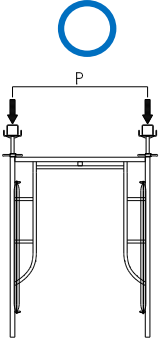
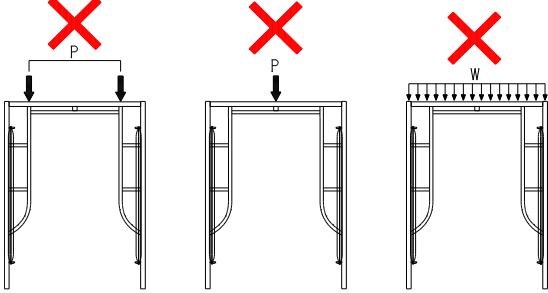


## Allowable load of main components of scaffold

At first

Objects in this table are the scaffold and the components of **ALINCO GROUP** and **PT. KAPURINDO SENTANA BAJA**. The said products are manufactured under Japanese official standard. Also rental scaffolding of PT. Kapurindo sentana is checked and well maintained. So that this table and the values shall not ensure the strength or safety of other company's products or other rental scaffolding.

### 1. Allowable load of Walk-thru Frame (A1217X, A917X)

extension length of adjustable base (mm)	allowable load of a frame with adjustable bases		Remark
	kN	kg	
200 and under 200	42.6	4350	Those values are the values per 1 frame which is consisted of 2 legs (figure 1), so that each allowable loads of 1 leg mean half of the said values.
201 – 250	40.6	4140	
251 – 300	38.7	3950	
301 – 350	37.2	3800	
 <p style="text-align: center;">figure 1</p> <p>Load has to be supported on axis of vertical members.</p>		 <p style="text-align: center;">figure 2</p> <p>Maximum load on horizontal member shall be within the load amount of each catwalk's allowable loads.</p>	
correct supporting points		incorrect supporting points	

### 2. Allowable load of other components

Description	Model	Allowable Load (kN)	Allowable Load (kg)	Load condition	Remark
Steel cat walk W500	TK6, HK6	2.45	250	concentrated load	allowable loads are half of each widths
Steel cat walk W240	FHK6	1.17	120	concentrated load	
Other length such as 1219mm, 914mm shall be taken same value as well.					
Joint for frame	A20Y	4.91	500	tensile strength	
Adjustable base	AJ40	max 21.3 min 20.3	max 2175 min 2070	usage for frame scaffold	AJ40 : Max effective height 250mm
Aluminium stair	AK917	2.45	250	concentrated load	1.22kN(125kg)/1 foot step
Stair guard frame	SG1	0.39	40	horizontal load to top rail	
Scaffold beam 2 spans	BM43	9.81	1000	Amount of live load(service load) on and above the scaffold beam	of 1set 2 beams
Scaffold beam 3 spans	BM67				
Bracket type 300-500	DS35X	2.45	250	concentrated load	within the capacity of plank or catwalk
Bracket type 500-750	DS57X	2.45	250	concentrated load	



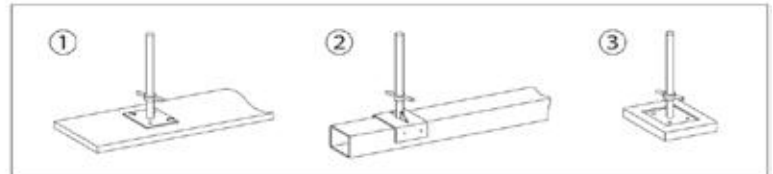
Description	Model	Allowable Load (kN)	Allowable Load (kg)	Load condition	Remark
Wall tie	all models	4.41	450	both tensile and compressive strength	able to increase 30% for wind force
Joint for loose tube	B20	7.36	750	tensile strength	
Fixed clamp	BC1	4.90	500	strength of sliding and yielding	tightened at 3.43kN*cm torque
Swivel clamp	BC3	3.43	350		
H steel clamp orthogonal type	H11(fixed)	3.09	315	strength for pull-off direction	tightened at 3.43kN*cm torque
	H13(swivel)	4.41	450	strength for open-up direction	
H steel clamp parallel type	H21(fixed)	3.09	315	strength for pull-off direction	tightened at 3.43kN*cm torque
	H23(swivel)	6.65	670	strength for open-up direction	
Steel plank	CLT40, 30, 20	1.22	125	concentrated load	within 1800mm supported

Description	Model	Allowable Load (kN)	Allowable Load (kg)	Load condition	Remark
Mighty base (Aluminium platform)	All models	1.47	150	load amount on a platform	2 and more persons on a platform are not allowed.
Aluminium ladder	CS model	1.28	130	service load	set at 75 degree
Rolling tower	A1515 type	2.45	250	service load	including persons
Scaffold caster DM200mm	BL8	2.45	250	compressive load	

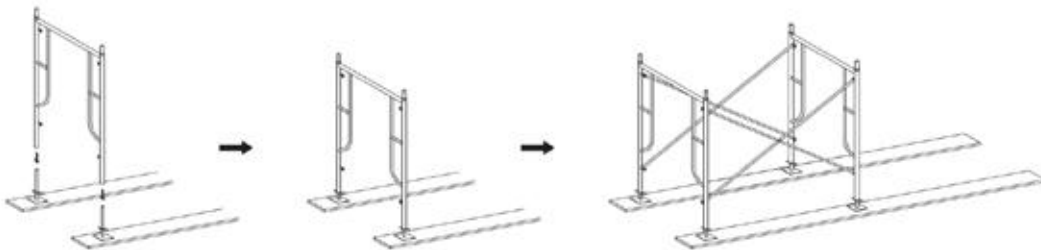
All allowable loads possess safety factor 2 and above.

### Standard assembly procedure for frame scaffolding

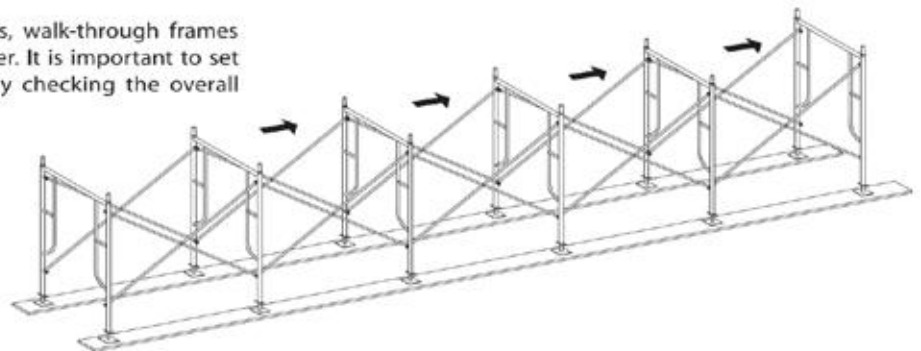
- 1** Prepare the site to install a scaffolding so that it is generally level. If the bearing capacity of soil in the installation site is insufficient due to backfill or other reason, take a settlement prevention measure such as pouring of leveling concrete. Firstly, position the reference point and put the first pair of adjustable bases on the ground. Use sole plates under the adjustable bases to prevent settlement. For relatively rigid ground, ① use wooden sole plates (thickness not less than 30 mm) and secure the adjustable bases onto the sole plates with nails. ② For clay stratum or other soft ground where differential settlement is expected, use square steel pipes and U-head jack. ③ For an installation site requiring floor protection for renovation work or other purpose, use plastic plates (Eco Plates).



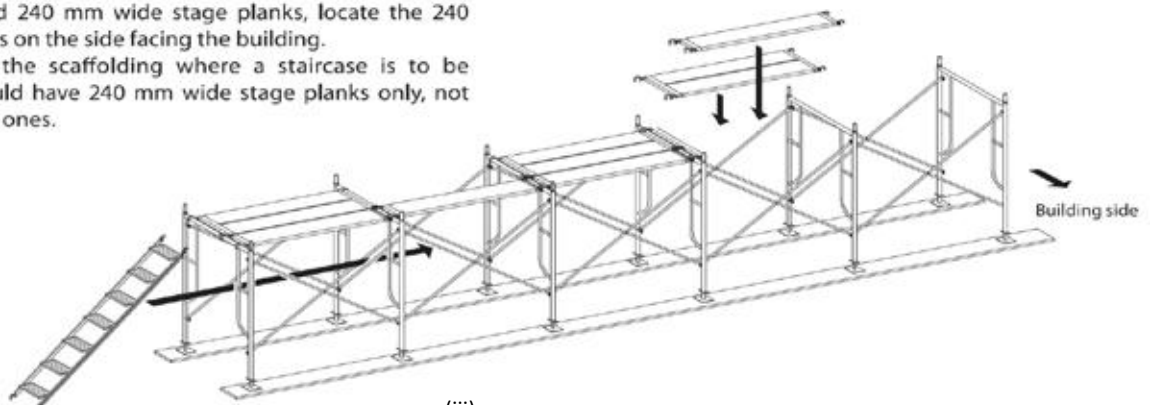
- 2** Insert the first walk-through frame into the two adjustable bases. Before starting with the assembly process, adjusting the height of the adjustable bases to a high or low level with the gradient of the overall scaffolding installation area taken into account. If the area is almost level, it is appropriate to set the adjustable bases at a height around 100 mm. Similarly install another walk-through frame at a position about 1.8 away from the first position. Install two sets of cross braces between the frames by securing them to the brace fixing pins located in the top and bottom sections of the vertical members on the both sides.



- 3** Sequentially install adjustable bases, walk-through frames and cross braces in the same manner. It is important to set up the first layer while sequentially checking the overall level and alignment.

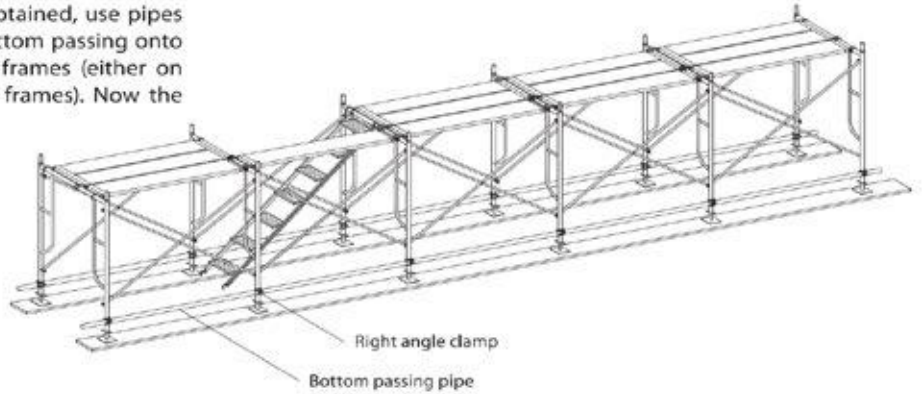


- 4** Mount stage planks onto the horizontal members of the walk-through frames. When laying a combination of 500 mm wide and 240 mm wide stage planks, locate the 240 mm wide ones on the side facing the building. Any part of the scaffolding where a staircase is to be installed should have 240 mm wide stage planks only, not 500 mm wide ones.

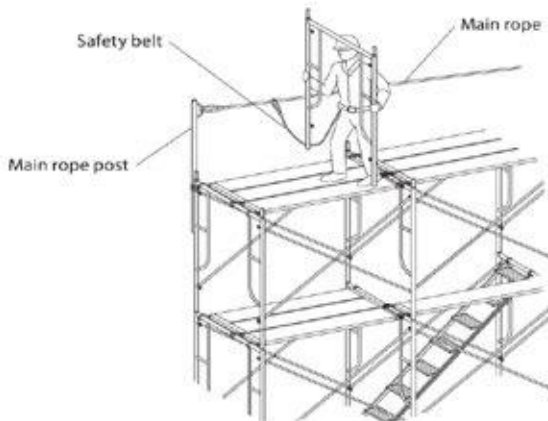


**5** When walk-through frames, cross braces, stage planks and other necessary elements have been assembled on the first layer, check and adjust the overall level and alignment again. Remember that, if the first layer is improperly leveled or aligned, it will be difficult to assemble the higher layers.

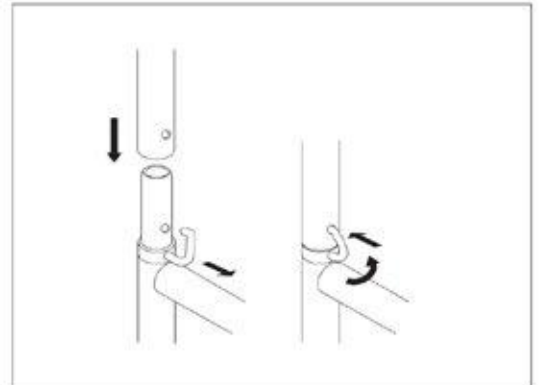
After the level and alignment are obtained, use pipes and right angle clamps to install bottom passing onto the both legs of the walk-through frames (either on the internal or external side of the frames). Now the first layer has been completed.



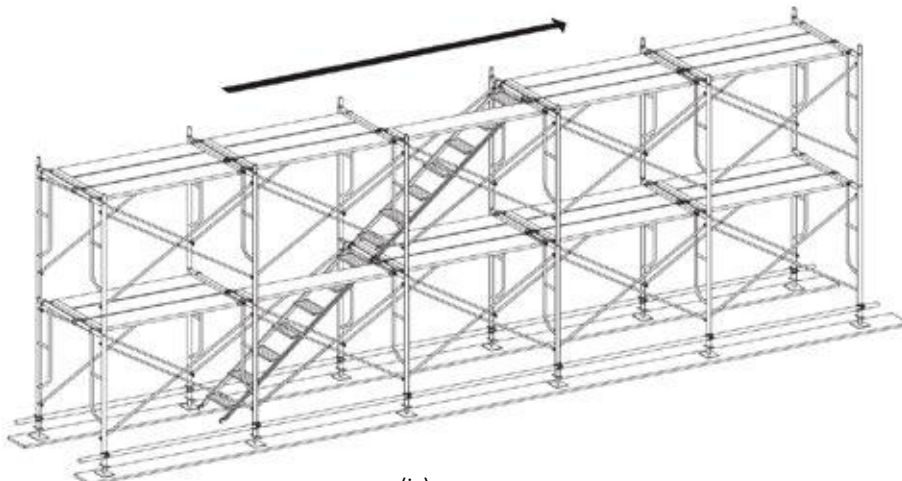
**6** For work on the second or higher layers, install the main rope and always wear a safety belt during operation (except for the preceding handrail method).



**7** To install a walk-through frame, insert the vertical members of the frame over the joint on the top of those of the lower one and then always lock the joints on the both sides. (The figure below shows an example of Y-type locks).



**8** In the same manner as for the first layer, install walk-through frames and cross braces and then lay stage planks. Basically, sequentially assemble the scaffolding in the horizontal direction and then proceed to the next higher layer after the current layer is completed. For assembly of the second and higher layers, just install scaffold elements sequentially according to the procedure. The figure below shows the scaffolding with its first and second layers completed.





## Standard assembly procedure for frame scaffoldings

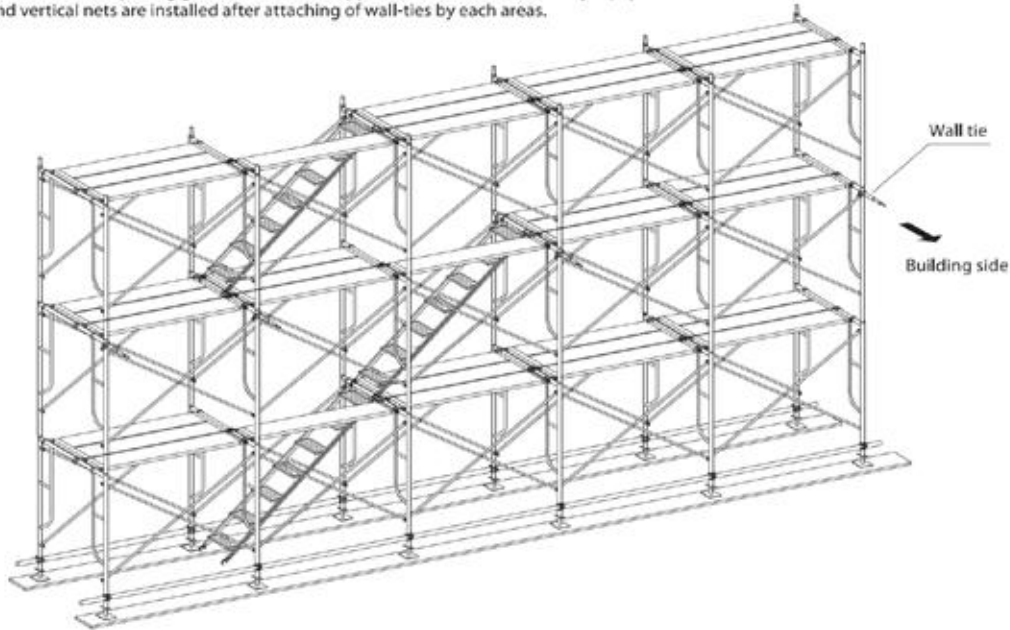
9

In the same manner as for the second layer, assemble the third layer in order of walk-through frames, cross braces and stage planks. Sequentially install stair sections in appropriate positions to provide access to the higher layer. Note that up to two stair sections can be installed continuously (across two layers) and every 2 layers of the staircase require access spans as a landing. To provide an entrance girder opening, assemble the scaffolding up to the next lower layer to the one where the entrance girder is to be installed as usual. After installing the entrance girder, disassemble the scaffold of the spans underneath the entrance girder.

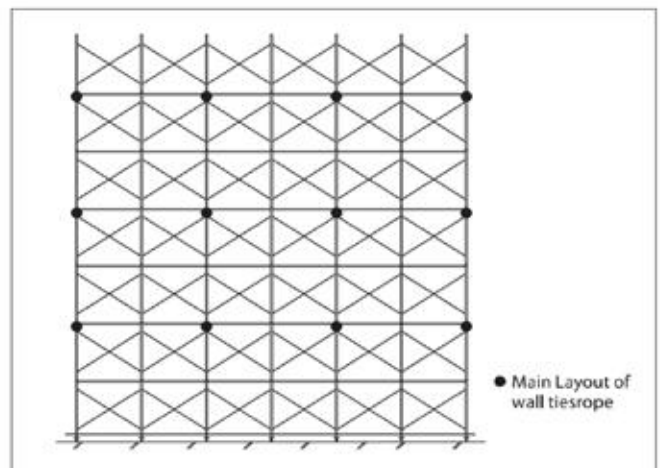
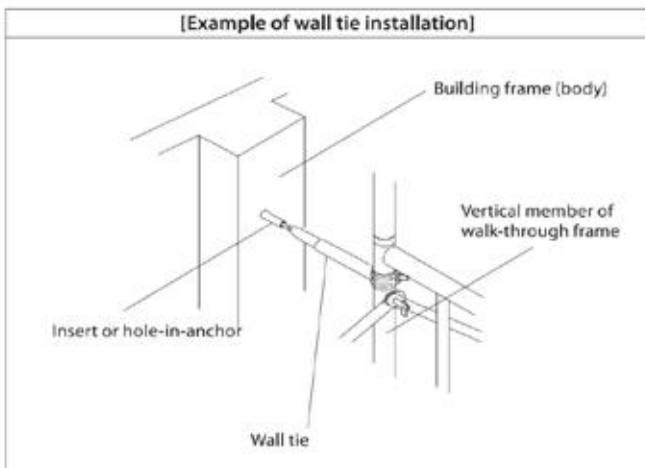
Normally install the first set of wall ties after the second layer has been completed. The figure above shows the appearance of the scaffolding with third layers completed.

[Note]

The procedure shown above is the installation method consisted of basic elements only. If you need or needed, suitably install the optional or safety elements like the following: stair handrail, opening guard frame, end stopper, under bar or other safety equipment. Mesh sheets and vertical nets are installed after attaching of wall-ties by each areas.



### Wall ties



After the second layer has been assembled, install wall ties. For higher layers, wall ties should be installed with a pitch equal to or smaller than every two layers and two spans, in addition to on the both ends of the scaffolding. If the scaffolding is to have mesh sheets or netting, calculate the wind load to determine the proper pitch to install wall ties.

- Wall ties should be installed onto the vertical members of the walk-through frames at a position as close to their horizontal members as possible.
- Wall ties are very important for the scaffolding to be stable. Always install wall ties to robust parts of the building.
- Use wall ties that have not only an adequate tensile force but also a sufficient compressive strength.

[Note]  
The description above gives a standard assembly procedure for frame scaffolding for your information. Before actual erecting, ensure safety of your assembly work in accordance with applicable laws and regulations, standards and rules in your country and/or region. Also ensure that any erecting, replacement or dismantling of scaffolding is conducted under the direction of a supervisor or foreman with adequate knowledge and experience on scaffolding and safety control. If your country or region has a personnel qualification system related to scaffolding or safety, always place qualified personnel as the supervisor.

## How to install a frame supporting

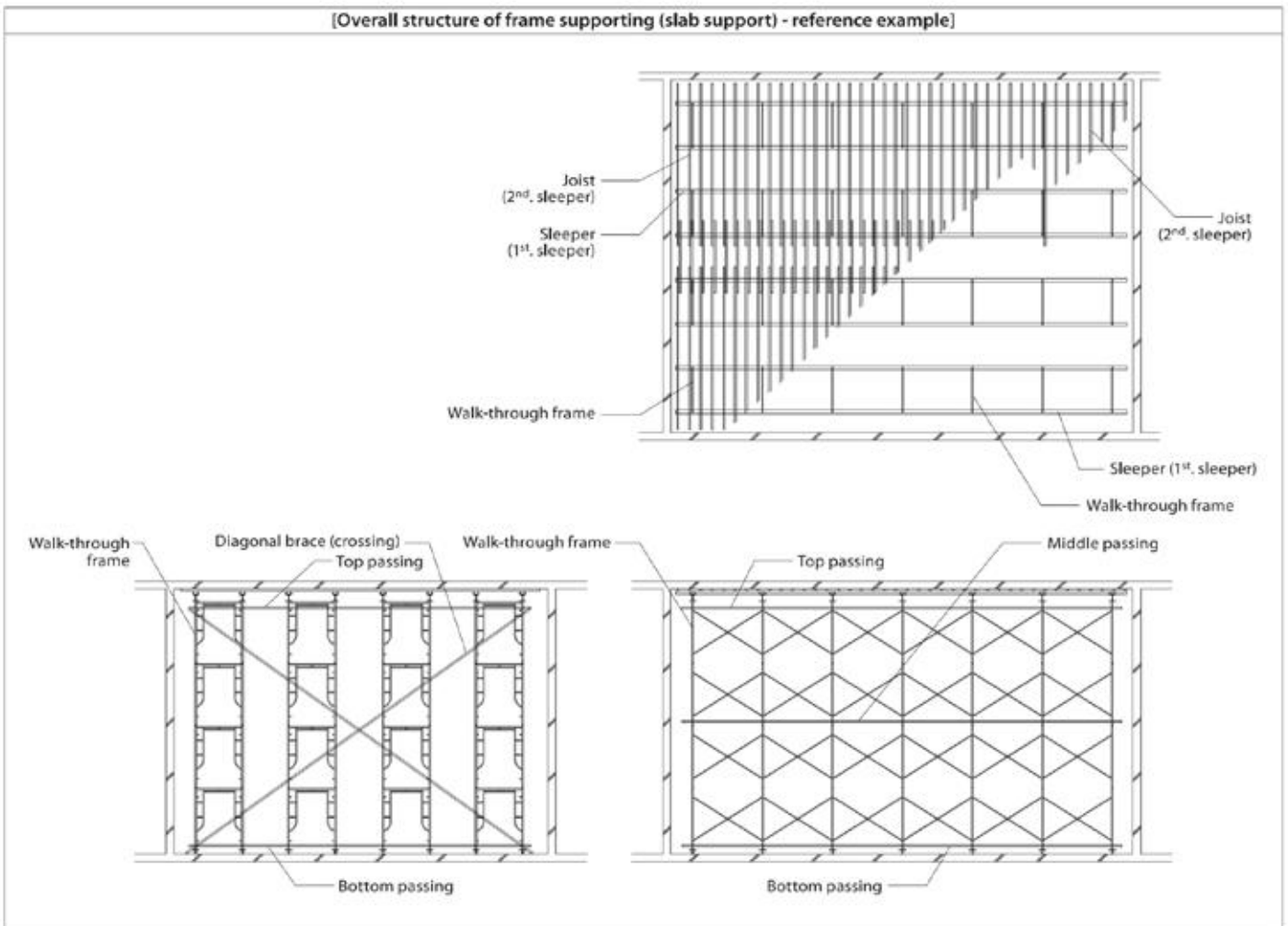
For frame supporting, it is easy to develop an installation plan and study the strength. The figure below shows an example of standard concrete slab support. Even if there is a slab with stepped sections or girders and beams, you can solve it by the combination with adjusting frames to set up different height columns or to separate halfway in a column or a rank. By doing so, you can built it suitable for even any building body of irregular shapes.

For frame supporting, the overall load can be led based on a strength of a single frame, free from difficult calculation. It is easy to determine the supporting pitch, requiring no complicated buckling calculation (except for calculation of support sleepers).

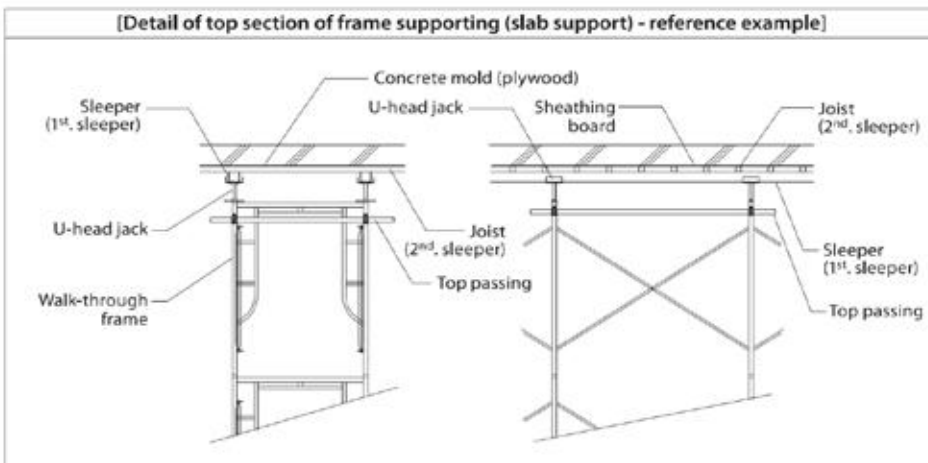
Also this system only requires the minimum quantity of scaffold members to support the load and can share members with external scaffolding, which makes the system highly efficient.

For specific strength calculation or sample calculations, contact your local Alinco customer service.

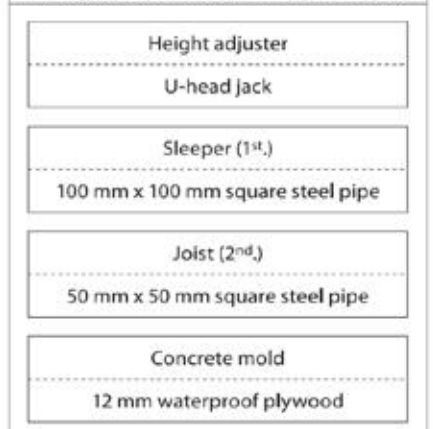
[Overall structure of frame supporting (slab support) - reference example]



[Detail of top section of frame supporting (slab support) - reference example]



[Example of combination of top members]





## Announcement of Business

### (1) Initial Fee

- Initial fee includes (i) cost of loading to and unloading from trucks the rented facilities at the Kapurindo's facilities center, (ii) cost for inspection acceptance, (iii) cost for safety inspection and (iv) cost for general maintenance.
- Initial fee shall be charged on any rented facilities, regardless of period of rent, use or non-use, etc.
- Initial fee is charged in full upon delivery of the rented facilities.

### (2) Rent Fee

- Based on the amount of facilities described in the delivery statement and the inspection statement, rent fee shall be calculated as follows:

(amount of facilities) X (rent fee per unit described in a proposal) X (rent period)

- Minimum rent period shall be 30 days.
- Rent fee shall not include (i) cost for transportation of rented facilities, (ii) cost for assembly and disassembly of rented facilities at construction sites and (iii) cost of loading to and unloading from trucks the rented facilities at construction sites.

### (3) Repair Fee

- Customer shall pay the repair fee to Kapurindo for the returned facilities which are recognized to need repair and/or polish upon inspection of the returned facilities by both Parties.
- Degree of necessary repair and/or polish shall be decided in accordance with "Kapurindo Inspection Standard" and the repair fee to be paid by Customer shall be decided in accordance with repair fee stipulated in the table of fee per unit.

### (4) Damage/Loss Fee

- Customer shall pay the damage/loss fee for the facilities which are recognized unable to be repaired upon inspection of the returned facilities by both Parties.
- Whether the returned facilities can be repaired or not shall be decided in accordance with "Kapurindo Inspection Standard" and the damage/loss fee to be paid by Customer shall be decided in accordance with damage/loss fee stipulated in the table of fee per unit.
- In case part of the rented facilities are damaged or lost during the rent period, the charge of rent fee is suspended and the damage/loss fee shall be paid.

### (5) Delivery Fee

Delivery will be charged to your company.

### (6) Delivery Location

The delivery address is to our company equipment center.

### (7) Rate Rental of 1 month for delivery and return

Delivery Date		Return Date	
Date	(+) month	Date	(-) month
1 until 5	0.75	1 until 5	(1.00)
6 until 15	0.5	6 until 15	(0.75)
16 until 25	0.25	16 until 25	(0.50)
26 until 31	0	26 until 31	(0.25)

- (8) We will have confirmed to customer after check return goods (different of quantity, size (code) and/or merk) for 3 days.

## REQUEST TO CUSTOMER REGARDING RETURN OF GOODS

To reduce ineffective delivery fee, and to shorten the process and waiting time, please cooperate with below matters.

1

The same with the shipping time, please do packing by classifying it.  
(Classifying by length or type, etc)



2

Please handle all the incoming goods with lift.  
Because it is more easier to do loading and unloading with lift.



3

Please do delivery in accordance to the time decided.



4

- To avoid the trouble because of loss goods, please attach the delivery note and the detail of the goods.
- To avoid the danger because of falling down goods or broken in the delivery time, please do packing as instructed at Packing Method.
- Please do arrangement with small goods, so it can be counted easily.
- Please do packing to pipe, brace, handrail, etc separately.
- Please keep the goods sorted with the goods from another company.
- We will have confirmed to customer after check return goods (different of quantity, size (code) and/or merk) for 3 days.



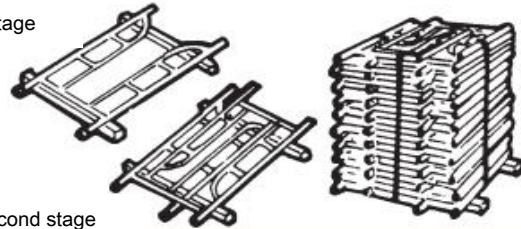
## PACKING METHOD SAMPLE

Do packing as the same with incoming condition as much as possible, and should be unite with rope, etc.

### Scaffolding Walkthrough Frame

Pile up the same goods mutually until 25 stages, and then tie it with rope.

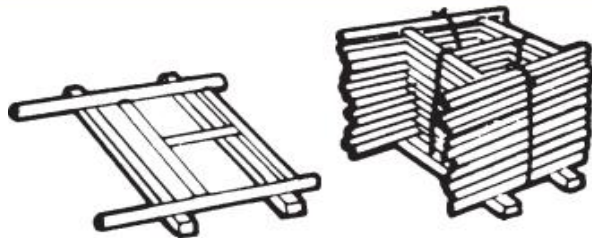
first stage



second stage

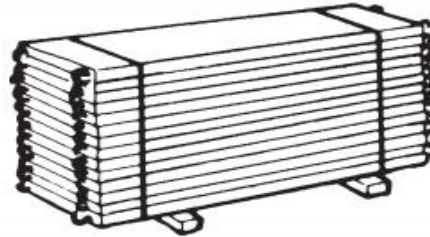
### Ladder Frame

Pile up the same goods in the same direction, and then tie it with rope every 25 stages and 25 sheets.



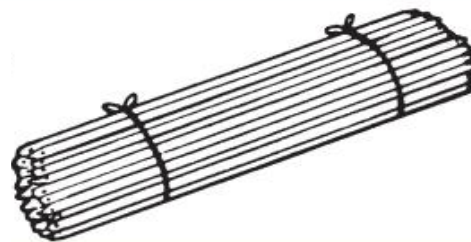
### Catwalk with Hooks

Put the same goods every 50 sheets in one packing.  
(The goods in the bottom is positioned upside down)



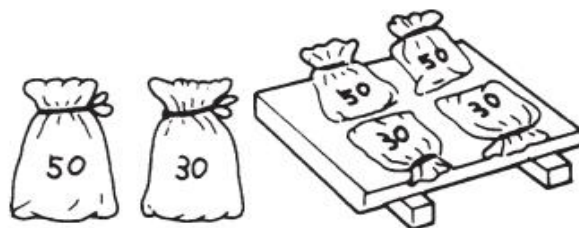
### Cross Brace, Steel Pipe, etc.

Unite the goods with the same length and the same type every 50 sticks or 100 sticks.



### Clamp, Joints, Base, etc.

Put the same type every 30pcs or 50pcs in the bag.





## LOCATION



PT. Alinco Rental Indonesia (Kapurindo Stockyard), Block CC-2 Cikarang Pusat, Kawasan Industri Greenland International Industrial Center, Delta Mas, Kab. Bekasi, Jawa Barat, Indonesia.