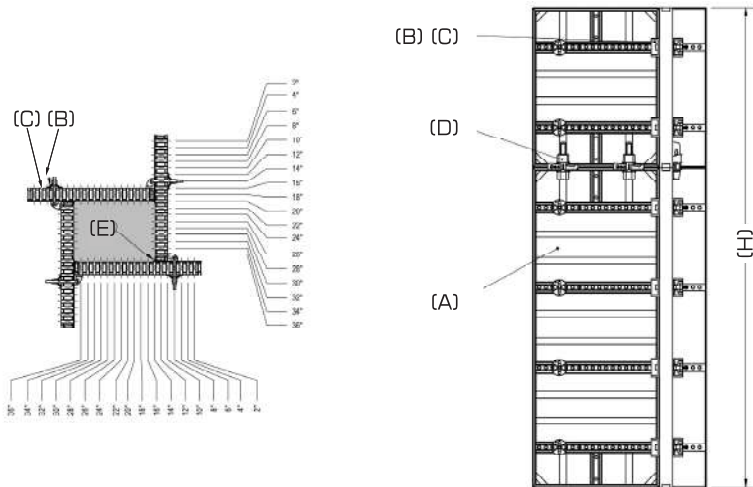
Build access scaffold in order to assemble columns in heights over 10 feet.

- Join second column panel side to the first column panel side and install Connection Bolt Bracket at design locations.
- Join third and then fourth column panel sides, to already assembled one half of ALPAN UNIVERSAL Column Form and install all Connection Bolt Brackets.
- Install third Pipe Brace on column panel side next and perpendicular to the column panel side, already having two Pipe Braces.
- Plum ALPAN UNIVERSAL Column Form.

Dismantling:

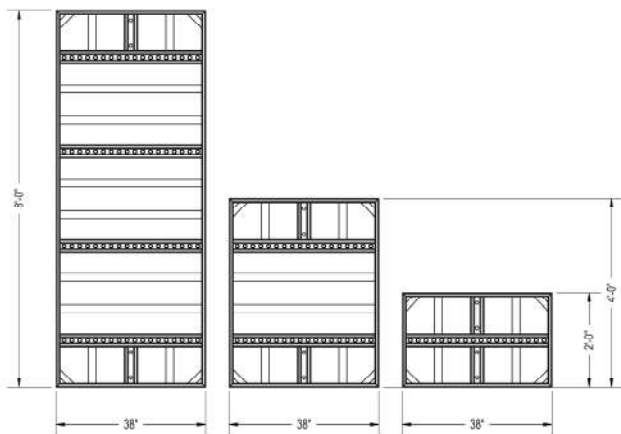
- Attach Lifting Lug to the panel not supported with wall brace and dismantle Connection Bolts.
- Remove panel and clean for next use.
- Attach Lifting Lug to the second panel not supported with wall brace and dismantle Connection Bolts.
- Remove panel and clean for next use.
- Attach Lifting Lug to the panel supported with one wall brace, dismantle Connection Bolts and remove anchor bolts holding Pipe Braces for a base slab.
- Disengage Pipe Brace from column panel by removing Pipe Brace Bracket Pin and safely store to designated area.
- Remove panel and clean for next use.
- Attach Lifting Lug to the panel supported with two Pipe Braces and remove anchor bolts holding Pipe Braces for a base slab.
- Remove panel and clean for next use.





List of material needed for ALPAN UNIVERSAL COLUMN

Column Height (H)	Alpan Universal Panel (A)			Connection Bolt Bracket (B)	Bolt Bracket Plate (C)	Aligner Wedge Clamp (D)	Column Bracing			Pouring Platform	Ladder		Ladder Cage	
	8'-0"	4'-0"	2'-0"				Pipe Brace 9'-17'	Pipe Brace 14'-20'	Pipe Brace 20'-30'		8'	4'	8'	4'
2'-0"			4	4	4									
4'-0"		4		8	8									
6'-0"		4	4	12	12									
8'-0"	4			16	16		3			1	1			
10'-0"	4		4	20	20	8	3			1	1			
12'-0"	4	4		24	24	8	3			1	1	1		
14'-0"	4	4	4	28	28	16		3		1	1	1	1	
16'-0"	8			32	32	8		3		1	2		1	
18'-0"	8		4	36	36	16		3		1	2		1	1
20'-0"	8	4		40	40	16		4		1	2	1	1	1
22'-0"	8	4	4	44	44	24			4	1	2	1	2	
24'-0"	12			48	48	16			4	1	3		2	



ALPAN UNIVERSAL panel sizes (A)



Connection Bolt (B) (C)

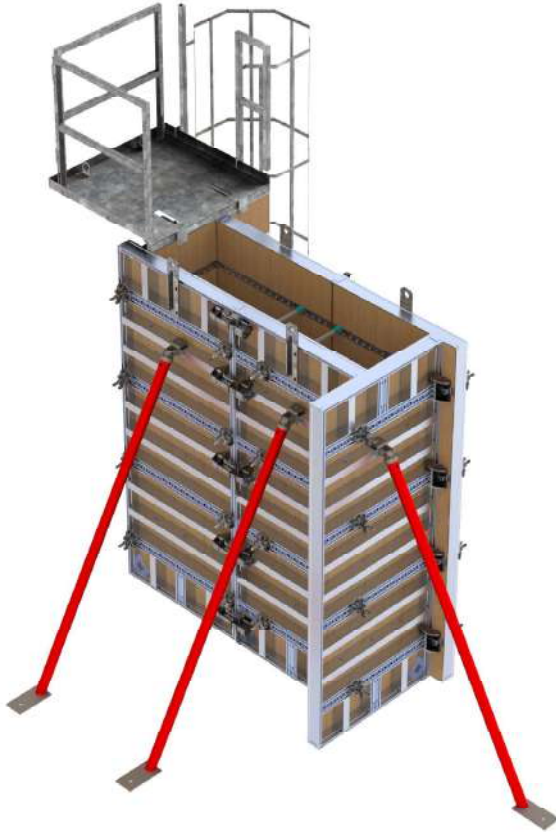


Aligner Wedge Clamp (D)

Combining two widths of ALPAN UNIVERSAL panels

Large rectangular cross sections of concrete columns can be formed by setting up two ALPAN UNIVERSAL panels side by side as per attached drawing.

Maximum rectangular size of concrete column is 30" by 60".



List of material needed for combining two widths of ALPAN UNIVERSAL COLUMN

Column Height (H)	Alpan Universal Panel (A)			Connection Bolt Bracket (B)	Bolt Bracket Plate (C)	Aligner Wedge Clamp (D)	5/8" Dywidag Tie Bolt (F)	Column Bracing			Pouring Platform	Ladder		Ladder Cage	
	8'-0"	4'-0"	2'-0"					Pipe Brace 9'-17'	Pipe Brace 14'-20'	Pipe Brace 20'-30'		8'	4'	8'	4'
2'-0"			6	4	4	2	2								
4'-0"		6		8	8	4	4								
6'-0"		6	6	12	12	6	6								
8'-0"	6			16	16	8	8	3			1	1			1
10'-0"	6		6	20	20	10	10	3			1	1			1
12'-0"	6	6		24	24	12	12	3			1	1	1	1	
14'-0"	6	6	6	28	28	14	14		3		1	1	1	1	
16'-0"	12			32	32	16	16		3		1	2		1	1
18'-0"	12		6	36	36	18	18		3		1	2		1	1
20'-0"	12	6		40	40	20	20		4		1	2	1	2	
22'-0"	12	6	6	44	44	22	22			4	1	2	1	2	
24'-0"	18			48	48	24	24			4	1	3		2	1

Pouring Platform

This pre-assembled ready-to-use pouring platform, ensures convenient and safe working place on column form. It can be used on columns of any cross-section.

Crane set, preassembled Pouring Platform Consist of metal deck with two side by side guard rails as integral part of Pouring Platform and attached safety ladder with protection cage.

Upon installation of ALPAN UNIVERSAL Column, Pouring Platform is placed - suspended on top of column form by crane in one piece.

Crane lifting points recessed into the decking make it easy to lift the platform by crane.

Since Pouring Platform can be re-suspended so quickly, it can be "transferred" from one column form to the next during concreting. It means that one platform is sufficient to serve several ALPAN UNIVERSAL Column Forms.

The practical swing-out side railings make it easy to get on or off the platform. Both side railings can be fixed in either the open or closed position.



Assembly Steps

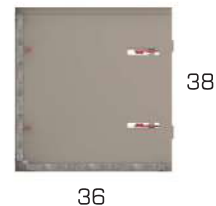
- Tilt up side railing



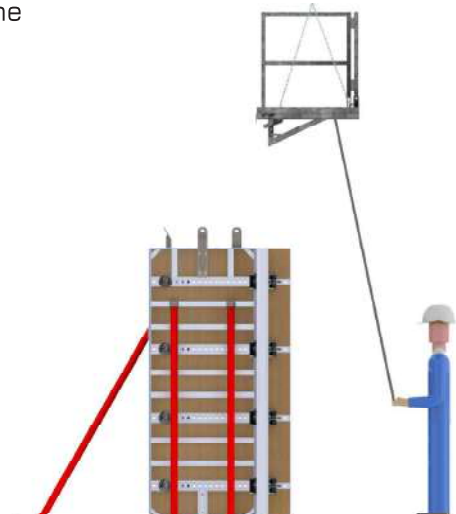
- Swing second section of railing to the left



- Lock both railings in place
- Attach crane to location shown

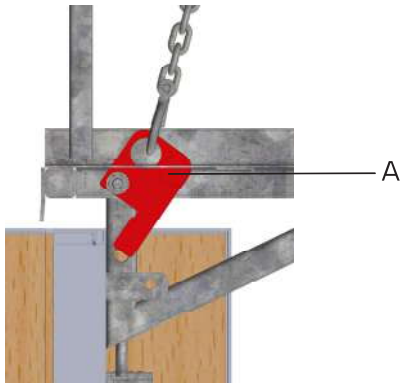


- The Pouring Platform is ready to be lifted by crane

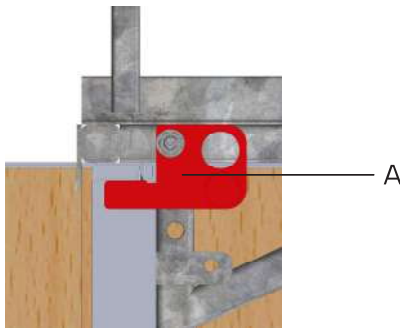


Mounting Pouring Platform

When ALPAN UNIVERSAL Column Form is assembled and braced with Pipe Braces, crane will lift Pouring Platform and place it on top of column form.

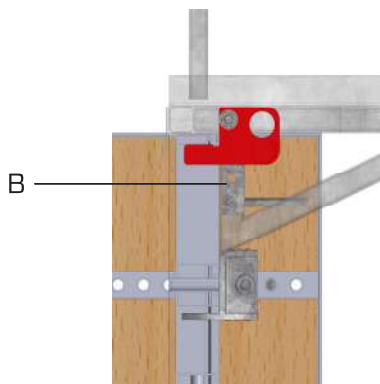


The safety Catch (A) drops down into its starting position and automatically secures Pouring Platform in place.



Note:

When Pouring Platform is lifted, the crane chain will pull the safety Catch and the platform is inevitably unlocked.



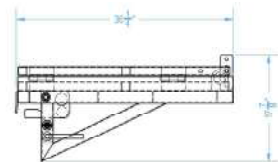
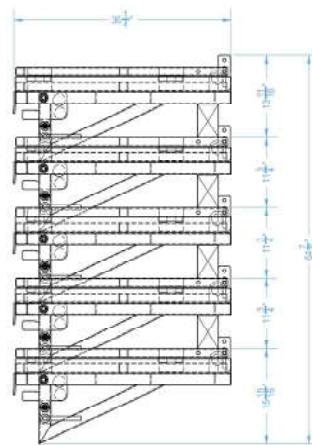
With man power, while platform is still supported by crane, platform safety latch (B) is to be engaged in order to lock platform for panel form.

Upon securing Pouring Platform for column panel, disengage crane from Pouring Platform.

Repositioning ALPAN UNIVERSAL Column Form and platform with safety ladder in one piece

To save column forming time, ALPAN UNIVERSAL Column and safety ladder could be repositioned in one lift, only as two "L" shape column sections. Max. column height of "1" section (half column) together with safety ladder are not to be more than 16FT.

Transportation, Stacking and Storing

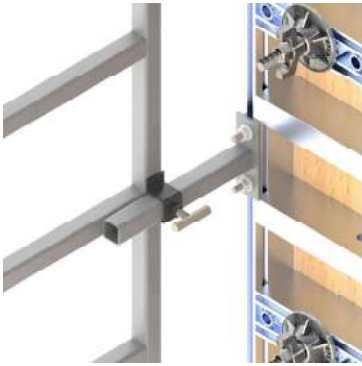


Instructions for assembly and use of Safety Ladder system

Combined with the column Pouring Platform, the Safety Ladder system provides protection and reliable way of climbing up and down ALPAN UNIVERSAL Column Form.

Safety Ladders are used for easy access by construction personnel to Pouring Platform which is used by construction personnel for placing of concrete.

Assemble Safety Ladder with safety cage on ground and lift by crane in order to hang on the side of Pouring Platform on top of column form. Secure ladder to column form panel with Anchor Connector (C) to lock in place Safety Ladder while climbing up and down. Use two NFS Beam Clip bolts to secure Anchor Connector for column form panel.

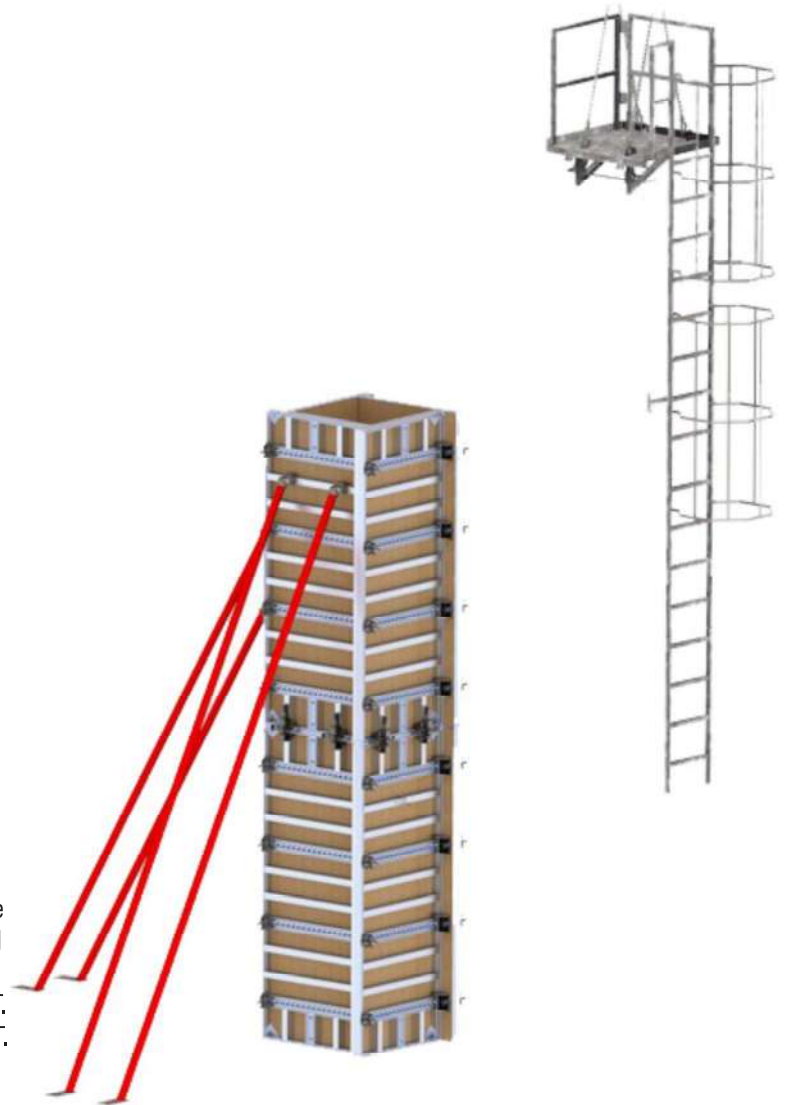


Both, Safety Ladder and Safety Cage could be extended in order to accommodate height of ALPAN UNIVERSAL Column Form.

Safety Ladders are available in heights of 8FT and 4FT. Safety Cages are available in heights of 8FT and 4FT.



For assembly and extension of Safety Ladders, use Ladder coupling pin with two 1/2" bolts holding two Safety Ladders together.



Fall Protection Component

Each Alpan Universal Column Form panel on two horizontal strongback members, symmetrically positioned from panels shorter sides, has three attachment holes. Two end holes on each strongback are available for column brace brackets, while central middle hole is provided for anchorage and attachment of safety anchor.

Safety anchor is a component of a fall protection system used to connect workers other parts of fall protection.

