



FlyForms International L.L.C.

Formwork Solutions ■ Supply ■ Design & Engineering
■ Technical Consultation ■ Training & Supervision



V&P Shoring Tower System

Assembly and User Guide

Product Information and Features

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Product Features

The V&P Shoring System is the ideal system for the construction of engineering projects such as :

- Highway Bridges
- Commercial Building
- Heavy Slabs
- High Level Slabs

The System is an assembled Shoring Tower consisting of three main durable steel components:

- 1- Frames
- 2- Braces
- 3- Adjustable U-Head & Base Jack

The V&P Shoring System is designed and manufactured in accordance with BS EN 12182 : 2008, code of practice for Falsework

Advantages of using the V&P Shoring Tower System

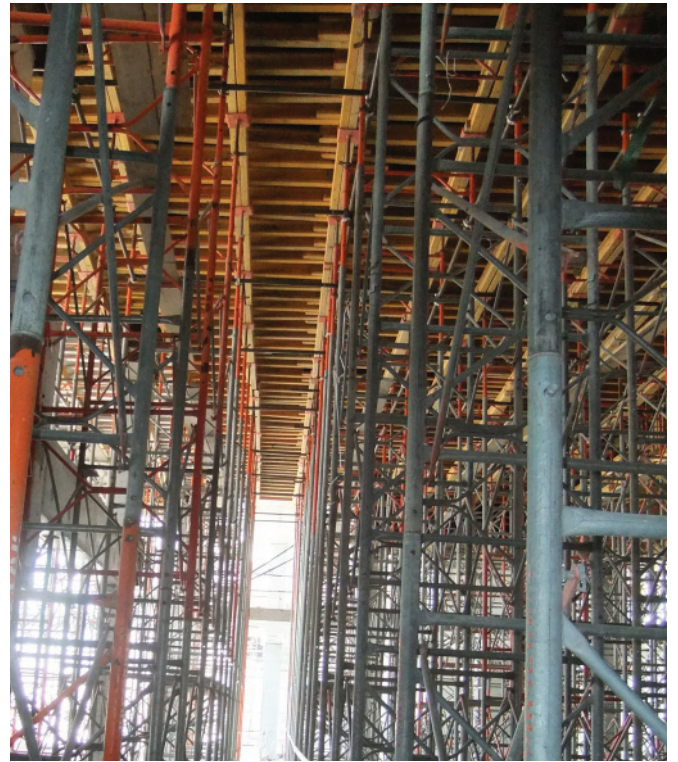
The simplification of the V&P Shoring System delivers real Advantages such as:

- Selection, assembly and erection are simplified.
- Stripping is more orderly and easily managed.
- Erection and stripping speeds are maximized.
- Transport and storage are simplified.
- Components are light weight and easy to handle.
- Components are compactly designed and easy to transport and store.
- Design involves large grids and offers flexibility of support arrangements. These in turn makes it easier for the engineer to increase or decrease frame grid position relative to the concrete thickness to be Supported.
- Also offers a shoring capability with an infinite height adjustment.

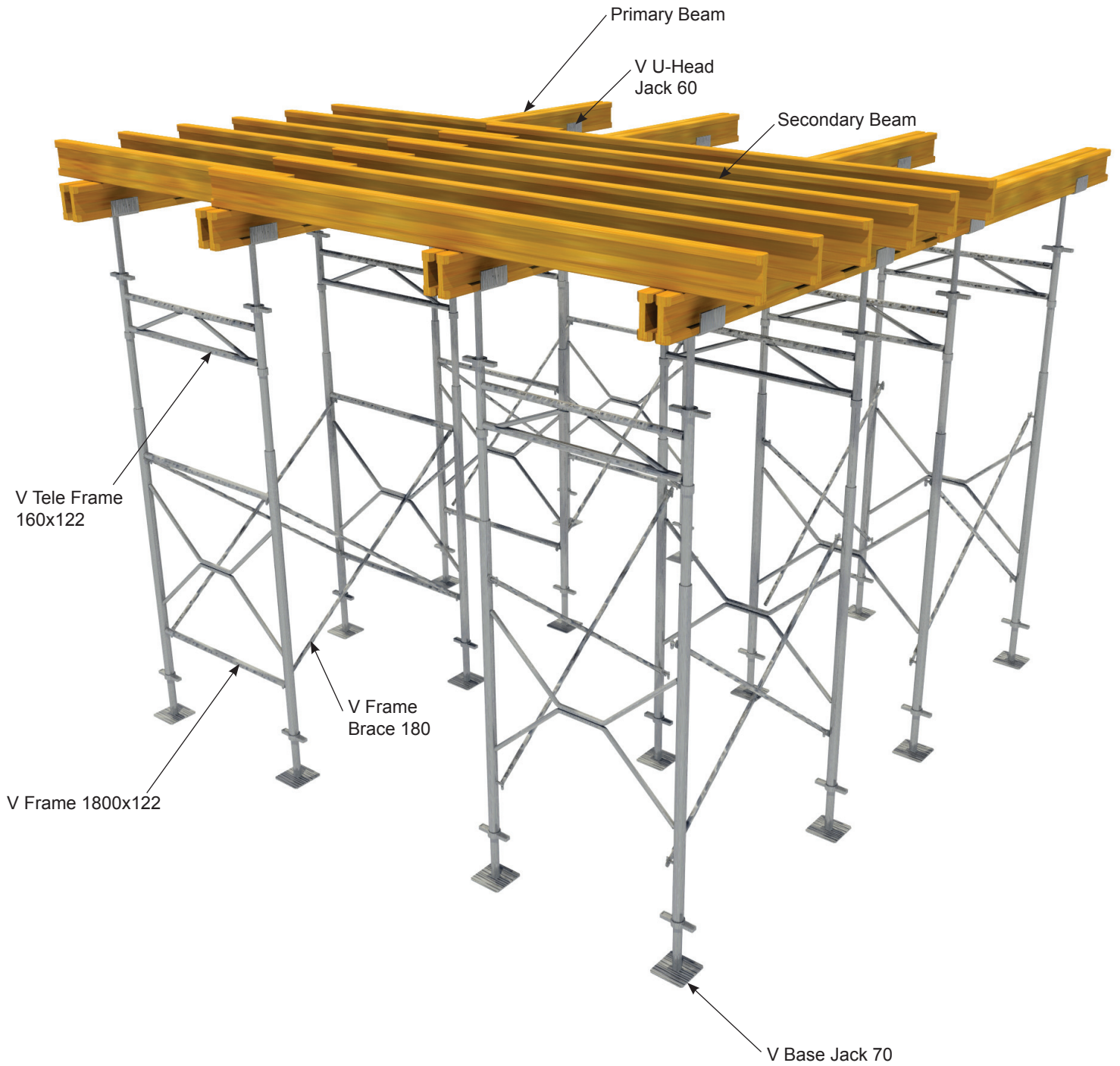
Important Remarks

The succeeding assembly and application guide has to be carefully read as it contains detailed information on the proper application and handling of the V&P Shoring Tower.

In order to ensure a technical and safe use of our product, all relevant national safety rules and regulations and safety instructions of national institutes and/or local authorities have to be observed. In general, only undamaged material and components which are in proper working condition must be used.



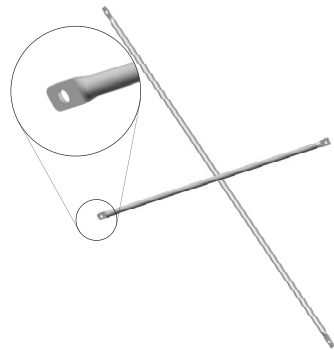
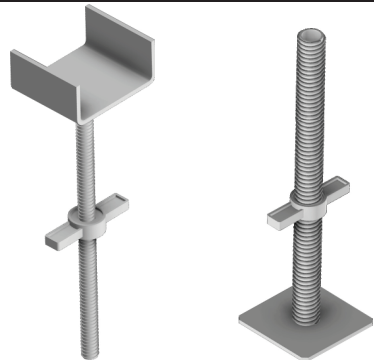




Product Overview (V-shore)

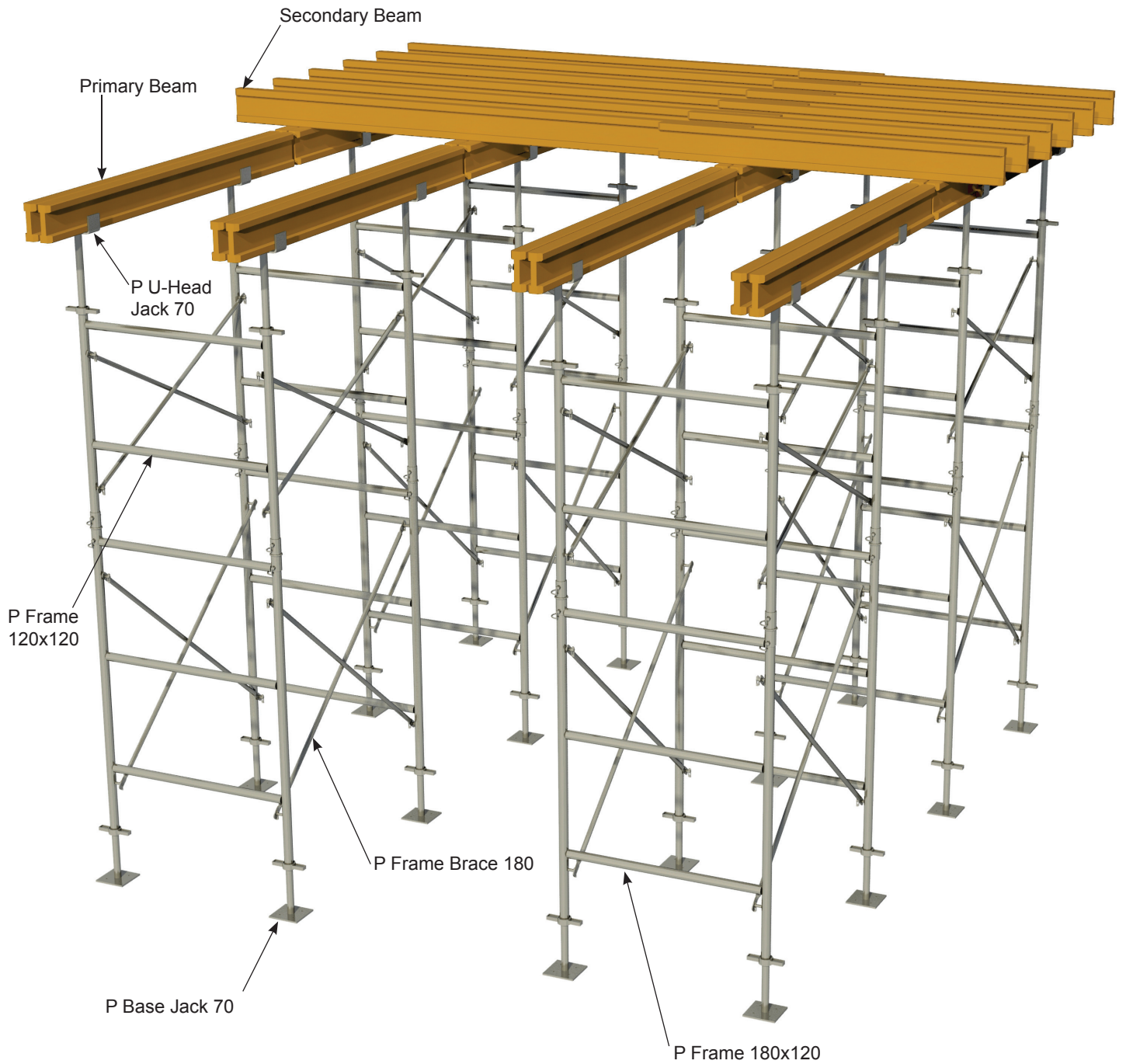


V-Shore System

Components



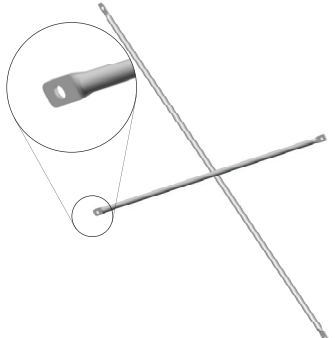
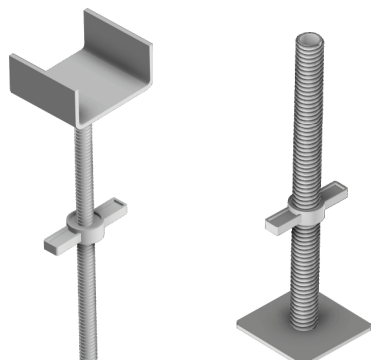

	Art. No	Weight Kg/pc.	
V Frame 180x122	701MF018	31.00	
V Tele Frame 160x122	701TF016	19.00	
V Frame Brace 180	701CB018	6.50	
V U-Head Jack 60 V Base Jack 70	701UHS60 701BJH70	11.00 7.00	 V U-Head Jack 60 V Base Jack 70
V Tele Pin	701TP085	0.18	
V Spigot Pin	701SP023	0.75	

Product Overview (P-shore)



P-Shore System

Components

	Art. No	Weight Kg/pc.	
P Frame 120 x 120	702MF012	18.00	
P Frame 180 x 120	702MF018	27.00	
P Frame Brace 120 P Frame Brace 180	702CB012 702CB018	5.20 6.40	
P U-Head Jack 70 P Base Jack 70	702UHH70 702BJH70	6.60 6.00	 P U-Head Jack 70 P Base Jack 70
P Spigot Pin	702SP018	0.65	

Erection Procedure & Precautions

Description & Erection

The product overview shows a tower configuration formed from pairs of frames braced by two diagonal cross braces secured to pins welded to the frame legs.

Frames consist of two vertical members separated by horizontal and or diagonal members.

Adjustable base jacks are inserted in the bottom ends of all frames legs to provide levelling for overall height adjustment and to compensate for local variations in the supporting surface. Adjustable U - head are inserted in the top of the frame to support primary beams, and subsequently secondary beams and to provide final height adjustment to these members.

Towers may be assembled with the loads applied through the U-Head with the primary beams running perpendicular to the frame or parallel to the frames. (see safe working loads section for each configuration).

Towers can be formed to a defined height using a combination of frames of both heights, provided that same height frames are used as a pair at each level. Frame connector (Spigot) and safety pin as shown below are used to connect frames to the desired height.

When frame towers are erected more than 1 frame in height, the following conditions are to be considered:

1, 2 or 3 frames high:

- A. V&P Shoring system guidelines are to be followed generally (refer to precautions)
- B. Leg loads shall be within permissible limits
- C. Frame towers shall be plumb
- D. All braces to be in position prior to pour
- E. Eccentricity shall be eliminated or minimized, or checked by an engineer

4 or more frames high:

- A. Same as for up to 3 frames high, plus: subject to leg loads, formwork layout, location of project and some other factors, it may become necessary to brace the towers using tubes and couplers at regular intervals in both (ie 2) directions. This is generally specified by the engineer. Important the above is for lateral stability.

Precaution

The supporting surface for formwork frames must have sufficient strength to support the loads of the frames, the formwork, concrete placed on the formwork and future work on the hardened concrete surface. Soils must be compacted to support such loads. Sole plates used under the base plates of the bottom jacks and the supporting surface must have sufficient strength to support the loads on the frames without undue settlement. Previously placed concrete surface damage to the concrete surface may require sole plates to prevent surface damage to the concrete or undue concentration of the loads under the base jacks.

Tower assemblies more than 1-frame high shall be connected using frame connectors. Frame safety pins should be in position.

Where it is necessary to erect frames more than 1.80m high a system must be developed for working at heights to prevent falls. Local regulations must be consulted to ensure that the selected work practice, including access to the upper levels, complies with the regulations.

A primary beam must extend bear on the full length of the U-Head. A single primary beam must be centred on the U-Head. Where the primary beam is narrower than the opening in the U-Head, the U-Head should be twisted to ensure that the primary beam remains at the centre. Where two primary beams are required to land on a U-Head they must not be endbuted but must pass each other to achieve full bearing on the surface of the U-Head.

Additional bracing tubes connected to the frame legs may be required where lateral forces or additional loads are to be considered.

Frames stacked on site may be unstable depending on the form of the stack. Care must be taken to ensure that injuries do not occur when working around stacked frames.

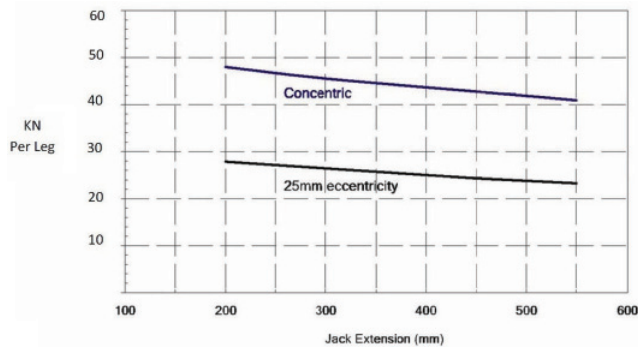
Non V&P SHORING SYSTEM components should not be substituted for V&P Shoring system components. Violation of this will invalidate the V&P Shoring system Safe Working Loads.

V&P Shoring system products must be used in accordance with V&P Shoring system technical specifications.

Safe Working Loads

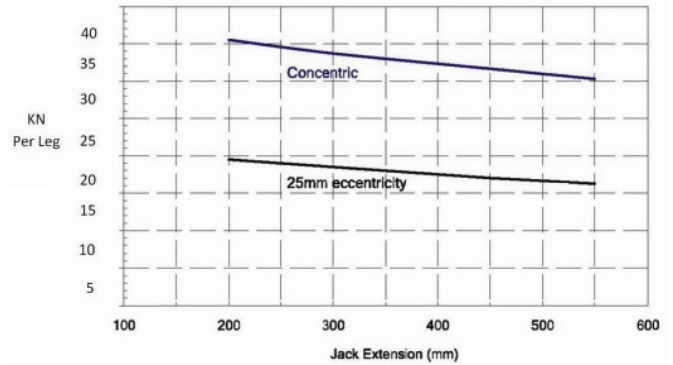
V&P Shoring system products must be used in accordance with all V&P Shoring system precautions and erection procedures provided in this document and any other requirements by a statutory or regulatory body. The use of V&P Shoring system products in a manner other than that intended will render the Safe Working Loads void.

Table 1: P Shoring System Safe Working Load per Leg when load beams are perpendicular to frames:



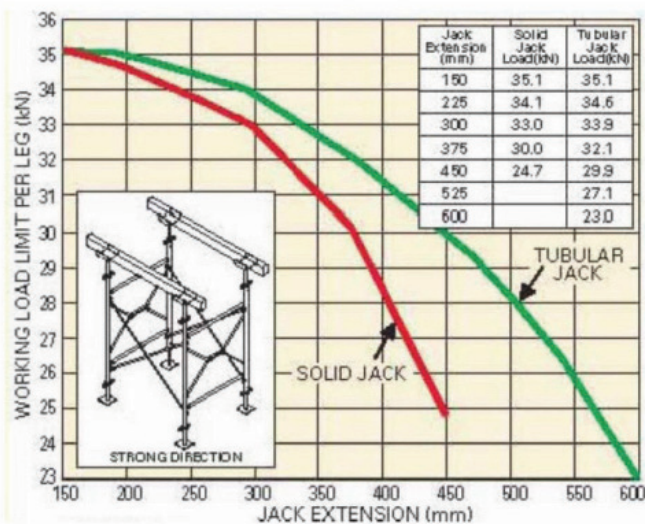
Note: Because of V&P Shoring System's policy of continued product improvement, we reserve the right to make changes at any time without notice.

Table 2: P Shoring System Safe Working Load per Leg when load beams are parallel to frames:



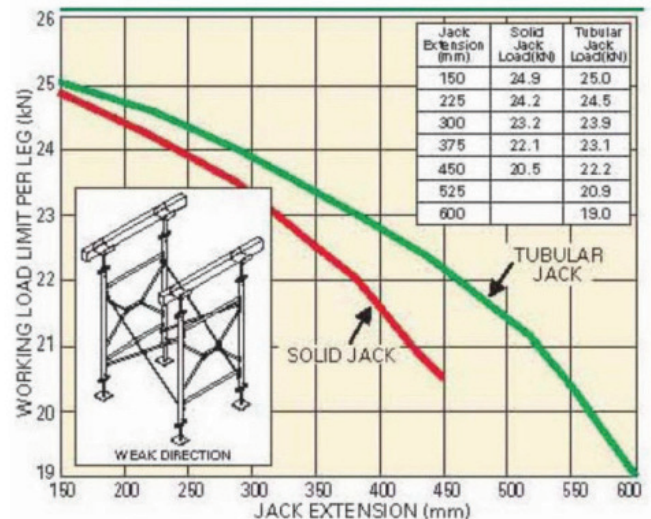
Note: Because of V&P Shoring system's policy of continued product improvement, we reserve the right to make changes at any time without notice.

Table 3: V Shoring System Safe Working Load per Leg when load beams are perpendicular to frames



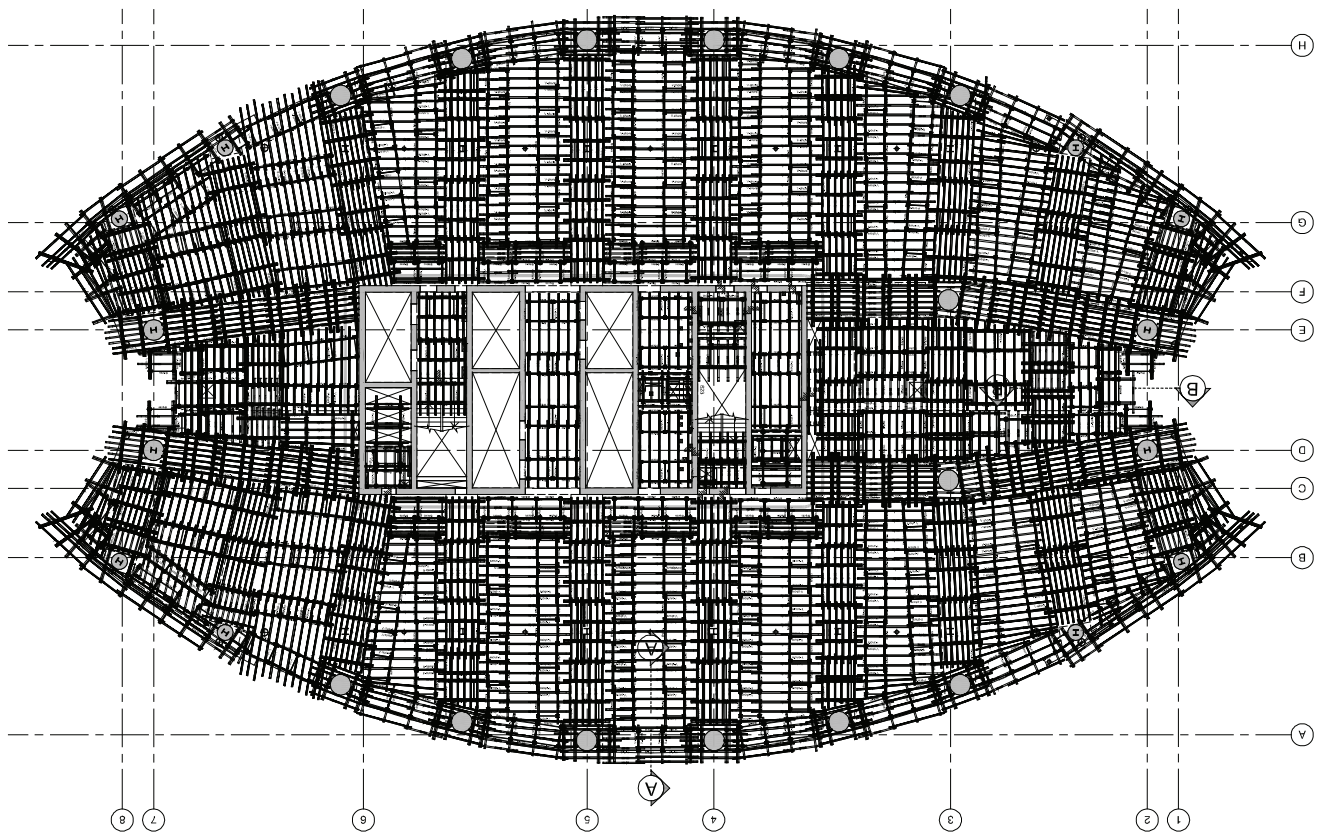
Note: Because of V&P Shoring System policy of continued product improvement, we reserve the right to make changes at any time without notice.

Table 4: V Shoring System Safe Working Load per Leg when load beams are parallel to frames

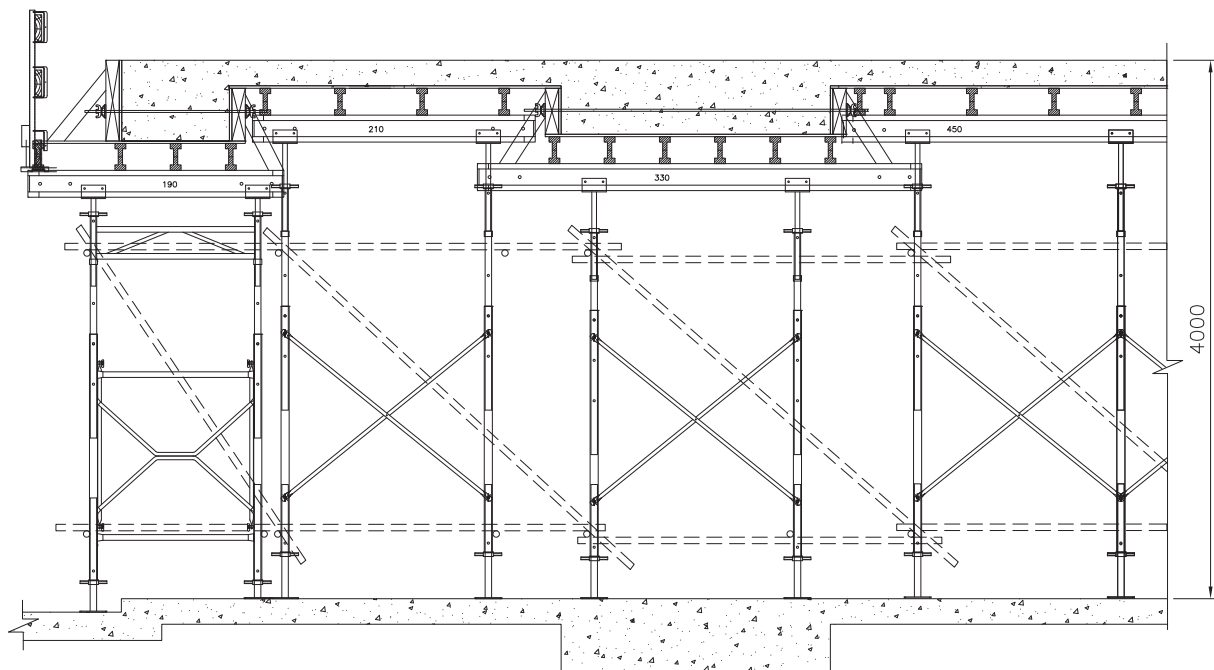


Note: Because of FlyForm's policy of continued product improvement, we reserve the right to make changes at any time without notice.

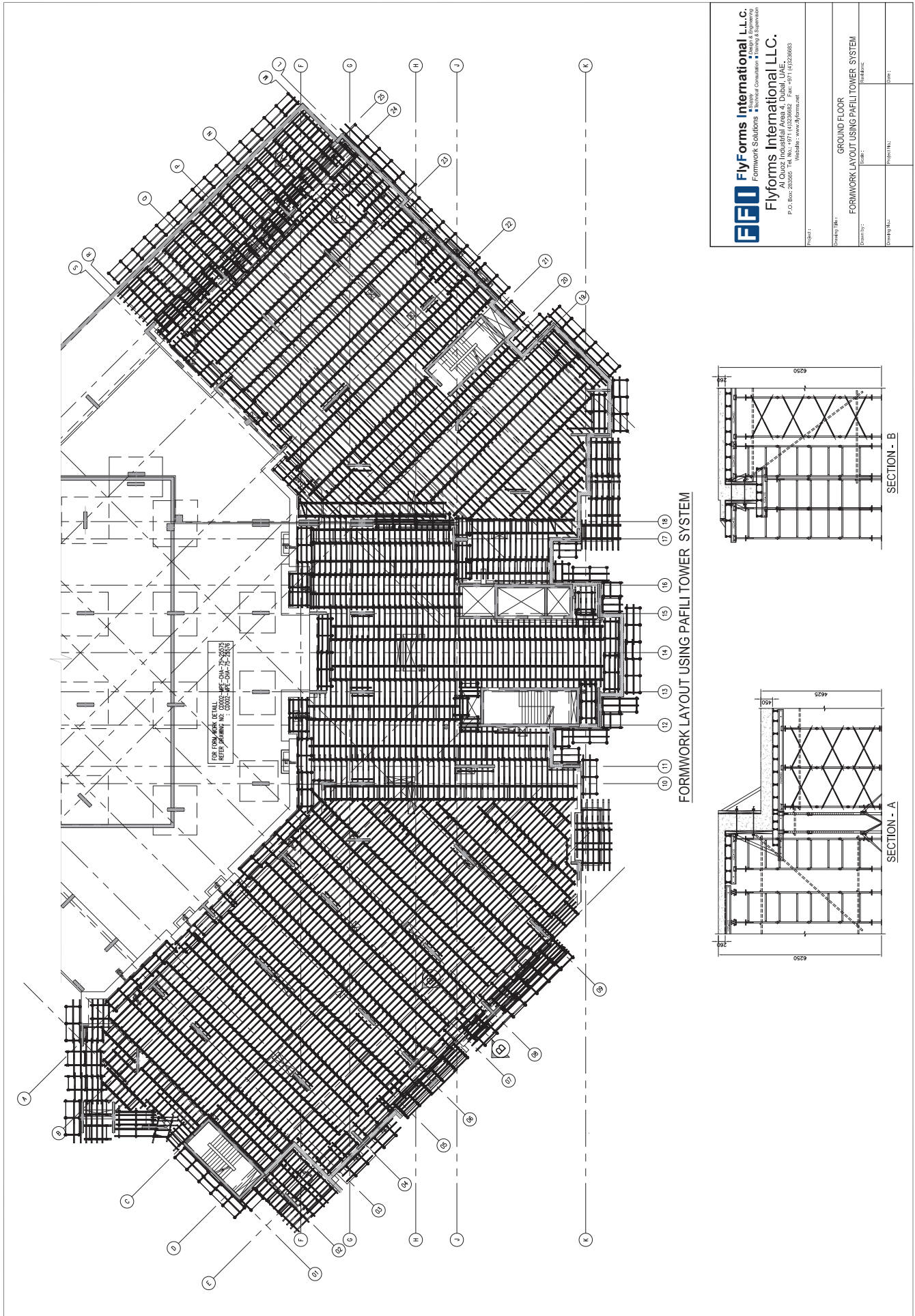
- A. All shop drawings, technical data & structural calculations will be submitted by FFI in accordance with the structural drawing & project requirements.
- B. The site erection shall be done as per FFI's shop drawings and shall be supervised and inspected by FFI's formwork specialist
- C. The spacing and positioning of the formwork material must be arranged based on the structural requirements and as shown in the FFI's execution drawings & calculations



Formwork Layout of Slab using V-Shore



Typical Section



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Project:		Date:	
Drawing Title:	GROUND FLOOR		
Drawing No.:	FORMWORK LAYOUT USING PAFIL TOWER SYSTEM		
Drawing Scale:	1:1		
Drawing Date:			

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