



TECON Alu-Flex Formwork



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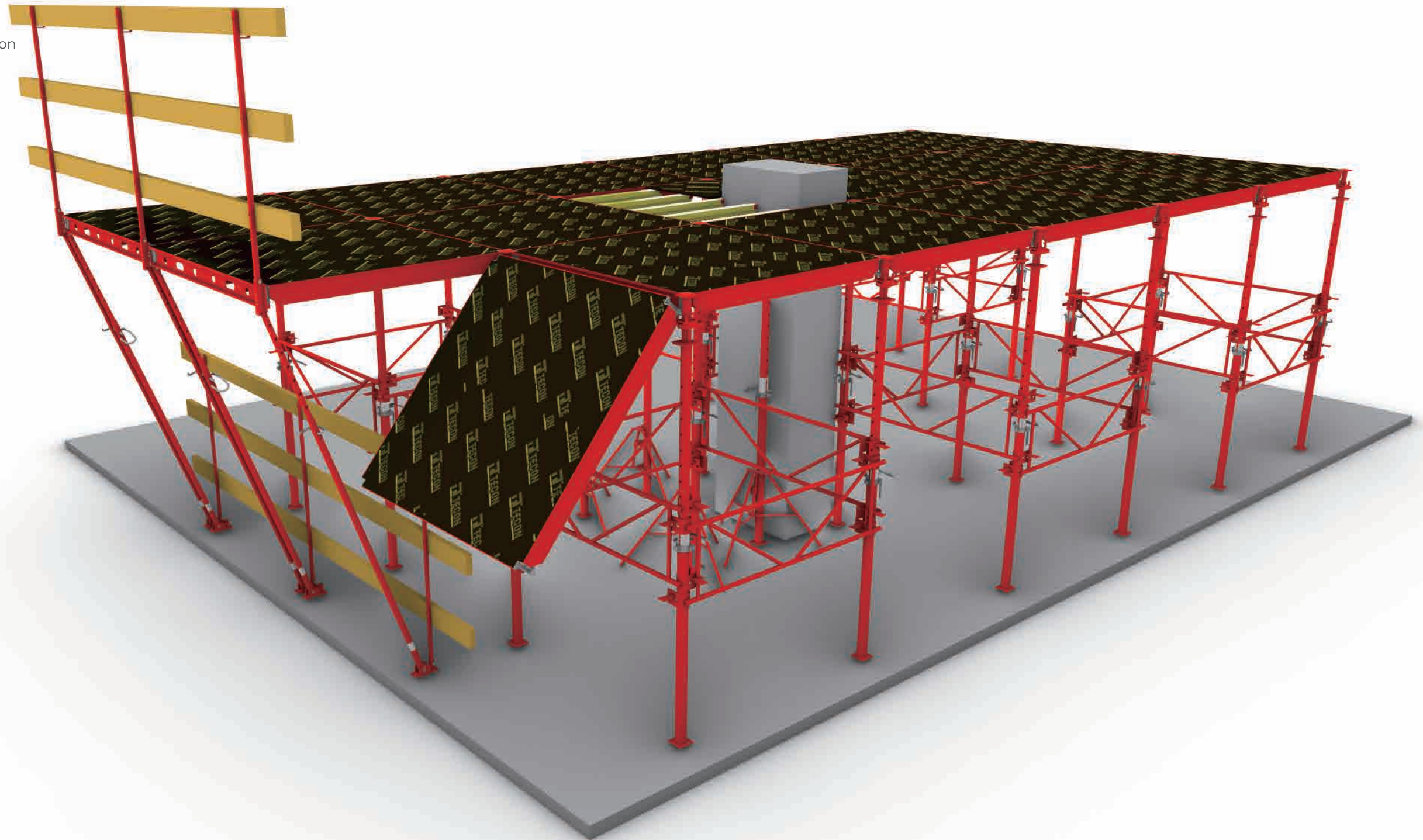
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High efficiency formwork with 3 steps installation and remove

Alu-flex is suitable for

- Frame structure, such as slab-column structure, few beam structure
- Large-area slab
- Standard slab construction



FEATURES

Alu-Flex

TECON Aluflex formwork is a very high efficient and light weight slab formwork which saves labor greatly without crane assistance. Due to very few components design, easy assembly sequence, and light weight aluminum panel, two workers are enough for formwork erection, with much higher output.

Large-area shuttering

High output with 1.8mx1.8m panels and other smaller size panels such as 1.8mx1.2m etc., no main beam and secondary beam required

Easy and fast operations

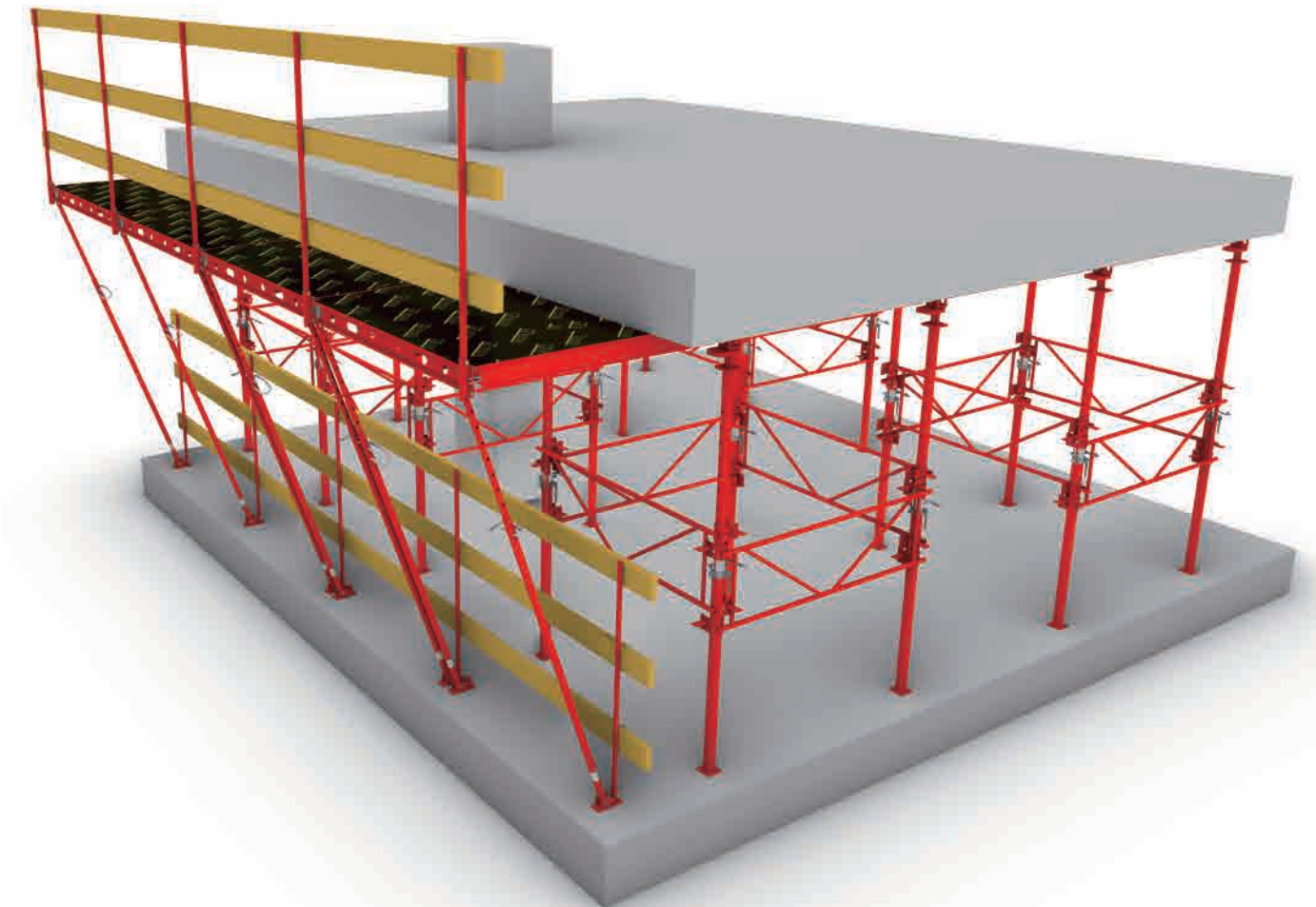
-Up to 180 square meters per day (8 hours) by two workers
-Quick and simple assembly due to minimal main components design: light weight aluminum panel, prop and early-strip head, even no skilled worker required

Early-strip system

Early stripping heads (drop heads) help to maximize the usage of aluminum panels, with themselves left in lower floor together with floor props

Applicable with other formwork

Flexible solution to cover infill area around columns and beams with TECON Slab Flex 20 formwork or conventional timber formwork by site

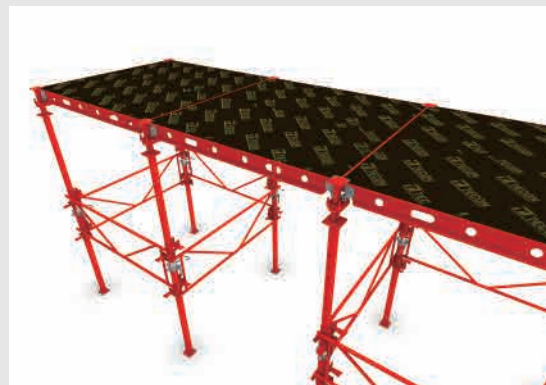


Safety

Improved safety measurements via support and protection in the structure edge

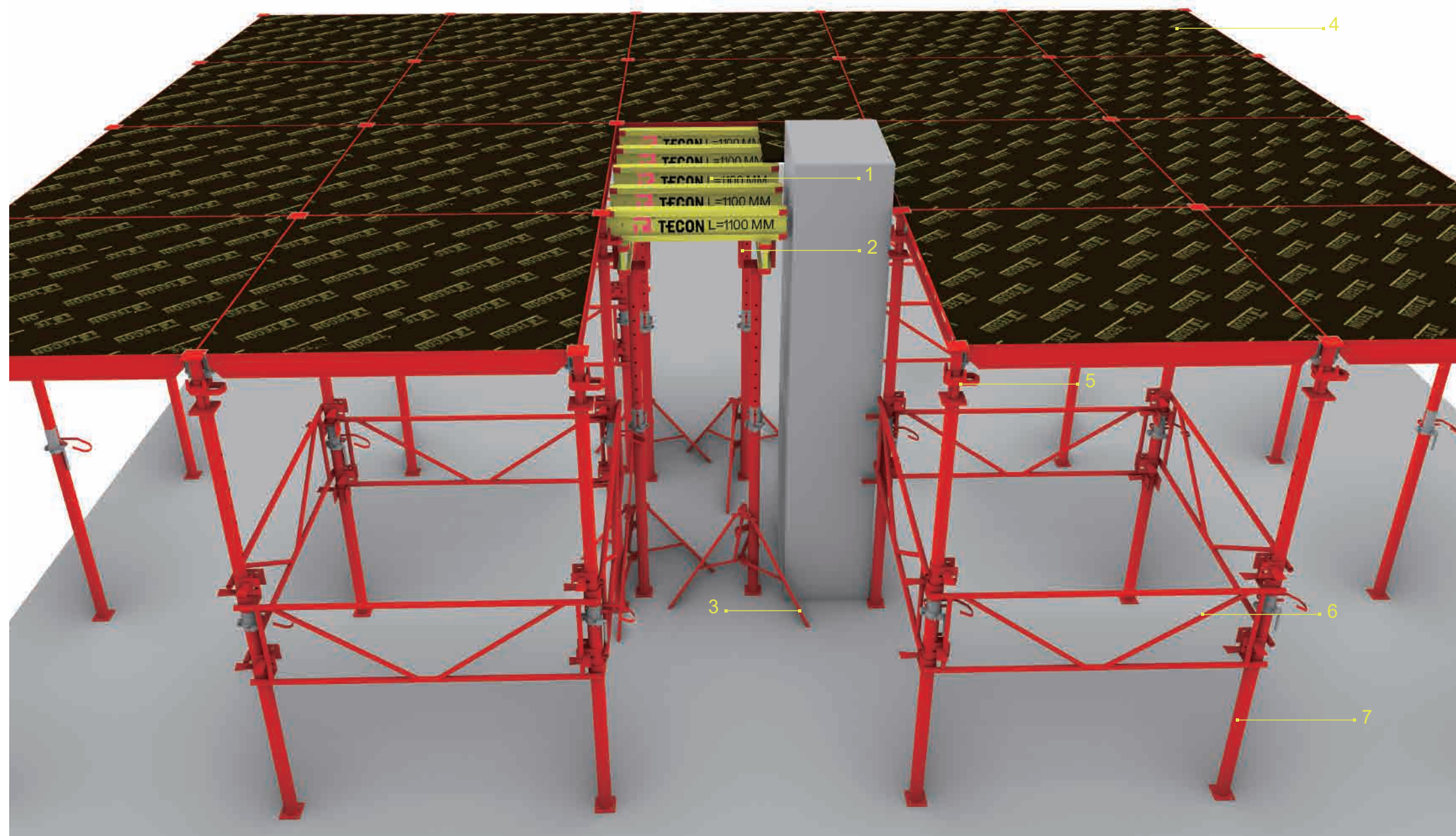
Complete birch plywood, and replaceable

Complete 10mm TECON-Form Birch (shuttering board) with phenolic glue ensures prolonged service life upto 40 times, and also produces high quality concrete finishing



SYSTEM OVERVIEW

Worked with TECON flex 20 formwork to do
slab-column structure



■ Slab flex 20 system

1. H20 timber beam
2. Fork head
3. Foldable tripod

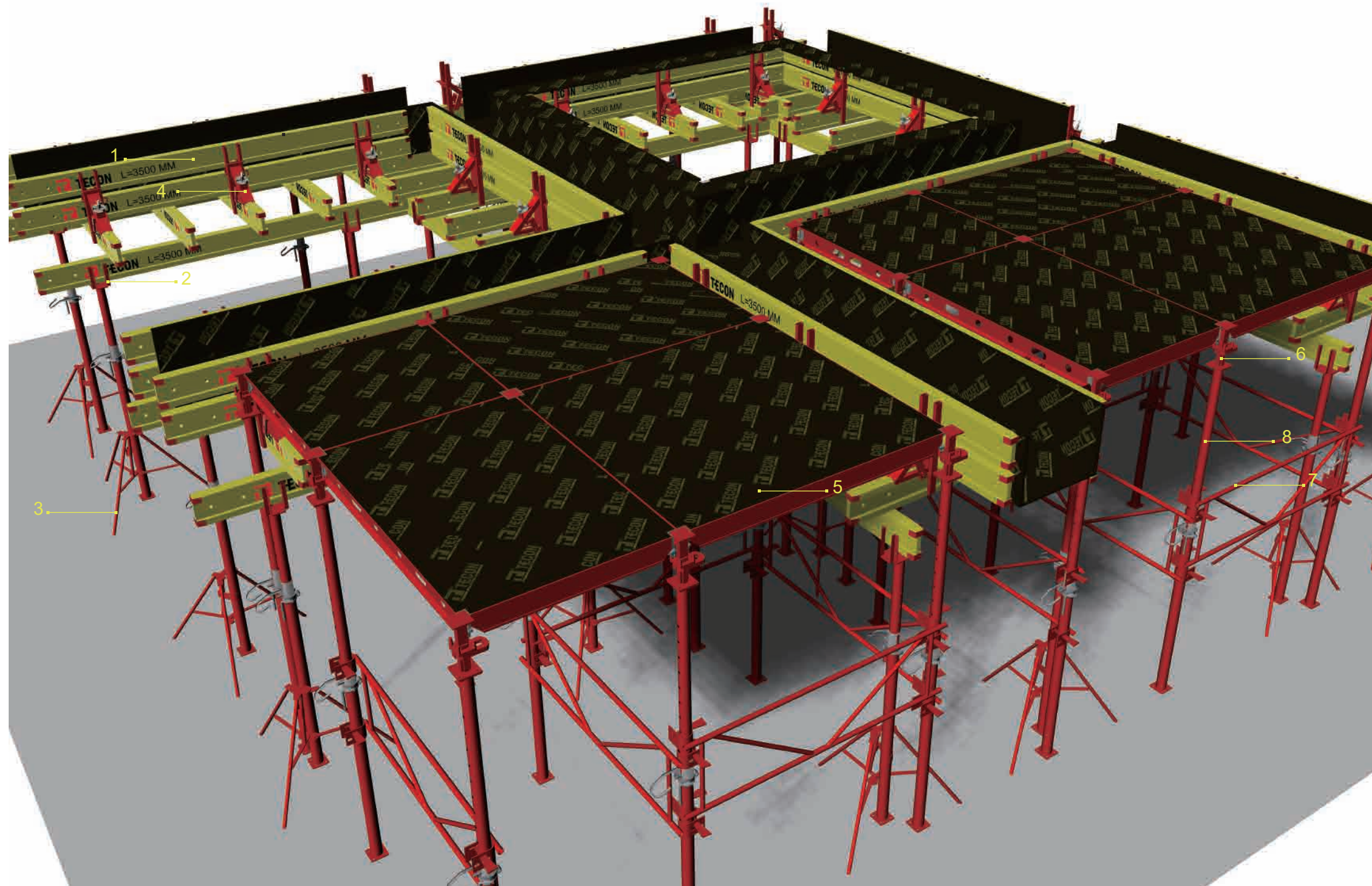
■ Alu-flex system

4. Alu-flex panel
5. Early stripe head
6. Truss bracing

■ Supporting system

7. TECON TEP-B prop
TECON TEP-D prop

Worked with TECON flex 20 formwork to do slab-beam structure



■ Slab flex 20 system

1. H20 timber beam
2. Fork head
3. Foldable tripod
4. Beam 20 bracket

■ Alu-flex system

5. Alu-flex panel
6. Early stripe head
7. Truss bracing

■ Supporting system

8. TECON TEP-B prop
TECON TEP-D prop










APPLICATIONS




Overview of the Alu-flex Panel dimension

Under TECON technician's proper planning, our Aluflex formwork can produce slab thickness upto 700mm. The biggest panel size is 1.8*1.8m, weights 57.61kg and covers 3.24m2.

Average panels weight is around 20kg/m2. There are 12 kinds of panel sizes to meet,wo workers are enough for the erection, stripping and removal of Alu-Flex formwork withouttower crane.

different structure.

Panel		Width		
		180	120	90
Height	180	<div></div> <div>S:180x180cm W;57.61kg</div>		
	120	<div></div> <div>S:180x120cm W;38.73kg</div>	<div></div> <div>S:120x120cm W;28.77kg</div>	
	90	<div></div> <div>S:180x90cm W;31.76kg</div>	<div></div> <div>S:120x90cm W;23.62kg</div>	<div></div> <div>S:90x90cm W;19.55kg</div>
	75	<div></div> <div>S:180x75cm W;28.27kg</div>	<div></div> <div>S:120x75cm W;21.04kg</div>	<div></div> <div>S:90x75cm W;17.42kg</div>

Panel		Width		
		180	120	90
Height	60	<div></div> <div>S:180x60cm W;24.79 kg</div>	<div></div> <div>S:120x75cm W;18.46kg</div>	<div></div> <div>S:90x60cm W;15.29kg</div>

Panels are made of 6061-T6, with 10mm birch plywood, powered coated in red.

Technical Specification

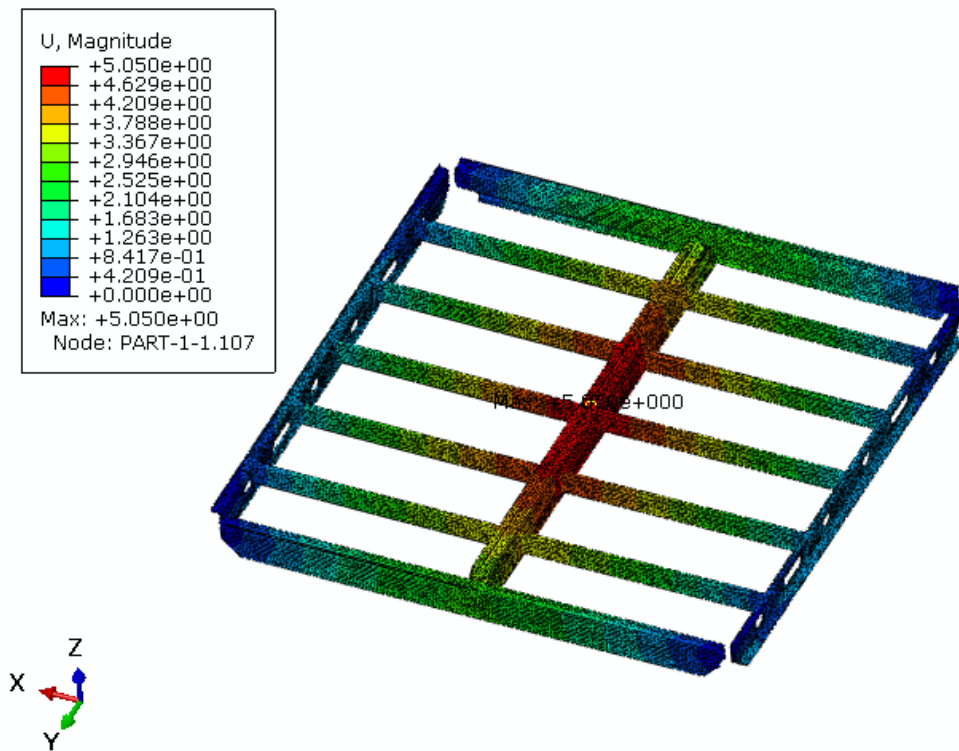
■ The follow table indicates deflection of different size panels under different slab thickness for your on-site guidance

Panel Size(m) /Deflection (mm)					
Slab thickness (mm)	Load capacity (kN/m²)	1.8x1.8 (4 pcs prop)	1.8x1.8 (5 pcs props)	1.8x1.2	1.8x0.9
150	4.9	5.05	/	/	/
200	6.6	6.8	/	/	/
250	8.3	8.55	1.9	/	/
300	9.945	/	2.36	3.5	1.9
350	11.603	/	2.75	4	2.3
400	13.26	/	3.15	4.6	2.6
450	14.918	/	3.54	5.2	2.9
500	16.575	/	3.9	5.8	3.3
550	18.23	/	4.3	/	3.6
600	19.89	/	4.7	/	3.9
650	21.55	/	5.1	/	4.3
700	23.21	/	5.5	/	4.6

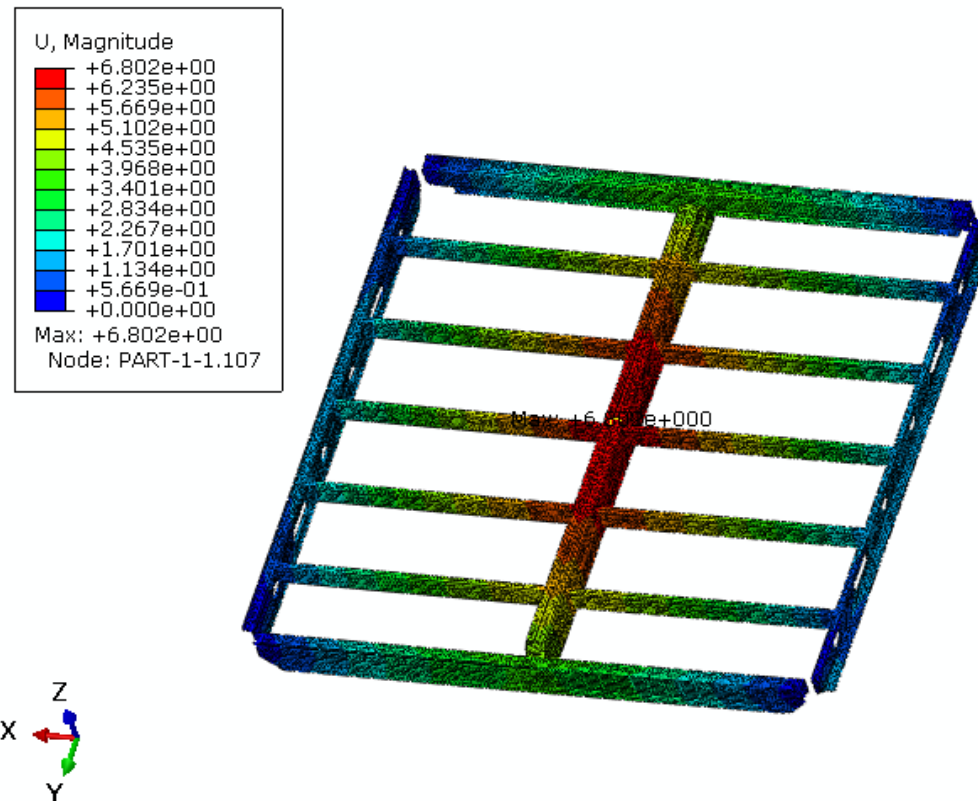
To sum up, the allowable deformation of the table is 1.8/0.4=4.5mm;
1.8/0.3=6mm;1.2/0.4=3mm; 1.2/0.3=4mm; 0.9/0.4=2.25mm; 0.9/0.3=3mm

According to the customer's requirement with floor thickness and deformation, we can provide the design via different panels sizes

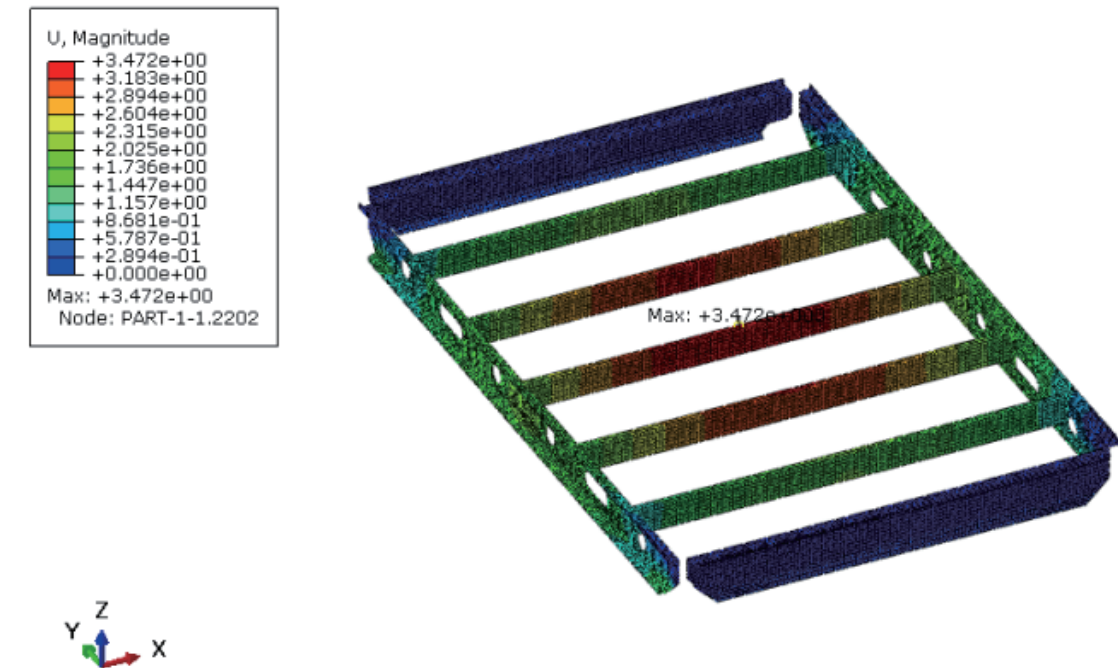
- 1.8*1.8m panel without support in the middle, slab thickness is 150mm, the deformation is 5.05mm



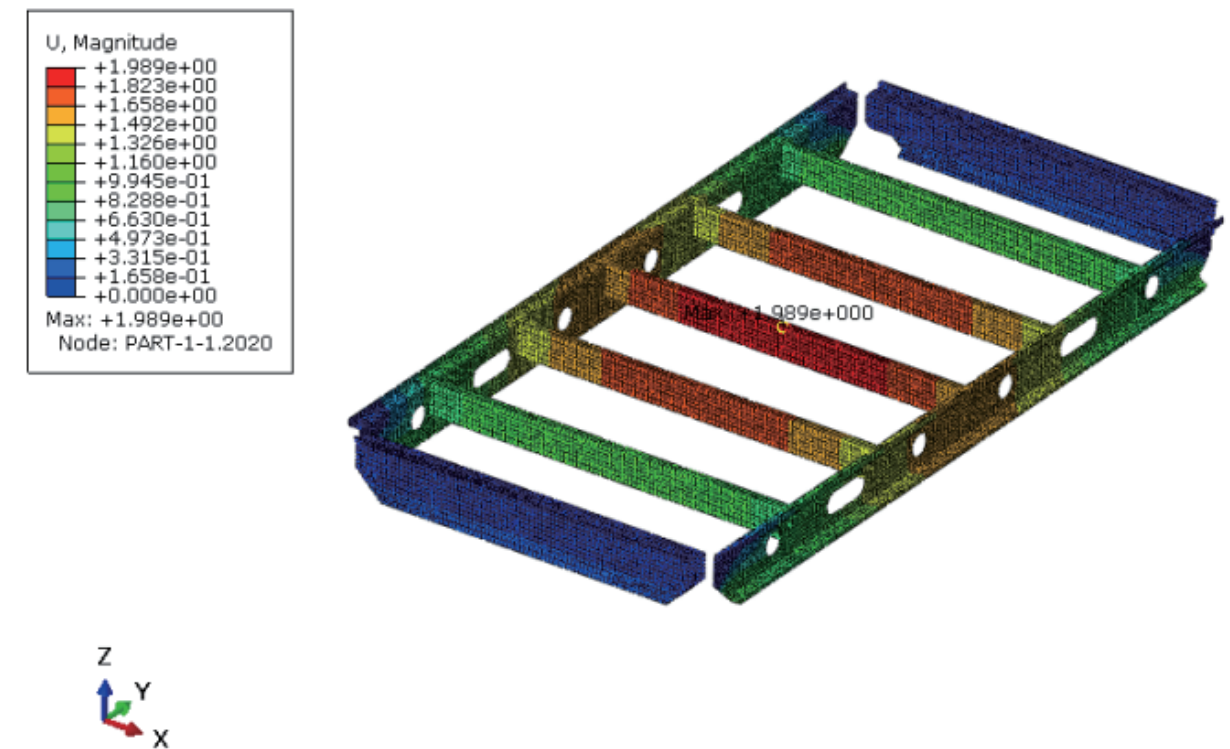
- 1.8*1.8m panel with support in the middle, slab thickness is 250mm, the deformation is 1.97mm



- 1.8m*1.2m panel, slab thickness is 300mm, the deformation is 3.47mm



- 1.8m*0.9m panel, slab thickness is 300mm, the deformation is 1.99mm.




*This manual only Outlines the above four computational models.
If you need more models, please feel free to contact us.

APPLICATIONS

Assembly process

■ General area assembly process

- 
1. Install the early-strip head to the props
- 
2. Erect the props using the truss bracing
- 
3. Complete the assembly of props
- 
4. Hang the two ends of the panels on the early-strip head
- 
5. Fork the panels to the right position
- 
6. Lay the panels seated on the early-strip head
- 
7. Repeat 4: Hang the two ends of the panels on the early-strip head
- 
8. Insert, push, straighten and lock in another two props
- 
9. Complete the installation and then repeat steps 7, 8 & 9

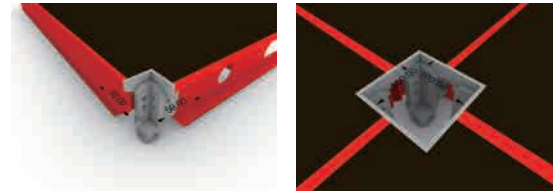
■ Install the Structure edge

- 
1. Preassemble
Install bearing shoe, railing post, cantilever support on the panels at the structure edge
- 
2. Push up
Hang one side of the panel on the support area and push the opposite to right position
- 
3. Fixed
Fix cantilever support on the poured concrete surface and tightened

Details of Early-strip Head

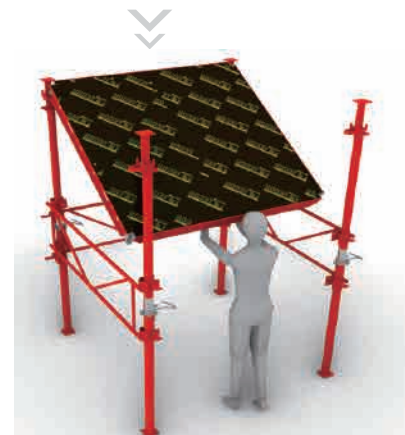
The four corners of the formwork panels will create a 50*50mm gap after assembly, which allows perfect match up of 100*100mm plate on early-strip head.

The early-strip head has a 90mm drop height via its slider.



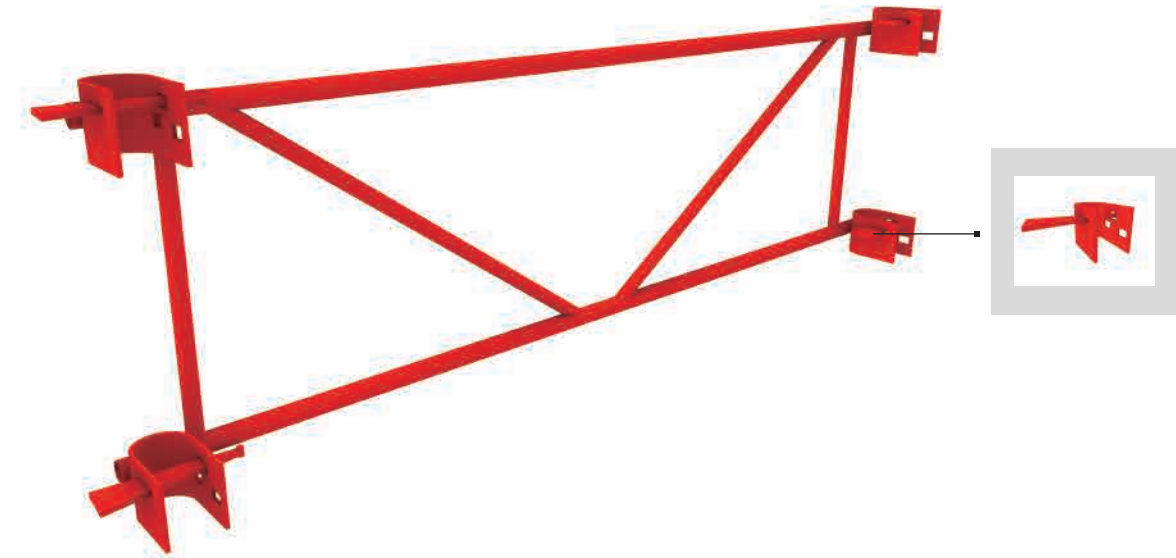
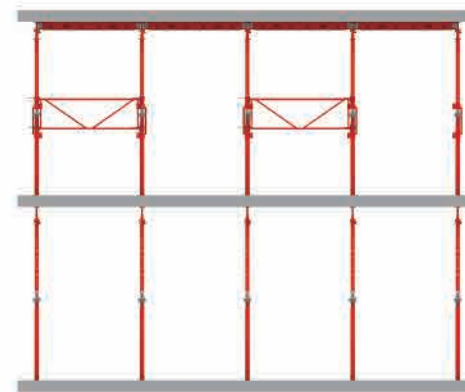
• Work status

Drop the early-strip head via hitting the slider by hammer.



• Strip status

Leave the props and early-strip heads in their place and transport formwork panels into the upper floor.



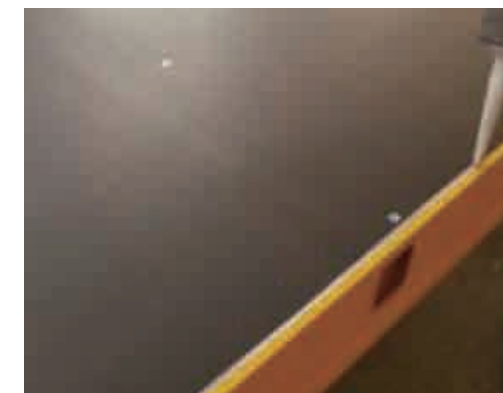
Truss bracing

TECON specially designed clamp on truss bracing allows a wide compatible range of different props on the diameter ranges from 48mm to 76mm. Whether they are your own stocked materials or newly purchased.



- 1-φ60/ φ63 Pipe
- 2-φ48 Pipe
- 3-φ76 Pipe

TECON-Form Birch (Birch Plywood)



TECON-Form Birch (Birch core plywood) is consists of 7 layer sheets of birch veneer glued via phenolic WBP glue together with resin, it can be reused up to 40 times in our ALUFLEX panels due to its excellent strength, water-proof glue & phenolic film, and fully sealed frame.




The surface of the birch plywood is nearly free of gaps and other defects which gives it impact resistance, smooth surface, great screw holding power and can therefore be used for building, construction.









Working Status




Stripping status

Description		Unit Weight (kg)	Size
 ● powder coated	Alu-Flex Panel180/180	57.30	1800x1800mm
	Alu-Flex Panel180/120	38.41	1800x1200mm
	Alu-Flex Panel180/90	31.44	1800x900mm
	Alu-Flex Panel180/75	27.95	1800x750mm
	Alu-Flex Panel180/60	24.47	1800x600mm
 ● powder coated	Alu-Flex Panel120/120	28.46	1200x1200mm
	Alu-Flex Panel120/90	23.30	1200x900mm
	Alu-Flex Panel120/75	20.72	1200x750mm
	Alu-Flex Panel120/60	18.14	1200x600mm
 ● powder coated	Alu-Flex Panel 90/90	19.23	900x900mm
	Alu-Flex Panel 90/75	17.10	900x750mm
	Alu-Flex Panel 90/60	14.97	900x600mm

Description	Unit Weight (kg)	Size
 ● Powder coated	Early-strip Head	7.92 /
 ● zine coated	Bearing shoe	0.32 /
 ● powder coated	Railing post	5.76 /
 ● powder coated	Cantiever support	17.14 /
 ● powder coated		13.50 1800x500
		11.18 1200x500
		10.00 900x500
	Truss bracing	9.44 750x500
		8.44 600x500

Description	Unit Weight (kg)	Size
 ● powder coated	TECON floor prop TEP-B 25	9.47 1450-2500
	TECON floor prop TEP-B 30	12.03 1750-3000
	TECON floor prop TEP-B 35	14.74 1965-3500
	TECON floor prop TEP-B 40	17.8 2250-4000

Description	Unit Weight (kg)	Article Number
 20kN work load ● Hot dip galvanization	Heavy duty prop TEP-D 25G	17.19 72600100
	Heavy duty prop TEP-D 30G	19.55 72600200
	Heavy duty prop TEP-D 35G	21.65 72600300
	Heavy duty prop TEP-D 40G	25.13 72600400
	Heavy duty prop TEP-D 45G	27.35 72600500
	Heavy duty prop TEP-D 50G	28.90 72600600
	Heavy duty prop TEP-D 55G	41.29 72600700