

FOWLER
SCAFFOLD HOISTS FORMWORK

ALU PROP

USER INFORMATION



SUMMARY

FEATURES	3
SYSTEM COMPONENTS	4
ACCESSORIES	5
ELEMENTS TECHNICAL FEATURES	6
ASSEMBLING INSTRUCTIONS	8
HORIZONTAL ASSEMBLY	10
VERTICAL ASSEMBLY	12
TUBE & COUPLERS BRACING	13
TRANSPORT & STORAGE	13
ITEMS LIST	14

FEAUTRES

ALU-PROPS: Are a versatile light weight prop with an excellent heavy-duty load capacity, ideal for back propping heavy slabs and structures, combined with connecting frames, which stiffens and stabilises props further, increasing the props load capability further. Using Alu-Prop Towers is ideal to form or back prop high strutting cast in-situ slabs and structures.

STANDARD MODULARITY: System modularity is provided by the connecting frames, available in a wide range of sizes, defining the prop spans to suit the load-ability required by the props. As for the vertical modularity, the Alu-Props are connected end to end, to reach the height required.

HIGH WORKING LOADS: With appropriate planning, the heavy duty Alu-Props with the correct length connecting frames and positioning of Alu-Props will ensure the systems load-ability to support the load of the structure. No fixed load data is provided within this user information guide, given the large range of variables in propping combinations available. Contact Fowler for applicable load charts to suit your project.

EASY TO USE: With very few accessories required to form Alu-Prop towers, the system is very easy to use and can be safely erected and dismantled using the appropriate decks and methodology.

EASY SHIFTING: Dedicated devices, such as heavy-duty wheels, lifting forks and straps offer a safe, fast solution for the shifting and recycling Alu-Towers

SAFETY: The systems load-ability, stability and modularity assure safety with correct planning and safe work methods, which are easily done using the instructions and illustrations within this user information guide.

SAFETY WARNINGS

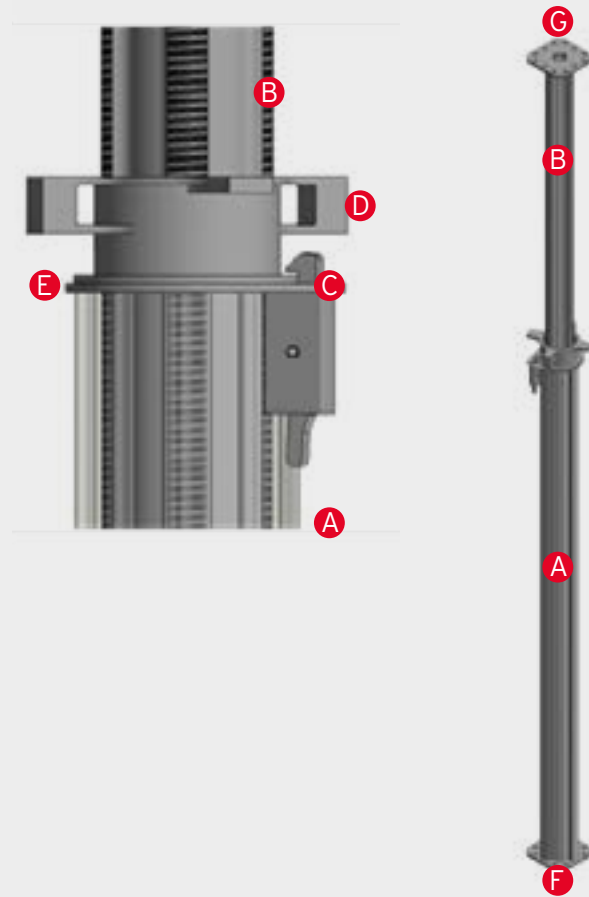
- The respect of these instructions does not exempt from compliance with all safety regulations in force in the country where you use the system.
- These instructions are intended for users of Fowler products and systems. Operators must be aware of the contents of this manual; in case they have difficulties in reading the same, contact Fowler Formwork Manager.
- The User's Manual instructions must always be available at the workplace for all operators.
- This manual, even if used in order to draw up a Method Statement, will not substitute it, and the Method Statement will remain an important and unavoidable site document, responsibility of the client.

- **Information and illustrations contained herein are relative to only the system in question, and therefore not exhaustive about the overall security; always refer to the applicable health and safety regulations in the area of use of the equipment.**
- **In relation to flow, configuration, installation, use and dismantling of equipment Strictly obey all instructions contained herein; failure to comply with them may result in serious injury to people, as well as extensive property damage.**
- Take every precaution consequently due to the climatic conditions of the site (i.e. in case of rain and/or ice to provide anti-slip measures etc.)
- Periodically verify, especially after severe weather conditions, any connection, wedge or any other connecting element, in order to avoid any possible system instability and consequent accidents.

SYSTEM COMPONENTS

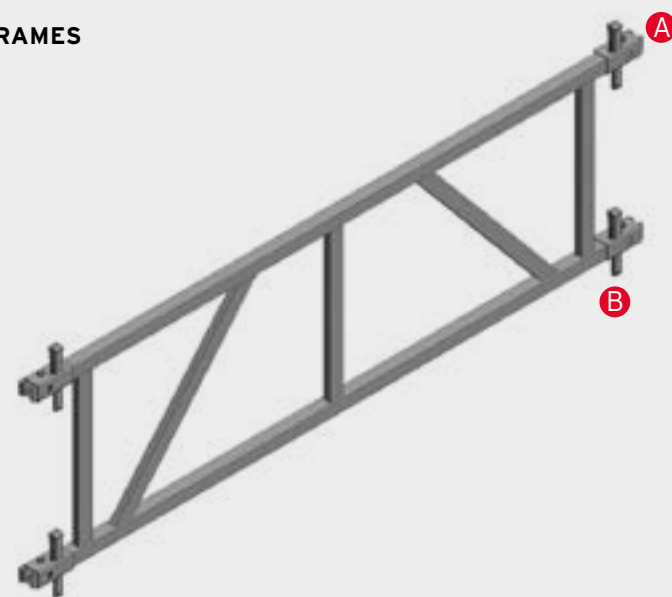
1. ALUMINIUM PROPS

- A** Outer Tube
- B** Inner Tube
- C** Safety Hook
- D** Adjusting Nut
- E** Bearing Plate
- F** Foot plate
- G** Head Plate



2. ALU PROP CONNECTING FRAMES

- A** Wedge Connection
- B** Wedge



ACCESSORIES

3. ALU PROP EXTENSIONS

- A** Outer Tube
- B** End plates

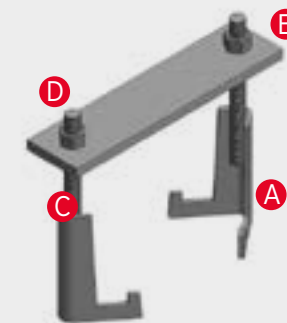


4. ALU PROP TRIPOD



5. ALU PROP WALING CONNECTOR

- A** Fixing Hook
- B** Connecting plate
- C** Threaded rod M 16
- D** Nut M 16



6. ALU PROP CONNECTING BOLT

- A** Bolt M 12
- B** Nut M 12



7. ALU PROP CLAMP & COUPLER



ALUMINIUM PROPS TF P 105 / TF P 70

Aluminium alloys with very high yield strength (R=300N/mm2) guarantee high loadability and material lightness.

Interrupted and specular thread obtained by mechanical removal, guarantees self-cleaning and antiscuffing handling of the adjusting nut.

Mechanical assembly of all the components allows minimal maintenance costs and easiness of damaged item replacement.

The special outer tube geometry with resulting “slots” allows the easy attachment of the connecting frames.

Double safety system avoids the exit of the inner prop.

P 105 is the TF Aluminium Prop for slabs, to be used in standard configuration or coupled with Alu Prop Connecting Frames to shift to a tower system when convenient. It guarantees the maximum loadability of TF Alu Prop System.

ART.	H closed mm	H open mm	Weight Kg	Loadability H Max (kN)
PUNT1600105V	1000	1600	13.0	93
PUNT2500105V	1450	2500	17.0	93
PUNT3500105V	1950	3500	21.5	59
PUNT4200105V	2650	4200	23.0	45
PUNT4800105V	2600	4800	27.5	40
PUNT5500105V	3300	5500	30.5	32
PUNT6250105V	4300	6250	35.0	28



ALUMINIUM PROPS TF P 105

TF Alu prop 70 are smaller in diameter and therefore even lighter, when the loads allow it. The main differences between P 105 and P 70 Alu Props, other than different diameters, and obviously the loadability, are focused on the model P 70 L420, where the prop configuration shift from the “standard” outer/internal tube coupling to a “double internal tube”, and it derives from the need to maintain an high loadability also for this extraction length.

ART.	H closed mm	H open mm	Weight Kg	Loadability H Max (kN)
PUNT305070V	1750	3050	11,5	20
PUNT420070V	2900	4200	16,5	20



ALUMINIUM PROP TF P 70 - 3050

ALUMINIUM PROP TF P 70 - 4200

ALU PROP CONNECTING FRAMES

ART.	Height mm	Lenght mm	Weight Kg
TL500105SZ	500	500	6.5
TL1000105SZ	500	1000	9.3
TL1250105SZ	500	1250	10.5
TL1500105SZ	500	1500	11.5
TL2000105SZ	500	2000	14.0
TL2500105SZ	500	2500	15.7

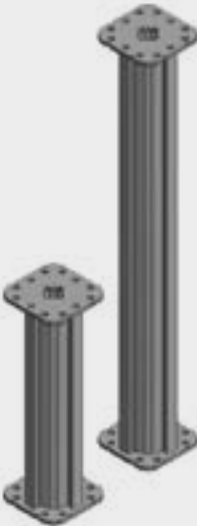


EXTENSIONS P 105

Extension can be used as a Prop extension to make it longer when needed, or as a link between 2 base plates of 2 props (with 4 bolts M 12 x 40 in diagonal) to extend the tower working height.

Made with the same aluminium structure and features as the Alu-Props.

ART.	Height mm	Weight Kg
P500105V	500	3.5
P1000105V	1000	5.7
P1500105V	1500	8.0
P2000105V	2000	10.2
P3000105V	3000	14.8



CONNECTING TF ALU PROPS EXTENSIONS

1. ERECTION

- A** Position the TF Alu Prop on the chosen extension
- B** Insert four Alu Prop Connecting Bolts in dedicated Prop and Extension plate holes (diagonally corresponding so that a "square" will be formed) and securely screw them
- C** Alu Prop and it's extension are now correctly fixed and ready to use

2. DISMANTLING

- D** Loosen the connecting bolts
- E** Remove the extension.



fig 1

ALU PROP CONNECTING FRAMES

1. ERECTION

The connecting frames have to be connected to the props so that the wedge can only be hammered into position from the top, as per images besides show. Alu Prop Tripods are the ideal aid in assembling phase.

- A** Open the clamp claw ensuring the wedge remain at the top Fig 2
- B** Lock the clamp claw in the TF Alu Prop profile. Fig. 3
- C** Keep the clamp claw closed.
- D** Hit the wedge with the hammer until the clamp is firmly locked.
- E** Close the other wedge connections (four clamps for each connecting frame) in the same way.

The frame is now properly mounted to the props Fig. 4

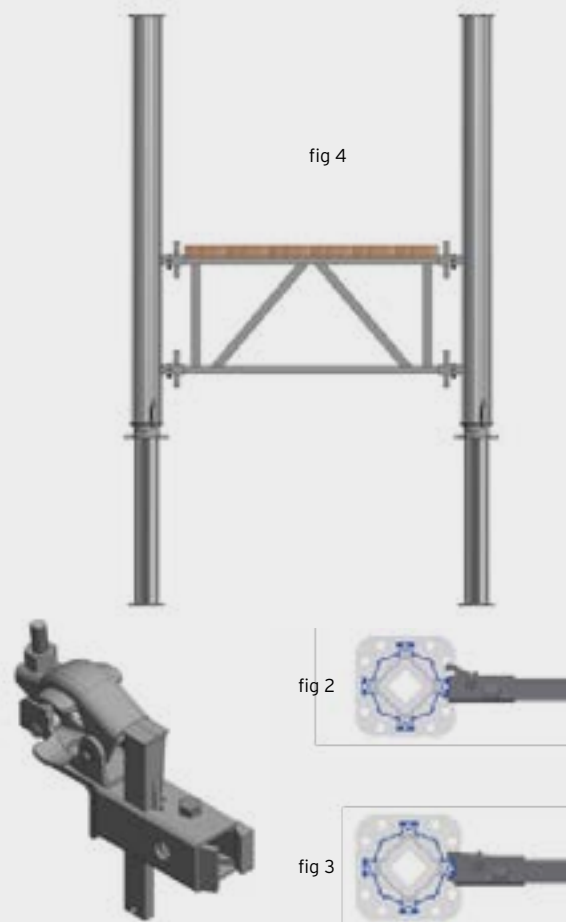


fig 4

fig 2

fig 3

ALU PROP WALING CONNECTOR

In presence of high loads, steel walers can be adopted as main beams, and can be fixed to the props instead of H20 wooden beams, i.e. when configuring TF Alu Prop shoring towers as "Table System".

1. ERECTION

- A** Loosen the Nut M 16 on threaded rod M 16 (1)
- B** Position the connecting plate on U-profile top wings (2)
- C** Insert the fixing hooks, from below, in the holes of the prop head plate (3)
- D** Tighten the Nut M 16 on threaded rod M 16

2. DISMANTLING

- A** Loosen the Nut M 16 on threaded rod M 16 (1)
- B** Pull the fixing hooks out of the prop head plate and remove the connecting plate.

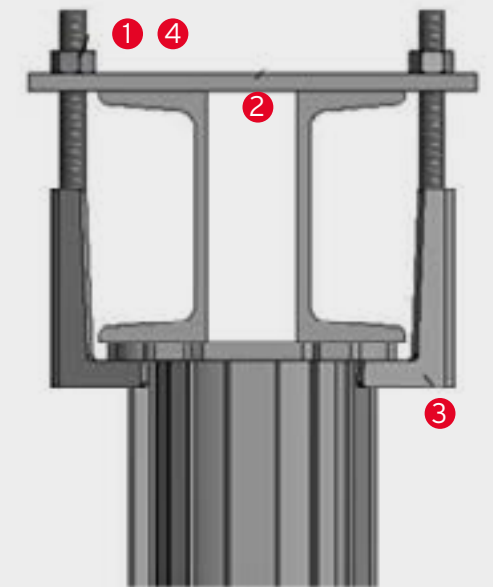


fig 5

ASSEMBLING INSTRUCTIONS

TF ALU PROP PREPARATION

- A** Press the safety hook (1) and release the adjusting nut (2).
- B** Extract the inner tube (3) to required prop length and adjust nut.
- C** The inner tube must be pushed in until the adjusting nut lies on the bearing plate (4).
- D** Lock the safety hook (1).
- E** Adjust to the exact prop length by screwing the adjusting nut (2).

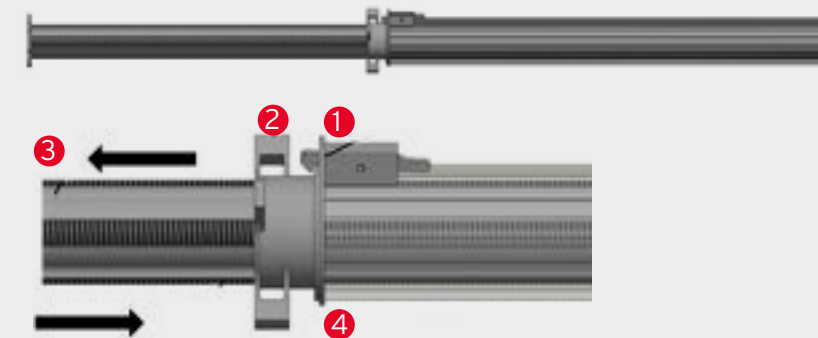


fig 7

TF ALU PROP CONNECTION

TF ALU PROP CONNECTING BOLT

The Connecting Bolt allows to “couple” two Alu Props through their end plate (four bolts for each connection) Fig. 8

1. ERECTION:

- A Position the two props on top of each other making sure the flanges match precisely (1)
- B Insert four Connecting Bolts “diagonally” so that they form a “square” (2)
- C Screw the Bolts securely.

The props are now connected and ready to use Fig. 9.

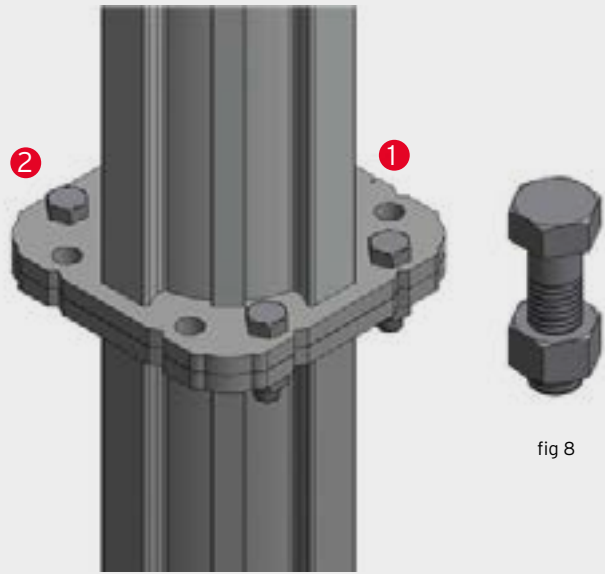


fig 8

fig 9

TF ALU TOWERS HORIZONTAL ASSEMBLY

Because of safety considerations, horizontal assembly is recommended in order to minimize any avoidable risk for workers. An adequately levelled area is necessary to correctly execute the horizontal assembly.

1. ERECTION:

- A Adjust the props length as previously described in “System Details” paragraph.
- B Lay down both props and connecting frames in planned configuration, refer Fig. 10.
- C Connect the props with each other and the connecting frames (Fig. 11) to the props as per instructions Fig. 12
- D Fix following connecting frames in vertical direction (1) and, after connecting another “couple” of Alu Props, lay them on top of the connecting frames (2), executing the connections with the same sequence and recommendations described in previous phases Fig. 13.
- E Complete the tower assembly by connecting the last connecting frames as per previous instructions Fig.14. and install locking clamp to underside of connecting frames.
- F The Alu Tower is now ready to use and can be lifted by crane ropes or chains to the foreseen operative position Fig. 15.

Before lifting Alu Tower into working position, carefully check all connections to props connecting bolts, connecting frames wedge connectors etc... visually and mechanically.

- G Once the Alu Tower is in position the working deck and perimeter hand railing can be installed using elevated work platform or other safe measures.

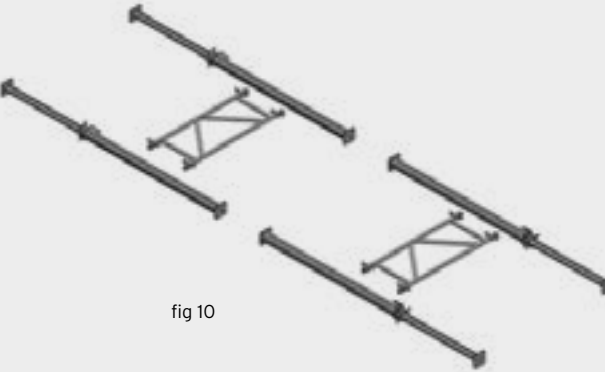


fig 10

TF ALU TOWERS HORIZONTAL ASSEMBLY

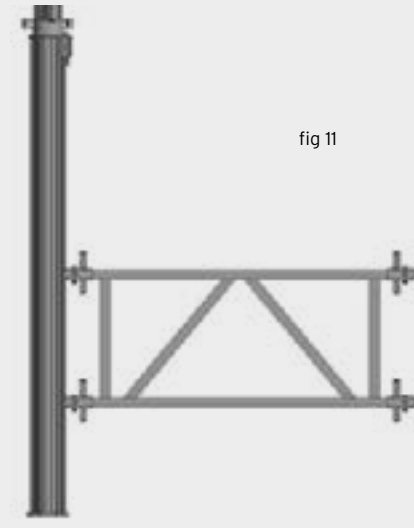


fig 11



fig 12

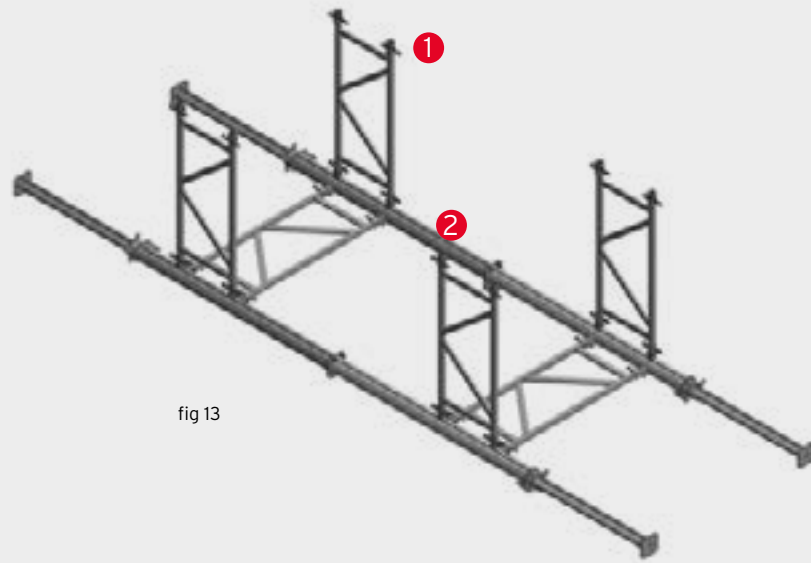


fig 13

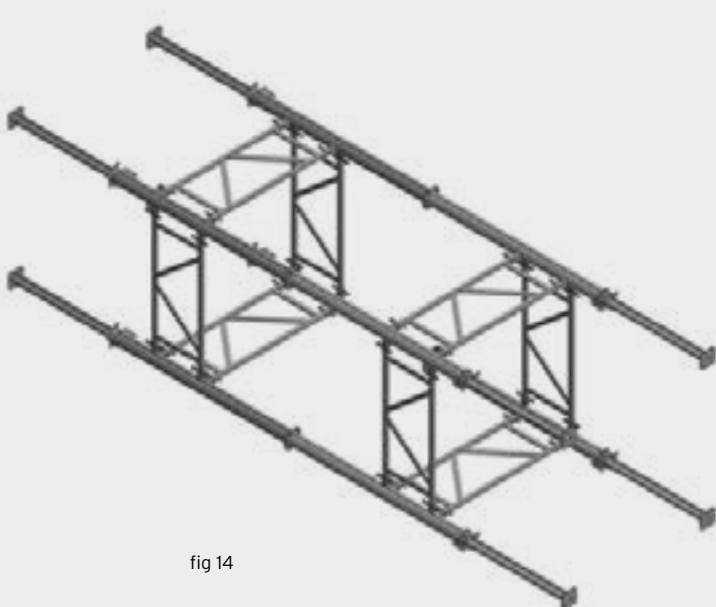


fig 14

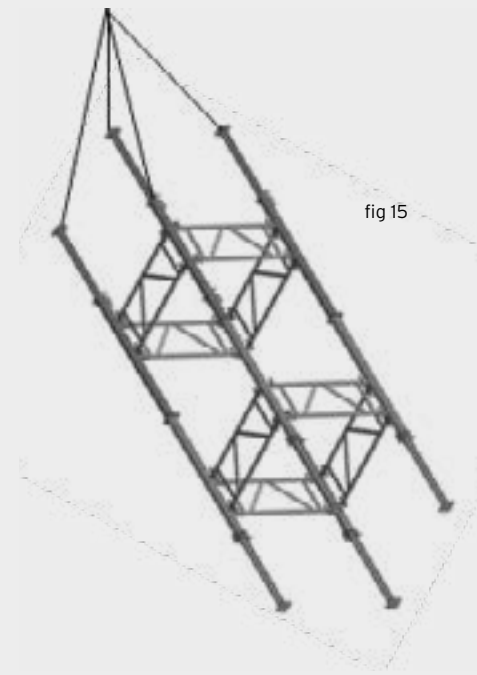


fig 15

TF ALU TOWERS VERTICAL ASSEMBLY

If site conditions or other stringent reasons make it impossible to operate horizontally, then a vertical assembly procedure must be considered and applied, taking in account every possible safety measure to avoid risks.

1. ERECTION:

- A** Adjust the props length as previously described in "System Details" paragraph.
- B** Put the props in vertical position by the aid of TF Alu Prop Tripod Fig. 16
- C** Install the necessary connecting frames as per previous instructions Fig. 17 and install locking clamps to underside of the connecting frames.
- D** Install timber scaffold boards to top of connecting frames to form working deck / catch deck, ensuring the boards are fixed into each other and into place. Any large gaps should be covered with lap boards or plates. (This may require a mobile access platform to complete this task)
- E** Connecting frames should be installed as perimeter edge protection, if there is no other form of edge protection in place. Carefully check all props, connection bolts, connection frames and locking clamps prior to accessing working deck / catch deck.
This process is followed for and any additional decks required, till tower is complete. Appropriate access systems must be used for safe access and egress of decks

2. DISMANTLING

Dismantle of the towers is done in the reverse method of erection, using appropriate mobile access platforms.



fig 16

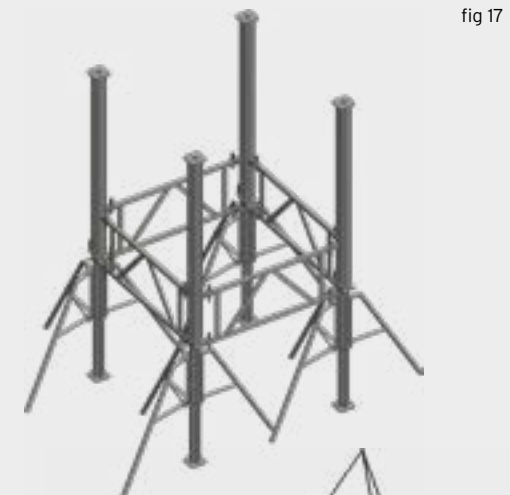


fig 17

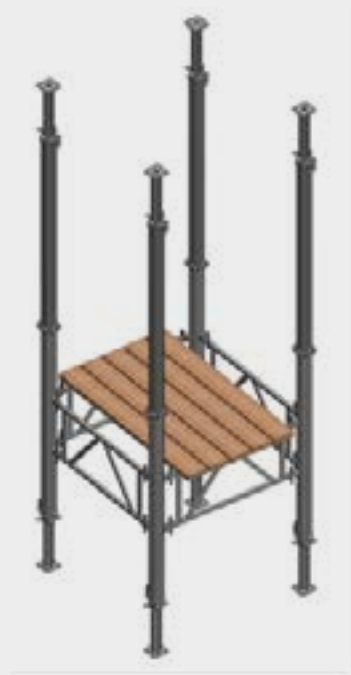


fig 18

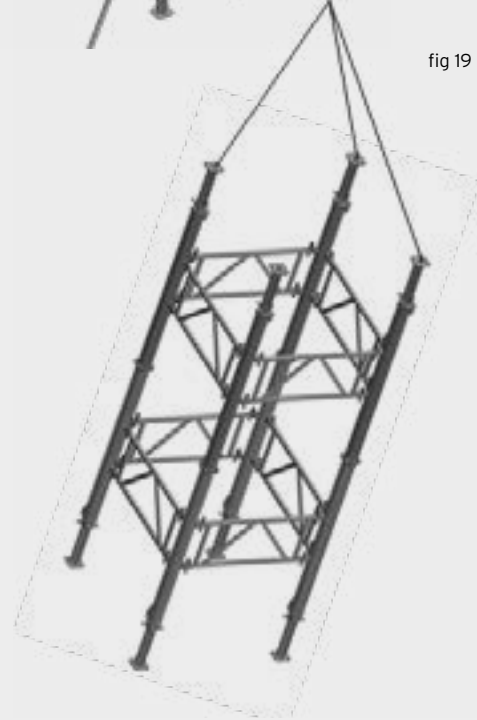
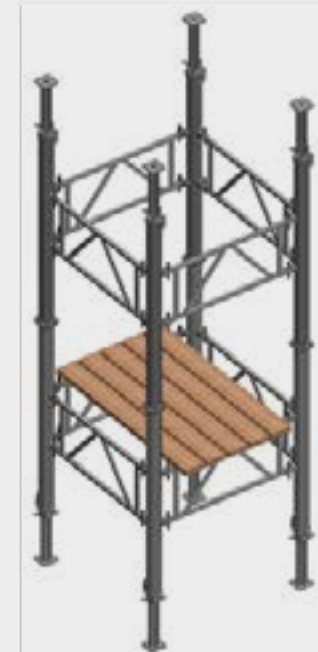


fig 19

TF ALU TOWERS TUBE & COUPLER BRACING

On site it's not unusual to have the necessity to provide specific bracings not easy to foresee beforehand; other than above mentioned situations and specific needs, the "Tube & Coupler" bracing system could be a helpful aid also during the assembling phase. In any case, the Alu Prop "Clamp & Coupler" Fig. 22, is the ideal item to combine the TF Alu Prop with standard tubes to be used as bracings Fig. 20 - 21.



fig 20



fig 22

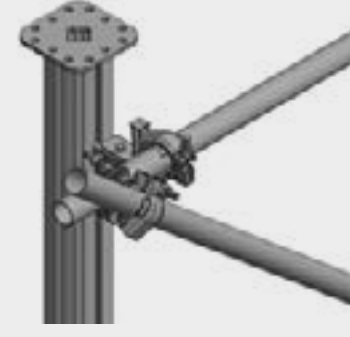


fig 21

TRANSPORT & STORAGE



Frames (20/pcs)



Props (49/pcs)

ITEMS LIST

ALUMINIUM PROPS P 105



CODE	DESCRIPTION	WEIGHT (KG)
PUNT1600105V	Alu Prop 105 1000/1600 mm	13.0
PUNT2500105V	Alu Prop 105 1450/2500 mm	17.0
PUNT3500105V	Alu Prop 105 1950/3500 mm	21.5
PUNT4200105V	Alu Prop 105 2650/4200 mm	23.0
PUNT4800105V	Alu Prop 105 2650/4800 mm	27.5
PUNT5500105V	Alu Prop 105 3300/5500 mm	30.5
PUNT6250105V	Alu Prop 105 4300/6250 mm	35.0

ALUMINIUM PROPS P 70



CODE	DESCRIPTION	WEIGHT (KG)
PUNT305070V	Alu Prop 70 1750/3050 mm	11.5
PUNT420070V	Alu Prop 70 2900/4200 mm	16.5

ALU PROP CONNECTING FRAMES



CODE	DESCRIPTION	WEIGHT (KG)
TL500105SZ	Steel frame 500 mm galvanized	6.5
TL1000105SZ	Steel frame 1000 mm galvanized	9.3
TL1250105SZ	Steel frame 1250 mm galvanized	10.5
TL1500105SZ	Steel frame 1500 mm galvanized	11.5
TL2000105SZ	Steel frame 2000 mm galvanized	14.0
TL2500105SZ	Steel frame 2500 mm galvanized	15.7

ALU PROP EXTENSIONS



CODE	DESCRIPTION	WEIGHT (KG)
P500105V	Prop extension L500 mm	3.5
P1000105V	Prop extension L1000 mm	5.7
P1500105V	Prop extension L1500 mm	8.0
P2000105V	Prop extension L2000 mm	10.2
P3000105V	Prop extension L3000 mm	14.8

ALU PROP WALING CONNECTOR



CODE	DESCRIPTION	WEIGHT (KG)
TF5821220A	Alu Prop Waling connector	1.5

ALU PROP CONNECTING BOLT



CODE	DESCRIPTION	WEIGHT (KG)
Bolt M12	Alu prop Connecting Bolt	0.2

ALU PROP TRIPOD



CODE	DESCRIPTION	WEIGHT (KG)
TPR116	Alu Prop Tripod	11.00

ALU PROP CLAMP & COUPLER



CODE	DESCRIPTION	WEIGHT (KG)
TF5825610A	Alu Prop Clamp & Coupler	4



**Hoists • Scaffolding • Formwork • Hire • Sales
Design & Fabrication**

T. +61 2 9426 9700
info@fowlerhire.com.au | www.fowlerhire.com.au

1333 Horsely Dr • PO Box 6481
WETHERILL PARK NSW 2164 • ABN 11 475 492 079

ScafworX Investments Pty Ltd atf ScafworX
Unit Trust t/a Fowler Sales and Hire

