

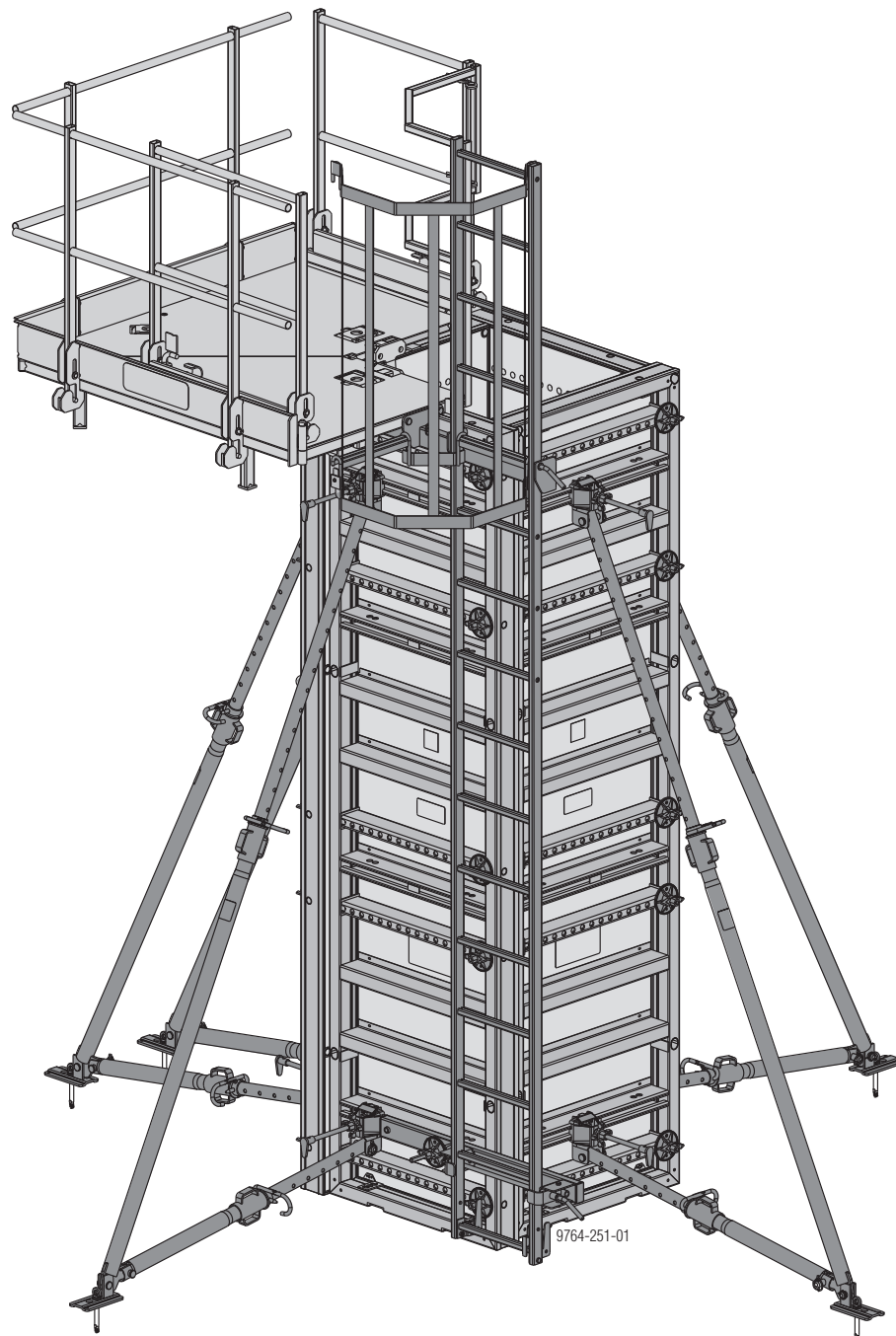
The Formwork Experts.

Column formwork Framax Xlife

Framed formwork Framax Xlife

User Information

Instructions for assembly and use (Method statement)



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System description

The **Framax Xlife universal panels** permit flexible accommodation to column cross-sections of up to 105 cm x 105 cm in **5 cm increments**.

By combining panels with heights of 3.30 m, 2.70 m, 1.35 m and 0.90 m, a **height grid of 45 cm** is possible.

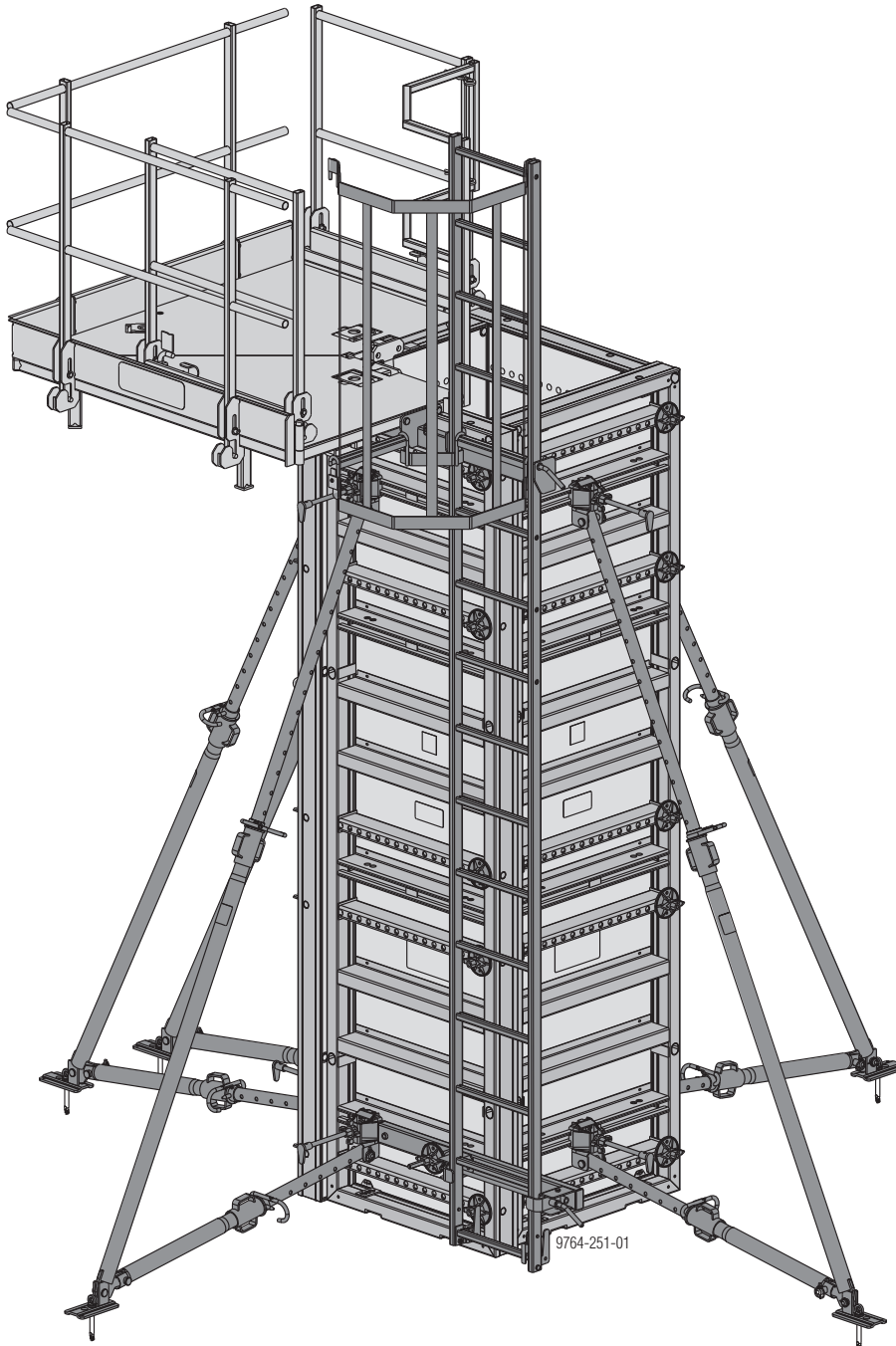
Perm. concrete pressure: 90 kN/m²



Combining the two widths of panel (0.90m and 1.20m):

Large rectangular cross-sections can be economically formed by combining the two widths of panel.

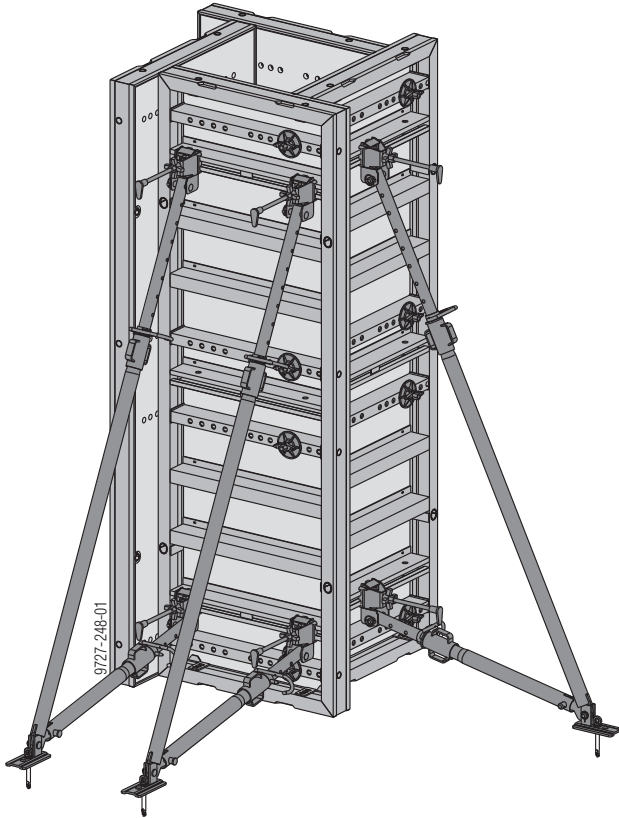
However, dimensions of 30 cm, 45 cm, 60 cm and 90 cm can also be formed using **ordinary Framax Xlife panels and Framax outside corners** (permitted fresh-concrete pressure: 80 kN/m²).



NOTICE

This document is only valid in conjunction with the following underlying document(s):
'Framed formwork Framax Xlife' User Information booklet.

Design of column formwork



NOTICE

- To achieve exact plumbing & aligning of the column formwork, the best arrangement of the panel struts is as illustrated here.
- Always attach panel struts to free-standing formwork halves to prevent them from falling over.

Note:

Seal off the unused holes in the formwork sheet of the Universal panels with **Framax plugs R 24.5**.

Erecting and striking the formwork

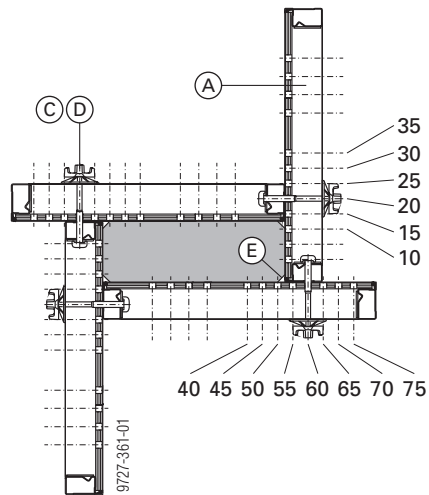
Erecting:

- Pre-assemble the formwork-halves flat on the ground.
- Secure the first formwork-half with panel struts before detaching it from the crane.
- Join the second formwork-half to the first half of the formwork, then detach it from the crane.

Striking:

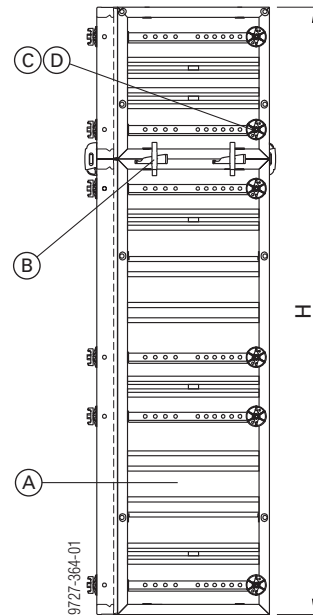
- First attach the formwork-half that is without panel struts to the crane. Then undo the connection between the formwork-halves, hoist the second formwork-half out of the way and set it down flat for intermediate storage.
- Attach the formwork-half that is with panel struts to the crane. Take out the ground anchors of the panel struts and reposition this half of the formwork.

Framax Xlife universal panel 0.90m



Example: Column, 20 x 60 cm

E Framax frontal triangular ledge



Schedule of materials needed with Universal panels 0.90m

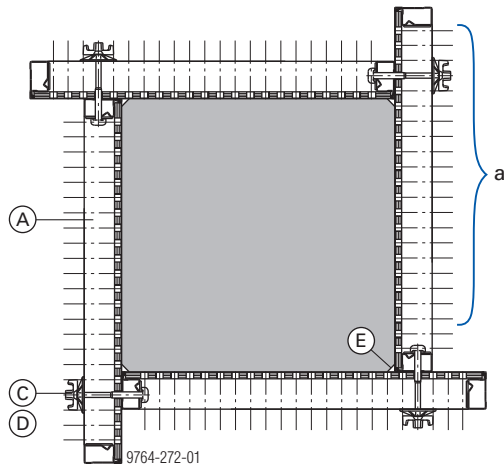
Formwork height (H)	Universal panels (A)				Quick-acting clamps RU (B)	Universal fixing bolts (C)	Super-plates 15.0 (D)	Formwork-half with platform			Formwork-half without platform		
	3.30m	2.70m	1.35m	0.90m				Panel struts			Panel struts		
								340	540	Eurex 60 550	340	540	Eurex 60 550
0.90m				4		8	8	①			①		
1.35m			4			8	8	①			①		
1.80m				8	8	16	16	①			①		
2.25m			4	4	8	16	16	3			2		
2.70m		4				16	16	3			2		
3.15m			4	8	16	24	24	3			2		
3.30m	4					20	20	3			2		
3.60m		4		4	8	24	24	3			2		
4.05m		4	4		8	24	24	3			2		
4.20m	4			4	8	28	28	3			2		
4.50m		4		8	16	32	32	3			2		
4.65m	4		4		8	28	28	3			2		
4.95m		4	4	4	16	32	32	3			2		
5.10m	4			8	16	36	36	3			2		
5.40m		8			8	32	32		3			2	
5.55m	4		4	4	16	36	36		3			2	
5.85m		4	4	8	24	40	40		3			2	
6.00m	4	4			8	36	36		3			2	
6.30m		8		4	16	40	40		3			2	
6.45m	4		4	8	24	44	44		3			2	
6.60m	8				8	40	40		3			2	
6.75m		8	4		16	40	40		3			2	
6.90m	4	4		4	16	44	44		3			2	
7.20m		8		8	24	48	48		3	2		2	2 ②
7.35m	4	4	4		16	44	44		3	2		2	2 ②
7.50m	8			4	16	48	48		3	2		2	2 ②
7.65m		8	4	4	24	48	48		3	2		2	2 ②
7.80m	4	4		8	24	52	52		3	2		2	2 ②
7.95m	8		4		16	48	48		3	2		2	2 ②
8.10m		12			16	48	48		3	2		2	2 ②

All figures in items.

① Site-provided panel bracing.

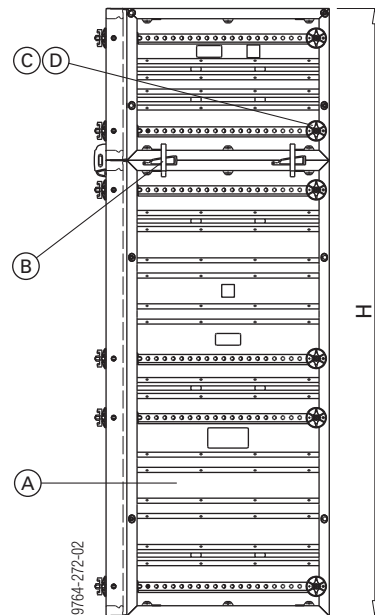
② Eurex 60 550 only needed on free-standing formwork-halves.

Framax Xlife universal panel 1.20m



Example: Column, 90 x 90 cm
a ... 10 cm to 105 cm (in 5 cm increments)

E Framax frontal triangular ledge



Schedule of materials needed with Universal panels 1.20m

Formwork height (H)	Universal panels (A)				Quick-acting clamps RU (B)	Universal fixing bolts (C)	Super-plates 15.0 (D)	Formwork-half with platform			Formwork-half without platform		
	3.30m	2.70m	1.35m	0.90m				340	Panel struts 540	Eurex 60 550	340	Panel struts 540	Eurex 60 550
0.90m				4		8	8	①			①		
1.35m			4			8	8	①			①		
1.80m				8	8	16	16	①			①		
2.25m			4	4	8	16	16	3			2		
2.70m		4				16	16	3			2		
3.15m			4	8	16	24	24	3			2		
3.30m	4					20	20	3			2		
3.60m		4		4	8	24	24	3			2		
4.05m		4	4		8	24	24	3			2		
4.20m	4			4	8	28	28	3			2		
4.50m		4		8	16	32	32		3			2	
4.65m	4		4		8	28	28		3			2	
4.95m		4	4	4	16	32	32		3			2	
5.10m	4			8	16	36	36		3			2	
5.40m		8			8	32	32		3			2	
5.55m ③	4		4	4	16	36	36		3			2	
5.85m ③		4	4	8	24	40	40		3			2	
6.00m ③	4	4			8	36	36		3			2	
6.30m ③		8		4	16	40	40		3			2	
6.45m ③	4		4	8	24	44	44		3			2	
6.60m ③	8				8	40	40		3	2		2	2 ②
6.75m ③		8	4		16	40	40		3	2		2	2 ②
6.90m ③	4	4		4	16	44	44		3	2		2	2 ②
7.20m ③		8		8	24	48	48		3	2		2	2 ②
7.35m ③	4	4	4		16	44	44		3	2		2	2 ②
7.50m ③	8			4	16	48	48		3	2		2	2 ②
7.65m ③		8	4	4	24	48	48		3	2		2	2 ②
7.80m ③	4	4		8	24	52	52		3	2		2	2 ②
7.95m ③	8		4		16	48	48		3	2		2	2 ②
8.10m ③		12			16	48	48		3	2		2	2 ②

All figures in items.

① Site-provided panel bracing.

② Eurex 60 550 only needed on free-standing formwork-halves.

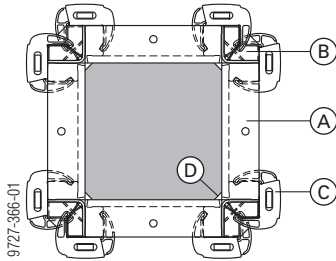
③ Formwork-halves with a column formwork platform must be separated before being lifted (max. formwork

height when lifting a formwork-half assembled from Universal panels 1.20m and including an attached Column formwork platform 150/90cm: 5.40 m).

with Framax outside corners and Framax Xlife panels

Dimensions of **30 cm**, **45 cm**, **60 cm** and **90 cm** can also be formed using **Framax outside corners** and ordinary **Framax Xlife panels**.

Permitted fresh-concrete pressure: 80 kN/m²



A Framax Xlife panel (max. 60cm)

B Framax outside corner

C Framax quick-acting clamp RU

D Triangular ledge

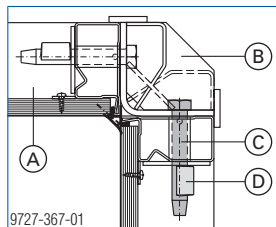


NOTICE

- For columns with **90 cm** cross-sections, **wedge bolts** and **tensioning wedges** must be used instead of the quick-acting clamps.
- Do not oil or grease wedge-clamped joints.

Framax wedge bolt RA 7.5

Permitted tensile force in the cross borehole of the Framax Xlife panel: 25.0 kN



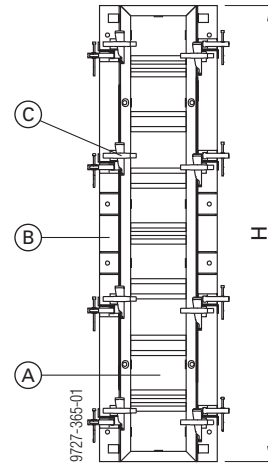
A Framax Xlife panel 0.90m

B Framax outside corner

C Framax wedge bolt RA 7.5

D Framax tensioning wedge R

Schedule of materials



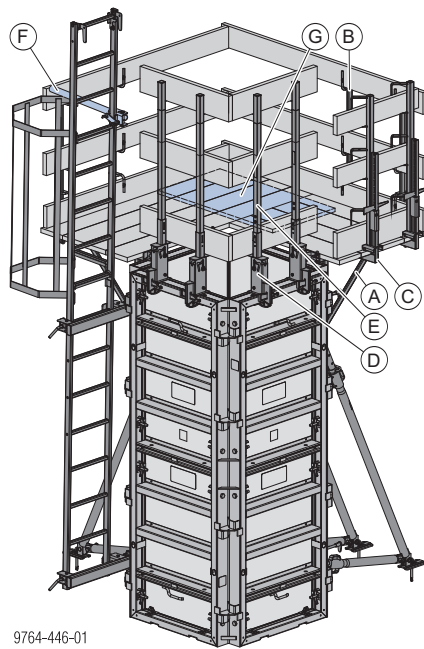
Example: Framax outside corners 2.70m with Framax Xlife panels 0.45x2.70m

Height of panel (H)	Framax Xlife panel (A)			Framax outside corner (B)		
	3.30m	2.70m	1.35m	3.30m	2.70m	1.35m
1.35m			4			4
2.70m		4			4	
3.30m	4			4		

Height of panel (H)	Quick-acting clamp RU or Wedge bolt with tensioning wedge (C)
1.35m	16
2.70m	32
3.30m	40

Table gives number of items needed

Pouring platform with Framax brackets 90



9764-446-01

- A** Framax bracket 90 EP
(deck-boards provided at site)
- B** Handrail post 1.00m
(guardrail boards provided at site)
- C** Edge protection system XP
(guardrail boards provided at site)
- D** Framax adapter XP
- E** Handrail posts XP 1.20m
(guardrail boards provided at site)
- F** Securing barrier XS
- G** Board for screwing the platform decking onto
(boards provided at site)

Note:

Where the two planks meet, a joining board must be screwed onto the underside.



NOTICE

The brackets must be secured against accidental lift-out.



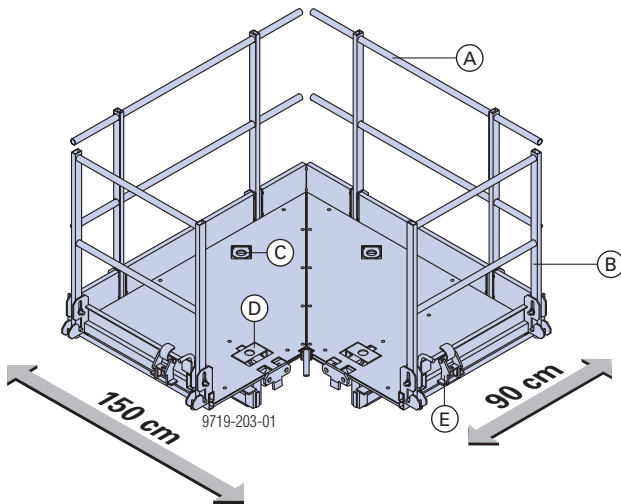
For more information on constructing pouring platforms, see the 'Framed formwork Framax Xlife' User Information booklet.

Doka column formwork platform 150/90cm

Note:

The Doka column formwork platform 150/90cm can only be used on column formwork units assembled from Framax Xlife universal panels.

Product description



- A Rear railing
- B Side railing
- C Rear crane suspension point
- D Safety hook (blue) = front crane suspension point
- E Extra crane suspension point (red) in parked position

Permitted service load: 1.5 kN/m² (150 kg/m²)

Load Class 2 to EN 12811-1:2003

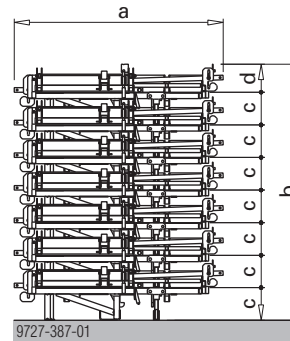
The main features:

- This pre-assembled, ready-to-use platform ensures convenient and safe working on column formworks. It can be used on columns of any cross-section.
 - Framax Xlife with universal panels: 25x25cm to 105x105cm
 - Alu-Framax Xlife with universal panels: 25x25cm to 60x60cm
- The slinging points recessed into the decking make it a quick and easy job to lift the platform by crane. Only one column formwork platform can be used on each column!
- Re-attachment is fast, so the platform can be moved from formwork unit to formwork unit for the pouring operations. Consequently, one platform is sufficient for several column formwork units.
- The practical swing-out side railings make it easy to get on or off the platform. Both the side railings can be fixed in either the open or closed position.

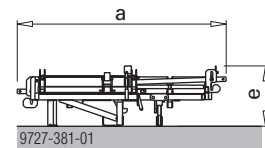
Transporting, stacking and storing

The Doka column-formwork platforms are pre-assembled and are easy to transport and store in the folded-down position - it is not possible for them to slide sideways.

Stack of 7 column formwork platforms



Single folded-down platform



- a ... 183 cm
- b ... 225 cm
- c... 28.6 cm
- d... 24.8 cm
- e... 53 cm



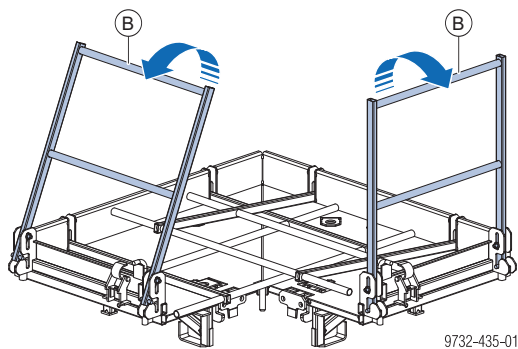
WARNING

There is a risk of the stack tipping over in high winds.

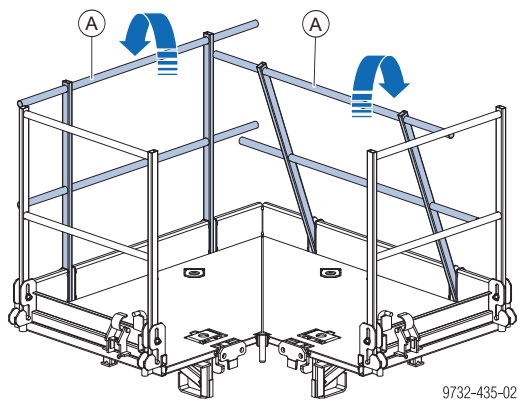
- If high wind speeds are likely always take extra precautions to fix the stack in place, or reduce it to 3 platforms.

Basic design concept

- ▶ Tilt up the side railings. They lock into place automatically.



- ▶ Tilt up the rear railings. They lock into place automatically.



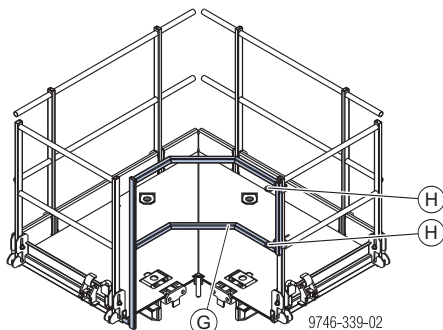
- A Rear railing
- B Side railing

The column formwork platform is now ready for use.

Note:

When folding the platform back down, first fold down the rear railings, and then the side ones.

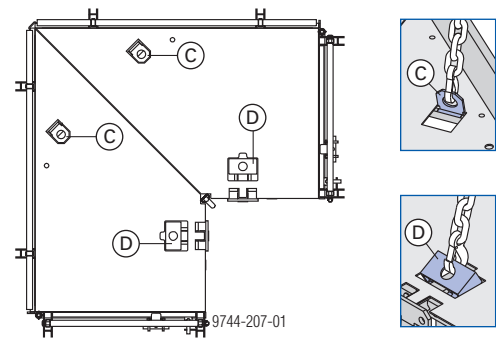
- ▶ Mount the Counter railing Col. formwork plat. 150/90cm and secure with Spring cotters 5mm.



- G Counter railing col. formwork plat. 150/90cm
- H Spring cotter 5mm

Moving the platform

- ▶ Attach the crane to the locations shown.



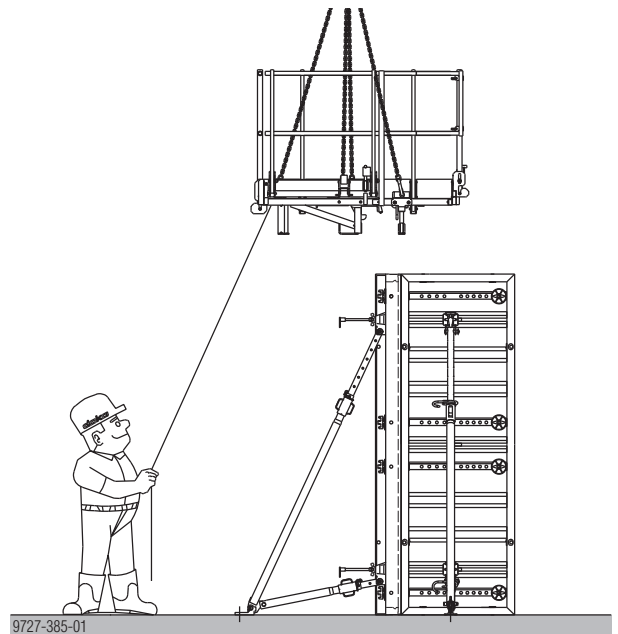
C Rear crane suspension point

D Front crane suspension point



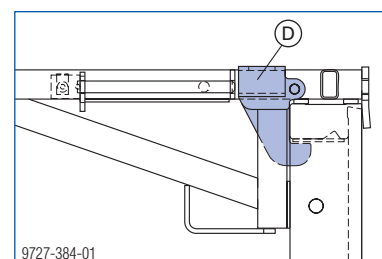
Red extra crane suspension point in "parked" position.

- ▶ Hang the column formwork platform into place on the formwork.



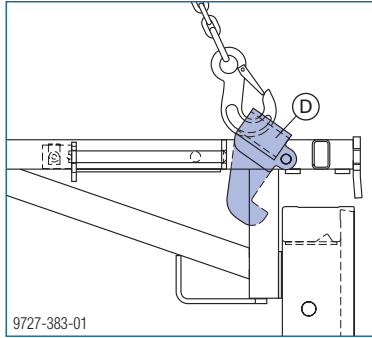
Suspending the platform exactly in position is made much easier when guide-cables are used.

- ▶ After the column formwork platform has been hung into place on the formwork, detach the four-part lifting chain.



The safety hook (D) drops down into its starting position and automatically secures the platform against being accidentally lifted out.

- When the platform is lifted, the lifting chain acts on the safety hook **(D)** and the platform is automatically unlocked.



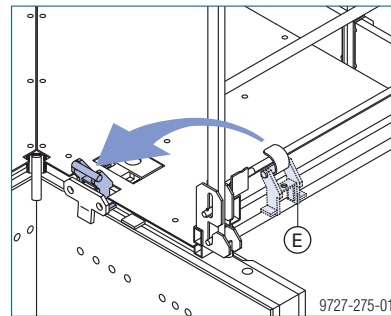
Moving the formwork and the platform in one piece

To save crane time, the Doka column formwork platform can also be repositioned together with the formwork:

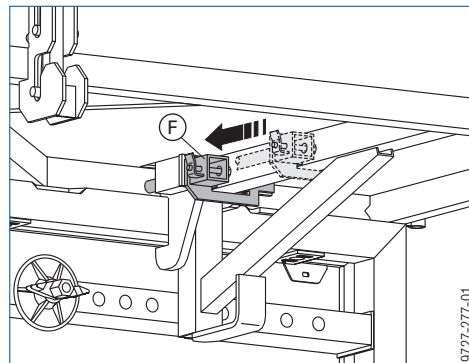


- Only ever lift and reposition one formwork-half at a time.
- Max. heights of formwork that can be repositioned together with the platform:
 - 8.10 m (Universal panels 0.90m)
 - 5.40 m (Universal panels 1.20m)

- Hang the platform into place on the formwork (proceed as in "Moving the platform").
- Move the extra crane suspension point **(E)** from the parked position to the "in-use" position. Right position = inclined forward towards formwork.



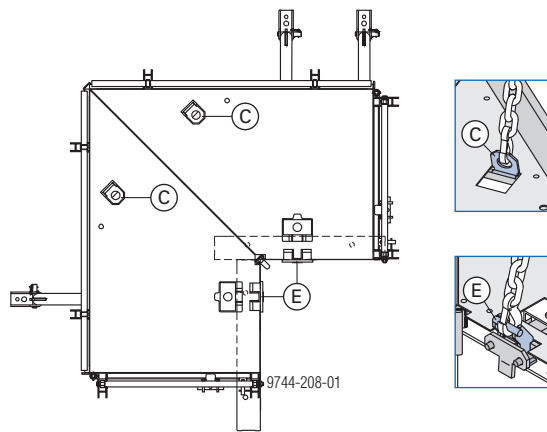
- Fix the extra crane suspension point with the slide bolt **(F)** on the underside of the platform.



Make sure that the slide bolt latches in in the frontmost position.

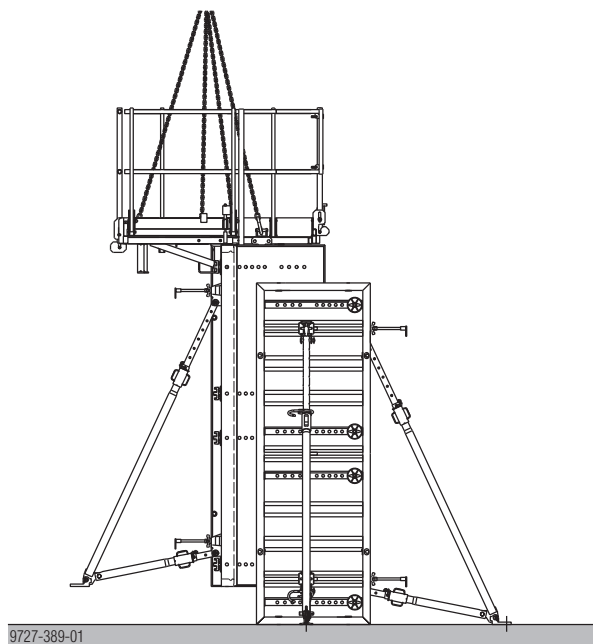
- Use additional panel struts to secure the formwork-half that has no platform mounted on it.

- Attach the crane to the locations shown.



C Rear crane suspension point

E Extra crane suspension point



The platform can stay attached to the formwork throughout this entire operation.

Separating the platform from the formwork

- Fix the slide bolt (**F**) back in the rear position and move the extra crane suspension point into the "parked" position.
- Attach the crane to the locations shown in "Moving the platform".

Instructions for Assembly and Use with ladder system

Combined with the Column formwork platform 150/90cm, the Ladder system XS provides a safe and reliable way of climbing up and down column formworks:

- when attaching/detaching the formwork-halves
- when opening/closing the formwork-halves
- when placing reinforcing cages
- during pouring

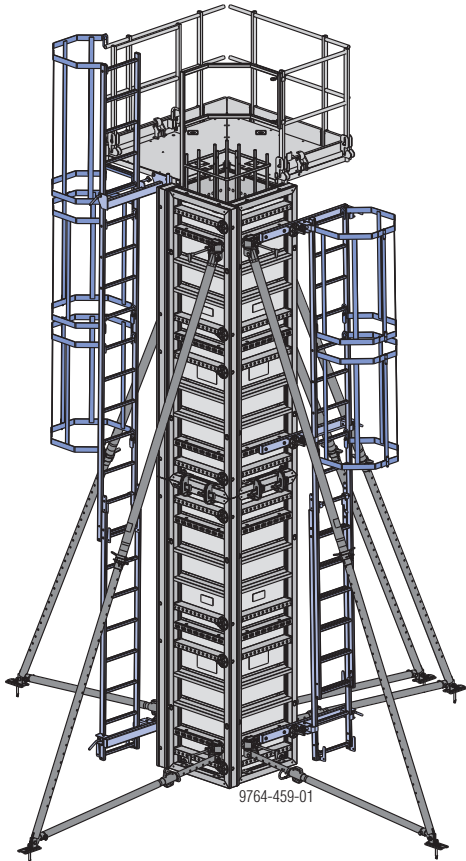
Note:

The Ladder system XS must be implemented in such a way that all national regulations are complied with.



WARNING

- The Ladders XS may only be used as part of the XS system, and must NOT be used separately (as "lean-to" ladders).



Items needed

Platform + ladder	Formwork-half with platform			Formwork-half without platform			
	2.70-3.60 m	>3.60-5.70 m	>5.70-8.10 m	2.70-3.00 m	>3.00-5.10 m	>5.10-7.40 m	>7.40-8.10 m
Connector XS column formwork platform	1	1	1				
Connector XS Framax/Alu-Framax	1	1	2	2	2	3	3
Framax universal fixing bolt 10-16cm	1	1	2	2	2	3	3
Super plate 15.0	1	1	2	2	2	3	3
System ladder XS 4.40m	1	1	1			1	1
Ladder extension XS 2.30m		1	2	1	2	1	2

Ladder cage	Formwork half with platform						Formwork half without platform				
	2.70-3.15 m	>3.15-4.20 m	>4.20-5.40 m	>5.40-6.60 m	>6.60-7.80 m	>7.80-8.10 m	2.70-3.25 m	>3.25-4.30 m	>4.30-5.50 m	>5.50-6.75 m	>6.75-7.95 m
Ladder cage exit XS	1	1	1	1	1	1					
Securing barrier XS ¹⁾	1	1	1	1	1	1					
Ladder cage XS 1.00m	0	1	2	3	4	5	0	1	2	3	4

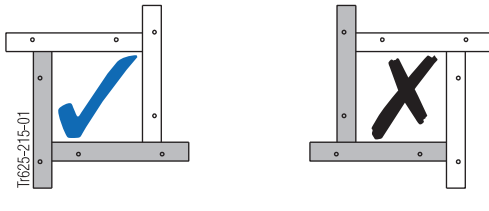
¹⁾ The side railing of the Doka column formwork platform 150/90cm can be used as the securing barrier.

Preparing the formwork-halves



NOTICE

- Make sure that the panels are correctly positioned towards one another.

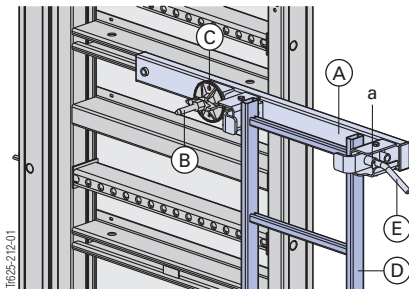


- Pre-assemble the formwork-halves flat on the ground.

Formwork-half without column formwork platform

Mount the ladder system to the horizontal half of the formwork.

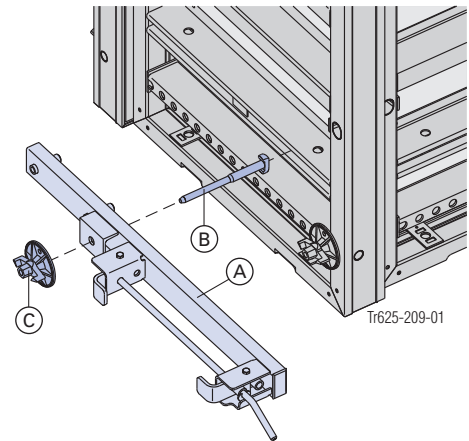
- Fasten the "Connector XS Framax/Alu-Framax" in the top anchoring profile with a Framax universal fixing bolt 10-16cm and a Super-plate 15.0.
- Bolt the ladder to the XS connector in the front position, using the push-in bolt. Secure the push-in bolt with a linch pin.



- in the front position (a)

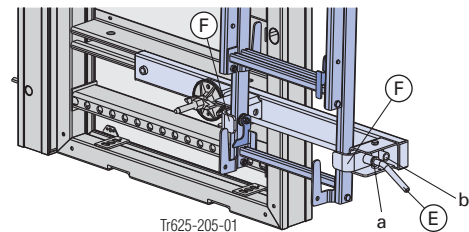
- A** Connector XS Framax/Alu-Framax
- B** Framax universal fixing bolt 10-16cm
- C** Super-plate 15.0
- D** Ladder
- E** Push-in bolt

- Align the Connector XS Framax/Alu-Framax to the ladder and fasten it in the bottom anchoring profile with a Framax universal fixing bolt 10-16cm and a Super-plate 15.0.



- A** Connector XS Framax/Alu-Framax
- B** Framax universal fixing bolt 10-16cm
- C** Super-plate 15.0

- For formwork heights above 5.10 m, an extra Connector XS Framax/Alu-Framax must be fitted approx. half-way up the column, in the same way. This extra connector prevents the ladder swaying when site crew climb up or down it.
- Pull out the push-in bolt, pivot the two safety hooks out of the way, and insert the ladder.
- Close the safety hooks, re-insert the push-in bolt and secure it with a linch pin.



- in the front position (a) for one single ladder
- in the rear position (b) in the telescoping zone (for 2 ladders)

- E** Push-in bolt
- F** Safety hooks



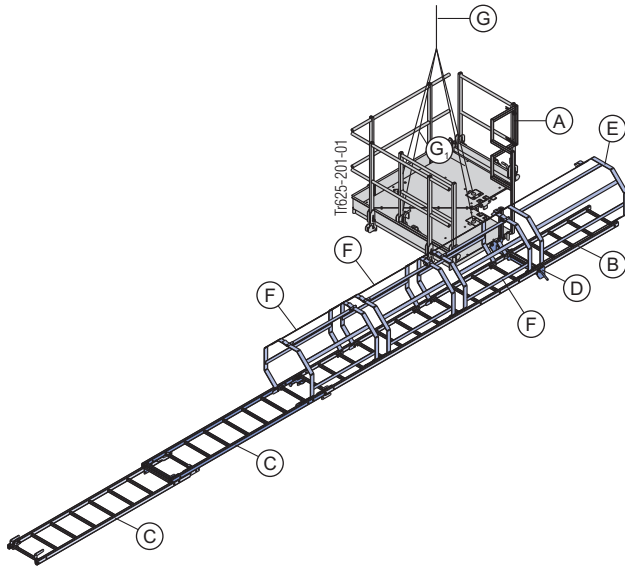
For more information on fixing the ladder, and on the ladder cage, see the 'Framed formwork Framax Xlife' User Information booklet.

Formwork-half with Column formwork platform

The Column formwork platform and ladder system are mounted to the column formwork when this is in the upright.

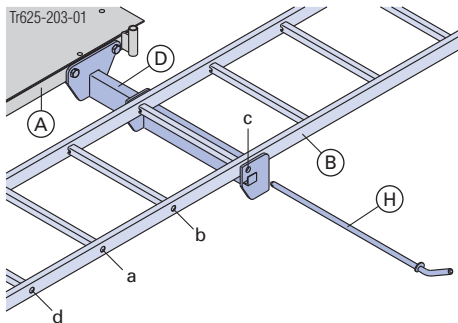
Pre-assembly

- Pre-assemble the Ladder system XS and the Column formwork platform 150/90cm flat on the ground, and hoist them onto the upright half of the formwork using the Doka 4-part chain 3.20m. (Shorten the 2 lengths of chain nearest the entry-point by removing approx. five chain-links!)



- A Doka column formwork platform 150/90cm
- B System ladder XS 4.40m
- C Ladder extension XS 2.30m
- D Connector XS column formwork platform
- E Ladder cage exit XS
- F Ladder cage XS 1.00m
- G Doka 4-part chain 3.20m
- G₁ shortened lengths of chain

- Fasten the "Connector XS column formwork platform" to the Doka column formwork platform 150/90cm, using the screws, bolts etc. supplied.
- Place the System ladder XS 4.40m onto the Connector XS, with the hooking brackets facing downwards.
- Insert the push-in bolt into the rung that is suitable for the height of the column, and twist to secure.

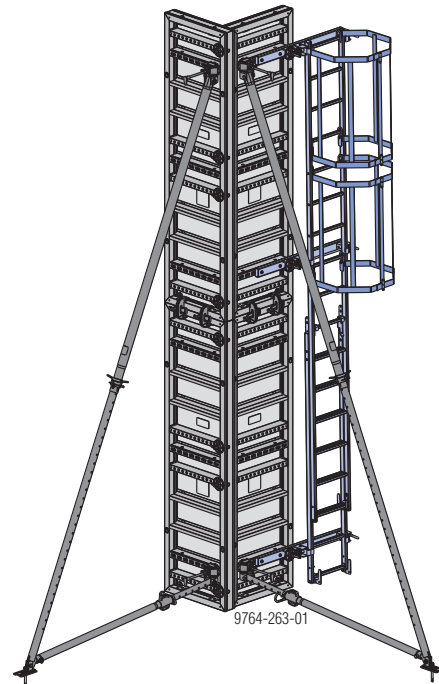


- a ... Hole for a column height of 2.70 m
- b ... Hole for a column height of 3.00 m
- c ... Hole for a column height > 3.30 m
- d ... Extra hole for special applications

- A Doka column formwork platform 150/90cm
- B System ladder XS 4.40m
- D Connector XS column formwork platform
- H Push-in bolt

Closing the formwork

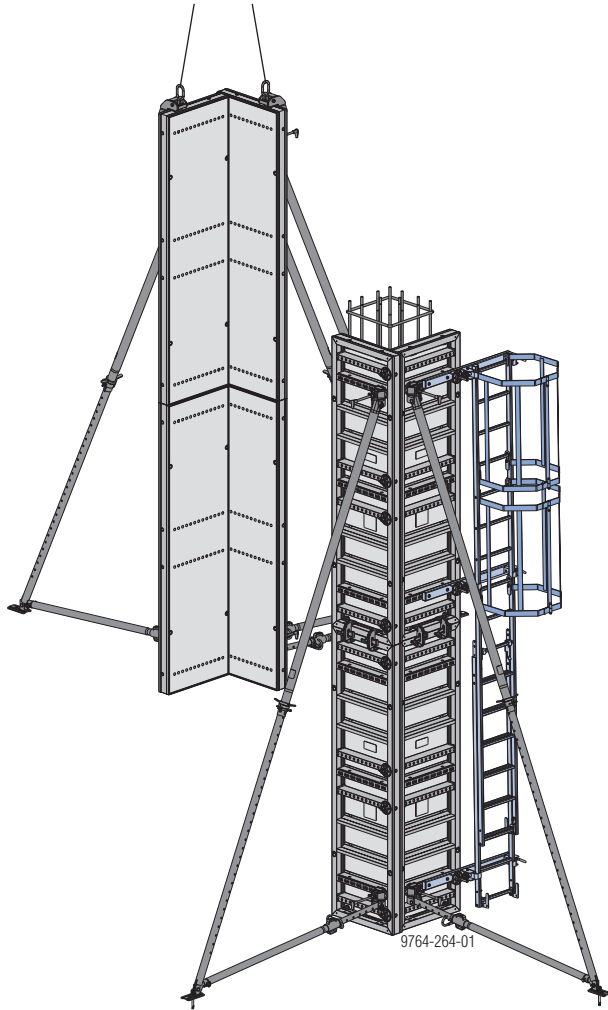
- Use the crane to lift the first formwork-half (without the column formwork platform) into the upright.



- Attach two panel struts to this formwork-half to prevent it from falling over.
- Detach the formwork-half from the crane.

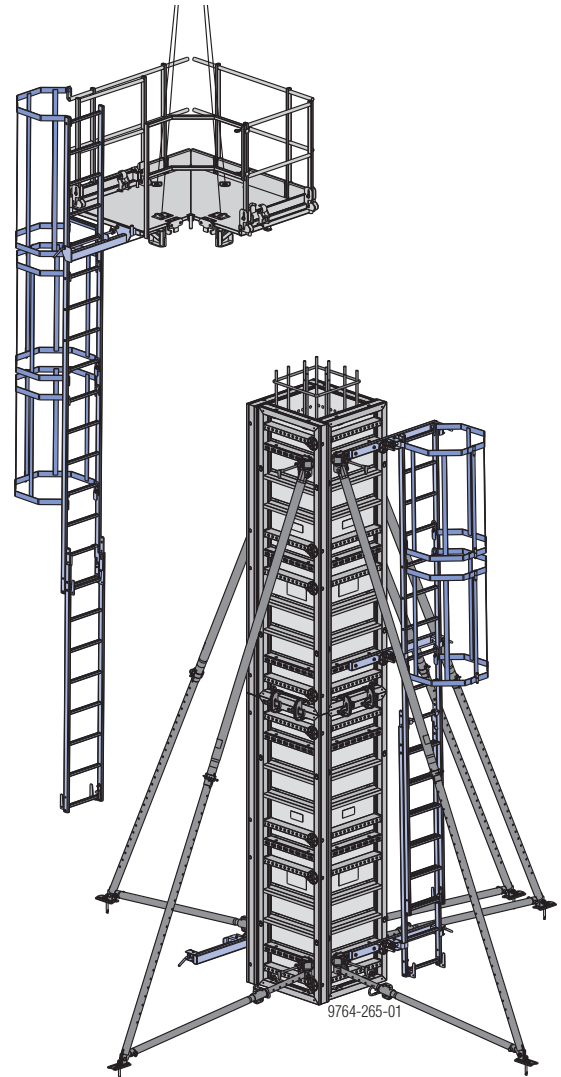
Join the formwork-halves together

- ▶ Use the crane to lift the second half of the formwork into the upright.



- ▶ Close the formwork-halves.
- ▶ Attach three panel struts to this formwork-half to prevent it from falling over.
- ▶ Detach the formwork-half from the crane.
- ▶ Mount the bottom "Connector XS Framax/Alu-Framax" as shown in "Formwork-half without column formwork platform".
- ▶ For formwork heights above 5.70 m, an extra Connector XS Framax/Alu-Framax must be fitted approx. half-way up the column, in the same way. This extra connector prevents the ladder swaying when site crew climb up or down it.

- ▶ Hang the prepared column formwork platform, complete with the ladder, into place on the column formwork.



- ▶ Fix the ladder in the Connectors XS Framax/Alu-Framax.
- ▶ After the column formwork platform has been hung into place on the formwork, detach the four-part lifting chain.

Stripping and repositioning the formwork

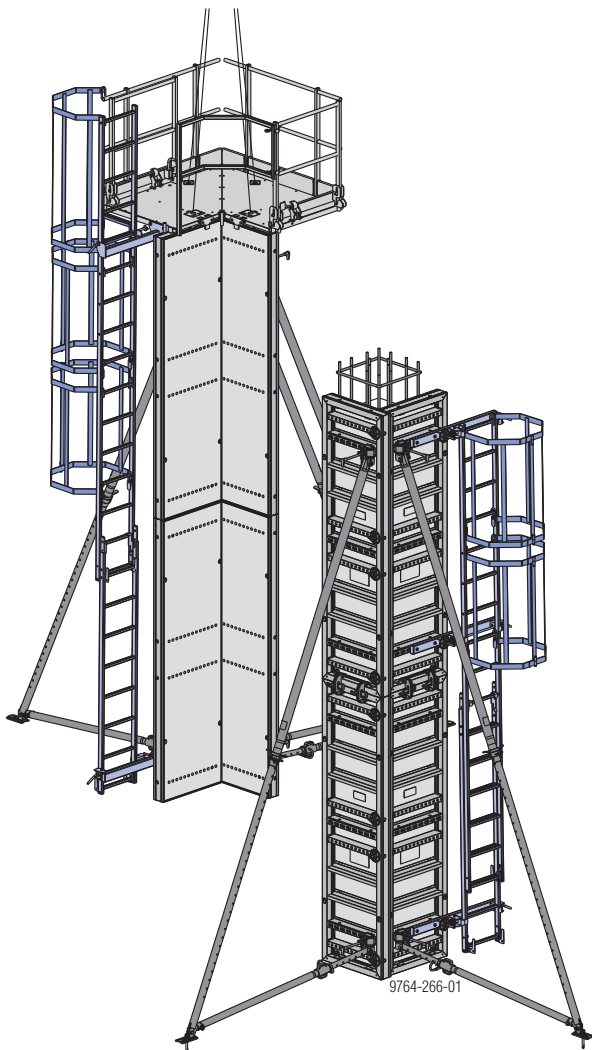
First formwork-half

- Attach the crane suspension tackle to the formwork-half on which the Column formwork platform is mounted.
- Undo the panel-strut anchorages from the ground.
- Undo the connectors from the second half of the formwork and separate the two formwork-halves.



CAUTION

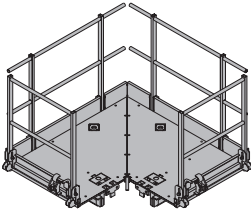
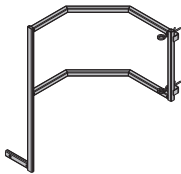
- When stripping the formwork, never use the crane to break concrete cohesion. Use suitable tools such as timber wedges or a special pry-bar.
- Set down the crane-held half of the formwork ready for cleaning, and secure it so that it cannot fall over.



See 'Moving the formwork and the platform in one piece' for details of how to lift and reposition the formwork-half complete with the platform.

Second formwork-half

- Attach the crane suspension tackle to the shored (i.e. still standing) formwork-half.
- Undo the panel-strut anchorages from the ground.
- Set down the crane-held half of the formwork ready for cleaning, and secure it so that it cannot fall over.

	[kg]	Article N°		[kg]	Article N°
Doka column formwork platform 150/90cm Doka-Stützenbühne 150/90cm  <p>Galvanised Length: 173 cm Width: 173 cm Height: 130 cm Delivery condition: folded closed</p>	211.8	588382000			
Counter railing col. formwork plat. 150/90cm Gegengeländer Stützenbühne 150/90cm  <p>Galvanised Width: 87 cm Height: 170 cm</p>	8.0	588385000			

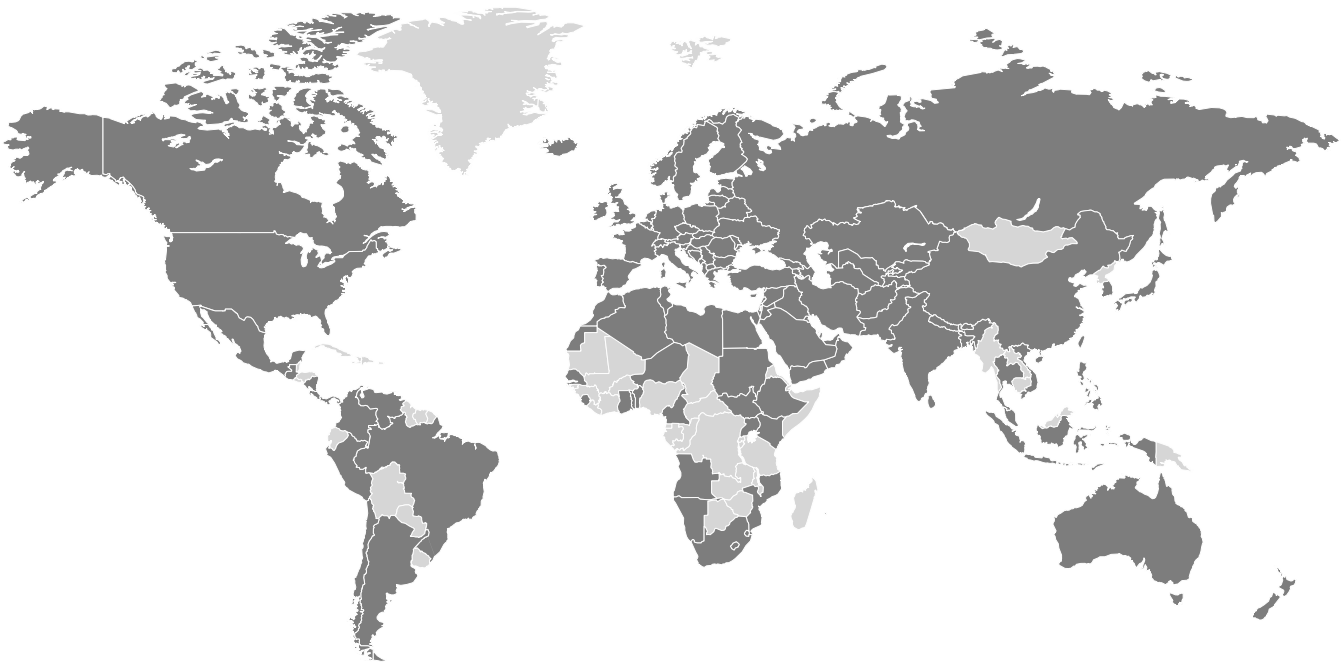
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www.doka.com/column-formwork-framax-xlife