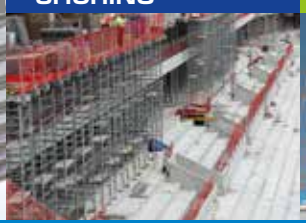
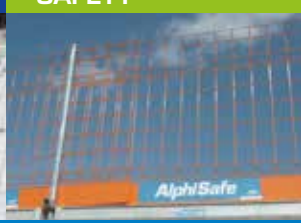
GENERAL CATALOGUE

FORMWORK | PROPS | BEAMS | SHORING | SAFETY





Alphi®

Formwork and solutions

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INNOVATION | SAFETY | PRODUCTIVITY | PROXIMITY | EXPERTISE

Alphi®

Formwork and solutions

The French formwork and shoring specialist, Alphi has consolidated its position as leader on the national market, and beyond, through the fundamental values introduced from the company's inception by its founder, Edmond Souvignet.

Innovation - Safety - Performance are the cornerstone of product development centred on greater well-being for workers and customer satisfaction.

Belief in the values of a family business

Alexandre Souvignet, CEO of Alphi, and Philippe Souvignet, Managing Director, with Edmond Souvignet, the company's founder

The adventure started in 1995, on the banks of France's largest natural lake. At that time, Edmond Souvignet made the decision to capitalise on aluminium hand-portable slab formwork. **Close to thirty years focussing on innovation and customer satisfaction,** in the "made in France" tradition, followed.

Alphi found its roots in the Savoie region, at the crossroads between the Lyon, Geneva and Turin routes. These regional roots have remained consistent over the years, as the company has grown, with the construction of one of the largest equipment bases in Saint-Genix-les-Villages in France in 2014, **making it possible to reach the French and international markets under the best possible conditions.**

Alphi offers a **comprehensive range of formwork and shoring systems** capable of meeting the needs of any construction project. This is the result of a drive towards innovation fundamentally centred on improving working conditions for workers on construction sites, particularly in terms of safety and reducing arduousness for the benefit of performance.
Our vision includes embedded environmental and social commitments expressed in our product innovations.

Edmond Souvignet, who left us in June 2022

TRIBUTE

Edmond Souvignet founded his company in 1995, naming it after his sons, Alexandre and Philippe, to make Alphi. A testament to his love and confidence repeated some years later when he passed the company on to the two brothers.

With his technical expertise and a visionary approach to the future of construction, from Alphi's inception, Edmond Souvignet was committed to innovative and human-centred formwork design, in which "taking care" of staff and operators on worksites is a key component.

Altruism, sincerity, availability, high standards, "Alphengers" now convey these values in their dealings with Alphi's clients and partners.

Growing our business to better serve our clients

The **Alphi Group** is continuing to expand its business and enhance the range of products and services offered to its clients. In synergy with its historic business in formwork and shoring solutions for the construction sector, the Group is setting up a complementary branch focussing on **services for industry.**

The company **Simpra,** based in the Île-de-France region since 1959, and specialised in designing and manufacturing specific formwork equipment, joined the Alphi Group in 2022.

The Group's industrial branch, founded in 2022, is flourishing under the **Damois** brand.

The Group is also strengthening its international presence After founding its first subsidiaries in **Qatar** (2012), **Switzerland** (2013) and **Luxembourg** (2014), the Swiss company **Adria,** which can boast almost 100 years of expertise in shoring and construction equipment, joined the Alphi Group in late 2021. Alphi Suisse's business has been merged with that of Adria.

ALPHI FORMWORK AND SHORING SYSTEMS

- > 1995: creation of Alphi
- > Our sites: Savoie, Paris, Bordeaux
- > Our locations: Switzerland, Luxembourg, Qatar, India, Portugal, United Kingdom, Africa
- > Staff of 130
- > 26 patents filed
- > 1,500 worksites handled each year across France
- > 100,000 m² of formwork produced annually
- > Stock of equipment:
  - 130,000 props
  - 200,000 m² of formwork
  - 2,300 tonnes of shoring systems
  - 2,000 m² of vertical formwork

Promoting innovation through safety for the benefit of productivity

Safety and **reducing arduous working conditions** are recognised **sources of productivity**, encouraged in the construction sector. OPPBTP (French Professional Body for Prevention in Construction and Public Works) has highlighted that investing in safety can provide leverage for profitability: improving safety-related practices has positive repercussions on the environment and the working conditions of workers, who are more efficient and more productive.

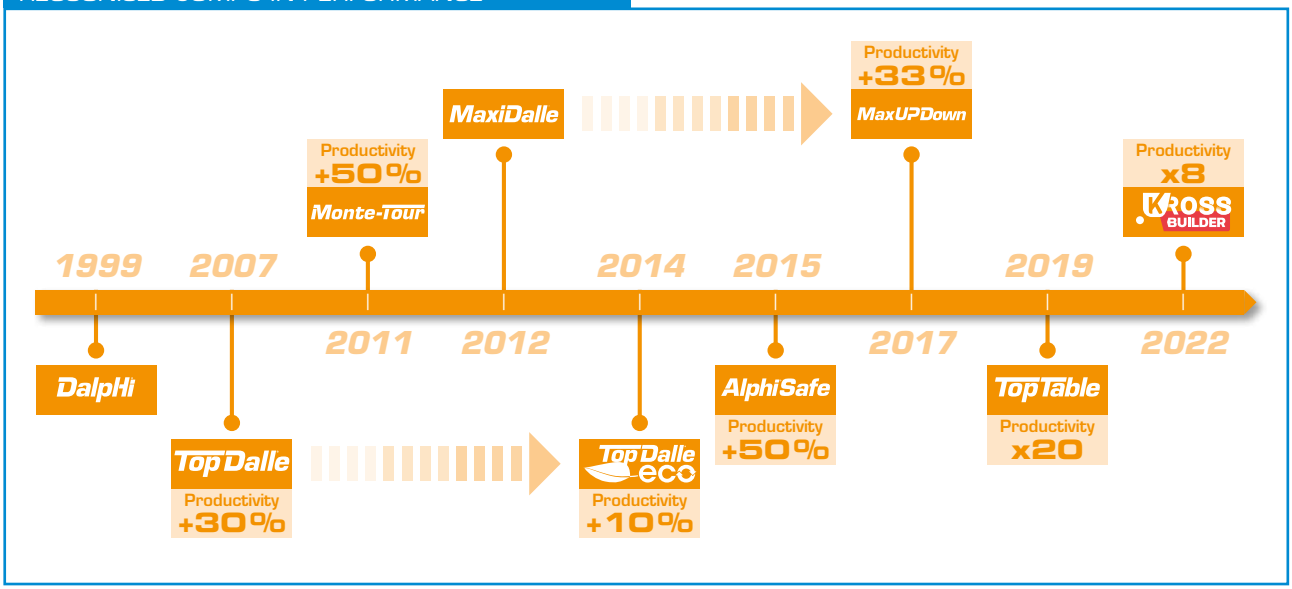
This assessment links up with Alphi's vision to strive for sustainability – on a human and environmental level:

SAFETY = PRODUCTIVITY

↓

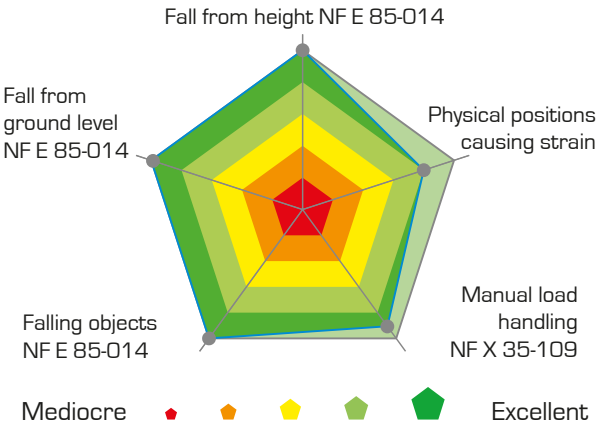
SUSTAINABILITY

RECOGNISED JUMPS IN PERFORMANCE



Each new product designed by the R&D Department is considered in terms of **quality** and **improving the working conditions** of workers on construction sites. **Reducing** equipment weight, reducing **arduous working conditions** and **repetitive strain injuries, ease** of use, adapting to complex shapes, or ecodesign all guide the company's approach.

In this way, Alphi has created a **rating tool** used to display the performances of its products in terms of safety and arduous working conditions. Each diagram is drawn up on the basis of the applicable professional standards.



SAFETY AND ARDUOUSNESS PERFORMANCES

The diagram for the TopDalle Eco formwork system is shown here.

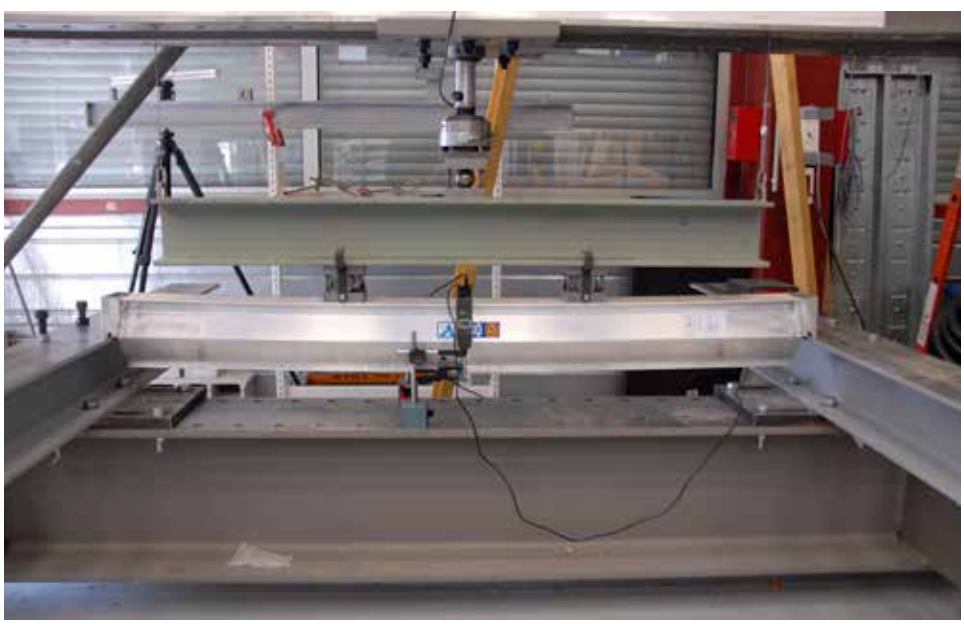
PROFESSIONAL RECOGNITION

The R&D Department pays particular attention to each client and their specific constraints in order to offer them **tailor-made** solutions.
This ability to factor in requirements, combined with anticipation of market trends, has resulted in the jumps in performance that have marked the history of Alphi products and helps **optimise construction techniques** for concrete floors.

KEY INFORMATION

- Alphi's studies are conducted in partnership with research bodies, innovation support and technology transfer organisations, and occupational health and prevention authorities.
- Product testing is conducted by the independent laboratory Locie at the University of Savoie Mont-Blanc.

UNIVERSITÉ SAVOIE MONT BLANC



Making a commitment to eco-friendly French production



Our Méry and Saint-Genix-les-Villages sites in Savoie and our Paris office flying the French Fab flag

Innovation and technology that are **"made in France"** are an integral part of Alphi's R&D policy. The design and manufacture of Alphi products are guarantees of quality and take place in this country.

Alphi is the **first formwork manufacturer** to have been awarded, in 2014, the **"Origine France Garantie" label** for horizontal formwork. This label is a clear recognition of the approach taken by Alphi's management ever since the company was founded: always promoting French expertise.

Alphi has joined the **French Fab** campaign which is aimed at promoting French industry on a global scale, highlighting the innovation and expertise of the industrial fabric found in France.

BV Cert. 6150814

COMMITMENT TO SUSTAINABILITY

Sustainable development, the circular economy and Corporate Social Responsibility (CSR) are at the heart of the company's strategic approach.

Alphi's latest innovations are the perfect example of this. A product like the TopDalle Eco formwork system is fully compatible with the concepts of the green economy, economical use, and industrial ecology that characterise **the circular economy.**

Alphi is active in the following areas:

> the use of **aluminium** - 100% recyclable - as a preferred component for the company's products,
> a production method favouring **short distribution channels** and operators in French industry,
> procurement-related **transport** distances of less than 460 km,
> a lower number of trucks on the road thanks to **packing optimisation.**

Alphi is a member of the **Coq Vert Community,** a community of business leaders committed to ecological and energy transition. Launched by Bpifrance, in partnership with ADEME and the French Ministry of Ecological Transition, the mission of this Community is to examine environmental challenges and promote shared expertise among committed business leaders.

Embodying the values of service and proximity

From the design office to production, and from quality control to customer relations, 130 people are mobilised to help your construction projects succeed.
The **Design Office** produces the rotation, phasing, and layout drawings, in keeping with the client's methods and time constraints.
The **logistics team** is involved in all aspects of scheduling, delivery, and equipment returns.
Manufacture, **production tracking** and **quality monitoring** are carried out by qualified personnel who are dedicated to those tasks.
Alphi offers **training** for formwork installers, accompanied by time and target tracking procedures.
Alphi's sales team, present throughout France, provides you with quality support. Made up of experienced technical sales representatives, the team responds to all your technical queries with a tailor-made solution.

OUR OFFICES AND LOGISTICS HUBS SAVOIE, PARIS, BORDEAUX

Alphi's **logistics hubs** contain equipment warehouses, offices and outdoor storage areas. Their layout allows optimised equipment management and easier turnarounds, for the benefit of our clients who gain in **responsiveness** and in **speed of procurement.**

The Saint-Genix-les-Villages logistics hub, on the border between the Savoie and Isère regions, covers an area of over **34,000 m²** (currently being extended).

In the Île de France region, our office and our logistics hub are located close to Versailles, in the Yvelines region. This technical and operational base covering 27,000 m² is also currently being extended.

Our Bordeaux office, covering 1,800 m², allows us greater proximity to our clients in the Nouvelle Aquitaine region.

Facilitating your worksite management

AlphiCad

Designed by the Alphi design office, in collaboration with AriCad, the **AlphiCad 2022** program is a valuable tool that facilitates the management of your worksites.

The functions developed are used for:

- automatic cell layout,
- saving time,
- phasing and turnaround management,
- counting of equipment counting based on these phasings and turnarounds,
- equipment optimisation according to the phases.

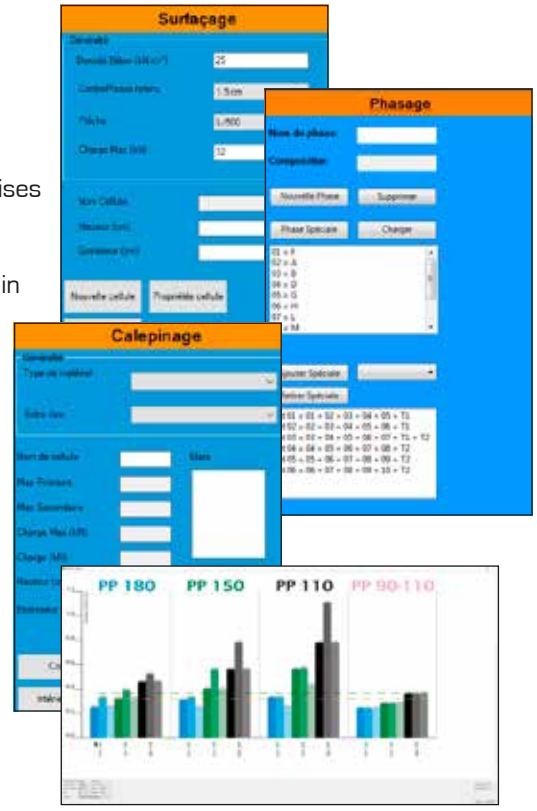
AlphiCad 2022 is operational for calculations concerning the TopDalle, TopDalle Eco and DalpHi formwork systems.

Also available for sale, accompanied by a one-day training course on our premises or at the client's premises, AlphiCad is compatible with AutoCad 2022* and comes in two languages (French and English).

Clear and intuitive stages:

- surfacing,
- phasing,
- phase turnaround,
- incorporation of special phases,
- layout,
- summaries.

**Not compatible with AutoCad LT versions*



AlphiBIM

The digital mockups for Alphi formwork products are developed using Revit (Autodesk) software.

You can download the available Alphi BIM objects on our website.

Access Alphi Bim objects

Making operational excellence our signature

The traceability process implemented in our logistics hubs is a part of the **operational excellence** approach as well as the **quality approach** to which Alphi is committed.
It includes inspection stages all along the equipment shipping and receiving chain.

Inspections managed by PDA

Identification and weighing of trucks, on arrival and departure.

Unloading, checking of origin and recording in schedule.

Photos of equipment and of uncovered vehicle.

Counting of number of packages and parts, identification and storage before maintenance and packing.

MAINTAINED EQUIPMENT, PROTECTED OPERATORS

On receipt of equipment returns, the parts are checked before cleaning and processing operations. Alphi is committed to improving the working conditions of the teams assigned to these operations in terms of safety, reducing arduous working conditions and preventing RSI.

Beam cleaning tool
Environmentally friendly, it works without water and collects dust. Automated, it is adaptable to any beam size.

Handling of props
Based on a magnet system, the tool allows you to handle and rearrange props in racks without any manual effort.

Plate straightener
Developed by Alphi's R&D department to straighten prop plates and thus extend their service life.
Available for sale.

Vacuum tables
Used during cleaning and welding operations and equipped with dust and particle filters.

A team of experts at your service

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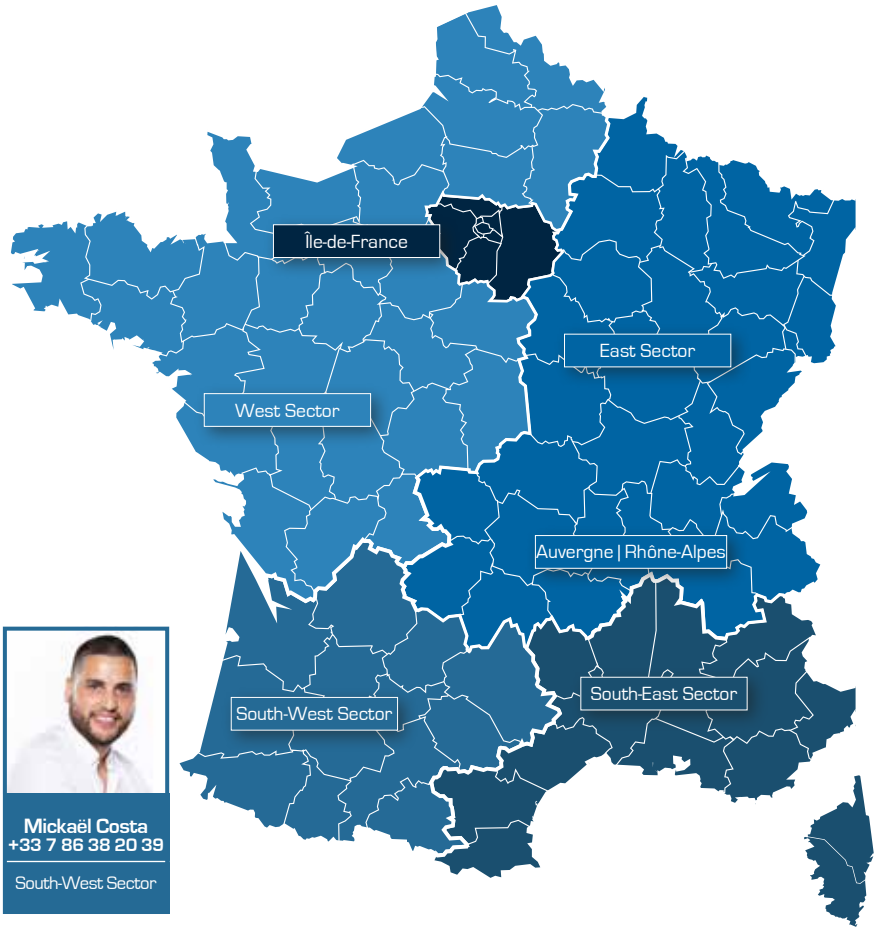
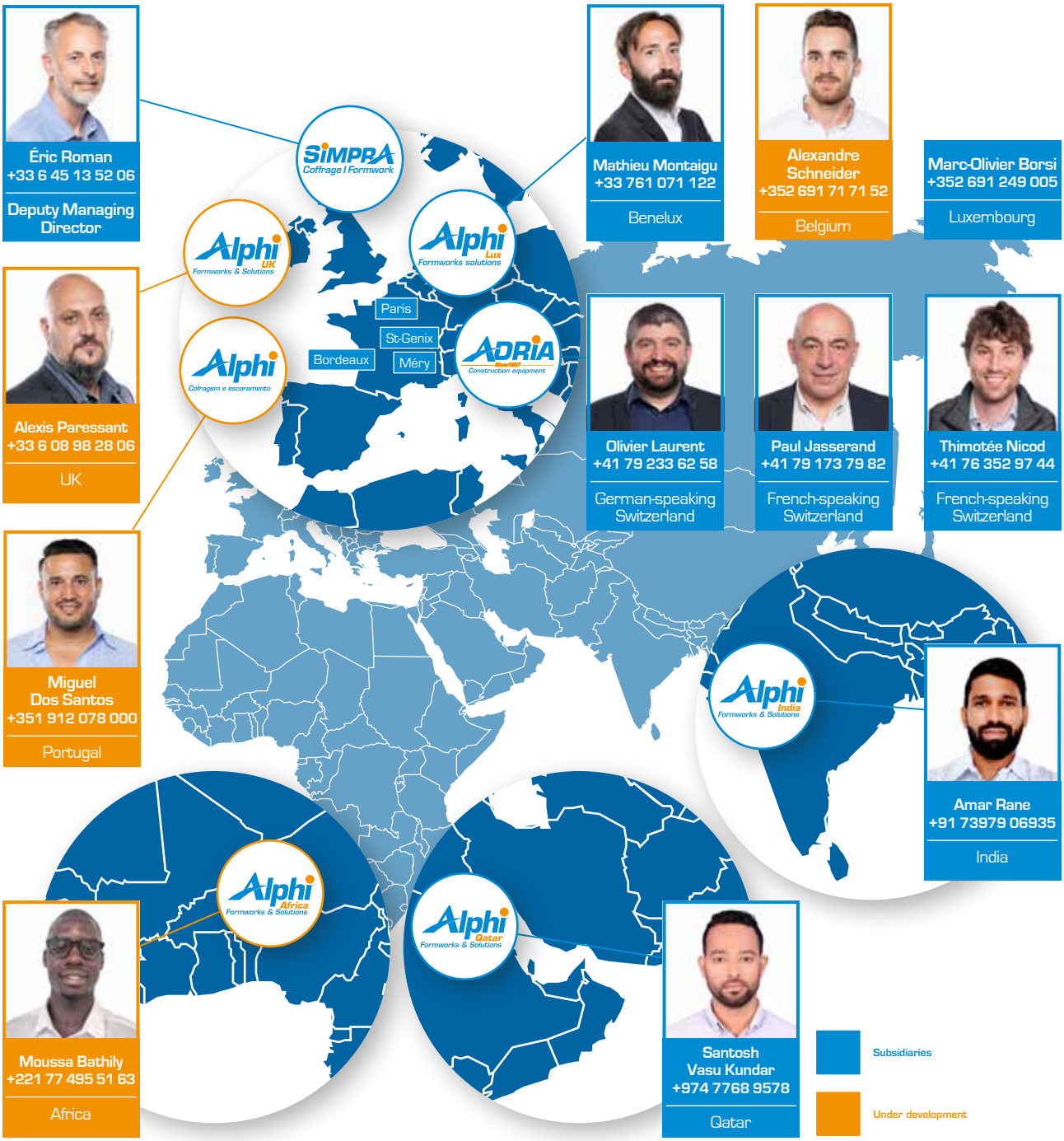


Alphi's sales team covers all French territory to offer you tailor-made solutions, at the best price.
The members of the team are first and foremost technicians for whom **proximity** and **availability** are meaningful values. These professionals in formwork, shoring and safety are **attentive** to their clients' needs. They stand out from the competition by the **relevance of the technical solutions** offered, by presence in the field and **follow-up** of your projects guaranteed up to the completion stage.
A specific contact is assigned to each client and to each project.
Don't hesitate to contact them!

Exporting our know-how to the international market



The Alphi Group exports **its know-how** to French overseas departments and territories, and to our neighbours in Belgium, Luxembourg and Switzerland, where the company has forged special links for many years.

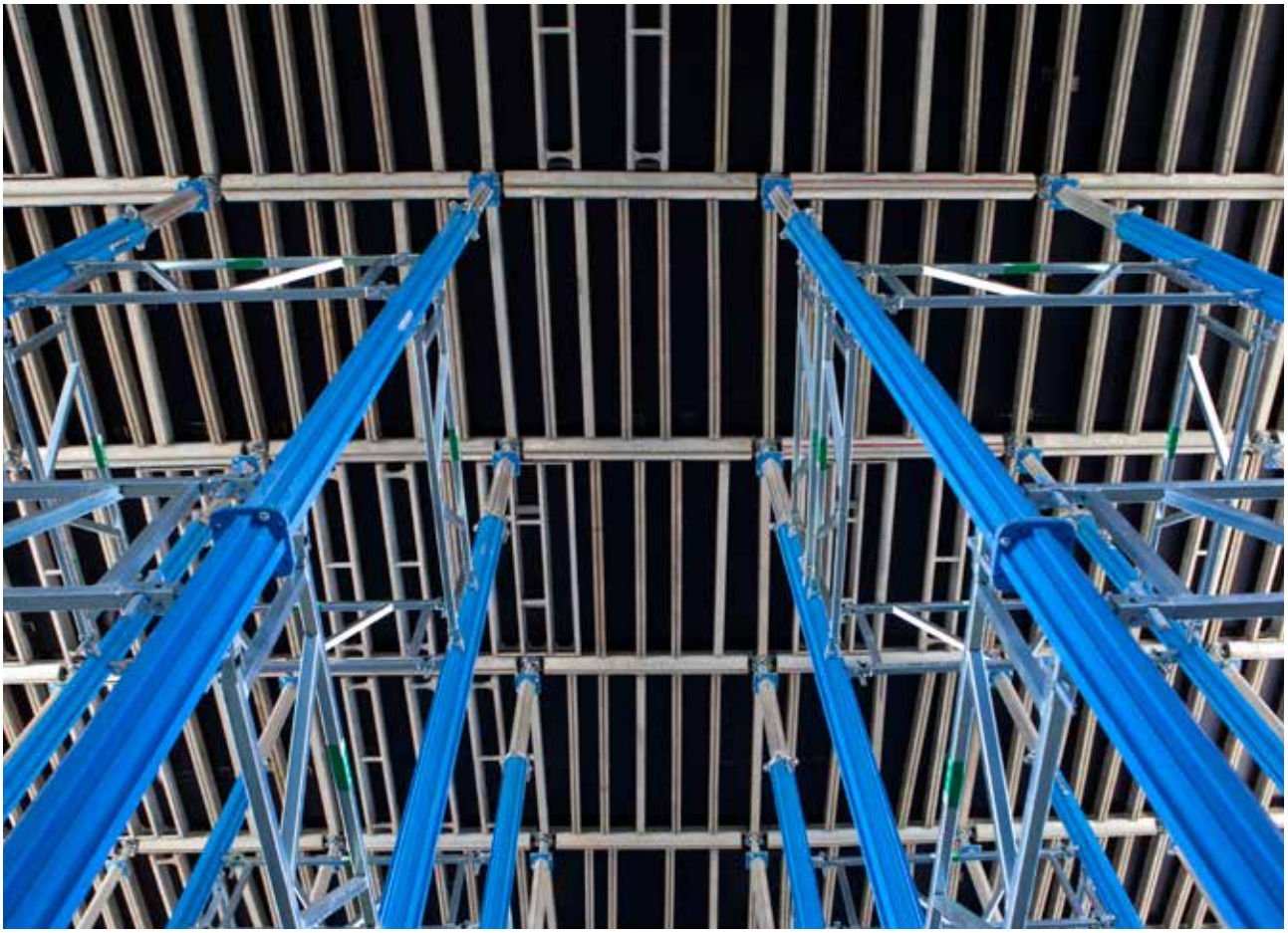
The **Group's subsidiaries and entities** are helping expand the business to Portugal, the UK, India, the Middle East, and Africa.

Comédie de Genève

Performance venue

The new Comédie de Genève project,
sponsored by the Municipality of Geneva, was completed
in the up-and-coming Eaux-Vives station district.
The master builder Maulini assigned Alphi
the task of producing the slab formwork.

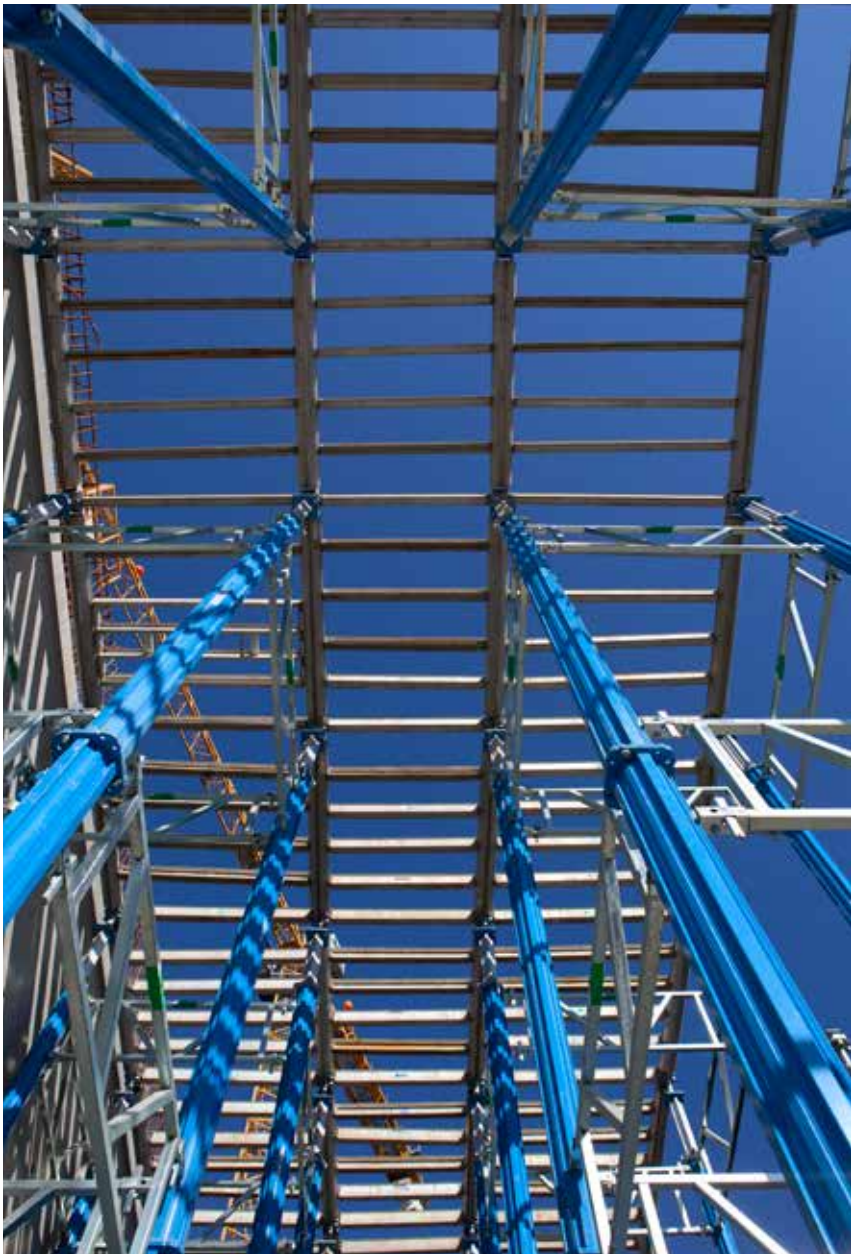
Comédie de Genève



The new Comédie de Genève project includes, in the same venue, two rehearsal rooms, set and costume design workshops, administrative offices, and two concert halls with 500 and 200 seats.

Slab formwork up to a height of 12 m

The construction of this building faced some major challenges with, among others, specific technical features, extra-high formwork, distinctive layout plans and exposed concrete.



The building is made up of extra-high walls, a concrete gangway, a sole plate placed on spring box type supports.

The TopDalle and DalpHi formwork systems fitted by Alphi made it possible to produce slabs of heights of up to 12 metres.

ALPHI EQUIPMENT

> **DalpHi**
> **Aluminium props**


Alpli

Ilôt Beaumont

Property development

Îlot Beaumont is being built in the heart of the EuroRennes residential district and economic hub.
The Legendre Group commissioned Alphi to produce the formwork for the basement and ground floor.

Ilôt Beaumont

The TopDalle formwork system provides optimal safe working conditions

ALPHI EQUIPMENT

> TopDalle - 1,500 m²
> TopDalle Eco - 1,000 m²
> TourEchaf - 120 tonnes

Alphi supplied 1,000 m² of TopDalle Eco formwork and 1,500 m² of TopDalle formwork for the floors.

120 tonnes of TourEchaf was used to construct the basement, ground floor, and fascia under safe conditions.

Quality concrete soffit finish

■ Located near the station, right in the heart of the EuroRennes district, Îlot Beaumont consists of three buildings covering an area of over 25,000 m².

Two 9-storey buildings will accommodate offices, and an 18-storey tower block will be used for residential purposes.

On the ground floor, a 1,000 m² common base will be used for retail and service businesses.


G2
G2

Icône

Offices and coworking spaces

The Icône building in Belval, Luxembourg will accommodate offices and coworking spaces over an area of 18,000 m².
The contractors Besix and LuxTP have selected Alphi's formwork and shoring systems for this project.

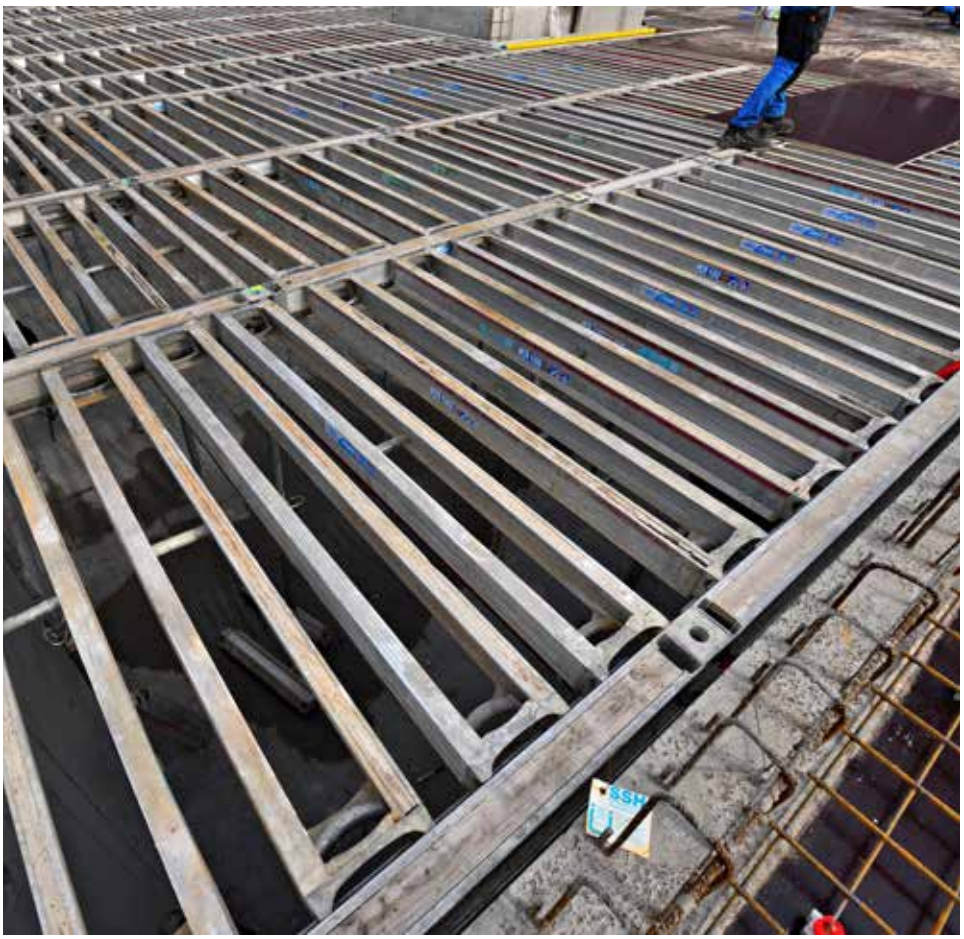
Icône

■ With 18,000 m² of offices and coworking spaces, the Icône building contains a number of specific features aimed at creating a pleasant, convivial and innovative work environment.

It includes 800 m² of retail and restaurant space, top-of-the-range technological equipment, plenty of meeting areas, etc.

Designed by the architectural firm Foster + Partners, this building has a glass frontage and roof to achieve the ideal work environment and maximise users' productivity.

High formwork throughput between 150 m² and 300 m² per day



The Alphi A120 Tower was used for the beam decking and gangway formwork at heights of 20 metres, under the safest possible conditions.

Thanks to the TopDalle formwork system, offering high performance in terms of safety and productivity, a high throughput, between 150 m² and 300 m² per day, was maintained throughout the project.

18,000 m² slab surface area

ALPHI EQUIPMENT

> **TopDalle - 2,300 m²**
> **A120 tower - 260 ml**


Alphi

Lyon Part-Dieu

Shopping centre extension

The contractors GCC Construction and Léon Grosse commissioned Alphi to produce the shoring systems for the project to refurbish and extend Lyon's historic shopping centre: Part-Dieu.
With 161,000 m² of retail space, it is now the largest shopping centre in continental Europe.

Lyon Part-Dieu

With a 32,000 m² extension, the project to extend the Part-Dieu shopping centre is spectacular.

Shoring up to a height of 30 m

Over forty new retailers, new living spaces, and a magnificent rooftop are helping transform the Part-Dieu district.

This highly technical project, given the quality of the subsurface and foundations, required the installation of 250 tonnes of TourEchaf on HEB load distribution profiles. The installation was a difficult one, as in total, 23 metres of shoring were erected.

TourEchaf was used to shore the posts and girders on each level, or 5 risers, under safe conditions.

ALPHI EQUIPMENT

> **Aluminium props**
> **TourEchaf - 250 tonnes**

Hekla Tower

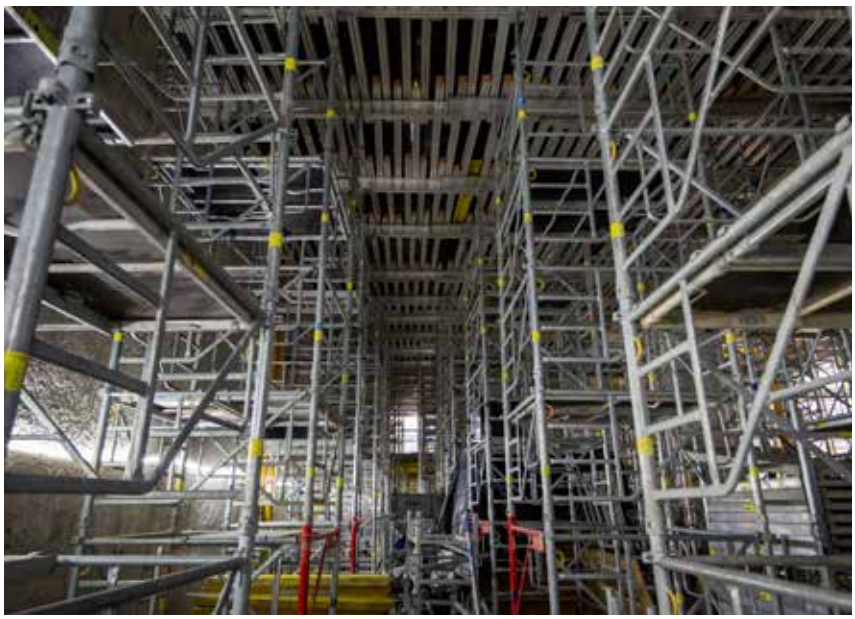
The contractor Bateg commissioned Alphi to produce the shoring systems and slab formwork for the major Hekla Tower project. With a surface area of 76,000 m² and a height of 220 m, it is set to dominate the skyline of the La Défense business district in Paris.

Hekla Tower

■ Stretching up to 220 m in height, it's hard to miss the Hekla Tower in the skyline of the La Défense business district. The prismatic glass and metal architectural structure provides innovative work spaces designed to promote interaction and well-being.

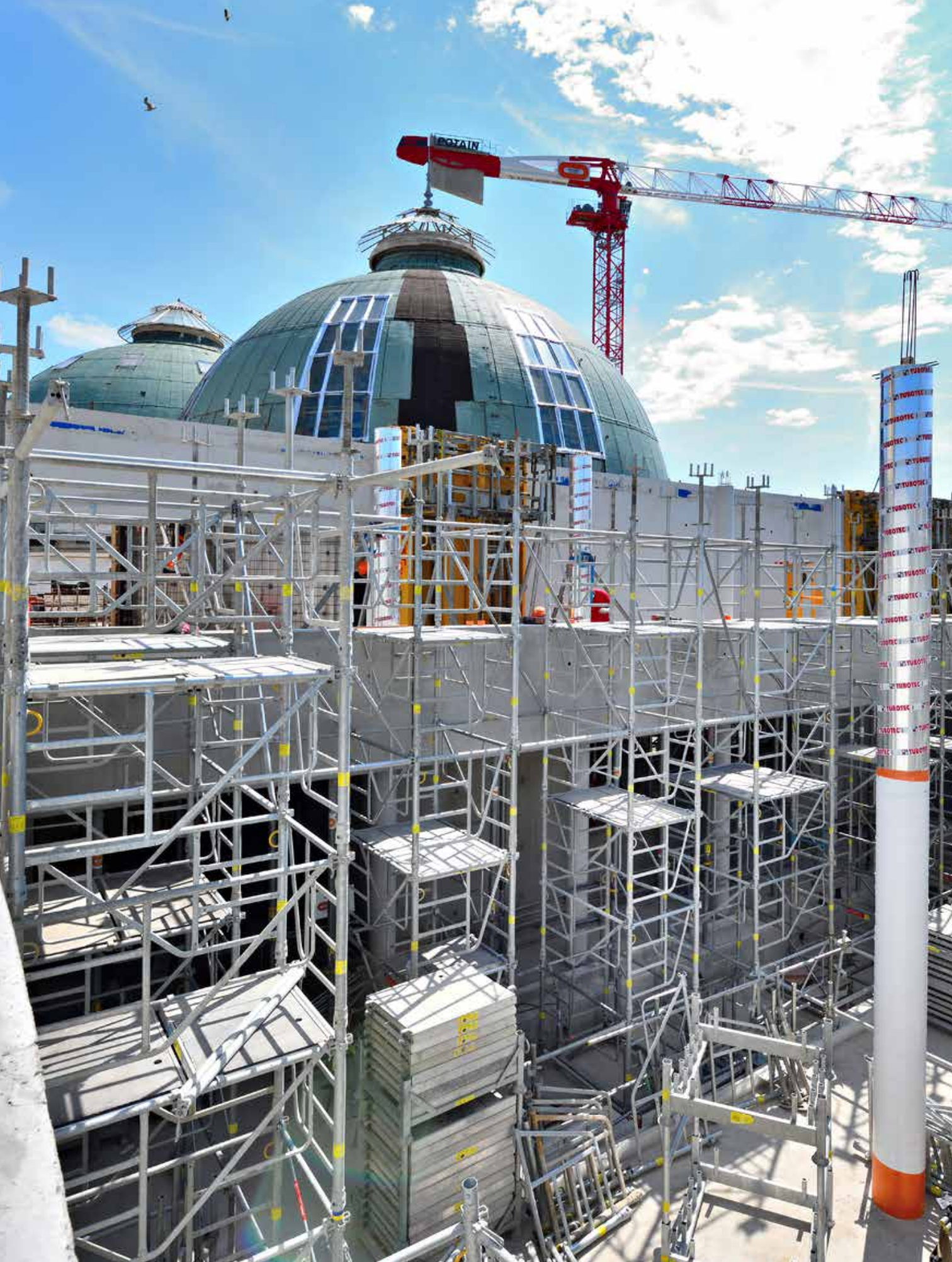
This skyscraper right in the heart of Paris, designed by Ateliers Jean Nouvel, has a total area of 76,000 m² across 48 levels, to accommodate 5,800 workers. Business centres, a wellness centre, an auditorium, restaurants, a premium concierge service, a hanging garden and rooftop promise an exceptional experience.

In total, 4,000 m² of TopDalle Eco and 300 tonnes of TourEchaf were supplied for this major project. The AlphiSafe collective safety system protected the operators.



ALPHI EQUIPMENT

- > TopDalle Eco - 4,000 m²
- > TourEchaf - 300 tonnes
- > AL100 and AL200 beams - 2500 ml
- > AlphiSafe


POTAIN
TUBOTEC

Grand Nancy Thermal

The contractor Bouygues Bâtiment commissioned Alphi to refurbish and build Nancy's aquatic and spa complex.
1,500 m² of TourEchaf was used to produce shoring systems for heights of up to 8 metres under safe conditions.

Grand Nancy Thermal

Right in the heart of the spa capital of France, Grand Nancy Thermal, a unique French aquatic and spa complex, has been in the refurbishment and construction phase since October 2019.

Designed by Anne Demians' and Nicolas Chabanne's architectural firms, the new centre will create a conversation between the old and the new: in addition to the contemporary architectural style, some heritage features are being reused.

A structure comprised of curves on which a wide range of Alphi equipment has been used: TourEchaf, TopDalle formwork, AlphiSafe collective protection system, etc.,

ALPHI EQUIPMENT

> **TopDalle - 1,000 m²**
> **TourEchaf - 220 tonnes**

Shoring up to a height of 8 m

20,000 m² slab surface area


EC-B

Soprema Group Headquarters

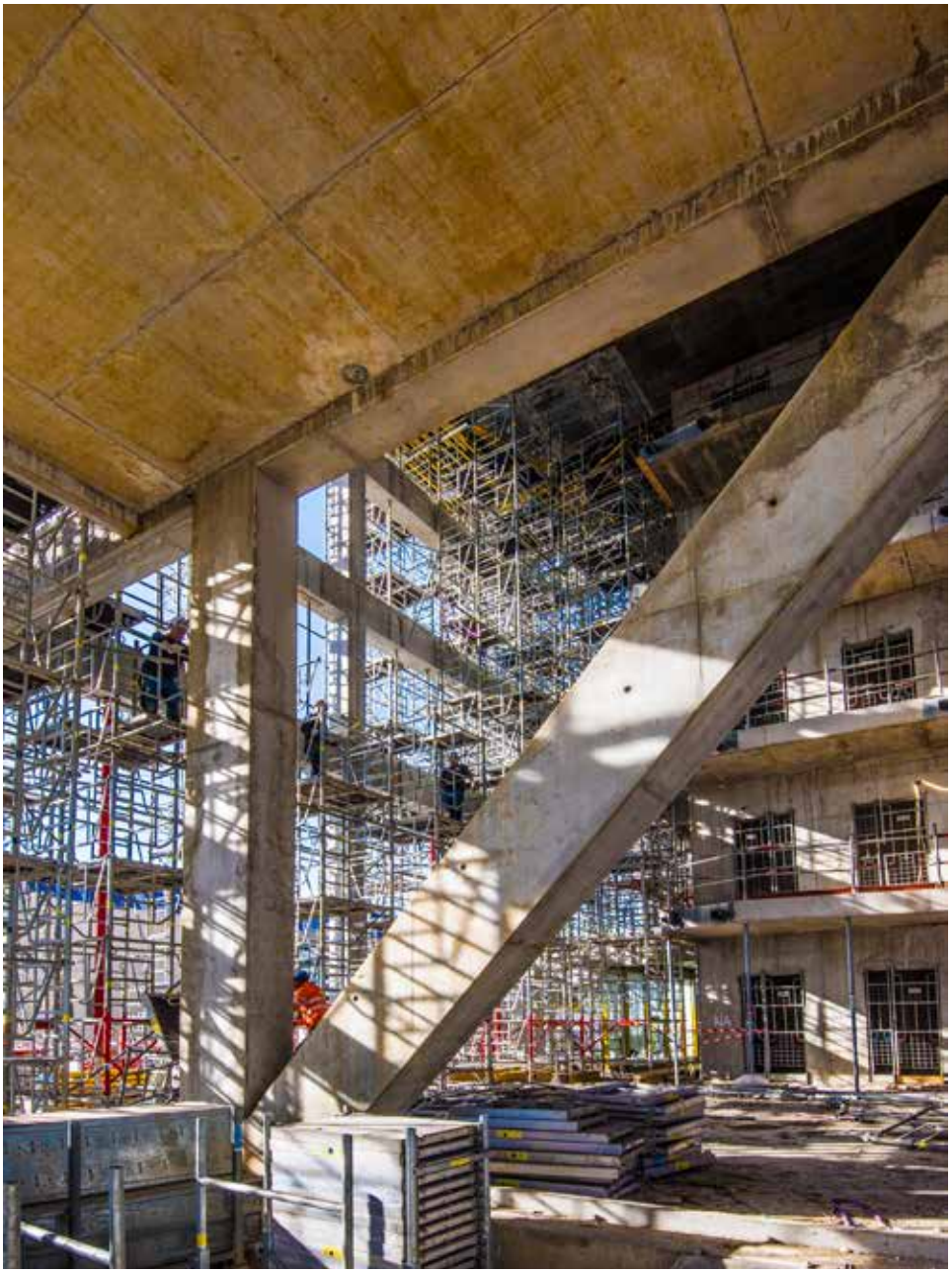
The Soprema Group, waterproofing and insulation experts, has started building its new headquarters in the Port du Rhin district in Strasbourg. Eiffage Construction selected Alphi for the shoring systems and to produce 10,000 m² of slabs.

Soprema Group Headquarters

Strasbourg's port district is set to be home to Le Grand Charles, the Soprema Group's new headquarters.

This stylish and contemporary project will illustrate the Group's commitments to social and environmental transition.

The company's 270 staff will be accommodated in a building covering a surface area of 8,000 m², across 6 floors, up to a height of 28 metres.

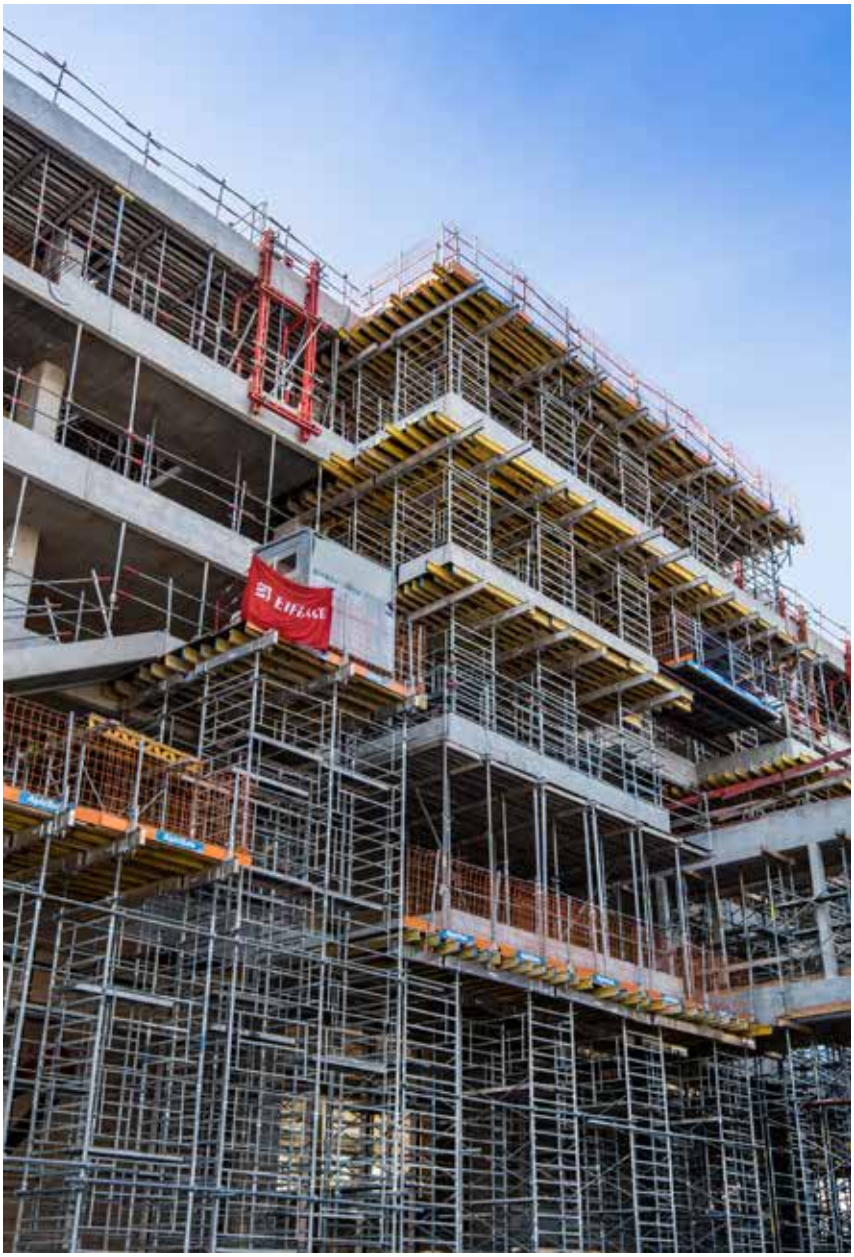


ALPHI EQUIPMENT

> **TourEchaf**
> **TopDalle - 1,400 m²**

In total, a slab area of 10,000 m² was constructed using our TopDalle formwork system.

TourEchaf was used for the decking and the balconies.



6 floors, for a total surface area of 8,000 m²

Universeine

Athletes' Village

After it welcomes athletes in 2024, the Universeine district will contain around 79,000 m² of housing, 63,000 m² of office space and 4,000 m² of retail space.
The contractors Vinci, Spie Batignolles, GCC, Bouygues Habitat résidentiel Paris Ouest and Eiffage Construction, working on this emblematic project, have selected Alphi's formwork and shoring systems.

Universeine

■ This major project in the heart of the Greater Paris region will provide an innovative and sustainable neighbourhood. This huge, environmentally ambitious project has been devised to meet today's and tomorrow's environmental challenges: reducing the carbon footprint of buildings, adapting to climate change, and protecting biodiversity.

Of the project's total 35 cranes, 33 are carrying Alphi equipment.

Alphi has supplied 12,500 m² of TopDalle and TopDalle Eco formwork systems for the floors, 120 tonnes of TourEchaf for the shoring systems and 900 m² of TopTable for the balcony formwork.

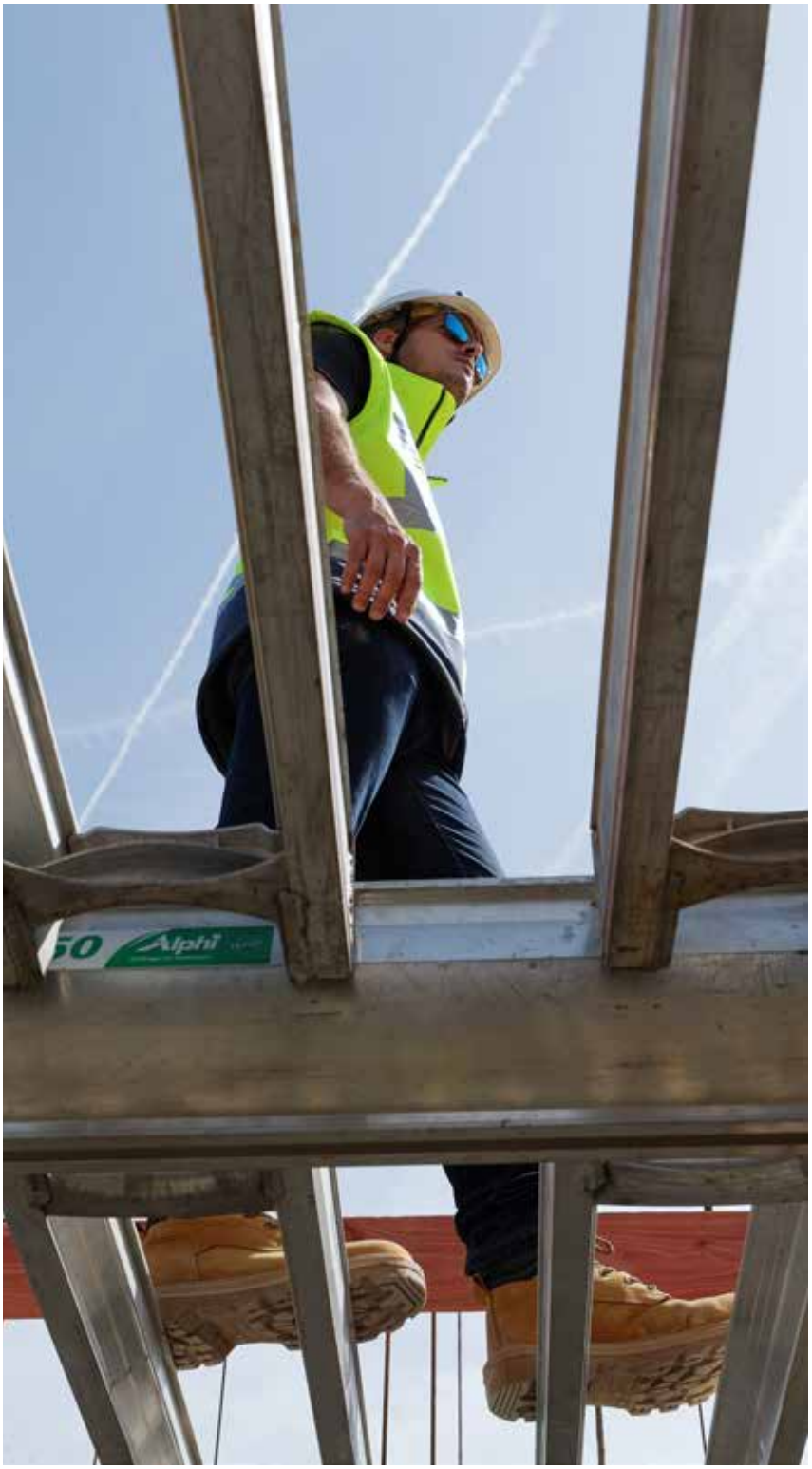
ALPHI EQUIPMENT

- > TopDalle - 12,500 m²
- > TopDalle Eco - 12,500 m²
- > TopTable - 900 m²
- > TourEchaf - 120 tonnes

Lyra Verde
Residential Development

One of Alphi's loyal clients for over 10 years, the building contractor Phippaz also chose to work with us on this 120-unit residential property development in the Haute-Savoie region.

Lyra Verde



Located in the Arve valley, in the municipality of Bonneville, the Lyra Verde residential property development provides a green and pleasant living environment.

In total, a slab area of 10,000 m² was constructed using our TopDalle formwork system.

For the balcony formwork, 120 m² of TopTable was used for the one of the system's key benefits: quick implementation, guaranteeing removal, repositioning and erection in less than 15 minutes.

The AlphiSafe collective system allowed for completely safe installation

ALPHI EQUIPMENT

> TopDalle: 1,000 m²

> TopTable: 120 m²

Duo Towers

The contractor Bateg has select Alphi's formwork and shoring systems for the construction of the floors, transfer slab and form panel decking in these two skyscrapers being erected in Paris's 13th Arrondissement.

Duo Towers

■ Designed by Ateliers Jean Nouvel, the two towers reaching heights of 180 and 220 metres contain a remarkable specific architectural feature with 7 of the buildings' 8 frontages sloping. The angles of inclination are all different and can even exceed that of the Leaning Tower of Pisa!

The Duo Towers will accommodate offices, retail units, a hotel, and a restaurant.

400 tonnes of TourEchaf for the transfer slab and the form panel decking

The TopDalle Eco formwork system was used to construct the girders and floors in both skyscrapers.

ALPHI EQUIPMENT

- > TopDalle Eco - 6,000 m²
- > TourEchaf - 400 tonnes
- > AL100 and AL200 beams - 4,500 ml
- > AlphiSafe


Resialotel

The To-Lyon tower

In Lyon city centre, in the Part-Dieu district,
the To-Lyon tower will reach a height of 171 metres.
Vinci commissioned Alphi to construct the slab formwork
for this spectacular project.

The To-Lyon tower

■ The To-Lyon tower was designed by the architect Dominique Perrault with the aim of becoming a template for energy efficiency.

For the same surface area, it will use three times less energy than its predecessor.

ALPHI EQUIPMENT

- > HorizontAL - 1,800 m²
- > TopDalle Eco - 400 m²
- > VerticAL - 300 m²
- > Kross Builder 500

An emblematic structure in France's second largest business district, it will contain a floor area of 80,000 m² across 43 levels.

Our new slab formwork system using plywood panels, HorizontAL, was used for this project.

400 m² of TopDalle Eco was also used to construct the floors.

Increased productivity was achieved using the new French electric handling forklift, Kross Builder 500, designed by Alphi in partnership with K-Ryole
(see page 292).

FORMWORK

PROPS

BEAMS

SHORING

SAFETY

ACCESSORIES AND CONSUMABLES

- To use our products safely, please observe the regulations in force in each country.
- The elements and set-ups presented in this catalogue match the characteristics of the equipment on the date of publication of the document. There might have been some changes since then.
*- The full user guides for each product are available on the website **alphi.fr**, by scanning the product QR codes in the catalogue, or on request by e-mail: **info@alphi.fr***

TopDalle®

TopDalle formwork is particularly suitable for residential construction projects. The safety conditions for workers are optimal thanks to the controlled spacing between frames of 13 cm. The flexible use and simplicity of the system offer high productivity.

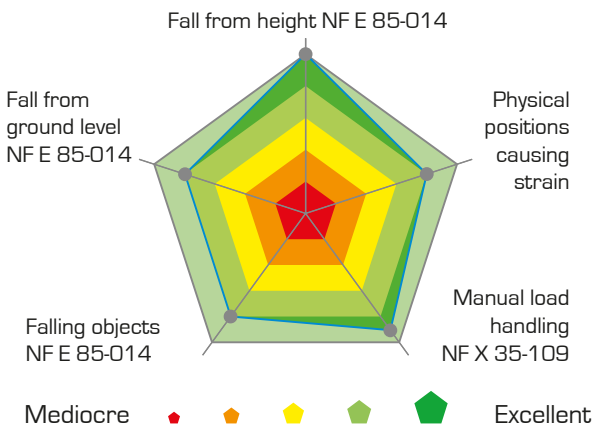
Site: Eurêka service hub
Client: GFC Construction (Bouygues Group)
Location: Montpellier

TopDalle®

The versatile TopDalle system suits every type of building: offices, housing, residential care homes, correctional facilities, etc.

Simple and quick to install, the TopDalle system offers productivity of 30 m^2/person/day at a height of 2.50 m.

Designed by the Alphi R&D office in collaboration with CARSAT Rhône-Alpes, TopDalle formwork is **compliant with the decree of September 2004 on falls from height** thanks to its anti-tipping system for the secondary frames and controlled spacing of 13 cm between frames.



SAFETY AND ARDUOUSNESS PERFORMANCES

TopDalle is the best-performing framework of its generation in terms of the constraints of the NF E 85-014 and NF X 35-109 standards.

BV Cert. 6150814

ORIGINE FRANCE® GARANTIE

COMPLIANT WITH THE DECREE OF SEPTEMBER 2004 CONCERNING **FALLS FROM HEIGHT** AND WITH THE **NF E 85-014 AND NF X 35-109 STANDARDS.**

ALL **TOPDALLE** COMPONENTS HAVE BEEN TESTED BY THE **INDEPENDENT LABORATORY LOCIE OF THE UNIVERSITY OF SAVOIE MONT BLANC.**

UNIVERSITÉ SAVOIE MONT BLANC

SAFETY

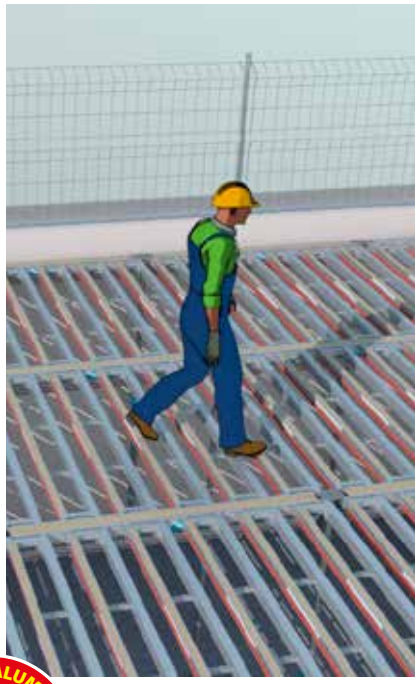
Worker safety
Protection against falling at ground level and falling from height by an anti-tipping system for the C2+ secondary frames and controlled spacing of 13 cm.

Frames are installed and removed from ground level.
With TopPerche, formwork is installed and removed from ground level up to 3 m (no need for rolling safety ladder depending on heights).

Free-standing system
The unique design of the TopDalle system guarantees optimum stability.

Theft protection
The chemical process patented by Alphi is a protective measure against the fraudulent recycling of aluminium beams.

PROTECTED ALUMINIUM
DO NOT REMELT



The installation (and removal) of C2+ frames using the TopPerche provides a dual safety advantage:
- the fitter works at ground level;
the risk of falls from height is eliminated,
- controlled 13 cm spacing

ERGONOMICS

Lightest weight per m^2 formwork on the market

Made of aluminium, the frames and beams contribute to the lightness of the TopDalle hand-portable formwork system.

Less repetitive strain injury

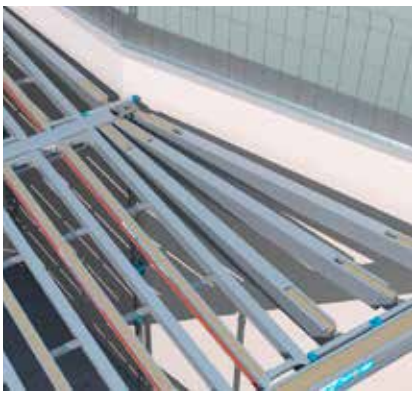
- Better weight distribution.
- Ergonomic handles on the C2+.
- Accommodates 15 mm plywood.

Less noise pollution

Complies with the European noise directive (2003/10/EC dated 6 February 2003).

Easier identification

The beams are colour-coded, in compliance with the layout drawings provided.



PRODUCTIVITY

30 m^2/person/day at a height of 2.50 m

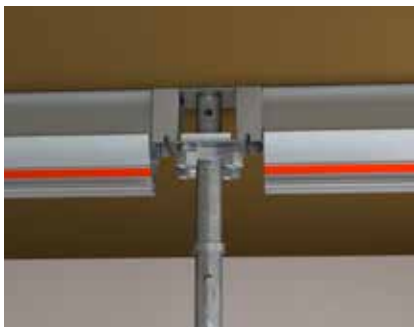
(formwork, adjustment, cladding and formwork removal)

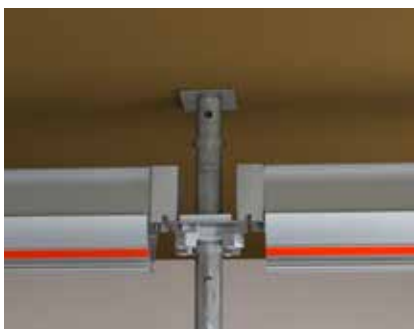
Easy removal

The drop-head for fast removal integrated in the technical support (Alphi patented system) keeps the slab supported during formwork removal. The turnaround of the aluminium structure is accelerated.

Flexible use to satisfy all technical requirements

- "Primary on primary" assembly allows the TopDalle system to adapt to the exact dimensions of the cells.
- The extendable primary beams and secondary corner beams complete the range to handle any complex shape requirements.





QUALITY

Superior concrete soffit quality

Superior quality as per DTU 21 guidelines for concrete floors.

Nailing on timber insert

Plywood (15 mm authorised) secured using nails.

Regulations

The beams are designed in compliance with the formwork standard NF P93-322.

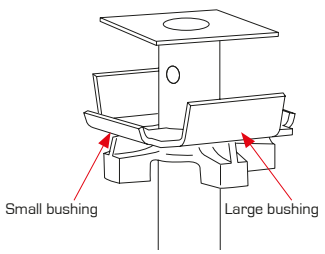
Cast concrete thickness of up to 1.23 m

The drop-head integrated in the prop allows fast formwork removal without releasing pressure on the slab

3 COMPONENTS FOR SIMPLE SHAPES

1 Technical supports

Technical support (ST) with integrated drop-head



Name	Colour	Height (cm)	Unit weight (kg)	Description
ST1		197-300	18.50	▪ Integrated drop-head for fast removal (patented system) ▪ Base web ▪ Hot-dip galvanised ▪ Cast iron sleeve
ST2		225-350	20.50	
ST3		250-400	23.50	

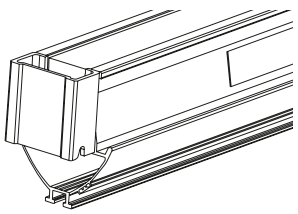
Aluminium props

Aluminium prop with insulated head

Name	Colour	Height (cm)	Unit weight (kg)	Description
ST1 Alu		164-267 + 33 for the insulated head	15.00	▪ 33 cm insulated head attached to the end of the prop ▪ Full-height runner thread, self-cleaning ▪ Easy height adjustment by means of the gauge incorporated into the runner
ST3 Alu		270-400 + 33 for the insulated head	19.40	

2 Primary

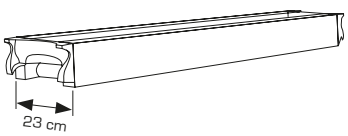
Primary beam



Name	Colour	Length (cm)	Unit weight (kg)	Description
PP 90		90	5.40	▪ Theft protection ▪ Can be mounted in a drawer ▪ 30 mm timber inserts, for nailing on plywood using 40 mm nails
PP 110		110	6.60	
PP 150		150	9.00	
PP 180		180	10.80	

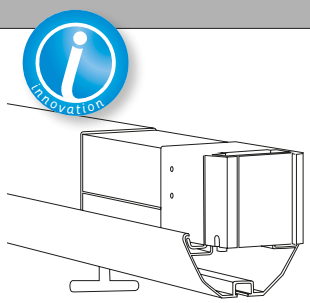
3 Secondary

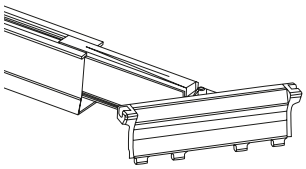
Secondary frame C2+



Name	Colour	Length (cm)	Unit weight (kg)	Description
C2+ 110		110	5.00	▪ Anti-tip safety ▪ 23 cm width ▪ Theft protection ▪ Timer inserts for nailing on plywood using 40 mm nails
C2+ 150		150	6.00	
C2+ 180		180	8.00	

2 COMPONENTS FOR COMPLEX SHAPES (OPTIONAL)

1 Primary	Extendable primary beam	Name	Colour	Length (cm)	Unit weight (kg)	Description
		PPE 90-110		90-110	7.10	▪ From 90 to 110 cm, to adapt to all cell sizes ▪ Can be mounted in a drawer ▪ Continuous resting of secondary beams on primary beam

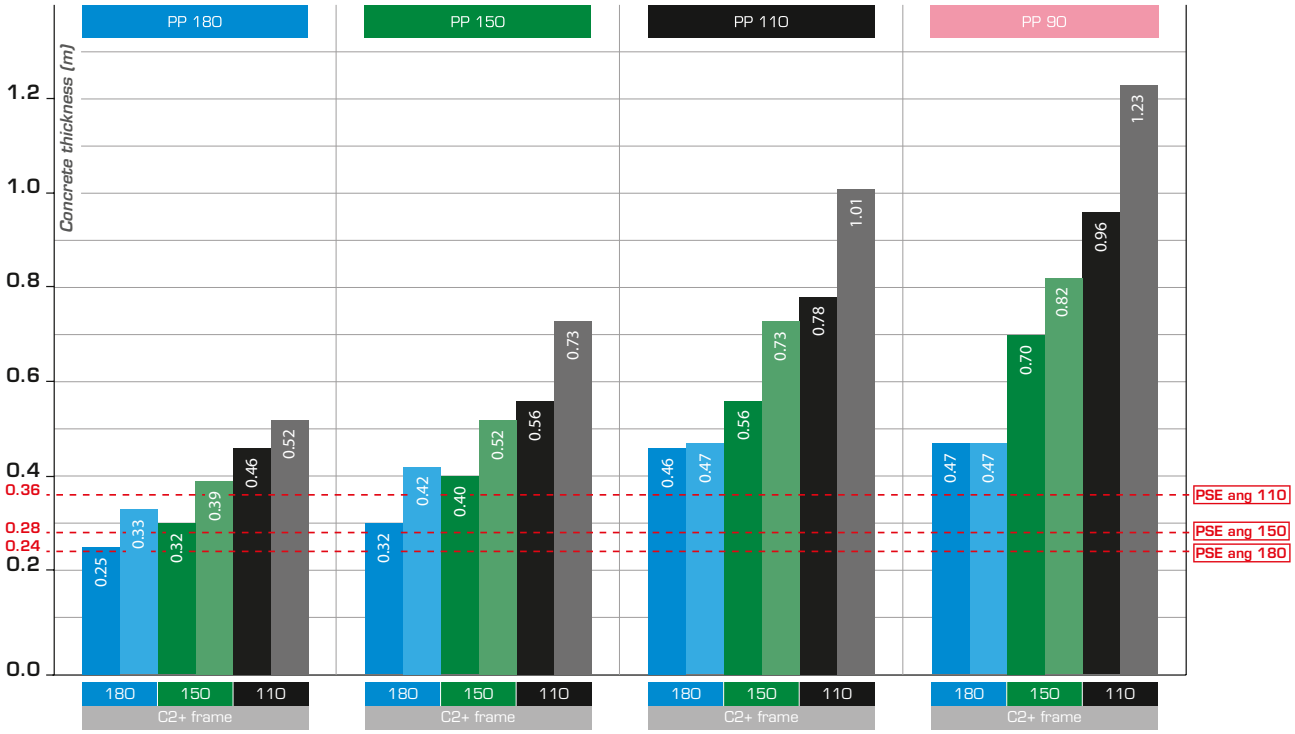
2 Secondary	Extendable secondary corner beam	Name	Colour	Length (cm)	Unit weight (kg)	Description
		PSE ang 110		110-135	5.40	▪ Each secondary corner beam must be associated with the secondary beam of the same size (e.g.: PSE ang 110 with PS 110) ▪ Adjustable length ▪ Timber inserts for nailing on plywood ▪ Modular orientation as close as possible to the concrete skin by rotating the tip ▪ Working angles of 0° to 35°
		PSE ang 150		150-180	6.60	
		PSE ang 180		180-220	7.50	

USE CALCULATION CHARTS

The values appearing in these charts must be complied with to ensure the safety of operators and compliance with the applicable standards (NFP 93-322 for beams and EN 1991 1-6 for all loads).

Beams

Specified value for a superior quality as per DTU 21 guidelines (L/400) for concrete floors, accounting for the site load (2.5 kN/m²).



ST (32 kN) and beam limit

Load on prop greater than 32 kN (zone requiring specific study by Alphi design office)

PP
Primary beam

PSE ang
Secondary corner beam

C2+
Secondary frame

PPE
For PPE beams, the values are:
- 0.36 m for the 110 frame,
- 0.28 m for the 150 frame,
- 0.24 m for the 180 frame.

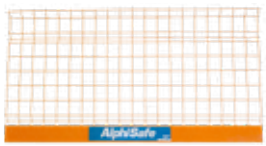
Technical supports ST with integral shuttering head / Alloy props with insulated head

Name	Colour	Height (cm)	Unit weight (kg)	*Shored height (m)* / Working load (kN)																							
		min-max		*1.9*	*2.0*	*2.1*	*2.2*	*2.3*	*2.4*	*2.5*	*2.6*	*2.7*	*2.8*	*2.9*	*3.0*	*3.1*	*3.2*	*3.3*	*3.4*	*3.5*	*3.6*	*3.7*	*3.8*	*3.9*	*4.0*	*4.3*
ST1 *		197-300	18.5	40	39	38	37	36	35	35	34	33	33	32	32											
ST2 *		225-350	20.5				40	39	39	38	37	36	36	35	35	34	34	33	32	32						
ST3 *		250-400	23.5							40	40	40	40	40	40	40	40	40	38	38	34	34	30	30	26	
ST1 Alu		164-267 + 33 for the insulated head	15			40	40	40	40	40	40	40	40	40	40											
ST3 Alu		270-400 + 33 for the insulated head	19.40									40	40	40	40	40	40	40	40	40	40	40	39	37	36	34

* Hot-galvanised - Identified by sleeve or nut colour. According to Eurocode 0 and 3 safety coefficients

TOPDALLE ACCESSORIES

Safety

Mesh*	Dimensions w x h (m)	Unit weight (kg)	Description
	1.25 x 1.30	7.60	▪ The wire mesh is galvanised, with polyester powder coating
	2.50 x 1.30	14.50	

Galvanised post*	Cross-section (cm)	Height (m)	Unit weight (kg)
	3.5 x 3.5	1.34	3.50

Alphi formwork adapters			Unit weight (kg) Primary adapter	Unit weight (kg) ST adapter	Unit weight (kg) Corner adapter
Primary adapter*	ST adapter*	Corner adapter			
			2.30	2.10	2.10
					*Compliant with EN 13374 standard

AlphiSafe pole	Length (cm)	Unit weight (kg)	Description
	1.94 to 3.50	2.73	▪ Work from ground level ▪ Risk of falls from height eliminated

Additional

Electrogalvanised insulated head	Holes drilled (mm)	Height (cm)	Unit weight (kg)	Maximum allowable load (kN)
	4 x Ø12 x 80	33	3.80	40

Bracket	Non-tilt safety fork (FSAB)	Unit weight diagonal strut (kg)	Maximum allowable load (kN)	Unit weight FSAB(kg)	Tube diameter (mm)	Description
		1.05	3.5	1.150	35	▪ Bracket: butterfly fastening nut ▪ FSAB: hammer head screw

Installation from ground level

TopPerche	Length (cm)	Unit weight (kg)	Description
	155	3.20	▪ Work from ground level ▪ Risk of falls from height eliminated ▪ Controlled spacing of 13 cm ▪ Compatible with C2+ frames and primary beams

TOPDALLE ACCESSORIES

Leborgne tools

Nanovib® range	Description
	▪ Tools suitable for fitting and removing Alphi formwork: hammers, hammer holder, prop key ▪ Vibration and noise reduction Alphi distributes LEBORGNE See page 299 for details of Leborgne tools

Handling

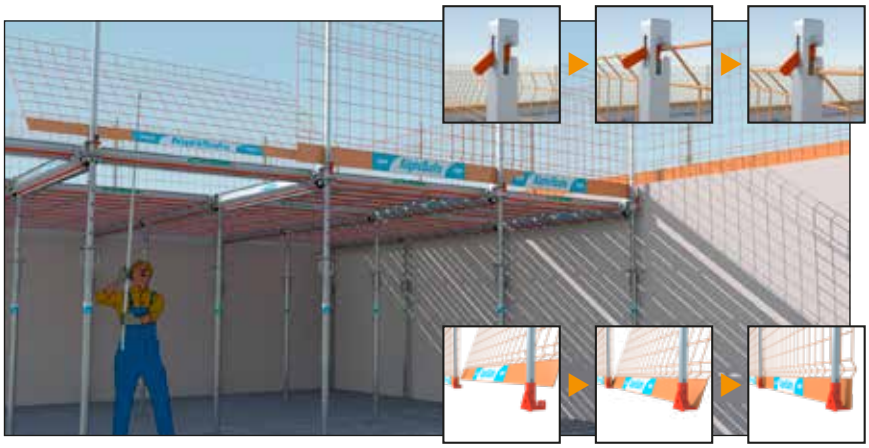
Racks	Ranges
	▪ Vertical storage rack ▪ Galvanised rack on wheels ▪ Galvanised handling rack See page 303 for the different rack models
TransÉtais Logement	**Description**
	▪ Easier prop handling ▪ Makes it possible to pass through door openings See page 311 for details of TransÉtais Logement

Aids for use

Plywood cutting support	Dimensions w x l x h (m)	Description
	1.40 x 2.06 x 0.86	▪ For sale only ▪ Circular saw kit and electrical extension available as an option
Rolling safety ladder	**Working height (m)**	**Description**
	2.50 to 4.33	▪ For sale only

ALPHISAFE COLLECTIVE PROTECTION

AlphiSafe is a collective protection system for formwork and slab edges. The technical innovations in the system allow **safe installation** and **automatic locking**.
Robust AlphiSafe is certified by Ginger CEBTP, **as per the EN 13374 standard of July 2013**, as class A and B for some components.
AlphiSafe is distinguished by its **height of 1.30 m** which is above the minimum height of 1.00 m set by the standard, and protects traditional slab formwork up to 30 cm thick.



The mesh is locked at the top by the anti-lifting pin and locked in rotation at the base.

Installation of AlphiSafe safety system in cantilever configuration

Installation of AlphiSafe safety system on technical support (progressive fitting)

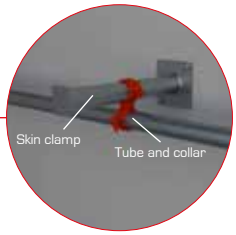
CLAMPING

Depending on the configuration, stabilisation components may be recommended. Contact Alphi's Design Office to validate the solution. The different systems offered are featured below.

Skin clamp

- Skin clamp + tube system.

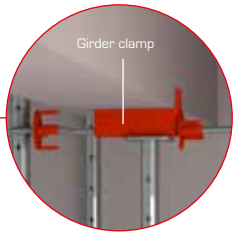
- Set up the stabilisation of the first components.
- Once stabilised, the tripods can be removed.



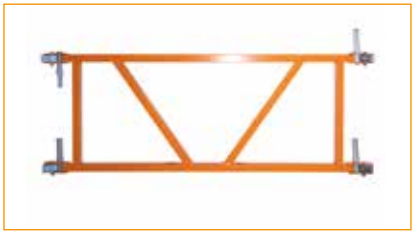
Girder clamp

- Girder clamp system.

- Set up the stabilisation of the first components.
- Once stabilised, the tripods can be removed.



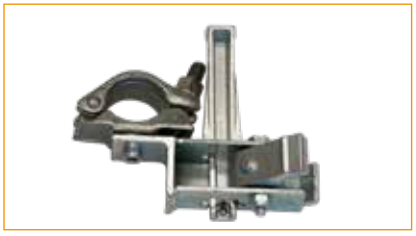
Aluminium prop frame



- The prop frame can be used to join 4 props by means of a rigid connection.

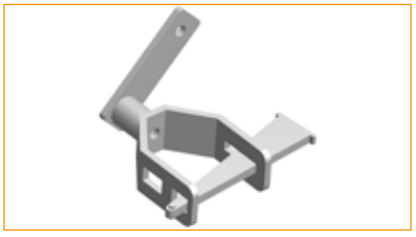
- Position the 4 props as desired then fasten the prop frame.

Aluminium prop clamp



- When combined with the skin clamp, this component enables ST1 and ST3 aluminium props to be stabilised.

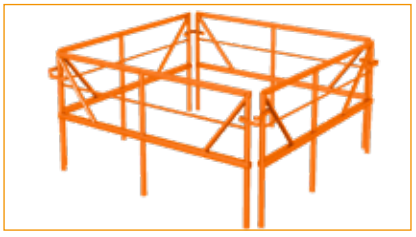
Prop clamp



- Prop clamp to be driven into the wall with concrete screws.

- This clamp can be fitted before or after positioning the prop.

Prop frame



- The prop frame can be used to join 4 props by means of a rigid connection.

- Position the 4 props as desired then fasten the prop frame.

FOR YOUR SAFETY

WARNING

- To use our products safely, please observe the regulations in force in each country.
- The items and set-ups presented in this brochure match the characteristics of the equipment on the date on which the document was published. There may have been some changes since then.
- The use of our systems in combination with other manufacturers' systems may involve some risk and requires a specific inspection.
- Please contact the design office for all uses not covered by the following procedure.

Personal protection

- Use of PPE is mandatory.
- Operators setting up and removing equipment must be familiar with the relevant technical user documentation and have understood the steps.

Secure the working area

- Before starting set-up, remember to secure the area.
- Only authorised personnel are allowed to access the working area.
- Check that the collective slab edge protection has been installed.

Installation of Alphi equipment

- Following the recommendations for using the equipment, safety instructions and load specifications ensures that **a worksite functions properly.**
- The **layout drawings** provided by the Alphi design office - not essential for a slab that is less than 24 cm thick - enable installation of the equipment to be optimised. Their adaptation for reasons relating to the progress of construction remains possible, by following the recommendations of the technical documentation for using the equipment.
- The **stability** of formwork components must be checked at each set-up stage.
- The TopDalle formwork system can be used up to a **gradient of 5%**.
- Use of the equipment must be appropriate for the **weather conditions**.
- The equipment must only be **maintained and repaired** by Alphi or by a user trained by Alphi.
- Alphi recommends that professional tools are used to install the equipment.

Alphi distributes LEBORGNE

Click **here** or scan the QR code to view the video of the procedure.

SIMPLIFIED USER GUIDE

FORMWORK

- Reception of equipment on the worksite: check quantities and validate delivery note.
- Precise distribution of the equipment according to the first phases of formwork defined by the layout drawing.
- Before starting to set up, remember to secure the area.
- Refer to the drawings and calculation charts provided.

- Do not place the props against the wall.
- Use TransÉtais Logement for easy prop storage and transport.

- Caution: it is essential to lock the head.

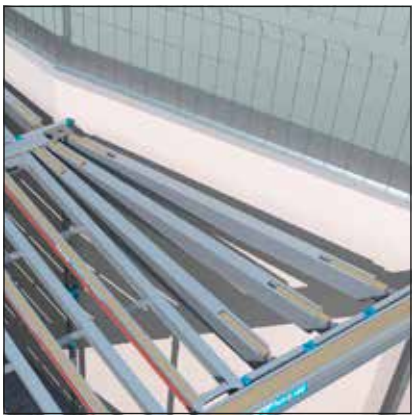
- Mount 1 primary beam on 2 technical supports (ST) stabilised by tripods. Caution: engage the primary beams on the large bushings of the technical support.

- Position the C2+ frames from one to the next using the TopPerche.

- Mounting a primary beam on ST stabilised by a tripod.

- The fitter uses the prop to position the primary beam.

- The fitter uses the prop to position the extendable primary beam.



- Finish installing TopDalle using secondary corner beams where necessary.

FINISHING & CASTING

- Conduct a final inspection to check levelling.
- Check that props are vertical.
- Check that no prop has been placed in the reserved areas.
- Check the jointing of the plywood panels.
- Caution: it is prohibited to walk on the formwork, with the exception of trained personnel authorised to fit plywood panels.

- Plywood installation.
- Nailing.
- Ensure that a load-bearing member is present under the plywood sheet joins, nailing possible in the timber insert.

- Check the sealing of the formwork between plywood sheets and at the edges.
- Spread the concrete on the formwork without overloading the beams and the technical supports.

FORMWORK REMOVAL

- The drop-head for fast removal integrated in the technical support is a patented system held by Alphi.
- It enables the slab to remain shored during formwork removal.
- This speeds up equipment turnover.
- Formwork removal is performed after 24 to 48 hours (according to concrete setting conditions).

- Strike down the formwork heads from the STs as you progress.

- Remove the C2+ frames and finally the primary beams.

- Remove the plywood sheet using a panel elevator.
- Use the Leborgne long-range form stripping tool to simplify this stage.

- Install the drying props, allowing one prop per 5 m^2 (general case).

DOCUMENTATION

View full user guide.

SAFETY | PRODUCTIVITY | ERGONOMICS | QUALITY | ENVIRONMENT

TopDalle eco

Alphi's innovation for formwork for residential construction, TopDalle Eco is unrivalled in terms of safety and productivity. Its full-surface panels provide a proper stable and secure working platform. Workers can work safely, productivity is increased.


LIEBHERR

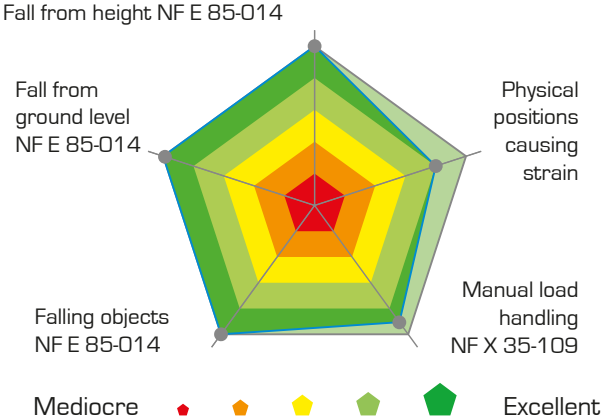
Site:
Housing
Client: Eiffage
Location: Paris, 20th district

The versatile TopDalle Eco system suits every type of building: offices, housing, residential care homes, correctional facilities, etc.

Simple and quick to install, the TopDalle Eco system offers productivity of 33 m^2/person/day at a height of 2.50 m.

TopDalle Eco formwork, designed by the R&D Department of Alphi, **complies with the decree of September 2004 concerning falls from height,** and satisfies the **NF E 85–014 and NF X 35–109 standards** concerning the risks of tripping, slipping, and falling objects, as well as the manual handling of loads.

Fall from height NF E 85-014



SAFETY AND ARDUOUSNESS PERFORMANCES

TopDalle Eco is the best-performing formwork of its generation in terms of the constraints of the NF E 85-014 and NF X 35-109 standards.

BV Cert. 6150814

COMPLIANT WITH DECREE OF SEPTEMBER 2004 CONCERNING **FALLS FROM HEIGHT** AND WITH THE **NF E 85-014 AND NF X 35-109 STANDARDS**.

ALL TOPDALLE ECO COMPONENTS HAVE BEEN TESTED BY THE **INDEPENDENT LABORATORY LOCIE AT THE UNIVERSITY OF SAVOIE MONT BLANC**.

UNIVERSITÉ SAVOIE MONT BLANC

TOPDALLE ECO SAFER, LESS ARDUOUS, MORE ENVIRONMENTALLY FRIENDLY AND EASIER TO USE.

SAFETY

Worker safety
The work area is secured by full-surface Eco+ panels, preventing falls from height and the risk of tripping, slipping, or falling objects.

Ground-level Eco+ panel fitting and removal
With TopPerche, formwork is installed and removed from ground level up to 3 m (no need for rolling safety ladder depending on heights).

Increased stability
The multi-support areas of the Eco+ panel, the continuous-support extendable primary beam combined with the extendable secondary corner beam, provide optimum stability.

Theft protection
The chemical process patented by Alphi is a protective measure against the fraudulent recycling of aluminium beams.

PRODUCTIVITY

33 m²/person/day at a height of 2.50 m
(formwork, adjustment, cladding, and formwork removal)

Practical use
- Simplified assembly thanks to adjacent Eco+ panels.
- The range needs fewer products thanks to the extendable primary beam.
- At the end of the span, the spacing of the Eco+ panel can be adjusted to the cell, leaving a gap of up to 10 cm between panels.

Easier identification
Coloured tips allow easy recognition of different Eco+ panel lengths.

Easy removal
The drop-head for fast removal integrated in the technical support (Alphi patented system) keeps the slab supported during formwork removal: this speeds up the turnaround of the aluminium structure.

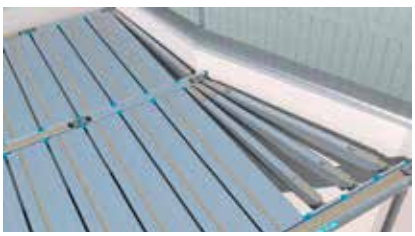
Adaptability to complex shapes
- Working on a full surface facilitates mobility above the formwork.
- The continual adjustment of the extendable primary beam and the extendable secondary corner beam lets you go near the edges of the cell.

SAVINGS

Strength and durability
- Exclusive extrusion process to create wide, monobloc profiles.
- The plastic tips are shock-absorbent, limiting breakage.

Compatibility
TopDalle Eco is compatible with the entire aluminium beam formwork range.

Maintenance
Servicing is simplified because aluminium is easy to repair.



QUALITY

Concrete soffit quality
Superior quality as per DTU 21 guidelines for concrete floors.

Nailing on timber insert
- Plywood (15 mm authorised) secured using nails.
- The asymmetric insert can adapt to different configurations.

Regulations
The beams are designed in compliance with the formwork standard NF P 93-322.

Cleanliness
The shape of the Eco+ panel limits chalking on the vertical wall.

Concrete formwork thickness of up to 1.23 m, according to configuration.

The extendable beams let you go near the cell edges

ENVIRONMENT

100% "Green"
Designed to limit CO_2 emissions, the Eco+ panel is made of recycled and 100% recyclable aluminium.

Short distribution channels
- The production method implemented by Alphi favours short distribution channels and operators in French industry.
- Procurement-related transport covers distances of less than 460 km.

Fewer lorries
- Optimum packing has been achieved by limiting the thickness of the Eco+ panel and designing its shape with a view to obtaining a more compact size.
- Lorries can now carry 15 % more equipment.

ERGONOMICS

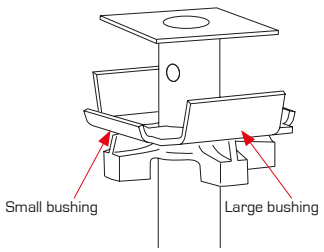
35% less weight
TopDalle Eco hand-portable components are 35% lighter than conventional solutions.

Making work less arduous
The system limits manual load handling.

Less noise pollution
Eco+ panels have shock-absorbent plastic tips,which reduce noise.

3 COMPONENTS FOR SIMPLE SHAPES

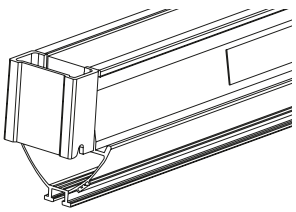
1 Technical supports

Technical support (ST) with integrated drop-head	Name	Colour	Height (cm)	Unit weight (kg)	Description
	ST1		197-300	18.50	▪ Integrated drop-head for fast removal (patented system) ▪ Base web ▪ Hot-dip galvanised ▪ Cast iron sleeve
	ST2		225-350	20.50	
	ST3		250-400	23.50	

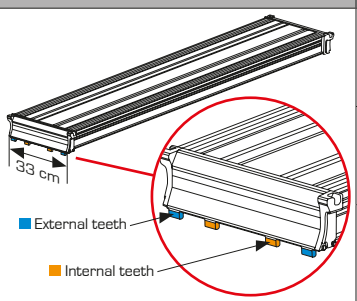
Aluminium props

Aluminium prop with insulated head	Name	Colour	Height (cm)	Unit weight (kg)	Description
	ST1 Alu		164-267 + 33 for the insulated head	15.00	▪ 33 cm insulated head attached to the end of the prop ▪ Full-height runner thread, self-cleaning ▪ Easy height adjustment by means of the gauge incorporated into the runner
	ST3 Alu		270-400 + 33 for the insulated head	19.40	

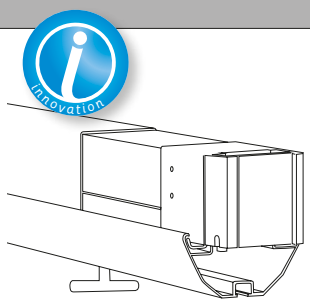
2 Primary

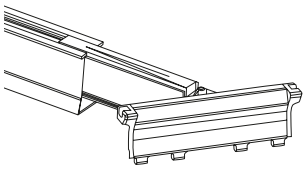
Primary beam	Name	Colour	Length (cm)	Unit weight (kg)	Description
	PP 90		90	5.40	▪ Theft protection ▪ Can be mounted in a drawer ▪ 30 mm timber inserts, for nailing on plywood using 40 mm nails
	PP 110		110	6.60	
	PP 150		150	9.00	
	PP 180		180	10.80	

3 Secondary

Eco+ panel	Name	Colour	Length (cm)	Unit weight (kg)	Description
	110		110	5.40	▪ Anti-tip safety ▪ 33 cm width ▪ Theft protection ▪ Timer inserts for nailing on plywood using 40 mm nails ▪ Coloured tip for easy identification
	150		150	6.90	
	180		180	7.90	

2 COMPONENTS FOR COMPLEX SHAPES (OPTIONAL)

1 Primary	Extendable primary beam	Name	Colour	Length (cm)	Unit weight (kg)	Description
		PPE 90-110		90-110	7.10	▪ From 90 to 110 cm, to adapt to all cell sizes ▪ Can be mounted in a drawer ▪ Continuous resting of secondary beams on primary beam

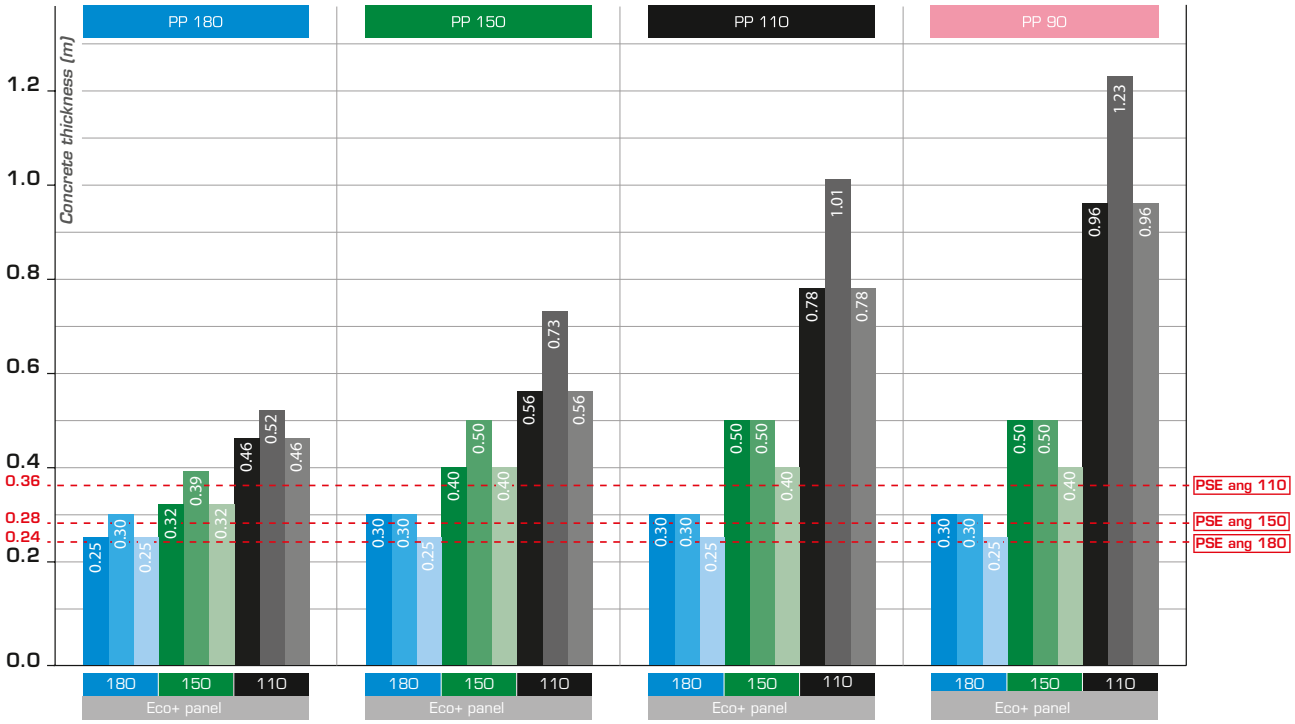
2 Secondary	Extendable secondary corner beam	Name	Colour	Length (cm)	Unit weight (kg)	Description
		PSE ang 110		110-135	5.40	▪ Each secondary corner beam must be associated with the secondary beam of the same size (e.g.: PSE ang 110 with PS 110) ▪ Adjustable length ▪ Timber inserts for nailing on plywood ▪ Modular orientation as close as possible to the concrete skin by rotating the tip ▪ Working angles of 0° to 35°
		PSE ang 150		150-180	6.60	
		PSE ang 180		180-220	7.50	

USE CALCULATION CHARTS

The values appearing in these charts must be complied with to ensure the safety of operators and compliance with the applicable standards (NFP 93-322 for beams and EN 1991 1-6 for all loads).

Beams

Specified value for a superior quality as per DTU 21 guidelines (L/400) for concrete floors, accounting for the site load (2.5 kN/m²).



ST (32 kN) and beam limit

Load on prop greater than 32 kN (zone requiring specific study by Alphi design office)

Beam limit with 10 cm spacing

PP
Primary beam

Eco+
Secondary panel

PSE ang
Secondary corner beam

PPE
Extendable primary beam
For PPE beams, the values are:
- 0.36 m for the 110 frame,
- 0.28 m for the 150 frame,
- 0.24 m for the 180 frame.

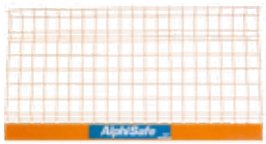
Technical supports ST with integral shuttering head / Alloy props with insulated head

Name	Colour	Height (cm)	Unit weight (kg)	*Shored height (m)* / Working load (kN)																							
		min-max		*1.9*	*2.0*	*2.1*	*2.2*	*2.3*	*2.4*	*2.5*	*2.6*	*2.7*	*2.8*	*2.9*	*3.0*	*3.1*	*3.2*	*3.3*	*3.4*	*3.5*	*3.6*	*3.7*	*3.8*	*3.9*	*4.0*	*4.3*
ST1 *		197-300	18.5	40	39	38	37	36	35	35	34	33	33	32	32											
ST2 *		225-350	20.5				40	39	39	38	37	36	36	35	35	34	34	33	32	32						
ST3 *		250-400	23.5							40	40	40	40	40	40	40	40	40	38	38	34	34	30	30	26	
ST1 Alu		164-267 + 33 for the insulated head	15			40	40	40	40	40	40	40	40	40	40											
ST3 Alu		270-400 + 33 for the insulated head	19.40									40	40	40	40	40	40	40	40	40	40	40	39	37	36	34

* Hot-galvanised - Identified by sleeve or nut colour. According to Eurocode 0 and 3 safety coefficients

TOPDALLE ECO ACCESSORIES

Safety

Mesh*	Dimensions w x h (m)	Unit weight (kg)	Description
	1.25 x 1.30	7.60	▪ The wire mesh is galvanised, with polyester powder coating
	2.50 x 1.30	14.50	

Galvanised post*	Cross-section (cm)	Height (m)	Unit weight (kg)
	3.5 x 3.5	1.34	3.50

Alphi formwork adapters			Unit weight (kg) Primary adapter	Unit weight (kg) ST adapter	Unit weight (kg) Corner adapter
Primary adapter*	ST adapter*	Corner adapter			
			2.30	2.10	2.10
					*Compliant with EN 13374 standard

AlphiSafe pole	Length (cm)	Unit weight (kg)	Description
	1.94 to 3.50	2.73	▪ Work from ground level ▪ Risk of falls from height eliminated

Additional

Electrogalvanised insulated head	Holes drilled (mm)	Height (cm)	Unit weight (kg)	Maximum allowable load (kN)
	4 x Ø12 x 80	33	3.80	40

Bracket	Non-tilt safety fork (FSAB)	Unit weight diagonal strut (kg)	Maximum allowable load (kN)	Unit weight FSAB(kg)	Tube diameter (mm)	Description
		1.05	3.5	1.150	35	▪ Bracket: butterfly fastening nut ▪ FSAB: hammer head screw

Installation from ground level

TopPerche	Length (cm)	Unit weight (kg)	Description
	155	3.20	▪ Work from ground level ▪ Risk of falls from height eliminated ▪ Compatible with Eco+ panels and primary beams

TOPDALLE ECO ACCESSORIES

Leborgne tools

Nanovib® range	Description
	▪ Tools suitable for fitting and removing Alphi formwork: hammers, hammer holder, prop key ▪ Vibration and noise reduction Alphi distributes LEBORGNE See page 299 for details of Leborgne tools

Handling

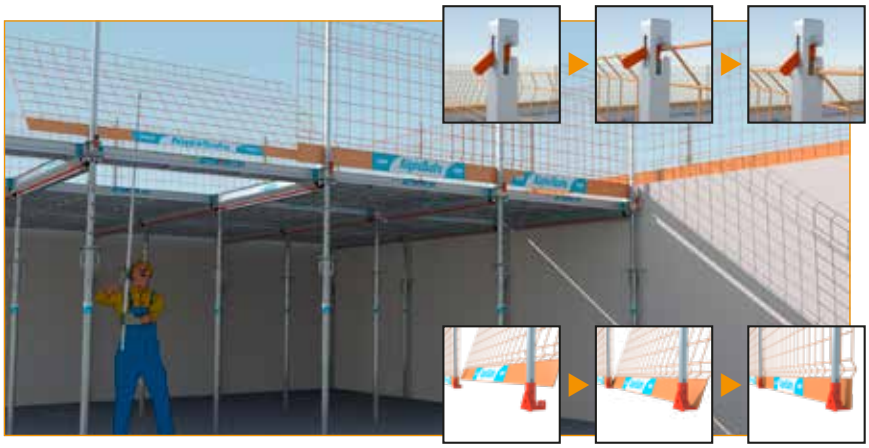
Racks	Ranges
	▪ Vertical storage rack ▪ Galvanised rack on wheels ▪ Galvanised handling rack See page 303 for the different rack models
TransÉtais Logement	**Description**
	▪ Easier prop handling ▪ Makes it possible to pass through door openings See page 311 for details of TransÉtais Logement

Aids for use

Plywood cutting support	Dimensions w x l x h (m)	Description
	1.40 x 2.06 x 0.86	▪ For sale only ▪ Circular saw kit and electrical extension available as an option
Rolling safety ladder	**Working height (m)**	**Description**
	2.50 to 4.33	▪ For sale only

ALPHISAFE COLLECTIVE PROTECTION

AlphiSafe is a collective protection system for formwork and slab edges. The technical innovations in the system allow **safe installation** and **automatic locking**.
Robust AlphiSafe is certified by Ginger CEBTP, **as per the EN 13374 standard of July 2013**, as class A and B for some components.
AlphiSafe is distinguished by its **height of 1.30 m** which is above the minimum height of 1.00 m set by the standard, and protects traditional slab formwork up to 30 cm thick.



The mesh is locked at the top by the anti-lifting pin and locked in rotation at the base.

Installation of AlphiSafe safety system in cantilever configuration

Installation of AlphiSafe safety system on technical support (progressive fitting)

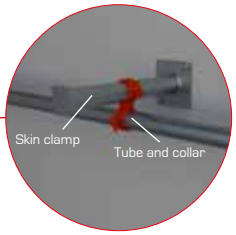
CLAMPING

Depending on the configuration, stabilisation components may be recommended. Contact Alphi's Design Office to validate the solution. The different systems offered are featured below.

Skin clamp

- Skin clamp + tube system.

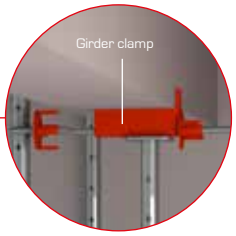
- Set up the stabilisation of the first components.
- Once stabilised, the tripods can be removed.



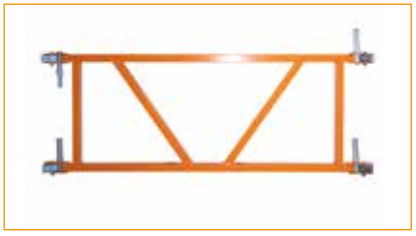
Girder clamp

- Girder clamp system.

- Set up the stabilisation of the first components.
- Once stabilised, the tripods can be removed.



Aluminium prop frame



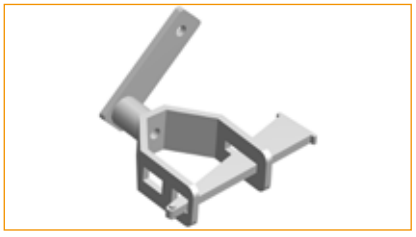
- The prop frame can be used to join 4 props by means of a rigid connection.

- Position the 4 props as desired then fasten the prop frame.

Aluminium prop clamp

- When combined with the skin clamp, this component enables ST1 and ST3 aluminium props to be stabilised.

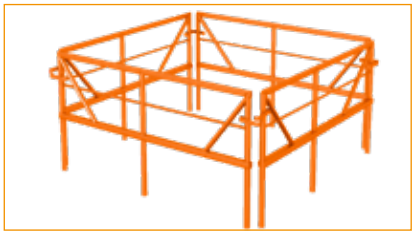
Prop clamp



- Prop clamp to be driven into the wall with concrete screws.

- This clamp can be fitted before or after positioning the prop.

Prop frame



- The prop frame can be used to join 4 props by means of a rigid connection.

- Position the 4 props as desired then fasten the prop frame.

FOR YOUR SAFETY

WARNING

- To use our products safely, please observe the regulations in force in each country.
- The items and set-ups presented in this brochure match the characteristics of the equipment on the date on which the document was published. There may have been some changes since then.
- The use of our systems in combination with other manufacturers' systems may involve some risk and requires a specific inspection.
- Please contact the design office for all uses not covered by the following procedure.

Personal protection

- Use of PPE is mandatory.
- Operators setting up and removing equipment must be familiar with the relevant technical user documentation and have understood the steps.

Secure the working area

- Before starting set-up, remember to secure the area.
- Only authorised personnel are allowed to access the working area.
- Check that the collective slab edge protection has been installed.

Installation of Alphi equipment

- Following the recommendations for using the equipment, safety instructions and load specifications ensures that **a worksite functions properly.**
- The **layout drawings** provided by the Alphi design office - not essential for a slab that is less than 24 cm thick - enable installation of the equipment to be optimised. Their adaptation for reasons relating to the progress of construction remains possible, by following the recommendations of the technical documentation for using the equipment.
- The **stability** of formwork components must be checked at each set-up stage.
- The TopDalle Eco formwork system can be used up to a **gradient of 5%**.
- Use of the equipment must be appropriate for the **weather conditions**.
- The equipment must only be **maintained and repaired** by Alphi or by a user trained by Alphi.
- Alphi recommends that professional tools are used to install the equipment.

Alphi distributes LEBORGNE

Click **here** or scan the QR code to view the video of the procedure.

SIMPLIFIED USER GUIDE WITH STEEL PROPS

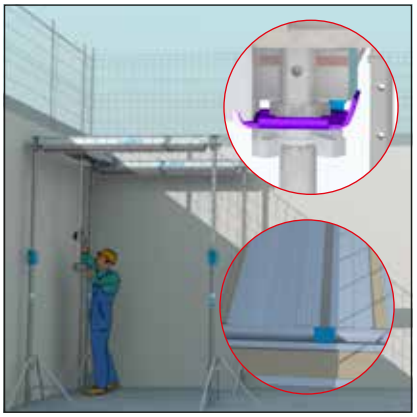
FORMWORK

- Reception of equipment on the worksite: check quantities and validate delivery note.
- Precise distribution of the equipment according to the first phases of formwork defined by the layout drawing.
- Before starting to set up, remember to secure the area.
- Refer to the drawings and calculation charts provided.

- Do not place the props against the wall.
- Use TransÉtais Logement for easy prop storage and transport.

- Caution: it is essential to lock the head.

- Mount 1 primary beam on 2 technical supports (ST) stabilised by tripods. Caution: engage the primary beams on the large bushings of the technical support.

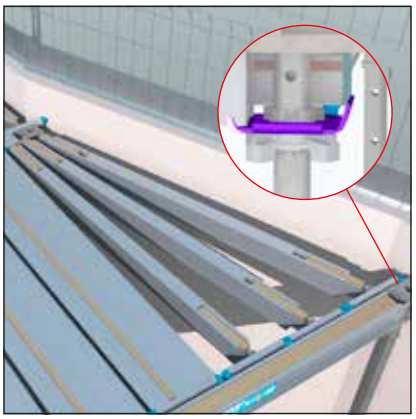


- Mounting Eco+ panels using TopPerche. Caution: the external teeth of the Eco+ panel must always rest on a primary beam or on the prop head.

- Mounting a primary beam on ST stabilised by a tripod.

- The fitter uses the prop to position the primary beam.

- The fitter uses the prop to position the extendable primary beam.



- Finish installing TopDalle Eco using secondary corner beams if required.

FINISHING & CASTING

- Conduct a final inspection to check levelling.
- Check that props are vertical.
- Check that no prop has been placed in the reserved areas.
- Check the jointing of the plywood panels.
- Caution: it is prohibited to walk on the formwork, with the exception of trained personnel authorised to fit plywood panels.

- Plywood installation.
- Nailing.
- Ensure that a load-bearing member is present under the plywood sheet joins, nailing possible in the timber insert.

- Check the sealing of the formwork between plywood sheets and at the edges.
- Spread the concrete on the formwork without overloading the beams and the technical supports.

FORMWORK REMOVAL

- The drop-head for fast removal integrated in the technical support is a patented system held by Alphi.
- It enables the slab to remain shored during formwork removal.
- This speeds up equipment turnover.
- Formwork removal is performed after 24 to 48 hours (according to concrete setting conditions).

- Strike down the formwork heads from the STs as you progress.

- Remove the Eco+ panels followed by the primary beams.

- Remove the plywood sheet using a panel elevator.
- Use the Leborgne long-range form stripping tool to simplify this stage.

- Install the drying props, allowing one prop per 5 m^2 (general case).

DOCUMENTATION

View full user guide.

SIMPLIFIED USER GUIDE WITH ALUMINIUM PROPS

FORMWORK

- Reception of equipment on the worksite: check quantities and validate delivery note.
- Precise distribution of the equipment according to the first phases of formwork defined by the layout drawing.
- Before starting to set up, remember to secure the area.
- Refer to the drawings and calculation charts provided.

- Do not place the props against the wall.
- Use TransÉtais Logement for easy prop storage and transport.

- Caution: it is essential to lock the head.

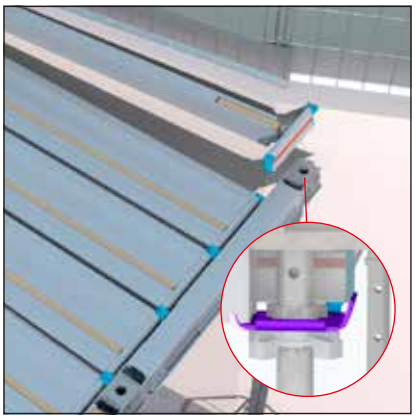
- Mount a primary beam on 2 props using a rolling safety ladder. Caution: engage the primary beams on the large bushings of the prop.

- Mounting the Eco+ panels using TopPerche. Caution: the external teeth of the Eco+ panel must always rest on a primary beam or on the prop head.

- Mounting a primary beam on a stabilised ST.

- The fitter uses the prop to position the primary beam.

- The fitter uses the prop to position the second extendable primary beam.



- Mount the extendable secondary corner beam.

FINISHING & CASTING

- Conduct a final inspection to check levelling.
- Check that props are vertical.
- Check that no prop has been placed in the reserved areas.
- Check the jointing of the plywood panels.
- Caution: it is prohibited to walk on the formwork, with the exception of trained personnel authorised to fit plywood panels.

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DOCUMENTATION

View full user guide.


150

DalpHi®

Its first quality is its versatility, the second is its price.
DalpHi, the firm's "legacy" formwork can be adapted to all types of buildings. Lightweight and economical, it include the Alphi-patented integrated drop-head for fast removal.

Site: Chambéry hospital maternity ward car park
Client: Bouygues Construction
Location: Chambéry

DalpHi

The economical, high-performance DalpHi floor formwork system suits all types of buildings: offices, housing residential care homes, correctional facilities, etc.

It can be installed at a productivity rate of 25 m^2/person/day.

Its aluminium components make it oneof the **most lightweight formwork systems on the market.**

The drop-head integrated in the prop (patented by Alphi) ensures **safe removal.**

BV Cert. 6150814

ORIGINE FRANCE® GARANTIE

PRODUCTIVITY

Installation
25 m²/person/day.

Quick turnarounds
Small quantity of equipment used thanks to quick turnarounds.

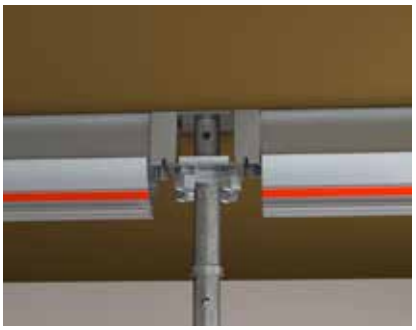
Easy removal
The drop-head for fast removal integrated in the technical support (Alphi patented system) keeps the slab supported during formwork removal.

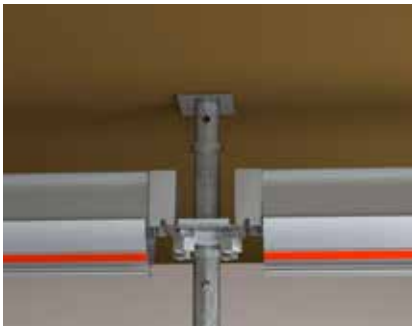
Easier identification
The beams are colour-coded, in compliance with the layout drawings drafted by the Alphi design office.

Hand-portable
The simple components in the DalpHi system make it possible to work independently, with no need for a crane. This leaves the crane available for other tasks.

LIGHTWEIGHT, HAND-PORTABLE **EQUIPMENT**

The integrated drop-head for fast removal enables a quicker turnaround of the aluminium structure





The drop-head integrated in the prop allows fast formwork removal without releasing pressure on the slab

ADAPTABILITY

Wide choice of lengths

The beam size is chosen to suit the needs of each project. 4 primary beam lengths and 3 secondary beam lengths are available.

Flexible use

- "Primary on primary" assembly allows the DalpHi system to adapt to the exact dimensions of the cells.
- Beams can also be fitted on shoring towers.

QUALITY

Cast concrete thickness of up to 1.23 m

Regulations

The beams are designed in compliance with the formwork standard NF P 93-322.

Theft protection

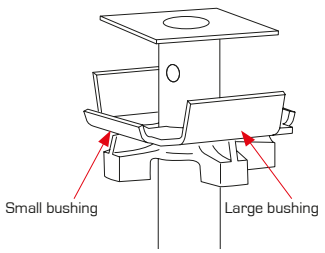
The chemical process patented by Alphi is a protective measure against the fraudulent recycling of aluminium beams.

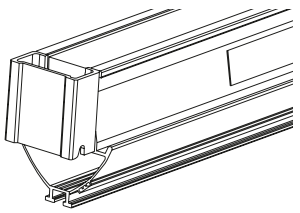
Protection identifiable by red insert

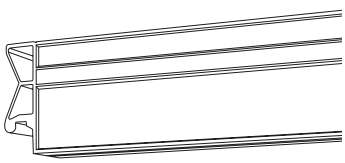
ALL **DALPHI** COMPONENTS HAVE BEEN TESTED BY THE **INDEPENDENT LABORATORY LOCIE OF THE UNIVERSITY OF SAVOIE MONT BLANC.**

UNIVERSITÉ SAVOIE MONT BLANC

3 SIMPLE COMPONENTS

1 Technical supports	Technical support (ST) with integrated drop-head	Name	Colour	Height (cm)	Unit weight (kg)	Description
		ST1		197-300	18.50	▪ Integrated drop-head for fast removal (patented system) ▪ Base web ▪ Hot-dip galvanised ▪ Cast iron sleeve
		ST2		225-350	20.50	
		ST3		250-400	23.50	

2 Primary	Primary beam	Name	Colour	Length (cm)	Unit weight (kg)	Description
		PP 90		90	5.40	▪ Theft protection ▪ Can be mounted in a drawer ▪ 30 mm timber inserts, for nailing on plywood using 40 mm nails
		PP 110		110	6.60	
		PP 150		150	9.00	
		PP 180		180	10.80	

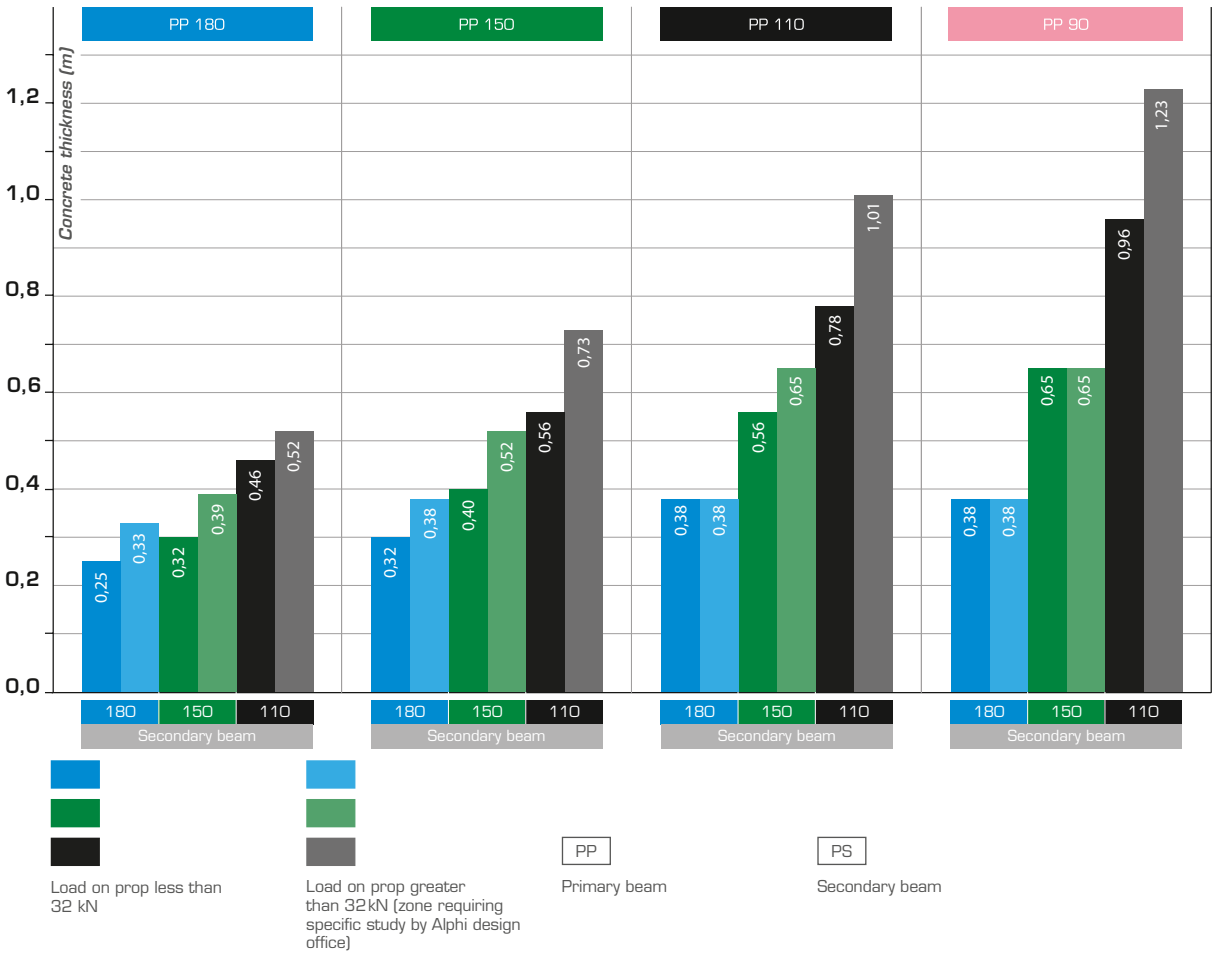
3 Secondary	Secondary beam	Name	Colour	Length (cm)	Unit weight (kg)	Description
		PS 110		110	3.00	▪ Theft protection ▪ Timer inserts for nailing on plywood using 40 mm nails ▪ Compatible with other formwork solutions
		PS 150		150	4.10	
		PS 180		180	4.90	

USE CALCULATION CHARTS

The values appearing in these charts must be complied with to ensure the safety of operators and compliance with the applicable standards (NFP 93-322 for beams and EN 1991 1-6 for all loads).

Beams

Specified value for a superior quality as per DTU 21 guidelines (L/400) for concrete floors, accounting for the site load (2.5 kN/m²).



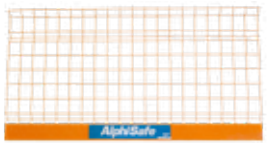
ST technical supports with integrated drop-head

Name	Colour	Height (cm)	Unit weight (kg)	*Shored height (m)* / Working load (kN)																							
		min-max		*1.9*	*2.0*	*2.1*	*2.2*	*2.3*	*2.4*	*2.5*	*2.6*	*2.7*	*2.8*	*2.9*	*3.0*	*3.1*	*3.2*	*3.3*	*3.4*	*3.5*	*3.6*	*3.7*	*3.8*	*3.9*	*4.0*
ST1*		197-300	18.5	40	39	38	37	36	35	35	34	33	33	32	32										
ST2*		225-350	20.5				40	39	39	38	37	36	36	35	35	34	34	33	32	32					
ST3*		250-400	23.5							40	40	40	40	40	40	40	40	40	38	38	34	34	30	30	26

* Hot-galvanised - Identified by sleeve or nut colour. According to Eurocode 0 and 3 safety coefficients

DALPHI ACCESSORIES

Safety

Mesh*	Dimensions w x h (m)	Unit weight (kg)	Description
	1.25 x 1.30	7.60	▪ The wire mesh is galvanised, with polyester powder coating
	2.50 x 1.30	14.50	

Galvanised post*	Cross-section (cm)	Height (m)	Unit weight (kg)
	3.5 x 3.5	1.34	3.50

Alphi formwork adapters			Unit weight (kg) Primary adapter	Unit weight (kg) ST adapter	Unit weight (kg) Corner adapter
Primary adapter*	ST adapter*	Corner adapter			
			2.30	2.10	2.10
					*Compliant with EN 13374 standard

Additional

Electrogalvanised insulated head	Holes drilled (mm)	Height (cm)	Unit weight (kg)	Maximum allowable load (kN)
	4 x Ø12 x 80	33	3.80	40

Bracket	Non-tilt safety fork (FSAB)	Unit weight diagonal strut (kg)	Maximum allowable load (kN)	Unit weight FSAB(kg)	Tube diameter (mm)	Description
		1.05	3.5	1.150	35	▪ Bracket: butterfly fastening nut ▪ FSAB: hammer head screw

Leborgne tools

Nanovib® range	Description
	▪ Tools suitable for fitting and removing Alphi formwork: hammers, hammer holder, prop key ▪ Vibration and noise reduction Alphi distributes LEBORGNE See page 299 for details of Leborgne tools

Handling

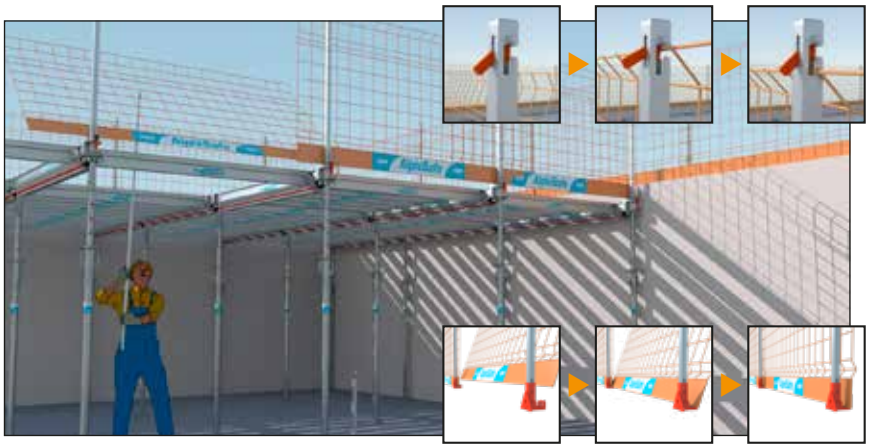
Racks	Ranges
	▪ Vertical storage rack ▪ Galvanised rack on wheels ▪ Galvanised handling rack See page 303 for the different rack models
TransÉtais Logement	**Description**
	▪ Easier prop handling ▪ Makes it possible to pass through door openings See page 311 for details of TransÉtais Logement

Aids for use

Plywood cutting support	Dimensions w x l x h (m)	Description
	1.40 x 2.06 x 0.86	▪ For sale only ▪ Circular saw kit and electrical extension available as an option
Rolling safety ladder	**Working height (m)**	**Description**
	2.50 to 4.33	▪ For sale only

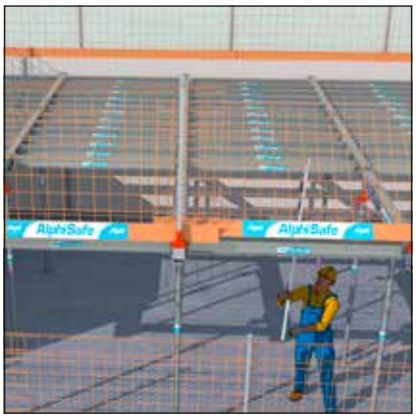
ALPHISAFE COLLECTIVE PROTECTION

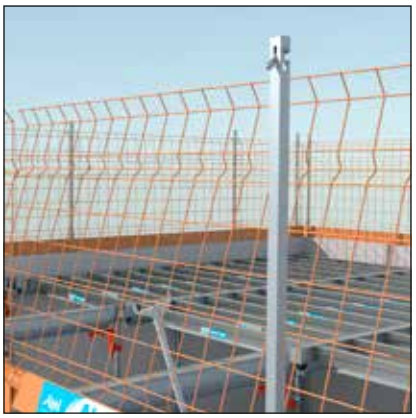
AlphiSafe is a collective protection system for formwork and slab edges. The technical innovations in the system allow **safe installation** and **automatic locking**.
Robust AlphiSafe is certified by Ginger CEBTP, **as per the EN 13374 standard of July 2013**, as class A and B for some components.
AlphiSafe is distinguished by its **height of 1.30 m** which is above the minimum height of 1.00 m set by the standard, and protects traditional slab formwork up to 30 cm thick.



The mesh is locked at the top by the anti-lifting pin and locked in rotation at the base.

Installation of AlphiSafe safety system in cantilever configuration





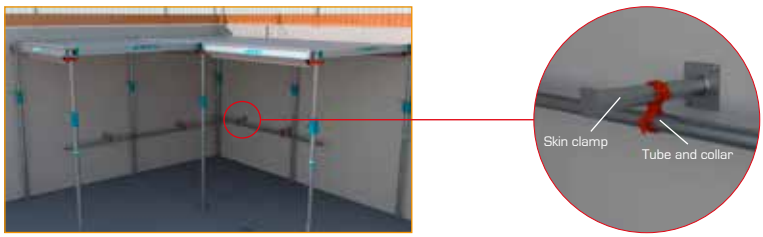
Installation of AlphiSafe safety system on technical support (progressive fitting)

CLAMPING

Depending on the configuration, stabilisation components may be recommended. Contact Alphi's Design Office to validate the solution. The different systems offered are featured below.

Skin clamp

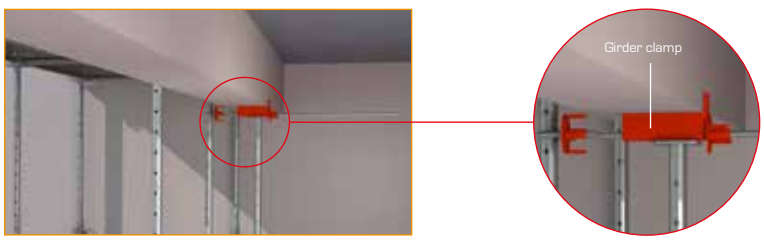
- Skin clamp + tube system.



- Set up the stabilisation of the first components.
- Once stabilised, the tripods can be removed.

Girder clamp

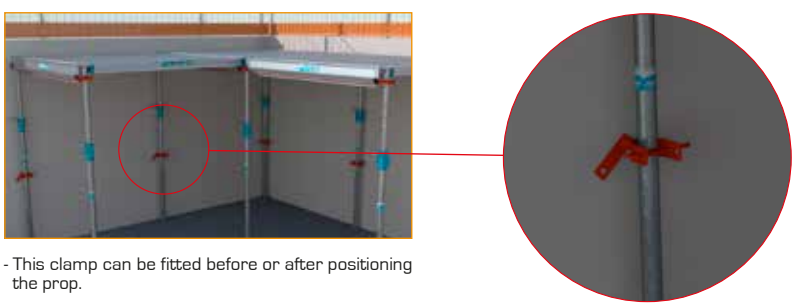
- Girder clamp system.



- Set up the stabilisation of the first components.
- Once stabilised, the tripods can be removed.

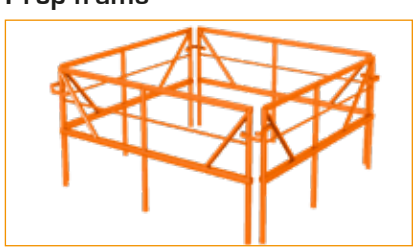
Prop clamp

- Prop clamp to be driven into the wall with concrete screws.

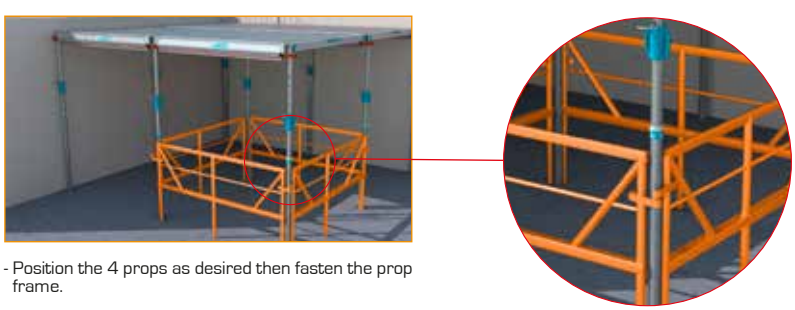


- This clamp can be fitted before or after positioning the prop.

Prop frame



- The prop frame can be used to join 4 props by means of a rigid connection.



- Position the 4 props as desired then fasten the prop frame.

SIMPLIFIED USER GUIDE

FORMWORK

- Reception of equipment on the worksite: check quantities and validate delivery note.
- Precise distribution of the equipment according to the first phases of formwork defined by the layout drawing.
- Before starting to set up, remember to secure the area.
- Refer to the drawings and calculation charts provided.

- Do not place the props against the wall.
- Use TransÉtais Logement for easy prop storage and transport.

- Caution: it is essential to lock the head.

- Mount 1 primary beam on 2 technical supports (ST) stabilised by tripods. Caution: engage the primary beams on the large bushings of the technical support.
- Mount a secondary beam on a third ST.

- Place a second primary beam on another ST.

- Finish setting up the secondary beams.
- Do not leave gaps greater than 39 cm. Observe the layout plan.

- Set up another secondary beam on ST.

- Adjust the level using a laser level, ST by ST.
- A gauge stick hanging from the formwork allows laser adjustment to be performed by one person.

- When the structure is finished and the height has been adjusted: laying the plywood. Peripheral safety (skin, girder, etc.) ensured beforehand.

FINISHING & CASTING

- Conduct a final inspection to check levelling.
- Check that props are vertical.
- Check that no prop has been placed in the reserved areas.
- Check the jointing of the plywood panels.
- Caution: it is prohibited to walk on the formwork, with the exception of trained personnel authorised to fit plywood panels.

- Nailing using 40 mm (max.) nails.
- Ensure that a load-bearing member is present under the plywood sheet joins, and that the formwork between plywood sheets and the edge is sealed.

- Check the sealing of the formwork between plywood sheets and at the edges.
- Spread the concrete on the formwork without overloading the beams and the technical supports.

FORMWORK REMOVAL

- The drop-head for fast removal integrated in the technical support is a patented system held by Alphi.
- It enables the slab to remain shored during formwork removal.
- This speeds up equipment turnover.
- Formwork removal is performed after 24 to 48 hours (according to concrete setting conditions).

- Strike down the formwork heads from the STs as you progress.
- The primary beams and the secondary beams drop by 19 cm.
- The STs remain in position.

- Remove the secondary beams and finally the primary beams.

- Remove the plywood sheet using a panel elevator.
- Use the Leborgne long-range form stripping tool to simplify this stage.

- Install the drying props, allowing one prop per 5 m^2 (general case).

DOCUMENTATION

View full user guide.

HorizontAL

The HorizonAL range is panel type formwork designed for large cells, making it the ideal system for commercial building construction. Compensation beams allow connection to the TopDalle and TopDalle Eco system.

Site: To-Lyon
Client: Vinci
Location: Lyon

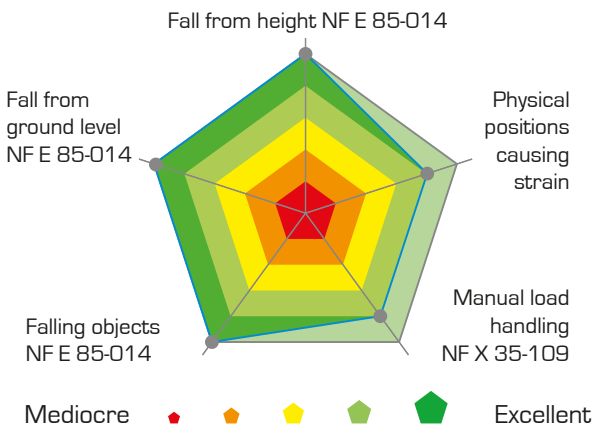
HorizontAL

The HorizontAL range is a panel-type formwork system for **large cells.**

The high-performance HorizontAL system is capable of supporting a concrete slab of up to 30-35 cm, 50 cm with reinforcements.

Simple: HorizontAL comprises a prop head, with and without a seal, for all assembly configurations and a formwork panel that comes in two sizes.

The head guarantees **safe installation** and prevents **panel lifting** in windy conditions.



SAFETY AND ARDUOUSNESS PERFORMANCES

HorizontAL is the best-performing panel formwork of its generation in terms of the constraints of the NF E 85-014 and NF X 35-109 standards.

A PANEL WEIGHING **UNDER 25 KG** AND A SINGLE **DROP-HEAD.**

PRODUCTIVITY

- High installation work rate.
- Flexible use thanks to the compensation beams which allow connection to TopDalle and to TopDalle Eco.
- A single head for all configurations.
- Ergonomic panel handling tool: MaxUpDown.
- The large panel sizes allow formwork of heights of up to 3.50 m without using a rolling safety ladder.

COMPATIBLE WITH THE TOPDALLE AND TOPDALLE ECO SYSTEMS TO **FACILITATE FORMWORK IN COMPLEX AREAS.**

SAFETY

- Ground-based fitting and removal of panels and compensations when greater than 20 cm.
- The full surface inherent to the system forms a proper working platform.
- The AlphiSafe collective safety system is integrated in the panel using suitable adapters. It helps limit falls from height.

MAXUPDOWN
HELPS INCREASE THE WORK RATE TO
40 M² /PERSON/DAY

WITHOUT MAXUPDOWN

Surface area: 120 m²
Height: 3.90 m
4 workers
30 m² /person/day

Productivity +33%

WITH MAXUPDOWN

Surface area: 120 m²
Height: 3.90 m
3 workers
40 m² /person/day

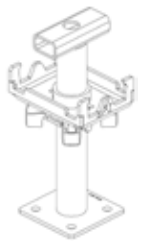
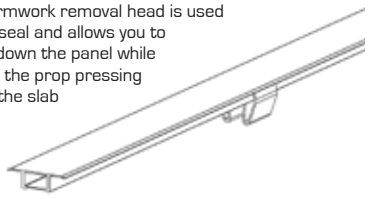
ERGONOMICS

- Light-weight panels: 24.9 kg for the 190 x 95 cm panel, or 13.8 kg/m². 2 workers are sufficient for handling, in compliance with labour regulations.
- At extra-high heights, the MaxUp-Down tool enables easier panel handling and helps reduce repetitive strain injuries.

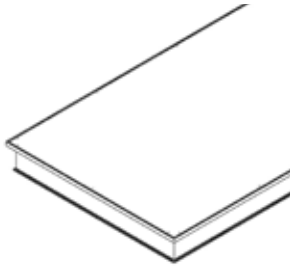
3 SIMPLE COMPONENTS

1 Heads

Fixed head (prop + plate)	Description
	▪ Prop with 120 x 120 mm plate, bore holes spaced at 80 mm ▪ A single head model for all assembly configurations ▪ The fixed head is used with the panel without a seal

Formwork removal head (prop + plate)	Description
	▪ Prop with 120 x 120 mm plate, bore holes spaced at 80 mm ▪ A single head model for all assembly configurations ▪ The formwork removal head is used with a seal and allows you to strike down the panel while leaving the prop pressing under the slab 

2 Panels

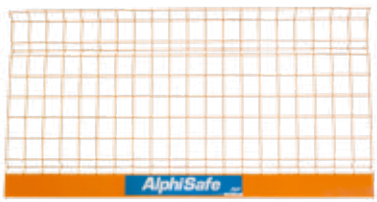
Formwork panel	Name	Dimensions l x w x h (cm)	Unit weight (kg)	Description
	HorizontAL 95	95 x 190 x 14	24.90	▪ 2 panel sizes ▪ 2 panel colours for easier layout drawings: HorizontAL 95 in orange, HorizontAL 63.3 in blue
	HorizontAL 63.3	63.3 x 190 x 14	18.00	

3 Beam

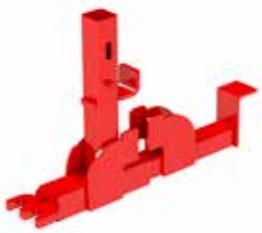
Compensation beam	Dimensions l x w x h (cm)	Compensation plywood thickness (mm)	Description
	87 x 7 x 14	15 to 27	▪ Used to produce compensation keys ▪ Used to connect HorizontAL to TopDalle and to TopDalle Eco

HORIZONTAL ACCESSORIES

Safety

Mesh*	Dimensions w x h (m)	Unit weight (kg)	Description
	1.25 x 1.30	7.60	▪ The wire mesh is galvanised, with polyester powder coating
	2.50 x 1.30	14.50	

Galvanised post	Cross-section (cm)	Height (m)	Unit weight (kg)
	3.5 x 3.5	1.34	3.50

Alphi formwork adapter	Name	Unit weight (kg)
	HorizontAL adapter	3.60

*Compliant with EN 13374 standard

Leborgne tools

Nanovib® range	Description
	▪ Tools suitable for fitting and removing Alphi formwork: hammers, hammer holder, prop key ▪ Vibration and noise reduction Alphi distributes LEBORGNE See page 299 for details of Leborgne tools

HORIZONTAL ACCESSORIES

Additional

Formwork removal pole	Length (m)	Unit weight (kg)
	3.20	7.00

Compensation plate	Dimensions w x l (cm)	Thickness (mm)
	15 x 190	2
	50 x 190	2

Handling

MaxUp	Dimensions w x l x h (cm)	Maximum working height (m)	Unit weight including cylinder (kg)
	70 x 125 x 170	4.20	74.00

MaxDown	Dimensions w x l x h (cm)	Maximum working height (m)	Unit weight including cylinder (kg)
	130 x 160 x 230	4.20	96.00

Boundary barrier

Bracket	Dimensions l x h (m)
	0.54 x 1.08

Ballast	Unit weight (kg)
	25.00

Tube	Length (m)	Diameter (mm)
	3.00	33.4

Assembled unit	Description
	▪ Barrier + ballast + tube

HORIZONTAL ACCESSORIES

Stabilisation

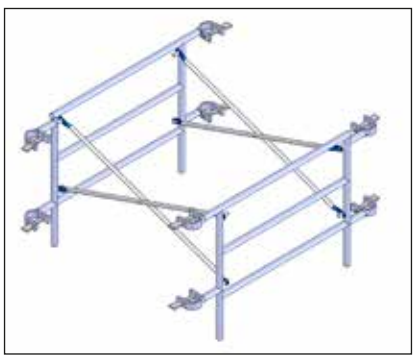
Frame 150 cm 120 cm crosspiece	Unit weight (kg)	
	38.60	
Skin clamp	**Unit weight (kg)**	**Description**
	3.00	▪ Stabilising clamp for use with 48 mm tube and collars
Girder clamp	**Unit weight (kg)**	**Description**
	3.00	▪ The tube is inserted into the prop used for cladding
Prop clamp	**Unit weight (kg)**	**Description**
	5.00	▪ The 45°-oriented rear plate allows retrospective fastening with the prop

SIMPLIFIED USER GUIDE

STABILISATION

- HorizontAL must be stabilised at cell commencement and during cell installation.
- For cells greater than 100 m^2 in size or on commencing, intermediate stabilisations should be added, every 100 m^2, using cross-member frames or clamps.
- 3 stabilisation solutions can be used at commencement.

Cross-member frame

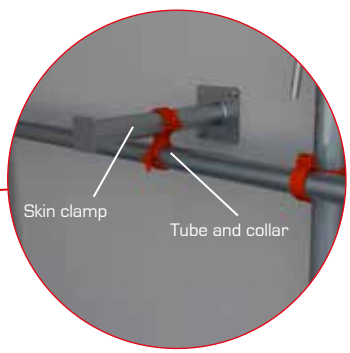


- Cross-member frame system.

- A cross-member frame is fitted provisionally on the first 4 props.

Skin clamp

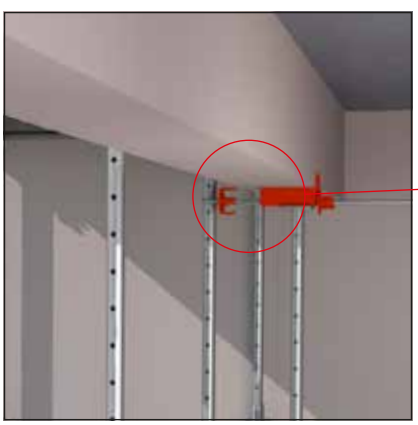
- Skin clamp + tube system.

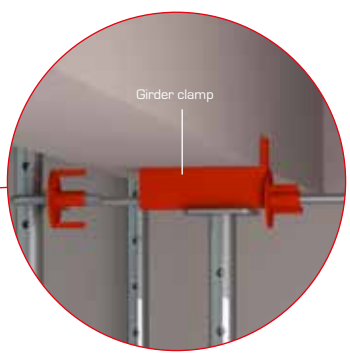


- Set up the stabilisation of the first components.
- Once in place, the tripods can be removed.

Girder clamp

- Girder clamp system





- Set up the stabilisation of the first components.
- Once in place, the tripods can be removed.

SIMPLIFIED USER GUIDE

HORIZONTAL INSTALLATION WITH TRIPODS

- Panel installation should start on the side of the arrow indicated in the installation drawing.

- Install 4 props equipped with HorizontAL tie plates, using tripods.
- Fit the first panel flat using a rolling safety ladder.

- Attach the second panel vertically to the props.

- Using the gauge stick, the form fitter raises the panel safely, until it is in the horizontal position.

- Whilst keeping the panel resting on the gauge stick, the form fitter installs the props.

CONTINUED INSTALLATION WITH SKIN CLAMPS

- Stabilisation can be performed using skin clamps, prop clamps or cross-member frames.

- Fitting of skin clamps suitable for use for formwork stabilisation.

- Start the second frame by hanging the first panel.

- Raise the first panel using the gauge stick, and hold it in the horizontal position.
- Position the first prop of the second frame against the wall and complete the stabilisation with skin clamps.

- Raise the second panel using a second gauge stick and position the next prop
- Continue from one to the next.

- The cell is formed and the slab is cast.

HORIZONTAL FORMWORK REMOVAL WITH ROLLING SAFETY LADDERS

- If applicable, start formwork removal with a panel close to a compensation zone.

- The panel to be removed is held by 4 props
- Remove the props on the side of the free edge of the panel. The panel cannot fall as it is fixed onto the rear props.

- Position the rolling safety ladders on either side of the panel to be removed.
- Remove the final holding prop.

- Remove the rear props.
- Lower the panel to be removed.
- Continue from one to the next.

- If required, the slab may be shored underneath by drying props.

DOCUMENTATION

View full user guide.

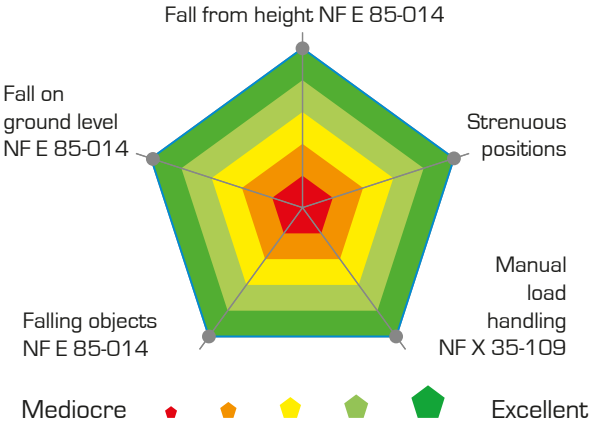
MAXUPDOWN FOR HORIZONTAL

MaxUP

MaxUp is a tool enabling HorizontAL formwork panels to be fitted effortlessly onto prop heads.

MaxDown

MaxDown is a tool facilitating the removal of HorizontAL panels up to 4.20 m. A protective net receives the panel and safeguards its descent.



SAFETY AND ARDUOUSNESS PERFORMANCES

Fitters work at ground level (no need for rolling safety ladder). They no longer need to handle heavy loads at heights.

MAXUPDOWN: SIMPLIFIED USER GUIDE

HORIZONTAL INSTALLATION WITH MAXUP

- Only two workers are required to fit a 120 x 150 cm HorizontAL panel.
- The compressed air cylinder used to actuate the system is pressurised to 200 bar.
- A compressor can be made available.

- Position the panel vertically on the MaxUp.
- Raise the panel and place it on the brackets.
- Lift the panel using the telescopic mast system.

- Move the MaxUp to position the panel.
- Lower the panel so that its 2 top corners are engaged.
- Lower the MaxUp and remove it from the rear.

- Tilt the panel to the horizontal position using the pole.
- Position 1 prop at the junction of the 2 panels.
- Repeat the operation for the entire cell.

HORIZONTAL FORMWORK REMOVAL WITH MAXDOWN

- The MaxDown frame should be positioned in the same direction as the panel to be removed.
- As such, the latter will remain stable when tilted to the vertical position in the final stage.

- After removing the 2 props situated to the front of the panel to be removed, place MaxDown under the panel.

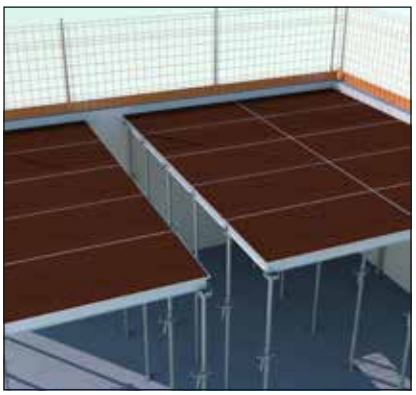
- The panel is detached using a pole.
- Once the pole is positioned, a simple rotating movement enables the panel to lower into the net.

- When the panel is detached from the slab, the MaxDown is lowered.

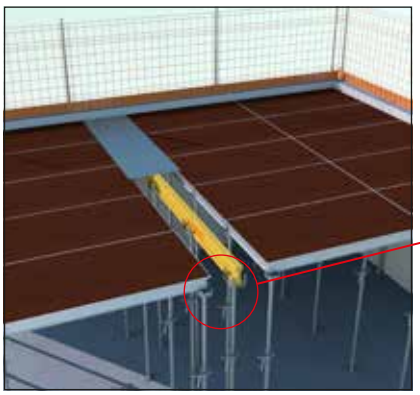
- When the frame comes to a stop, the panel can be retrieved by 2 workers (case of a 120 cm panel).

COMPENSATION MANAGEMENT

With compensation plate

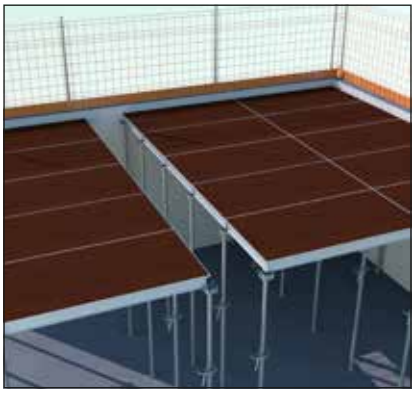


- Minimise the gap by combining panels of different sizes.
- Up to a gap of 19 cm, no risk of falls from height.

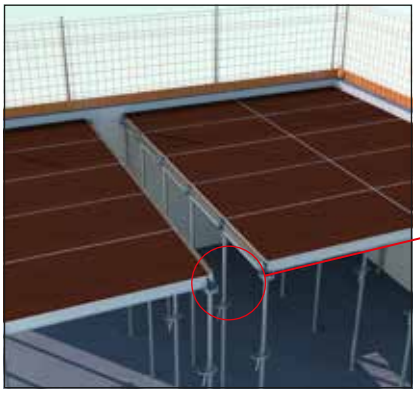


- Fit the plate over the gap.
- Nail the plate onto the HorizontAL plywood.
- Between 20 and 30 cm, add a beam.
- The gap is thus less than 19 cm.

With compensation beams



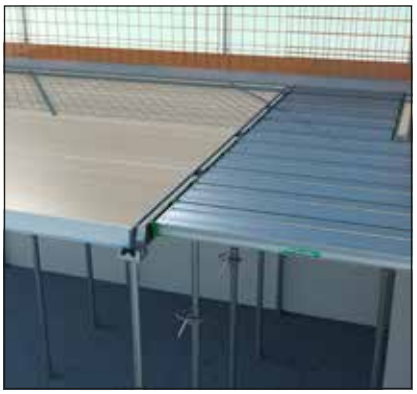
- Minimise the gap by combining panels of different sizes.
- The gap is thus less than 30 cm.



- Position the compensation beams directly on the heads.
- Position the plywood.

With connection to TopDalle or TopDalle Eco formwork

- Position the compensation beams on the heads.

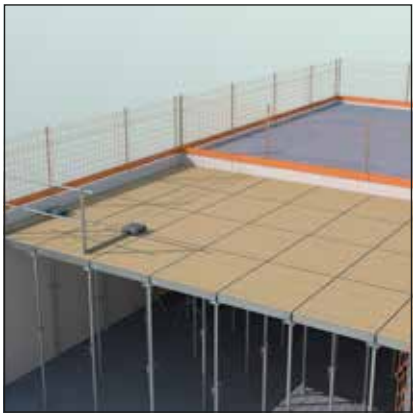


- Complete the formwork with TopDalle or TopDalle Eco components.

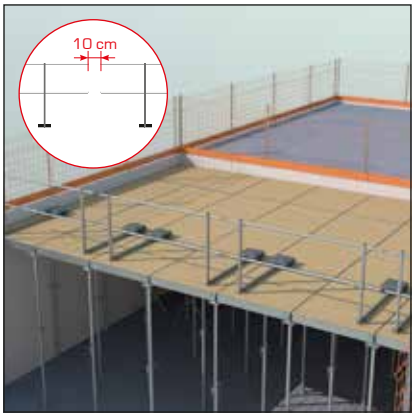
BOUNDARY BARRIERS

INSTALLATION

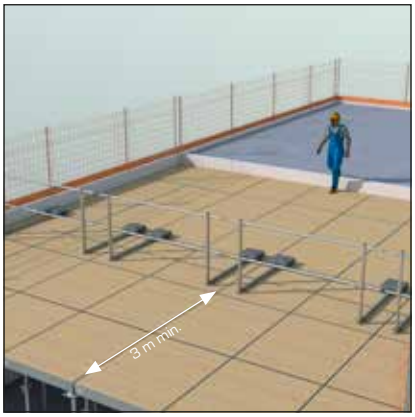
- These barriers are used to define a work area for workers working after the formwork phase.



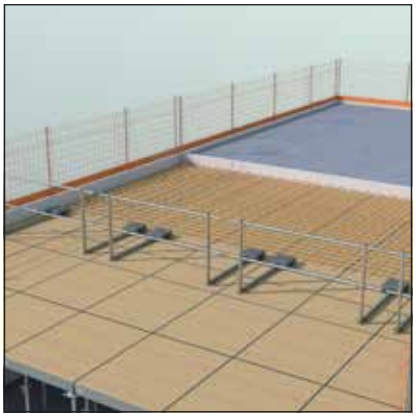
- From ground level, fit the boundary barriers using 2 rolling safety ladders.
- This stage is performed at a rate of 2 workers per 3 m block containing 2 bases.



- Before working in the area within the boundary, the formwork must be continued for 3 m beyond the boundary barriers. Caution: maximum gap between 2 barriers of 10 cm.



- Complete the formwork of the cell with boundary barriers over at least 3 m, before any work in the area within the boundary.



- The area within the boundary is then accessible.
- All work before casting the slab will be performed in this area.


AlphiSafe
AlphiSafe
A10

SAFETY | SPEED | STURDINESS | ADAPTABILITY

TopTable

The durable, compact formwork table designed by Alphi.
Unrivalled in terms of speed of implementation.

Site:
Housing
Client: UEC
Location: Meudon

TopTable

The Alphi TopTable is designed for **balcony formwork**: separated, continuous and terraces. It can also be used inside buildings.

It comprises a steel structure with aluminium beams bolted to it.

The swivel heads can accommodate all props on the market with a spacing of 80 x 80 mm between the plate drill holes.

Miscellaneous safety accessories are available.

COMMON SPECIFICATIONS

15 mm plywood - steel framework - AL100 aluminium beams

3 widths: 3 m, 4 m and 4.50 m

2 depths: 1.95 m and 2.50 m

Available for sale and hire.

TopTable

STURDINESS

- Steel framework.
- AL100 aluminium beams.

MODULARITY

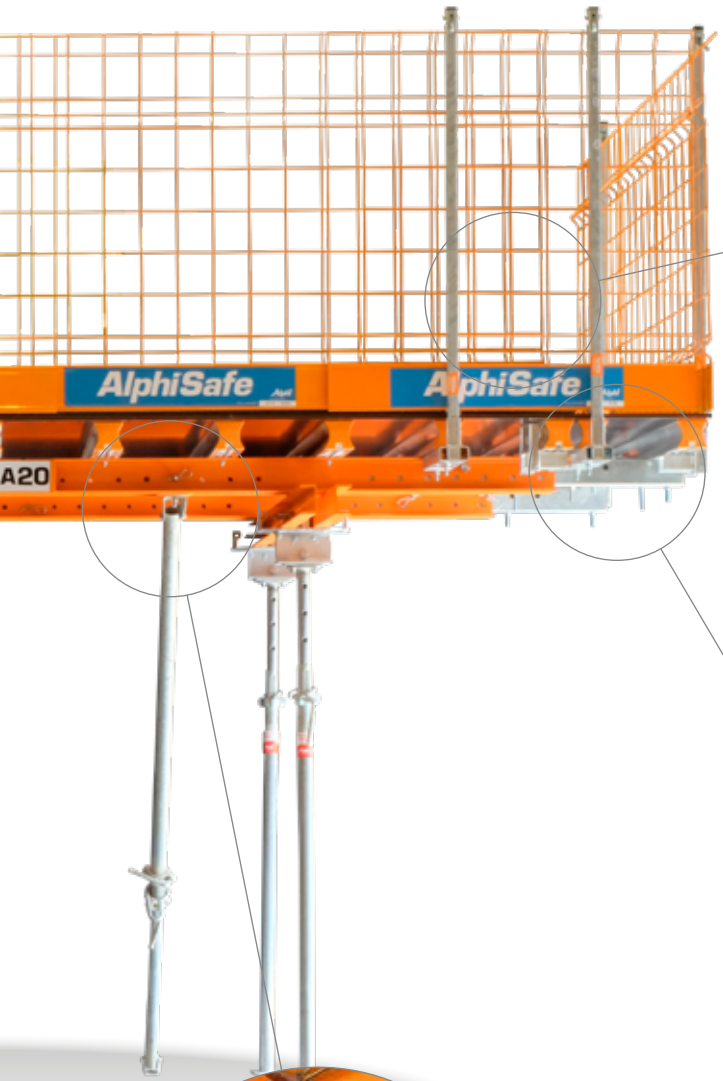
USING EXTENSIONS, TO ADAPT THE WIDTH TO FACILITATE LAYOUT DRAWINGS ON YOUR WORKSITES.

ADAPTABILITY

- The prop head allows shoring to be oriented lengthwise or crosswise.
- Easy to reuse whatever the assembly configuration.
- The swivel heads can accommodate all props on the market with a spacing of 80 x 80 mm between the plate drill holes.

HANDLING

- Lifting beam with a compact design, which can lift up to 1,200 kg.
- Specific mounting components: eliminating the risk of tipping during repositioning.



SAFETY

- AlphiSafe collective protection, quickly installed from the ground, avoiding the risk of a fall from height.
- 1.30 metre high AlphiSafe mesh, with a patented locking system on the posts.

SPEED

SHORT IMPLEMENTATION TIMES: REMOVAL, REPOSITIONING, ERECTION… **IN UNDER 15 MINUTES!**

PUSH-PULL

- Specific mounting housings for repositionable push-pull props.
- Two push-pull props stabilise the table.

EXTENSIONS

- The table dimensions can be increased using 19 to 79 cm extensions.
- Up to 15.50 m^2 formwork installed in 1 crane operation!

EQUIPMENT

The table extensions are named according to the table position in relation to the skin.

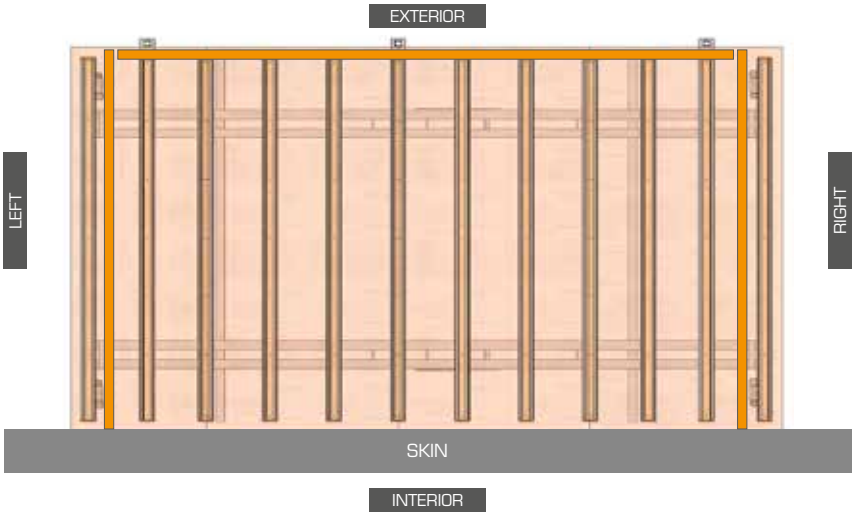
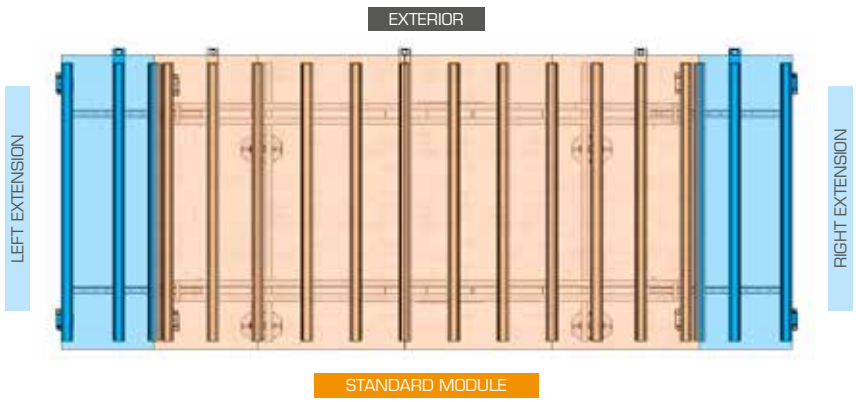


TABLE WITH EXTENSIONS

The width of standard modules can be extended by adding extensions to these modules.
There are 2 types of extensions:
the small size is used for extensions of 19, 29 and 39 cm,
the large size is used for extensions of 49, 59, 69 and 79 cm.

Each table can be extended on both sides.



COMPONENTS

Formwork table

Formwork table	Dimensions l x w (m)	Unit weight (kg)	Description
Consisting of a metal structure, secondary aluminium beams, 2 rating plates and 15 mm plywood			
	3.13 x 1.95	374.00	▪ The table has 9 AL100. 
	3.13 x 2.50	429.00	
	4.13 x 1.95	454.00	▪ The table has 11 AL100. 
	4.13 x 2.50	517.00	
	4.63 x 1.95	495.00	▪ The table has 12 AL100. 
	4.63 x 2.50	562.00	

Frame

Metal frame	Dimensions l x w (m)	Unit weight (kg)
	3.00 x 1.80	220.00
	3.00 x 2.40	240.00
	4.00 x 1.80	269.00
	4.00 x 2.40	290.00
	4.50 x 1.80	294.00
	4.50 x 2.40	315.00

TOPTABLE ACCESSORIES

Part

Width adjustment extension	Unit weight (kg)	Description
	19.00	▪ Single part regardless of extension depth

Linking

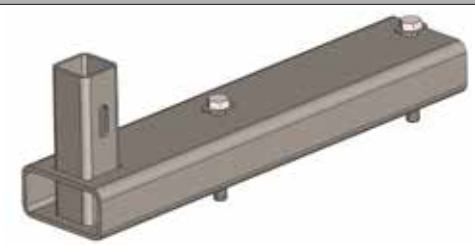
TopTable/lifting beam linking part	Unit weight (kg)	Description
	4.30	▪ Used to attach the table to the lifting beam ▪ Lifting beam fastening: 2 x M16x130 bolts

Heads

TopTable head - Bottom section	Unit weight (kg)	Description
	2.10	▪ Fastening: M10 nut

TopTable head - Top section	Unit weight (kg)
	10.00

Adapters

Axial adapter for AlphiSafe	Unit weight (kg)	Description
	5.90	▪ For AlphiSafe post ▪ Supplied with 2 bolts and special washers 

Lateral adapter for AlphiSafe	Unit weight (kg)	Description
	3.30	▪ Used to fasten an AlphiSafe post or a Ø 25 post

Adapter for push-pull prop	Unit weight (kg)	Description
	1.60	▪ Used to fasten a push-pull prop with an M16 bolt ▪ Fastening to the table with a Ø 20 mm pin

Lifting bar

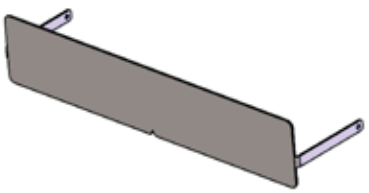
Lifting bar	Unit weight (kg)	Description
	50.00	▪ Used to lift a stack of 3 tables

Pin

Pin Ø 20 x 150	Unit weight (kg)	Description
	0.40	▪ Supplied with specific R-clip 

TOPTABLE ACCESSORIES

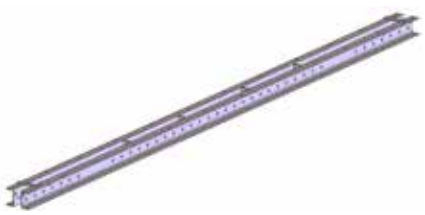
Rating plate

Rating plate	Unit weight (kg)	Description
	1.00	▪ To be mounted on the outside of the table so it can be seen from ground level

Safety

AlphiSafe post	Unit weight (kg)
	4.20

Profiles

Metal profile	Length (m)	Unit weight (kg)
	2.40	60.00
	4.50	110.00

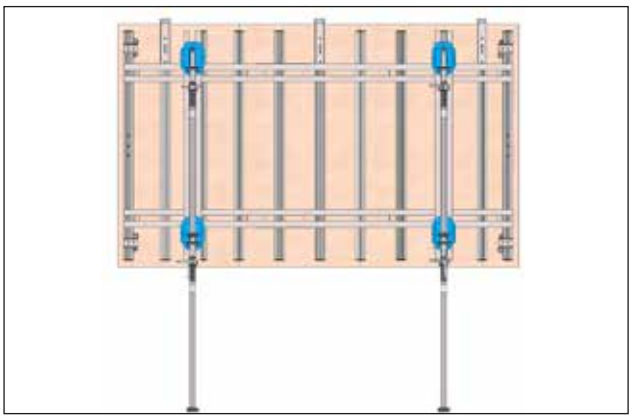
Extensions

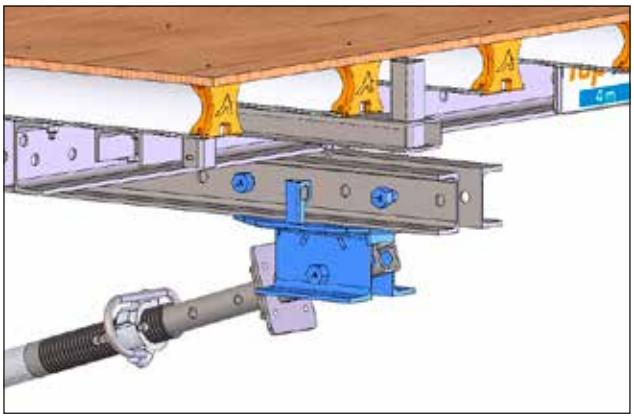
Large extension for TopTable depth 1.95 m	Extension (m)	Unit weight (kg)	Description
	from 0.49 to 0.79	62.00	▪ Includes 2 variable extension pieces, 3 x AL100-180 beams
Small extension for TopTable depth 1.95 m	**Extension (m)**	**Unit weight (kg)**	**Description**
	from 0.19 to 0.39	55.00	▪ Includes 2 variable extension pieces, 2 x AL100-180 beams
Large extension for TopTable depth 2.50 m	**Extension (m)**	**Unit weight (kg)**	**Description**
	from 0.49 to 0.79	68.00	▪ Includes 2 variable extension pieces, 3 x AL100-235 beams
Small extension for TopTable depth 2.50 m	**Extension (m)**	**Unit weight (kg)**	**Description**
	from 0.19 to 0.39	60.00	▪ Includes 2 variable extension pieces, 2 x AL100-235 beams

PREPARATORY STAGE

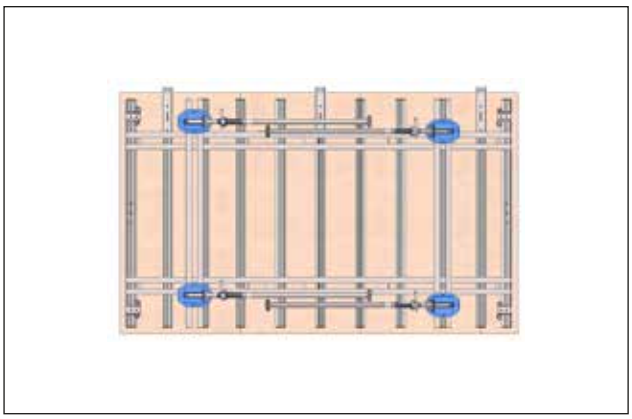
The TopTable head offers a choice of prop folding direction, either longitudinally, or transversely in respect of the table.

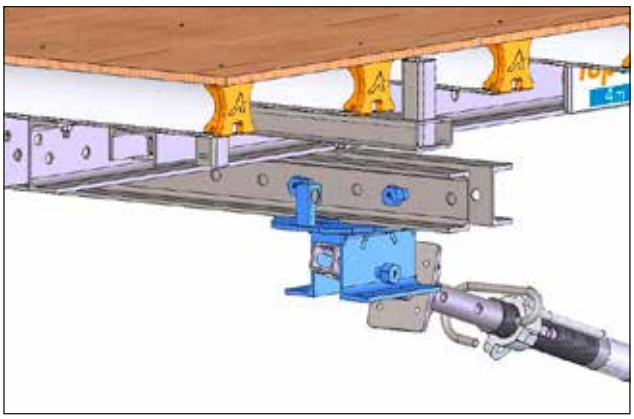
The TopTable head can be attached to the bottom or top dies on the framework.



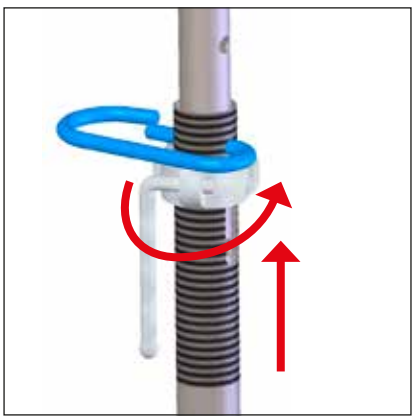


Example in "transverse prop direction"

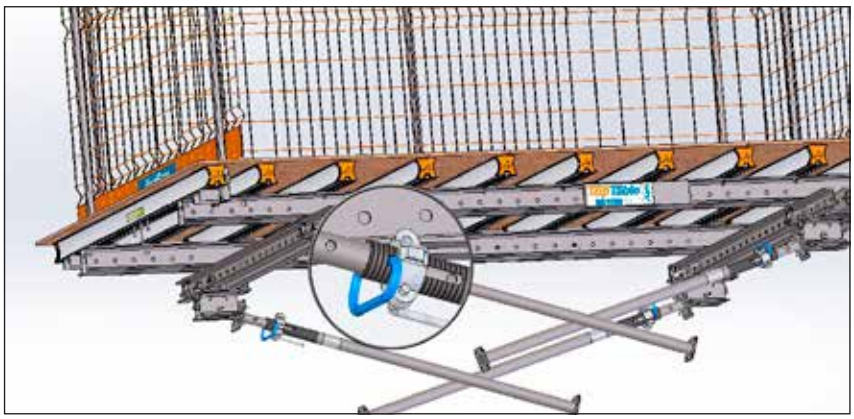




Example in "longitudinal prop direction"



The locked props do not slide.



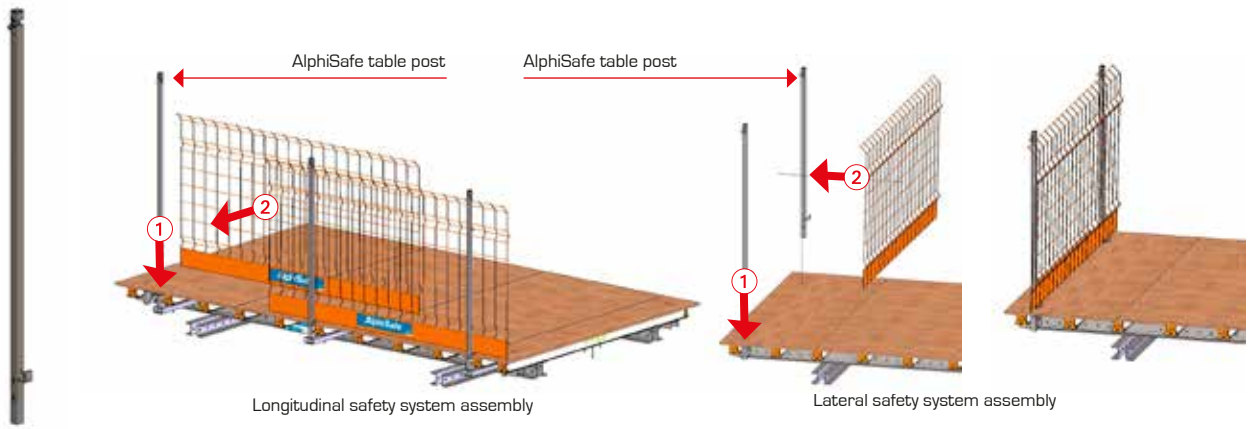
As the props are inclined during movements, the slides must be locked by screwing the nut as far as it will go on the pin.

ALPHISAFE COLLECTIVE PROTECTION

AlphiSafe is a collective protection system for formwork and slab edges.
The technical innovations in the system allow **safe installation** and **automatic locking**.
Robust AlphiSafe is certified by Ginger CEBTP, **as per the EN 13374 standard of July 2013**, as class A and B for some components.
AlphiSafe is distinguished by its **height of 1.30 m** which is above the minimum height of 1.00 m set by the standard, and protects traditional slab formwork up to 30 cm thick.



Insert an AlphiSafe table post in each adapter, then engage the meshes on the posts.



Longitudinal safety system assembly

Lateral safety system assembly

Lateral safety system with Ø25 posts, rails and baseboards


SIMPLIFIED USER GUIDE

UNLOADING ON-SITE

- Detach the red ring from its support, then attach it to the crane.
- When unloading the tables, insert the lifting bars with their axles and pins in the TopTable at the bottom of the stack.
- Place the stack on the battens, detach the crane, remove the lifting bars.

- The lifting beam opens out automatically on lifting.

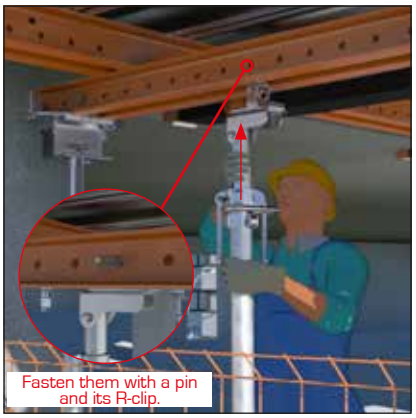
- Place the lifting beam on the group (it folds up).

FORMWORK

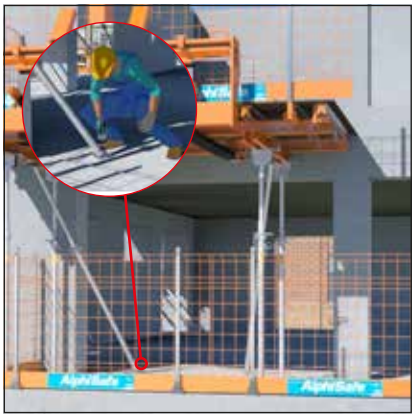
- Fit the TopTable equipped with the entire safety system and the props, observing its name and position as specified in the drawings provided.

- Guide the approach using the cords at the fork tops.

- Tilt the props to the upright position.



- Insert the push-pull props under the table (refer to the drawing provided).



- Secure the push-pull props.

- Repeat the sequence for the other tables.

FORMWORK REMOVAL

- After concreting and securing the balcony, remove the formwork.

- Position the lifting beam under the table.
- Lock the TopTable to the lifting beam with the permanent pins on each fork.

- Remove the push-pull props.

- Refit the prop tube.
- Lock it in the closed position.
- Tilt the prop to the inclined position.
- Repeat the operation for each prop.

- Remove the TopTable.
- Install the drying props.

DOCUMENTATION

View documentation.


HI
LPHI
ALPHI
ALPHI
ALPHI

PRODUCTIVITY | SAFETY | STURDINESS | LARGE SURFACES

Formwork Tables

Ideal for large surfaces and custom-made,
Alphi formwork tables can be adapted to all construction site configurations.
They offer a high level of stability.


ALPHI U

Site in Switzerland
Client: Induni
Location: Geneva

Formwork Tables

Alphi formwork tables are used for formwork on **large surfaces.** They can be adapted to all construction site configurations.

According to the required use and strength, they will be associated with **steel props** compliant with the EN 1065 standard or with **aluminium props** compliant with the EN 16031 standard.

Very **stiff** and very **stable**, they can create formwork of up to 6 m in depth.

The **AlphiSafe** collective protection system further ensures worker safety.

Formwork tables | For large surfaces

PRODUCTIVITY

- Reduction in fitting, formwork removal and handling time.
- The table formwork surface created can reach 6 m in depth for a variable width.
- Cast concrete thickness: up to 80 cm.
- The balcony table is used from depths of 1.30 m.
- The robustness of the system enables a high number of reuses.

SAFETY

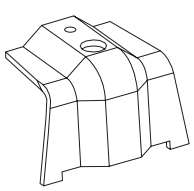
- The AlphiSafe collective safety system can be adapted to all formwork tables.
- The lifting beam required for handling the tables is self-stabilising.
- Clamps, push-pull props, frames and straps help achieve optimal stability when the table is in place.

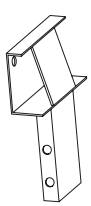
COMPONENTS

Elements

Double C steel die (primary support)	Length (m)	Unit weight (kg)	Profile inertia (I) (cm^4)	Allowable moment (kN.m)	Allowable shear force (kN)
	1.00	14.10	498	14.5*	88*
	2.50	33.75			
	4.00	54.00			
	5.00	66.90			
	6.00	79.70			

H20 timber secondary beam	Standard lengths (m)	Unit weight (kg/m)	Max. allowable bending. moment (kN.m)	Max. allowable shear force (kN)
	1.95	4.70	5***	11***
	2.45			
	2.90			
	3.30**			
	3.60**			
	3.90			
	4.90**			

Mounting clip	Description
	▪ Fastened with screw and Nylstop nut ▪ For securing H20

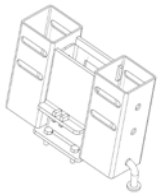
Reinforcement bracket	Description
	▪ H20 secondary beam connection on steel die ▪ Used to increase the stiffness of the formwork table

*As per Eurocodes 0 and 3
**For sale only
***NF EN 13377

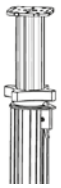
COMPONENTS

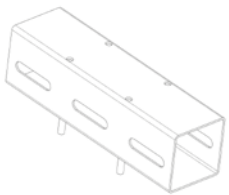
For standard load support

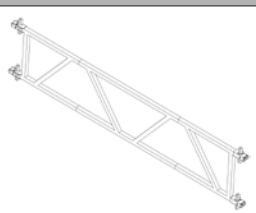
Steel prop	Height (m)	Strength	Standard
	from 2.50 to 5.00	Strength classes A to E	Compliant with EN 1065 and NF P 93-221 standards

Connecting head	Description
	▪ Used for tilting props to pass over collective protections, with inclined or vertical locking

For strong load support

Aluminium prop	Height (m)	Strength	Standard
	from 2.00 to 6.20	Strength classes D to U	Compliant with EN 16031 standard

Mounting housing on die	Description
	▪ Used to fix the prop head, thereby increasing loads and stability

Connecting frame	Dimensions w x h (m)	Unit weight (kg)
	1.20 x 0.50	10.70
	1.60 x 0.50	14.30
	1.90 x 0.50	17.00
	2.10 x 0.50	18.70
	2.30 x 0.50	20.50
	2.50 x 0.50	22.30

FORMWORK TABLE ACCESSORIES

Additional

Formwork table clamp	Description
	▪ Used to fasten the formwork table to the skin (anti-recoil)

Push-pull prop	Description
	▪ Withstands both tensile and compressive forces, for optimal stabilisation

Handling forklift	Dimensions l x w x h (m)	Lifting height (m)	Maximum load (kN)
	1.80 x 1.20 x 1.90	0.90	10

FORMWORK TABLE ACCESSORIES

Handling

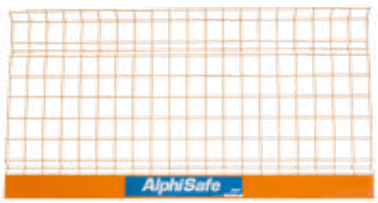
Lifting beam	Maximum allowable load (kN)	Description
	15	▪ Suitable for handling 5 m tables ▪ Other lifting beams may be used according to table sizes

Lifting beam table lock	Description
	▪ Hot-dip galvanised

Base strike-down tool	Unit weight (kg)	Maximum allowable load (kN)
	6.00	100

Aluminium prop setting key	Unit weight (kg)	Description
	1.50	▪ Facilitates formwork strike-down and makes it possible to avoid hammer use

Safety

Mesh	Dimensions w x h (m)	Unit weight (kg)	Description
	1.25 x 1.30	7.60	▪ The wire mesh is galvanised, with polyester powder coating
	2.50 x 1.30	14.50	

Galvanised post	Cross-section (cm)	Height (m)	Unit weight (kg)
	3.5 x 3.5	1.34	3.50

Alphi formwork adapters		Unit weight (kg) Die adapter	Unit weight (kg) Timber beam adapter
Die adapter	Timber beam adapter		
		2.20	6.60

*Compliant with EN 13374 standard

DOCUMENTATION

View documentation.


VerticAL
VerticAL
VerticAL

PRODUCTIVITY | MODULARITY | ALUMINIUM | STURDINESS

VerticAL

VerticAL modular and robust aluminium formwork panels
for all geometric combinations.

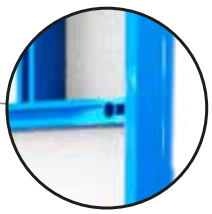
VerticAL

The VerticAL formwork panel system is designed for building stringers, substructures, and industrial and agricultural buildings.

Reliable and robust, the system can reduce assembly times on worksites, as well as production costs.

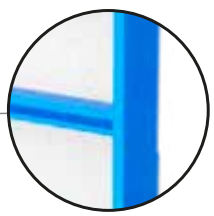
The vertical or horizontal panel installation **increases the versatility** of the VerticAL formwork.

TECHNICAL CHARACTERISTICS

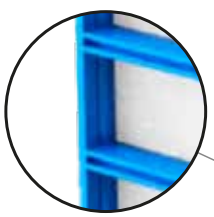


Reinforced rod passage
offset 6 cm from the edge.
Ideal for producing
stringers

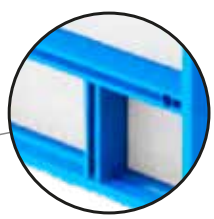
Longitudinal light for
ideal positioning
of all the accessories



10 cm aluminium frame for
permitted pressure of **60 kN/m²**
Average weight of aluminium 22.5 kg/m²
Many dimensions available
As standard up to 2 x 3 m



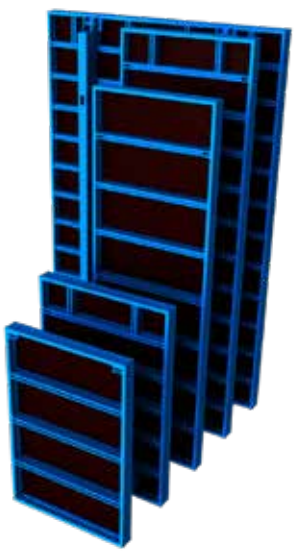
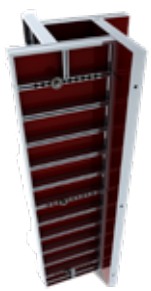
Shuttering 15 mm thick
(plywood or Alkus®)



Vertical reinforcements for
lifting in total safety.

COMPONENTS

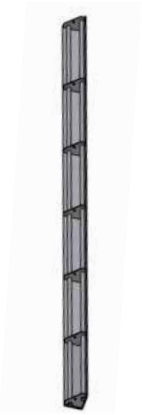
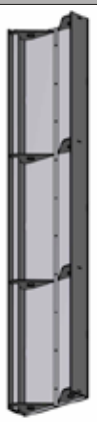
Aluminium panels

Formwork panel	Width (cm)	Height (cm)	Unit weight (kg)
	25	150	11.51
	50	150	18.65
	75	150	25.12
	100	150	32.26
	25	270	19.10
	60	270	20.97
	45	270	27.07
	50	270	29.10
	60	270	33.17
	75	270	39.27
	90	270	45.36
	15	300	17.07
	25	300	22.05
	50	300	35.20
	60	300	40.20
	75	300	47.69
	100	300	60.80
Multi-hole formwork panel	**Width (cm)**	**Height (cm)**	**Unit weight (kg)**
	100	150	45.00
	100	300	80.00
	75	300	60.80

Other dimensions available on request.

COMPONENTS

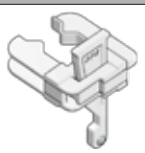
Angle brackets

External bracket	Height (cm)	Unit weight (kg)
	150	13.15
	270	23.22
	300	26.10
Internal bracket 30x30	**Height (cm)**	**Unit weight (kg)**
	150	18.84
	270	31.30
	300	36.80
Adjustable bracket 15x15	**Height (cm)**	**Unit weight (kg)**
	300	61.95

VERTICAL ACCESSORIES

Clamps

Screw assembly clamp	Unit weight (kg)	Description
	1.03	▪ The screw assembly clamps mean fast, effective panel assembly ▪ Key tightening allows 2 cm compensations to be added, avoids misplaced hammer blows on the frames and reduces noise pollution

Key assembly clamp	Unit weight (kg)
	1.10

Alignment clamp	Unit weight (kg)	Description
	4.94	▪ Alignment clamps are used if greater resistance is required or to add a compensation ▪ Adjustable between 0 and 100 mm

Corner clamp or bushing	Unit weight (kg)	Description
	3.70	▪ Adjustable between 0 and 100 mm

Windmill sail clamp	Unit weight (kg)	Description
	4.94	▪ Windmill sail assembly clamp ▪ Adjustable between 200 and 400 mm ▪ Only suitable for use with 50 cm wide panels

Safety

Service bracket with post	Unit weight (kg)
	11.72

VERTICAL ACCESSORIES

Shoring

Push-pull prop	Extension (m)	Unit weight (kg)	Description
	from 1.1 to 1.8	12.00	▪ Visible thread
	from 1.7 to 3.0	19.00	
	from 2.1 to 3.5	23.00	
	from 2.5 to 4.5	25.00	
	from 3.3 to 5.5	37.00	

Prop socket	Unit weight (kg)	Description
	1.75	▪ Equipped with mounting pin

Clevis for push-pull prop	Length (mm)	Unit weight (kg)	Description
	190	1.00	▪ Equipped with 2 mounting pins

Panel triangulation	Height (m)	Unit weight (kg)
	3.00	28.00
	4.00	35.00

Additional

Panel top post socket	Unit weight (kg)
	1.8

Top rod plate	Unit weight (kg)
	0.46

Backplate	Unit weight (kg)
	0.95

Lifting ring	Unit weight (kg)
	3.34

Arteon 3-wing nut	Base (mm)	Unit weight (kg)	Description
	60	0.60	▪ For rod Ø17 mm
	100	0.90	

Plate-hinged 2-wing nut	Base (mm)	Unit weight (kg)	Description
	150x100	0.30	▪ For rod Ø17 mm

30 mm hex pipe wrench	Unit weight (kg)
	1.00

VERTICAL ACCESSORIES

Additional

Multi-hole frame clamping screw	Unit weight (kg)
	2.00

End gap gauge	Length (cm)	Unit weight (kg)
	60	8.98
	100	11.00

Clamping rod Ø17	Length (cm)	Unit weight (kg)
	75	1.45
	100	1.08

Compensation plate	Dimensions l x w (cm)	Unit weight (kg)
	150 x 20	16.74

Ground mounting clamp	Unit weight (kg)
	0.83

Consumables

Plastic cap	Description
	▪ Pack of 100 units

Spacer cone	Unit weight (kg)
	0.20

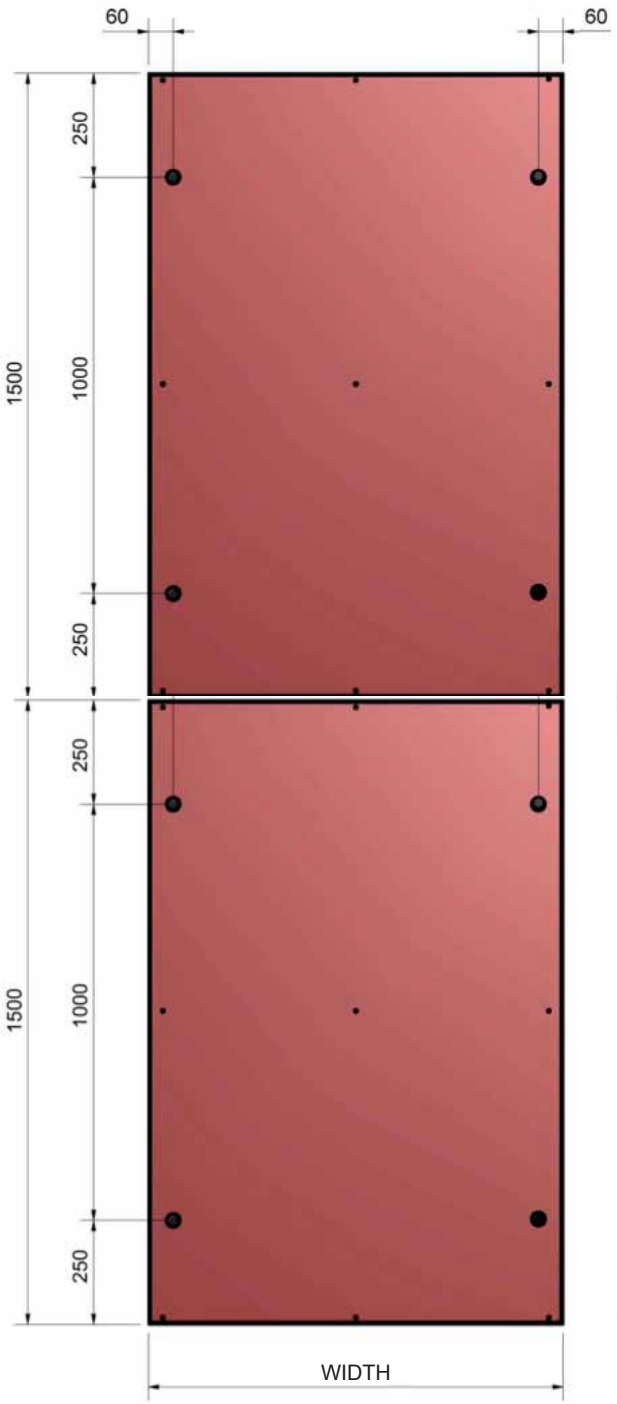
Handling

Accessory rack	Dimensions w x l x h (m)	Unit weight (kg)	Description
	0.7 x 1.545 x 0.475	80.00	▪ Stackable container with built-in lifting rings ▪ Rating plate can be customised with client's name ▪ Partitions for storing all the accessories (MWL 1500 kg) ▪ Optional protective cover

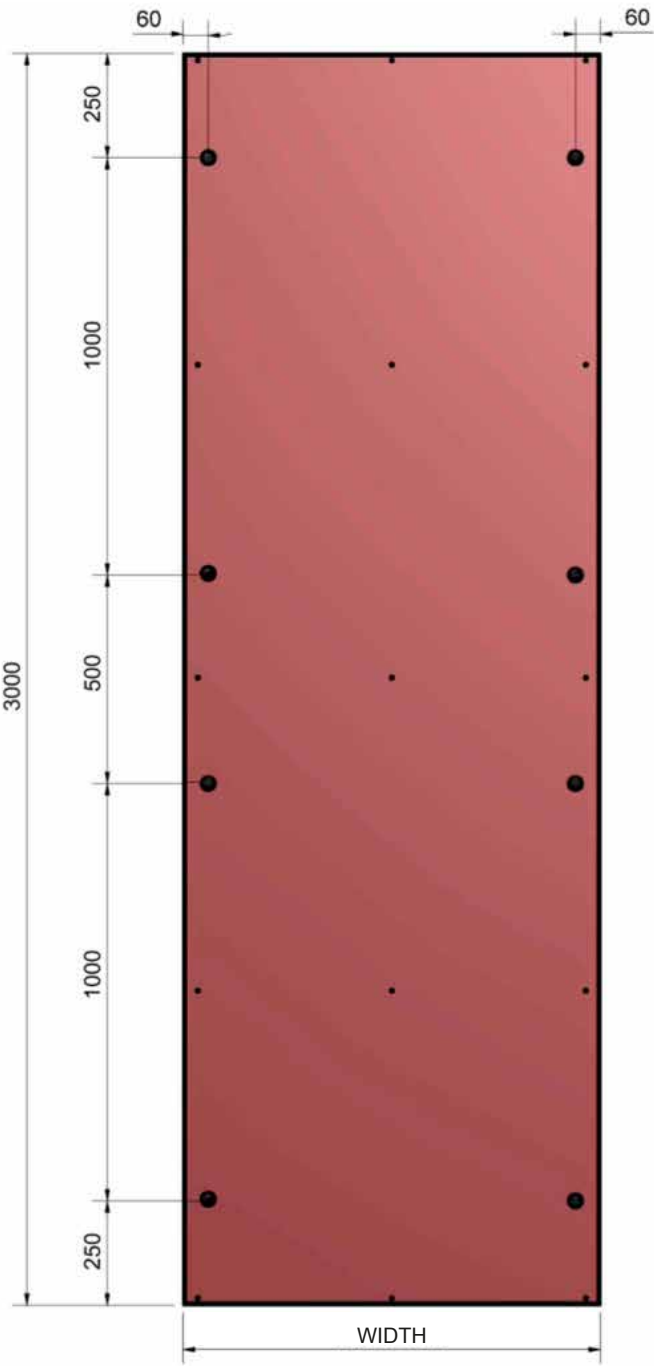
Galvanised rack	Dimensions l x w (m)	Unit weight (kg)	Description
	1 x 1.5	107.00	▪ Can be handled with a crane (sockets for slings) or a forklift ▪ End partitions removable for easy cleaning ▪ Rating plate with client's name
	0.90 x 2.7	118.00	
	1 x 3	126.72	

USER GUIDE:
ROD PASSAGE POSITION ON PANELS

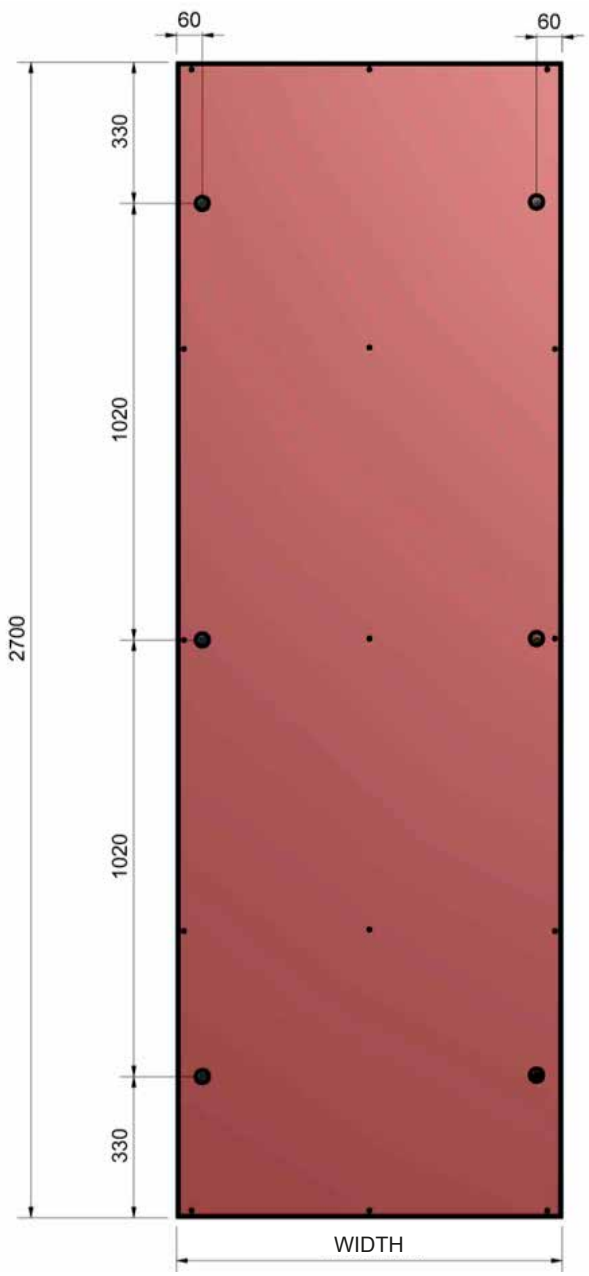
1,500 MM PANELS



3,000 MM PANELS

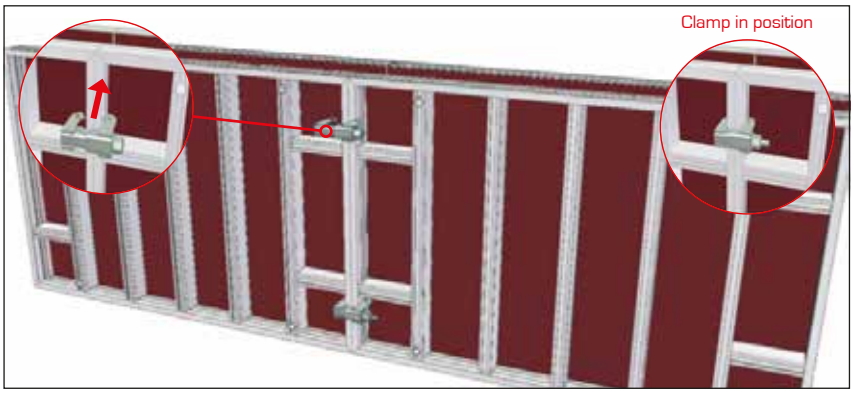


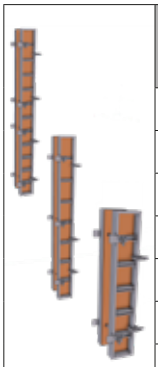
2,700 MM PANELS



USER GUIDE: ASSEMBLY

Assembly clamps

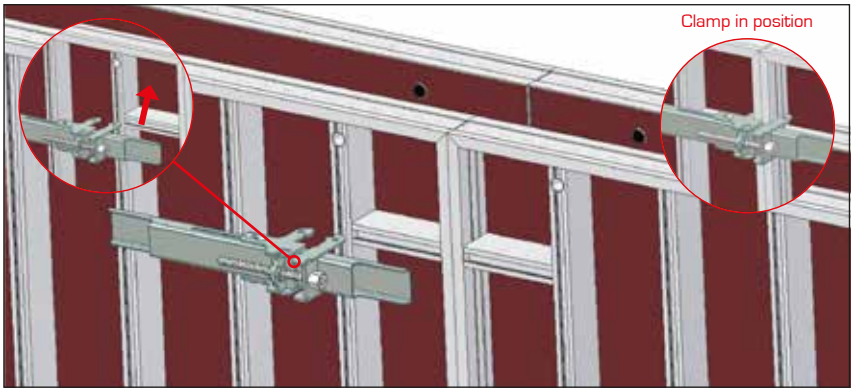




Panel height (cm)	Quantity of clamps
25	1
50	2
75	2
100	2
150	2
270	3
300	4

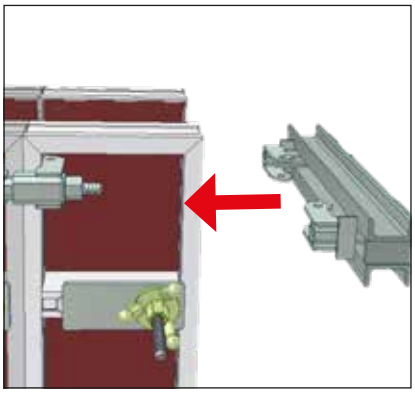
- When the panels are correctly positioned and aligned, fit the assembly clamps (option of adding compensation of max. 2 cm).
- **IMPORTANT:** assembly clamps (with nut) can accept bushings of max. 3 cm in thickness.

Alignment clamps

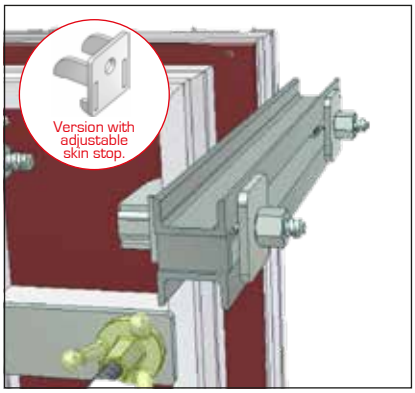


- When greater resistance is required, or to add compensation, fit alignment clamps.
- **IMPORTANT:** alignment clamps can receive compensations of max. 10 cm in thickness.

Skin stop assembly



NOTE: option to use the top rod plate to offset the rod outside the formwork



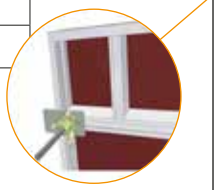
- Skin stop in position.

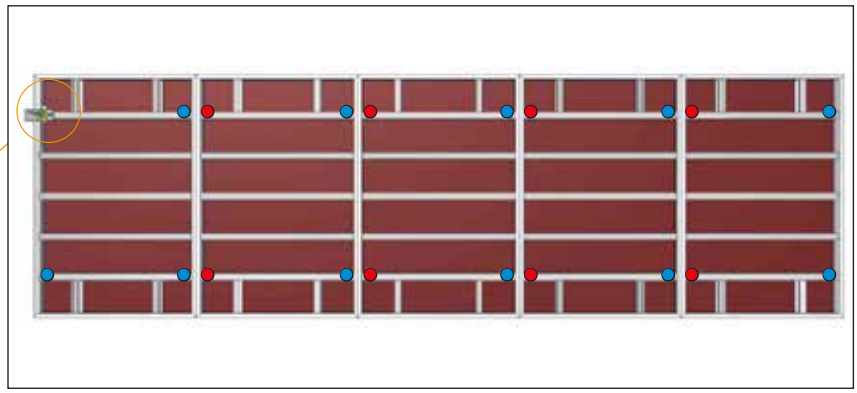
- When the panels are correctly positioned and aligned, separate the 2 clamps as far as possible in the distancing assembly die, fit the assembly by pressing the die on the panel profile, then fit one clamp followed by the other and lock them at the required height.

Panel height (cm)	Quantity of skin stops
25	1
50	2
75	2
100	2
150	2
270	3
300	4

Details of panel clamping: upright panels

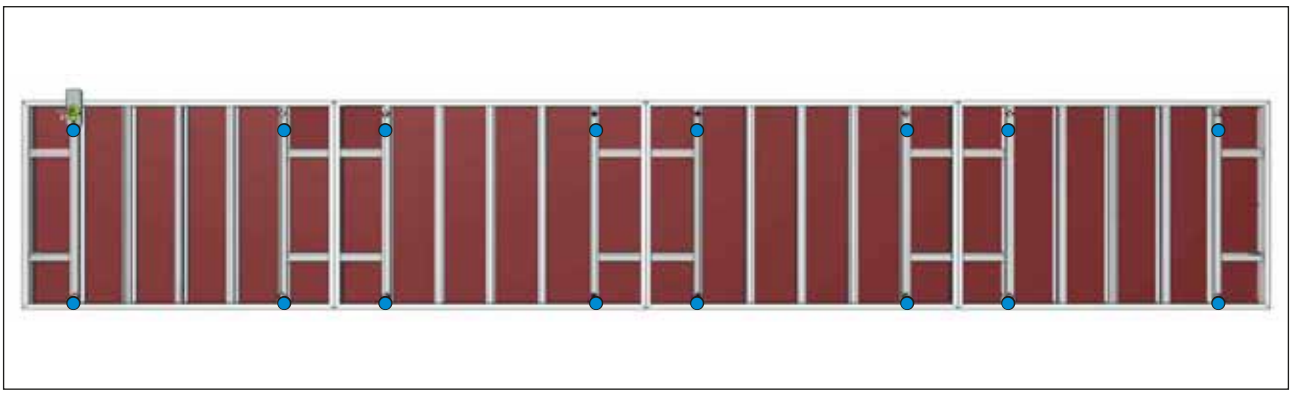
Panel height (cm)	Number of rods
150	2
270	3
300	4





Screw the two winged nuts. Check that holes with no rods contain caps on the shuttering side.
CAUTION: the backplates must be used.

Details of panel clamping: flat panels



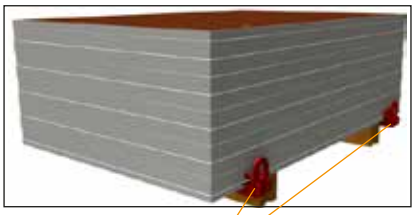
Illustrations with 150 cm panels ● Clamping rod present ● No clamping rod

USER GUIDE: LIFTING / ASSEMBLY

Lifting ring assembly

- To assemble the lifting ring, actuate the pull tab to unlock it, fit it, then release the pull tab.

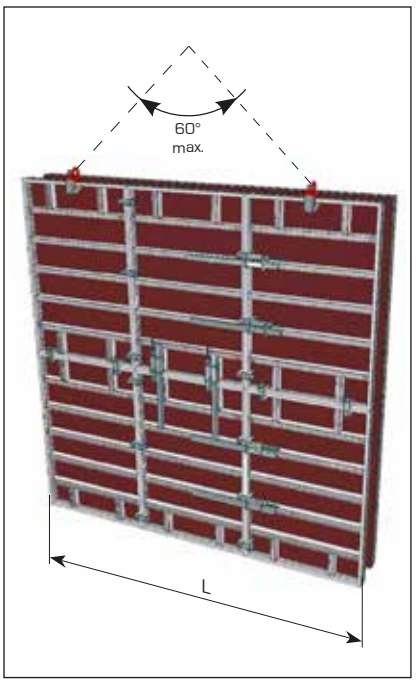
Pull tab



Pallet rings

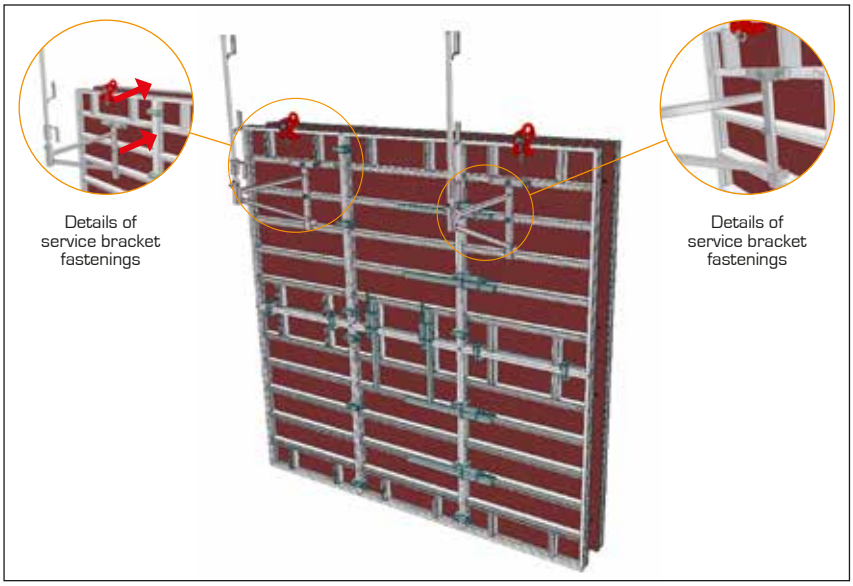
Pallet ring use

Lifting instructions



- Following the clamp assembly instructions.
- Lifting on 2 balanced strands with 2 lifting rings.
- maximum liftable area = 16 m² with L maximum = 5 metres
- Maximum package weight = 400 kg.

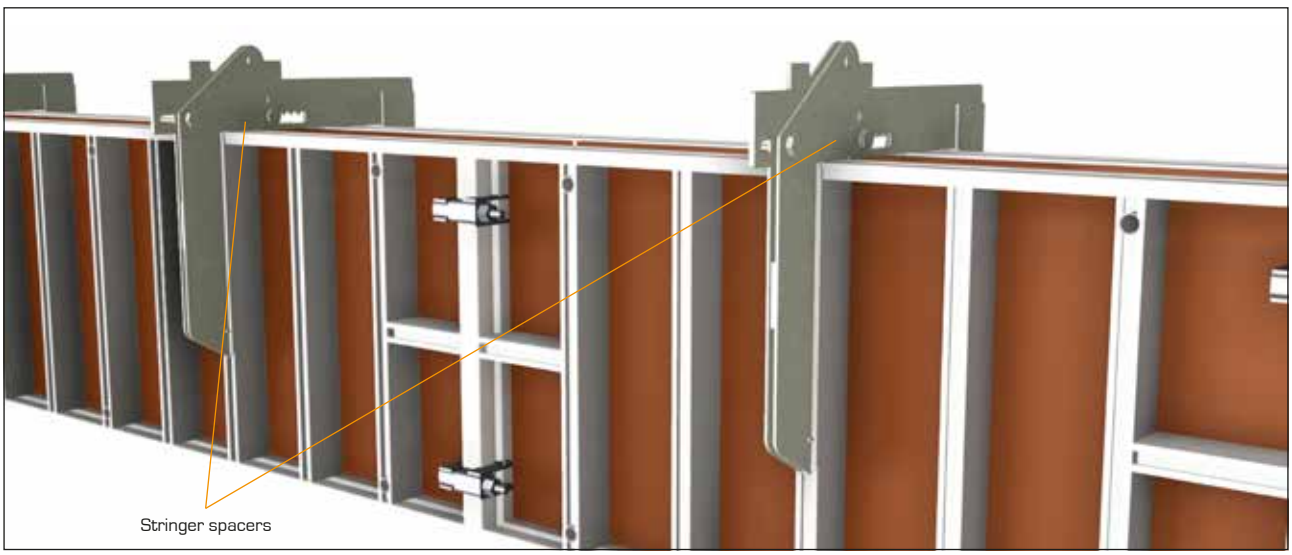
Service bracket assembly

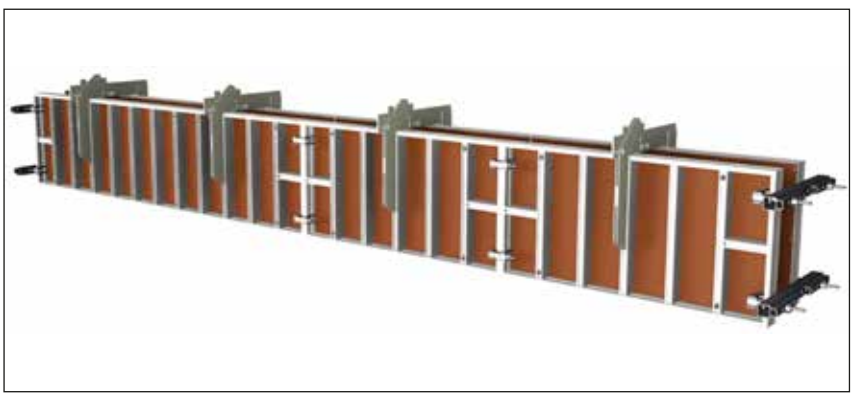


- Insert the T-shaped screws into the panel groove, turn them by a ¼ turn to the right, then fasten the nuts using the 30 mm wrench to clock the service brackets.
- The service brackets must not be more than 2 metres apart.

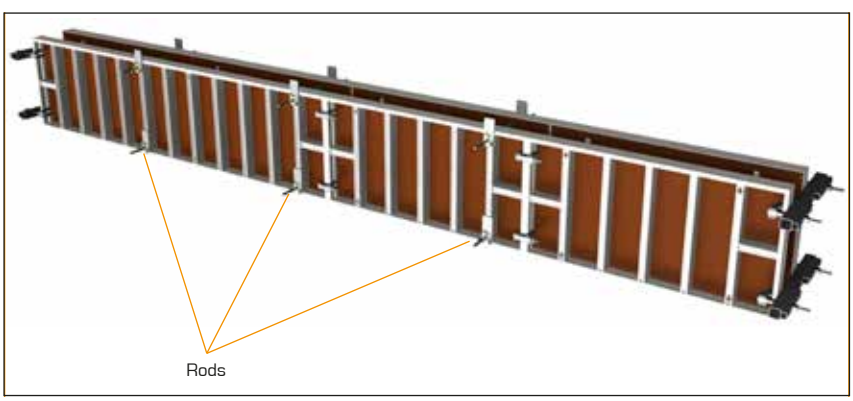
USER GUIDE: ASSEMBLY

Stringer formwork configuration





- Position the stringer spacers at the centre of the panels in 1.5 m long intervals, and distribute 2 spacers equitably on the 300 cm long panels. Adaptable to 50 to 100 cm panels.



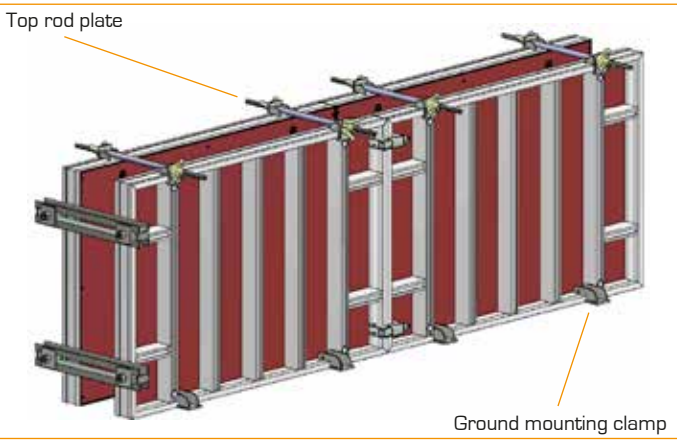
- Stringer configuration with through rods positioned approximately every 150 cm.

USER GUIDE: EXAMPLES OF ACCESSORY USE

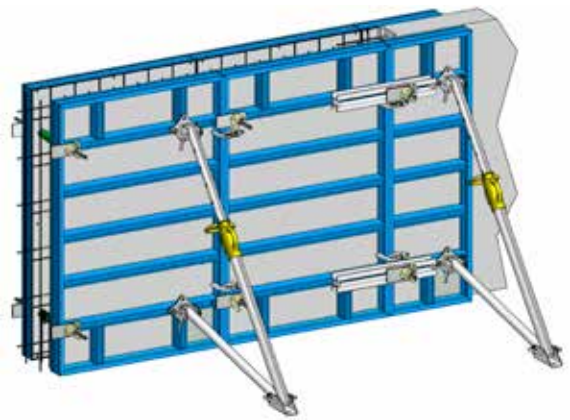
COMPLETE SAFETY SYSTEM

Safety gate, decking and bracket adaptable to modular panels.

ROD PLATE

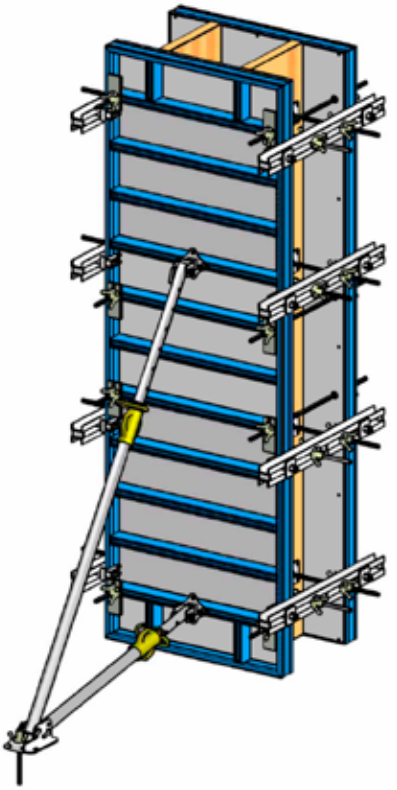


CONSTRUCTION JOINT



POST CONFIGURATIONS

POST WITH SKIN STOP

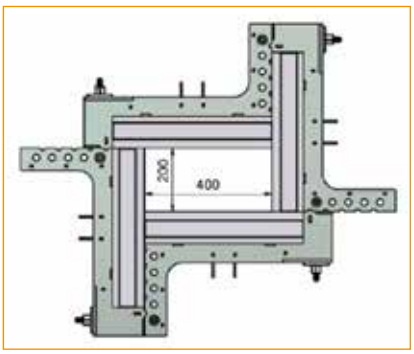


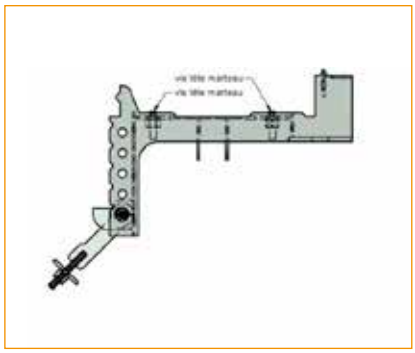
DOCUMENTATION

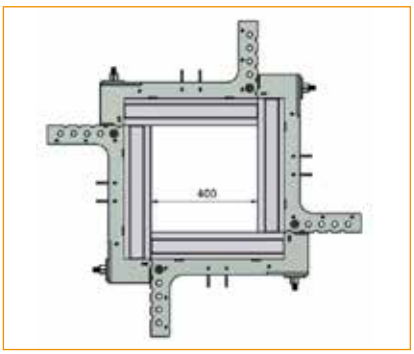
View documentation.

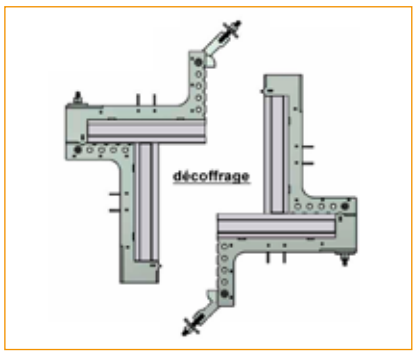
POST CONFIGURATIONS

POST CONSTRUCTION WITH WINDMILL SAIL CLAMP



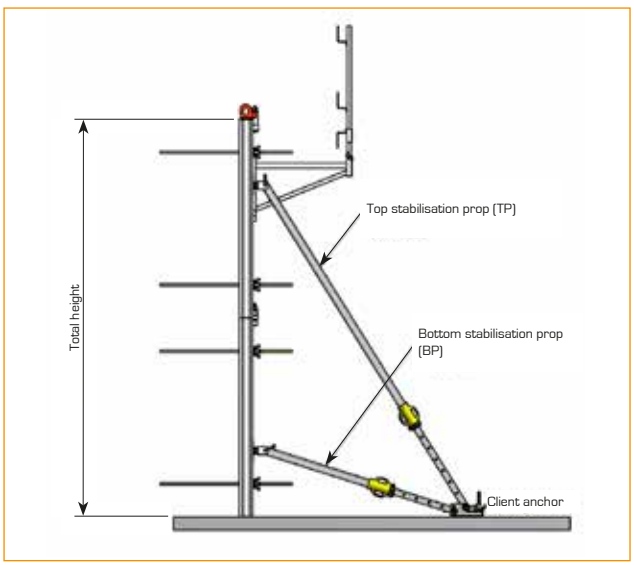






PANEL STABILISATION

SECTIONS



Height (cm)	Panel details (cm)	TP	BP
150	100 x 150	TP 1.70 - 3.00	/
200	200 x 100	TP 1.70 - 3.00	TP 1.10 - 1.80
200	100 x 50 + 100 x 150	TP 1.70 - 3.00	TP 1.10 - 1.80
250	100 x 100 + 100 x 150	TP 2.10 - 3.50	TP 1.10 - 1.80
250	100 x 50 + 200 x 100	TP 2.10 - 3.50	TP 1.10 - 1.80
300	200 x 150	TP 2.10 - 3.50	TP 1.10 - 1.80
300	300 x 100	TP 2.10 - 3.50	TP 1.10 - 1.80
300	100 x 50 + 100 x 100 + 100 x 150	TP 2.10 - 3.50	TP 1.10 - 1.80

Contact us for other configurations.

Note: maximum wind speed = 85 kmph. Refer to the layout plan.

SAFETY | COMPLIANCE | STRENGTH | QUALITY

Props European standard

European standard props are compliant with the EN 1065 and NF P 93-221 standards. Available in 4 classes, they offer the best performances in terms of strength and quality.

Site: Arena performance venue
Client: Bouygues Bâtiment
Location: Floirac

Props European standard

The **metal prop range** offered by Alphi is used on all construction sites.

Available in four classes, props compliant with the **EN 1065 and NF P 93-221 standards** offer the best performance in terms of quality and strength.

Nevo props include numbering engraved on the slide to simplify adjustment of the prop to the correct height. By facilitating the work of operators in this way, it leads to a proven gain in productivity.

Prop **handling** is easier using Alphi-designed forklifts: Kross builder 500 (see page 293), TransEtais for long props (see page 314) and TransEtais logement (see page 311).

SAFETY

For added safety, the following are available on props compliant with the NF P 93-221 standard:

- Finger protection inside the sleeve prevents jammed fingers,
- Base web on the sleeve, giving greater distortion resistance at the bottom.

COMPLIANCE

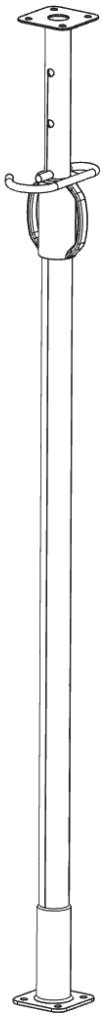
- Compliant with the European standard EN 1065, including lower slide.
- Press test and certification by the independent laboratory Locie of University of Savoie Mont Blanc.
- Verification of ageing in rental housing stock.

COMPLIANT WITH **EN 1065** AND **NF P 93–221 STANDARDS**

UNIVERSITÉ SAVOIE MONT BLANC

EQUIPMENT

Class B - Type T

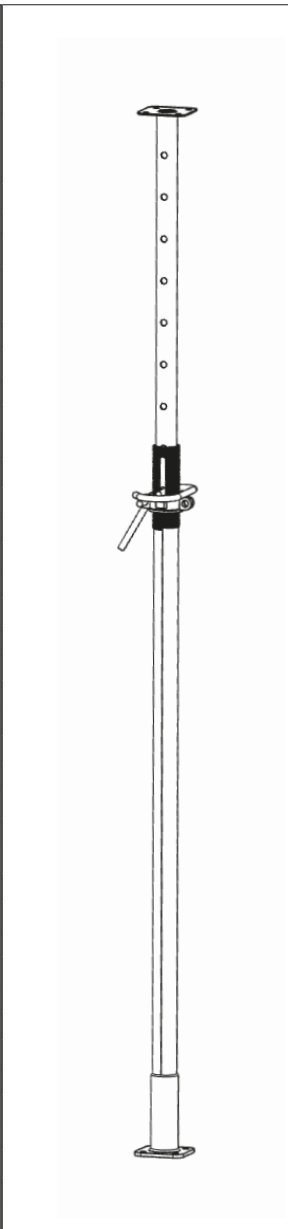


Formwork working load (daN), safety coefficient: 1.65 as per Eurocodes 0 and 3							
	Cat. No.						
	B25T	B30T	B35T	B40T	B45T*	B50T*	B55T*
Extension (m)	from 1.6 to 2.5	from 1.8 to 3.0	from 2.1 to 3.5	from 2.3 to 4.0	from 2.6 to 4.5	from 2.8 to 5.0	from 3.1 to 5.5
1.6 and 1.7	3,090						
1.8	3,090	3,090					
1.9	2,854	3,090					
2.0	2,576	3,090					
2.1	2,336	2,804	3,090				
2.2	2,129	2,554	2,980				
2.3	1,948	2,337	2,727	3,090			
2.4	1,789	2,146	2,504	2,862			
2.5	1,648	1,978	2,308	2,638			
2.6		1,829	2,134	2,439	2,743		
2.7		1,696	1,979	2,261	2,544		
2.8		1,577	1,840	2,103	2,365	2,628	
2.9		1,470	1,715	1,960	2,205	2,450	
3.0		1,374	1,603	1,832	2,061	2,290	
3.1			1,501	1,715	1,930	2,144	2,359
3.2			1,409	1,610	1,811	2,012	2,214
3.3			1,325	1,514	1,703	1,892	2,081
3.4			1,248	1,426	1,604	1,783	1,961
3.5			1,177	1,346	1,514	1,682	1,850
3.6				1,272	1,431	1,590	1,749
3.7				1,204	1,355	1,505	1,656
3.8				1,142	1,284	1,427	1,570
3.9				1,084	1,219	1,355	1,490
4.0				1,030	1,159	1,288	1,417
4.1					1,103	1,226	1,348
4.2					1,051	1,168	1,285
4.3					1,003	1,114	1,226
4.4					957	1,064	1,171
4.5					915	1,018	1,119
4.6						973	1,071
4.7						932	1,026
4.8						894	983
4.9						858	944
5.0						824	906
5.1							871
5.2							838
5.3							806
5.4							777
5.5							749

*For export only as per NF P 93-221 standard

Description	Components (mm)					
	Class	Unit weight (kg)	Ø Outer tube	Ø Inner tube	Ø Pin	Plate
▪ Anti-dropout of inner and outer tube ▪ Nut end-of-travel stop ▪ 100 mm hand guard ▪ Protection by hot-dip galvanising ▪ Optional finger protection ▪ Tapered captive pin ▪ Optional base web	B25T	11.80	57	48	14	120 x 120 x 6
	B30T	13.40				
	B35T	15.00				
	B40T	19.00				
	B45T	20.30				
	B50T	22.00				
	B55T	23.60				

Class B - Type N



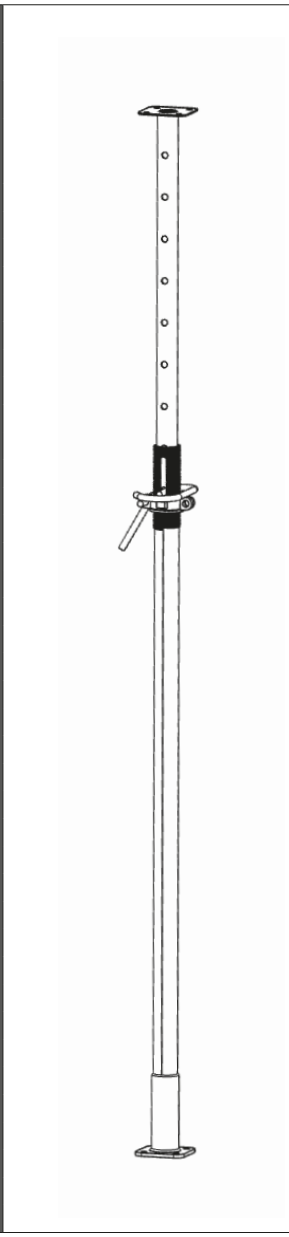
Formwork working load (daN), safety coefficient: 1.65 as per Eurocodes 0 and 3							
	Cat. No.						
	B25N	B30N	B35N	B40N	B45N*	B50N*	B55N*
Extension (m)	from 1.6 to 2.5	from 1.8 to 3.0	from 2.1 to 3.5	from 2.3 to 4.0	from 2.6 to 4.5	from 2.8 to 5.0	from 3.1 to 5.5
1.6 and 1.7	3,090						
1.8	3,090	3,090					
1.9	2,854	3,090					
2.0	2,576	3,090					
2.1	2,336	2,804	3,090				
2.2	2,129	2,554	2,980				
2.3	1,948	2,337	2,727	3,090			
2.4	1,789	2,146	2,504	2,862			
2.5	1,648	1,978	2,308	2,638			
2.6		1,829	2,134	2,439	2,743		
2.7		1,696	1,979	2,261	2,544		
2.8		1,577	1,840	2,103	2,365	2,628	
2.9		1,470	1,715	1,960	2,205	2,450	
3.0		1,374	1,603	1,832	2,061	2,290	
3.1			1,501	1,715	1,930	2,144	2,359
3.2			1,409	1,610	1,811	2,012	2,214
3.3			1,325	1,514	1,703	1,892	2,081
3.4			1,248	1,426	1,604	1,783	1,961
3.5			1,177	1,346	1,514	1,682	1,850
3.6				1,272	1,431	1,590	1,749
3.7				1,204	1,355	1,505	1,656
3.8				1,142	1,284	1,427	1,570
3.9				1,084	1,219	1,355	1,490
4.0				1,030	1,159	1,288	1,417
4.1					1,103	1,226	1,348
4.2					1,051	1,168	1,285
4.3					1,003	1,114	1,226
4.4					957	1,064	1,171
4.5					915	1,018	1,119
4.6						973	1,071
4.7						932	1,026
4.8						894	983
4.9						858	944
5.0						824	906
5.1							871
5.2							838
5.3							806
5.4							777
5.5							749

*For export only as per NF P 93-221 standard

Description	Components (mm)					
	Class	Unit weight (kg)	Ø Outer tube	Ø Inner tube	Ø Pin	Plate
▪ Anti-dropout of inner and outer tube ▪ 100 mm hand guard ▪ Protection by hot-dip galvanising ▪ Optional finger protection ▪ Tapered captive pin ▪ Optional base web	B25N	14.10	60	48	14	120 x 120 x 6
	B30N	15.80				
	B35N	17.40				
	B40N	19.10			15	
	B45N	20.70				
	B50N	22.40	70	60		
	B55N	24.00				

EQUIPMENT

Class C - Type N

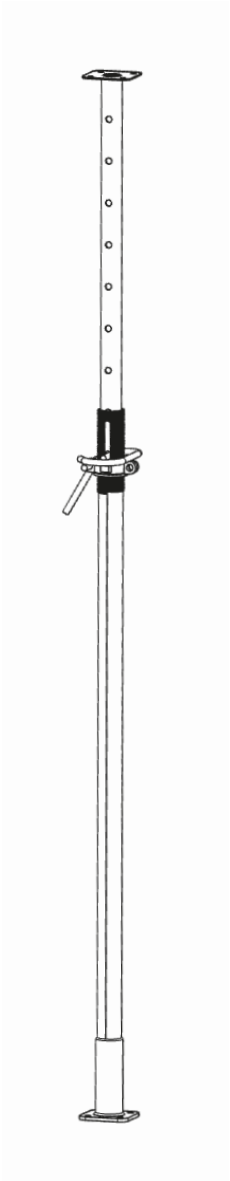


Working load (daN), safety coefficient: 1.65 as per Eurocodes 0 and 3							
	Cat. No.						
	C25N*	C30N*	C35N	C40N	C45N	C50N	C55N
Extension (m)	from 1.6 to 2.5	from 1.8 to 3.0	from 2.1 to 3.5	from 2.3 to 4.0	from 2.6 to 4.5	from 2.8 to 5.0	from 3.1 to 5.5
1.6 and 1.7	3,606						
1.8	3,606	3,606					
1.9	3,606	3,606					
2.0	3,606	3,606					
2.1	3,504	3,606	3,606				
2.2	3,193	3,606	3,606				
2.3	2,921	3,506	3,606	3,606			
2.4	2,683	3,220	3,606	3,606			
2.5	2,473	2,967	3,462	3,606			
2.6		2,743	3,201	3,606	3,606		
2.7		2,544	2,968	3,392	3,606		
2.8		2,365	2,760	3,154	3,548	3,606	
2.9		2,205	2,573	2,940	3,308	3,606	
3.0		2,061	2,404	2,747	3,091	3,434	
3.1			2,251	2,573	2,895	3,216	3,538
3.2			2,113	2,415	2,717	3,018	3,320
3.3			1,987	2,271	2,554	2,838	3,122
3.4			1,872	2,139	2,406	2,674	2,941
3.5			1,766	2,019	2,271	2,523	2,776
3.6				1,908	2,146	2,385	2,623
3.7				1,806	2,032	2,258	2,484
3.8				1,712	1,926	2,141	2,355
3.9				1,626	1,829	2,032	2,235
4.0				1,545	1,739	1,932	2,125
4.1					1,655	1,839	2,023
4.2					1,577	1,752	1,927
4.3					1,504	1,672	1,839
4.4					1,437	1,597	1,756
4.5					1,374	1,526	1,679
4.6						1,461	1,607
4.7						1,399	1,539
4.8						1,342	1,476
4.9						1,287	1,416
5.0						1,236	1,360
5.1							1,307
5.2							1,257
5.3							1,210
5.4							1,166
5.5							1,124

*Protected threading option (C25T - C30T)

Description	Components (mm)					
	Class	Unit weight (kg)	Ø Outer tube	Ø Inner tube	Ø Pin	Plate
▪ Anti-dropout of inner and outer tube ▪ 100 mm hand guard ▪ Protection by hot-dip galvanising ▪ Optional finger protection ▪ Tapered captive pin ▪ Optional base web	C25N	15.60	60	48	15	120 x 120 x 8
	C30N	17.50				
	C35N	19.40	70	60		
	C40N	21.20				
	C45N	23.10				
	C50N	25.00	76	63		
	C55N	26.90				

Class D - Type N



Formwork working load (daN), safety coefficient: 1.65 as per Eurocodes 0 and 3

Extension (m)	Cat. No. D25N* from 1.6 to 2.5	D30N* from 1.8 to 3.0	D35N from 2.1 to 3.5	D40N from 2.3 to 4.0	D45N from 2.6 to 4.5	D50N from 2.8 to 5.0	D55N from 3.1 to 5.5
1.6 and 1.7	2,060						
1.8		2,060					
1.9		2,060					
2.0		2,060					
2.1		2,060	2,060				
2.2		2,060	2,060				
2.3		2,060	2,060	2,060			
2.4		2,060	2,060	2,060			
2.5		2,060	2,060	2,060			
2.6		2,060	2,060	2,060	2,060		
2.7		2,060	2,060	2,060	2,060		
2.8		2,060	2,060	2,060	2,060	2,060	
2.9		2,060	2,060	2,060	2,060	2,060	
3.0		2,060	2,060	2,060	2,060	2,060	
3.1			2,060	2,060	2,060	2,060	2,060
3.2			2,060	2,060	2,060	2,060	2,060
3.3				2,060	2,060	2,060	2,060
3.4			2,060	2,060	2,060	2,060	2,060
3.5					2,060	2,060	2,060
3.6					2,060	2,060	2,060
3.7				2,060		2,060	2,060
3.8						2,060	2,060
3.9							2,060
4.0							2,060
4.1					2,060		
4.2							
4.3							
4.4						2,060	
4.5							
4.6							
4.7							
4.8							2,060
4.9							
5.0							
5.1							
5.2							
5.3							
5.4							
5.5							

*Protected threading option (C25T - C30T)

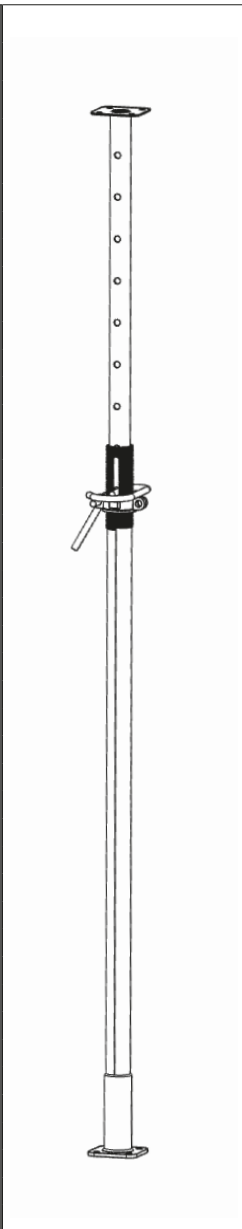
Description
▪ Anti-dropout of inner and outer tube ▪ 100 mm hand guard ▪ Protection by hot-dip galvanising ▪ Optional finger protection ▪ Tapered captive pin ▪ Optional base web

Components (mm)

Class	Unit weight (kg)	Ø Outer tube	Ø Inner tube	Ø Pin	Plate
D25N	15.60	60	48	15	120 x 120 x 8
D30N	15.90				
D35N	19.10	76	63		
D40N	22.70				
D45N	26.00				
D50N	31.00	89	76		
D55N	36.00				

EQUIPMENT

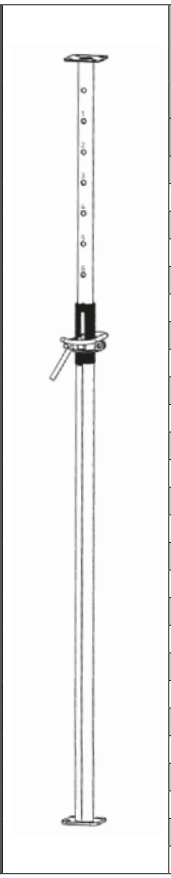
Class C + E - Type N



Formwork working load (daN), safety coefficient: 1.65 as per Eurocodes 0 and 3					
	Name				
	C+E25N	C+E30N	C+E35N	C+E40N	C+E45N
Extension (m)	from 1.6 to 2.5	from 1.8 to 3.0	from 2.1 to 3.5	from 2.3 to 4.0	from 2.6 to 4.5
1.6 and 1.7	3,606				
1.8	3,606	3,606			
1.9	3,606	3,606			
2.0	3,606	3,606			
2.1	3,504	3,606	3,606		
2.2	3,193	3,606	3,606		
2.3	3,090	3,506	3,606	3,606	
2.4		3,220	3,606	3,606	
2.5		3,090	3,462	3,606	
2.6			3,201	3,606	3,606
2.7			3,090	3,392	3,606
2.8				3,154	3,548
2.9				3,090	3,308
3.0					3,091
3.1			3,090		3,090
3.2					
3.3					
3.4					
3.5					
3.6					
3.7					
3.8					
3.9					
4.0					
4.1					
4.2					
4.3					
4.4					
4.5					
4.6					
4.7					
4.8					
4.9					
5.0					
5.1					
5.2					
5.3					
5.4					
5.5					

Description	Components (mm)					
▪ Anti-dropout of inner and outer tube ▪ 100 mm hand guard ▪ Protection by hot-dip galvanising ▪ Optional finger protection ▪ Tapered captive pin ▪ Optional base web	Class	Unit weight (kg)	Ø Outer tube	Ø Inner tube	Ø Pin	Plate
	C+E25N	16.20	76	63	15	120 x 120 x 8
	C+E30N	18.30				
	C+E35N	22.00				
	C+E40N	27.00	89	76		
	C+E45N	31.00				

Class D Nevo

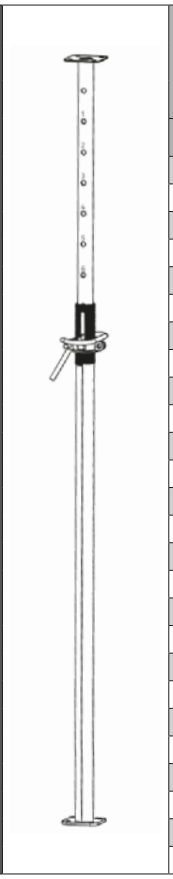


	Working load **IN FORMWORK** (daN), EN1065					
	Name					
	D25 Nevo	D30 Nevo	D35 Nevo	D40 Nevo	D45 Nevo	D50 Nevo
Extension (m)	from 1.6 to 2.5	from 1.8 to 3.0	from 2.1 to 3.5	from 2.3 to 4.0	from 2.5 to 4.5	from 2.8 to 5.0
1.6	2,060					
1.8		2,060				
1.9			2,060			
2.0				2,060		
2.1					2,060	
2.2						2,060
2.3						
2.4						
2.5						
2.6						
2.7						
2.8						
2.9						
3.0						
3.1						
3.2						
3.3						
3.4						
3.5						
3.6						
3.7						
3.8						
3.9						
4.0						
4.5						
5.0						

Use of prop **IN FORMWORK**	Description	Characteristics (mm)					
		Name	Unit weight (kg)	Ø Outer tube	Ø Inner tube	Ø Pin	Colour ref.
	▪ Trapezoidal double-start threading facilitating the strike-down (8 mm thread) ▪ Anti-dropout system (as per EN 1065) ▪ 100 mm hand guard ▪ Captive pin ▪ Engraving of year of manufacture (example: 22 for 2022) ▪ Slide with numbered holes ▪ Epoxy paint nut ▪ Sendzimir type material	D25 Nevo	12.60	60	48	15	As per client
		D30 Nevo	14.70	60.30	48.50		
		D35 Nevo	19.40	76.10	63.50		
		D40 Nevo	21.90	76.10	63.50		
		D45 Nevo	26.00	76.10	63.50		
		D50 Nevo	31.80	88.90	76.10		

EQUIPMENT

Class D Nevo



Extension (m)	Working load **IN DRYING** (daN)					
	Name					
	D25 Nevo	D30 Nevo	D35 Nevo	D40 Nevo	D45 Nevo	D50 Nevo
	from 1.6 to 2.5	from 1.8 to 3.0	from 2.1 to 3.5	from 2.3 to 4.0	from 2.5 to 4.5	from 2.8 to 5.0
1.6	3,900					
1.8		3,900				
1.9						
2.0						
2.1			3,900			
2.2	3,820					
2.3	3,550			4,400		
2.4	3,310					
2.5	3,090				4,400	
2.6						
2.7		3,820				
2.8		3,550				4,400
2.9		3,310	3,859			
3.0		3,091	3,606	4,121		
3.1			3,377	3,860	4,342	
3.2			3,169	3,622	4,075	
3.3			3,091	3,406	3,832	4,257
3.4				3,209	3,610	4,011
3.5				3,091	3,406	3,785
3.6					3,220	3,577
3.7					3,091	3,387
3.8						3,211
3.9						3,091
4.0						
4.5						
5.0						

Use of prop **IN DRYING**	Description	Characteristics (mm)					
		Name	Unit weight (kg)	Ø Outer tube	Ø Inner tube	Ø Pin	Colour ref.
	▪ Trapezoidal double-start threading facilitating the strike-down (8 mm thread) ▪ Anti-dropout system (as per EN 1065) ▪ 100 mm hand guard ▪ Captive pin ▪ Engraving of year of manufacture (example: 22 for 2022) ▪ Slide with numbered holes ▪ Epoxy paint nut ▪ Sendzimir type material	D25 Nevo	12.60	60	48	15	As per client
		D30 Nevo	14.70	60.30	48.50		
		D35 Nevo	19.40	76.10	63.50		
		D40 Nevo	21.90	76.10	63.50		
		D45 Nevo	26.00	76.10	63.50		
		D50 Nevo	31.80	88.90	76.10		

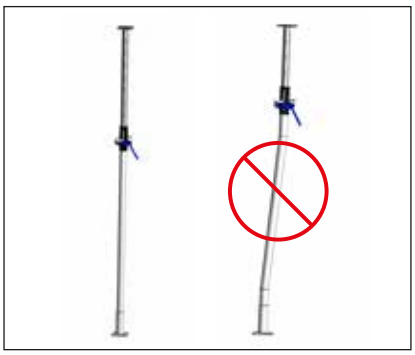
SIMPLIFIED USER GUIDE

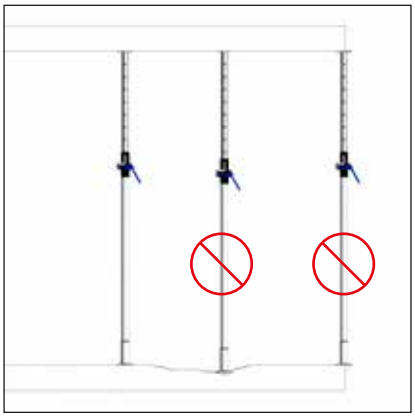
PREPARATORY STAGE

- Reception of equipment on the worksite: check quantities and validate delivery note.
- Prop inspection: do not use warped or damaged props.
- Props may be used with the slide up or down, according to the site configuration.

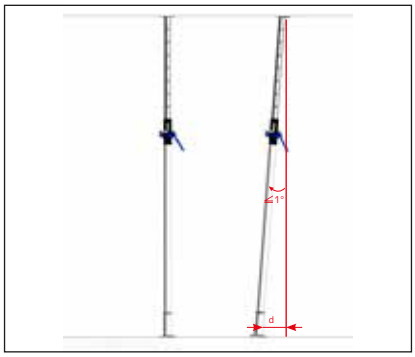
Broken sleeve

Warped prop



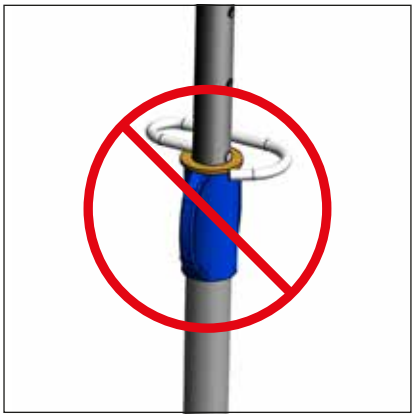


- Bearing surfaces must be flat and stable.



- Ensure that the prop is vertical.

Verticality tolerance ∠ 1° *Equivalents*	
Allowable offset at the foot = d (cm)	For a height of.. (m)
4	2.50
5	3.00
6	3.50



- The pin must be correctly inserted and must rest on the washer.

- Do not store the props vertically.

- Do not throw props. Stow them in the suitable racks and move them using a crane.

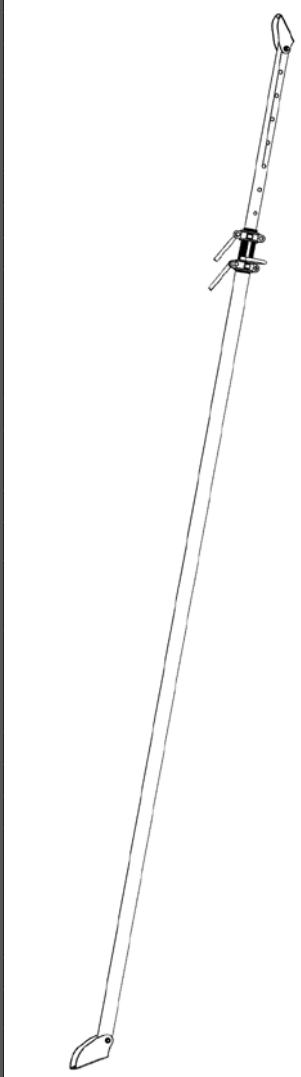
- Do not strike the threading with any tool liable to damage it.

Props other uses

In addition to the standardised prop range,
Alphi offers specific props to meet all needs.

EQUIPMENT

Push-pull props



Working compressive load (daN)				
	Cat. No. (Outer tube Ø 60 mm - Inner tube Ø 48 mm)			
	TP18/11	TP30/18	TP35/20	TP45/25
Extension (m)	from 1.1 to 1.8	from 1.7 to 3.0	from 2.1 to 3.5	from 2.5 to 4.5
1.8	3,200	3,900		
1.9		3,900		
2.1		3,900	3,900	
2.3		3,900	3,900	
2.7		2,550	2,950	3,670
3.0		1,750	2,140	2,920
3.3			1,630	2,070
3.5			1,550	2,070
3.8				1,330
4.5				830

Working tensile load (daN)				
For all extensions	2000			
Unit weight (kg)	13.50	19.00	21.00	25.00

Working compressive load (daN)		
	Cat. No. (Outer tube Ø 76 mm - Inner tube Ø 63 mm)	
	TP45/26	TPE 55/30
Extension (m)	from 2.6 to 4.5	from 3.0 to 5.5
2.5	3,500	
3.0	3,500	
3.4	3,500	3,500
3.6	3,420	3,500
3.8	2,910	3,500
4.0	2,500	3,070
4.5	1,810	2,110
5.0		1,560
5.5		1,200

Working tensile load (daN)		
For all extensions	3000	
Unit weight (kg)	33.00	37.00

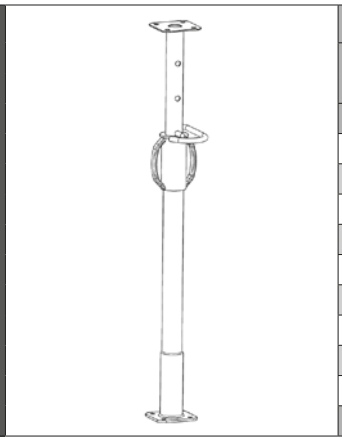
DOCUMENTATION

View full documentation.

Description	
▪ Anti-dropout of inner and outer tube ▪ Nut end-of-travel stop	▪ Protection by hot-dip galvanising ▪ Ø 15 mm captive pin

EQUIPMENT

Flying shores



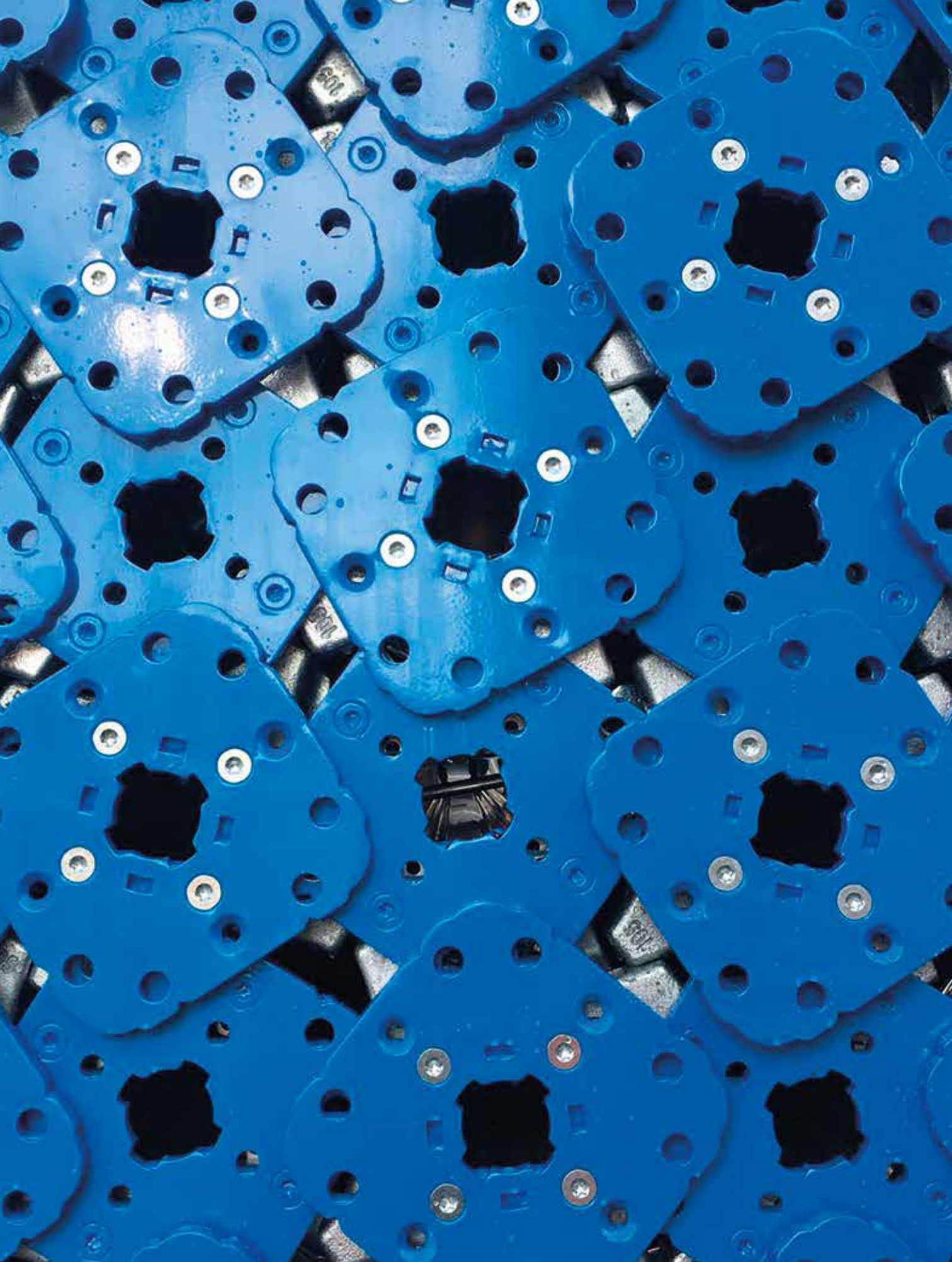
Working load (daN)			
	Cat. No.		
	ET80	ET110	ET180
Extension (m)	0.50 to 0.80	0.75 to 1.10	1.10 to 1.80
0.5	2,886		
0.7	2,886	2,886	
0.8	2,886	2,886	
1.0		2,886	2,886
1.1		2,886	2,886
1.2			2,886
1.6			2,886
1.8			2,886
Unit weight (kg)	7.00	8.40	11.00

Description	
▪ Outer tube Ø 57 mm ▪ Inner tube Ø 48 mm ▪ Pin Ø 14 mm	▪ Hot-dip galvanised or painted ▪ Plate 120 x 120 x 6 mm ▪ Holes Ø 13, spacing 80 x 80 mm

Drying props

Formwork working load (daN), safety coefficient: 2			
	Name		
	ES300	ES350	ES400
Extension (m)	from 1.7 to 3.0	from 2.0 to 3.5	from 2.3 to 4.0
1.7	1,850		
1.8			
1.9			
2.0		2,126	
2.1			
2.2			
2.3			2,571
2.4			
2.5			
2.6			
2.7			
2.8			
2.9	1,720		
3.0	1,590		
3.1			
3.2		2,058	
3.3		1,907	
3.4		1,765	2,506
3.5		1,633	2,310
3.6			2,127
3.7			1,958
3.8			1,804
3.9			1,663
4.0			1,536

Description	Components (mm)					
	Class	Unit weight (kg)	Ø Outer tube	Ø Inner tube	Ø Pin	Plate
▪ Hand guard ▪ Captive pin ▪ Forged sleeve	ES300	11.50	60	48	14	120 x 120 x 6
	ES350	13.70				
	ES400	16.00				



LIGHT WEIGHT | LONG WORKING LIFE | COMPLIANCE | ADAPTABILITY

Aluminium Props

Alphi aluminium props are compliant with the EN 16031 standard pertaining to adjustable telescopic aluminium props. The very high mechanical strength of the aluminium props allows a high loading capacity.

Site: Comédie performance venue
Client: Maulini
Location: Switzerland

Aluminium Props

Aluminium props combine a lightweight design and **high load capacities.**

The geometry of the outer tube allows frames to be **connected quickly** in two orthogonal directions.

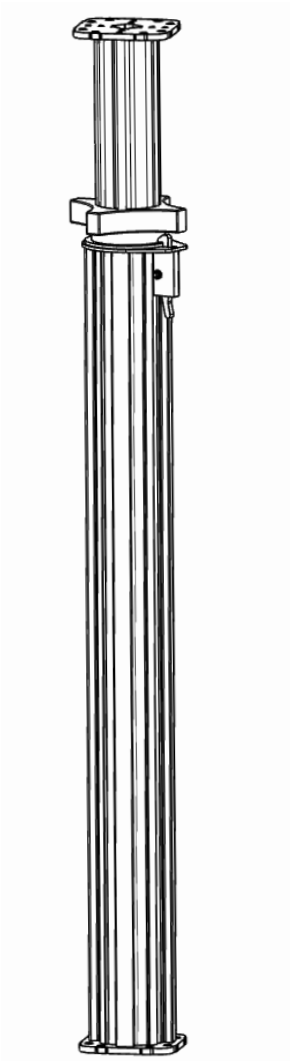
They can be **customised** to suit the client's colours.

The geometry of the inner tube with non-continuous threading on the perimeter facilitates **self-cleaning** when the nut is inserted.

COMPLIANT WITH THE **EN 16031 STANDARD,** ALUMINIUM PROPS OFFERS THE BEST PERFORMANCES IN TERMS OF QUALITY AND STRENGTH.

EQUIPMENT

Ø105 aluminium props

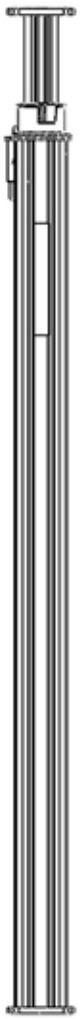


Working load (daN)					
	Name				
	U25/15 T1	S35/20 T1	E48/33 T1	D55/35 T1	D62/48 T1
Extension (m)	from 1.5 to 2.5	from 2.0 to 3.5	from 3.3 to 4.8	from 3.5 to 5.5	from 4.8 to 6.25
1.5	7,800				
1.7	7,800				
1.9	7,800				
2.0	7,800	8,900			
2.1	7,800	8,800			
2.3	7,800	8,500			
2.5	7,800	8,100			
2.7		7,600			
2.9		7,200			
3.1		6,400			
3.3		5,700	7,900		
3.5		5,000	7,600	7,500	
3.7			6,900	7,100	
3.9			6,200	6,600	
4.1			5,600	5,900	
4.3			5,000	5,600	
4.5			4,400	4,700	
4.7			3,900	4,200	
4.8			3,600	4,000	4,500
5.0				3,500	4,300
5.2				3,100	4,000
5.4				2,700	3,700
5.5				2,500	3,400
5.8					3,100
6.0					2,800
6.2					2,400
Unit weight (kg)	15.50	19.50	25.20	28.00	31.00

Description	
▪ High-load props ▪ Light weight ▪ Can be used for casting or drying ▪ Threading to any height, self-cleaning ▪ Captive slide ▪ Customisable to suit client's colours ▪ Plate 160 x 160 mm	▪ Possibility of extending the outer tube ▪ Quality epoxy paint for easy maintenance ▪ Long working life ▪ Certification by an independent European laboratory according to the EN 16031 standard - Classes D to U

Note: framed prop tower load capacities available on request.

Aluminium props Ø70



Working load (daN)				
	Name			
	C+E26/18 T1	C+D30/18 T1	C+D35/21 T1	C+D40/27 T1
Extension (m)	from 1.8 to 2.6	from 1.8 to 3	from 2.1 to 3.5	from 2.7 to 4
1.8	6,000	6,000		
1.9	6,000	6,000		
2.0	5,500	6,000		
2.1	5,000	6,000	4,700	
2.2	4,500	6,000	4,700	
2.3	4,100	6,000	4,700	
2.4	3,800	5,500	4,700	
2.5	3,500	4,900	4,600	
2.6	3,200	4,500	4,500	
2.7		4,100	4,400	3,400
2.8		3,600	4,300	3,400
2.9		3,200	4,000	3,400
3.0		3,000	3,700	3,400
3.1			3,400	3,400
3.2			3,100	3,300
3.3			2,900	3,200
3.4			2,500	3,100
3.5			2,300	3,000
3.6				2,700
3.7				2,500
3.8				2,400
3.9				2,200
4.0				2,060
Unit weight (kg)	10.50	12.00	14.00	14.50

DOCUMENTATION

View full documentation.

Description	
▪ Small-diameter prop, very lightweight ▪ High loads ▪ Can be used for casting or drying ▪ Threading to any height, self-cleaning ▪ Captive slide ▪ Plate 120 x 120 mm ▪ Centre-to-centre distance 80 x 80 mm	▪ Customisable to suit client's colours ▪ Quality epoxy paint for easy maintenance ▪ Long working life ▪ Certification by an independent European laboratory according to the EN 16031 standard - Classes D to U

Note: framed prop tower load capacities available on request.

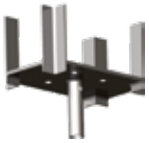
Accessories Props

Stabilisation, handling, personalisation…
a wide range of accessories for easy deployment of Alphi props.

ALL PROP RANGES

Additional

Collapsible galvanised tripod	Unit weight (kg)	Height (cm)	Prop diameter (mm)
	4.70	70	from 55 to 76

Fork	Working height (cm)	Description
	14	▪ For use with timber beams and AL200

Girder clamp	Unit weight (kg)	Description
	3.00	▪ The tube is inserted into the prop used for cladding

Skin clamp	Unit weight (kg)	Description
	3.00	▪ Stabilising clamp for use with 48 mm tube and collars

Prop clamp*	Unit weight (kg)	Description
	5.00	▪ The 45°-oriented rear plate allows fastening after positioning the prop

Dywidag form panel hole flange	Unit weight (kg)	Description
	3.00	▪ The loop is used either to stabilise a prop, or to receive a tube for holding multiple props

*excluding aluminium props

ALL PROP RANGES

Leborgne tools

Nanovib® range	Description
	▪ Tools suitable for fitting and removing Alphi formwork: hammers, hammer holder, prop key ▪ Vibration and noise reduction Alphi distribute LEBORGNE See page 299 for details of Leborgne tools

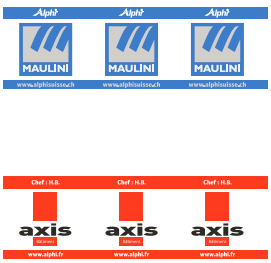
Handling

Prop rack	Description
	▪ 4-point slinging at top ▪ Galvanised See page 303 for the different rack models

TransÉtais Logement	Description
	▪ Easier prop handling ▪ Makes it possible to pass through door openings See page 311 for details of TransÉtais Logement

*excluding aluminium props

Customisation

Self-adhesive label	Description
	▪ Self-adhesive labels can be produced with the client's colours and logo

Epoxy paint (sleeve, slide, nut, etc.)	Description
	▪ RAL according to client's choice

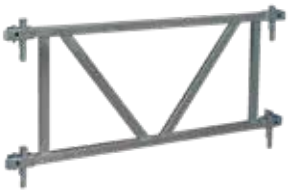
Plate and/or handle engraving	Description
	▪ Engraving of plate and/or operating handle on external thread prop (not more than 8 characters for client's name)

DOCUMENTATION

View full documentation.

ALUMINIUM PROPS

Additional

Frame (aluminium props Ø105)	Dimensions w x h (m)	Unit weight (kg)
	1.20 x 0.50	10.90
	1.60 x 0.50	13.00
	1.90 x 0.50	14.80
	2.10 x 0.50	15.25
	2.30 x 0.50	16.58
	2.50 x 0.50	17.50

Frame (aluminium props Ø70)	Dimensions w x h (m)	Unit weight (kg)
	1.60 x 0.50	13.00

Electrogalvanised quick formwork strike-down tool	Unit weight (kg)	Working load (KN)
	6.00	100

Painted collapsible tripod	Unit weight (kg)	Height (m)
	11.00	1.16

Setting key	Unit weight (kg)	Description
	1.50	▪ Facilitates nut unfastening preparation

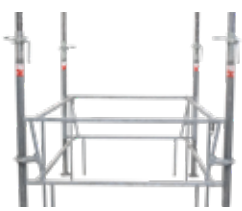
Connection bolt	Unit weight (kg)
	0.07

Extension	Height (m)
	From 0.50 to 2.00

Flange	Description
	▪ Used to associate aluminium props with tubes

STEEL PROPS

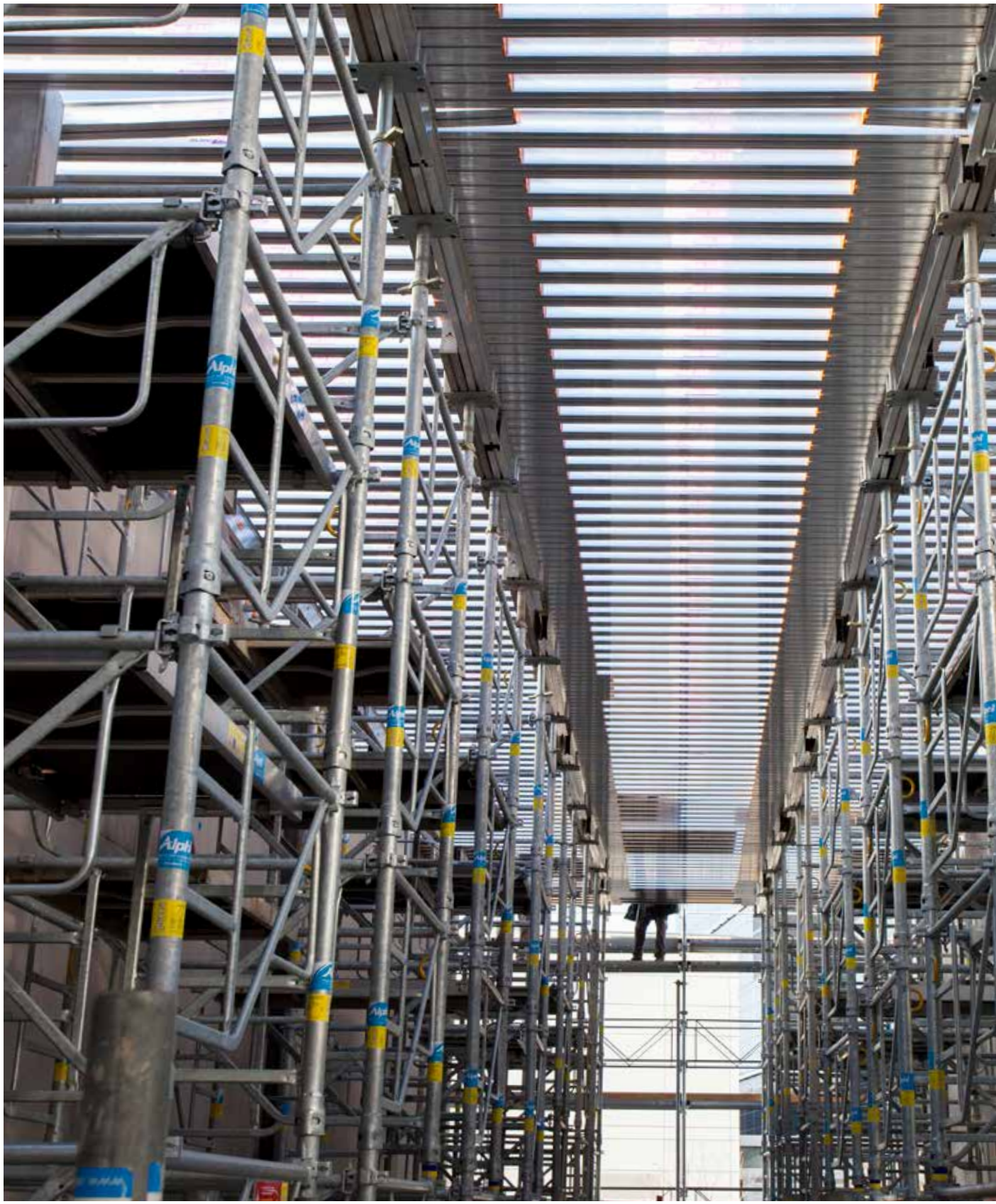
Additional

TopCadre props	Dimensions l x w x h (m)	Unit weight (kg)
	1.90 x 1.60 x 1.00	19.80


Alpha 220

Beams

Both beam ranges, timber and aluminium, satisfy the needs of different worksite configurations.
The anti-tipping beams help prevent falls from heights.



Site in Switzerland
Client: Induni
Location: Geneva

Beams

Alphi offers two ranges of formwork beams to satisfy the needs of different construction site configurations.

- The AL100 and AL200 **aluminium beams** favour strong load support. Their specific shape allows the fastening of clips or accessories (e.g. straps) and prevents any slipping with a hammer head screw system.
- The H20 **timber beam** is used for traditional formwork.
- For added safety, the **AL100** beam also has an anti-tipping feature.

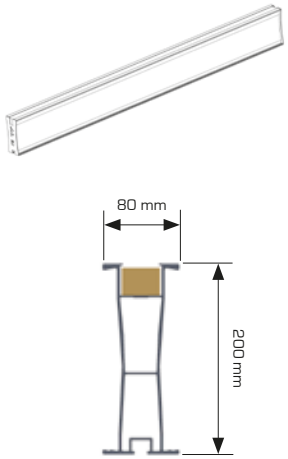
PROTECTED ALUMINIUM
DO NOT REMELT

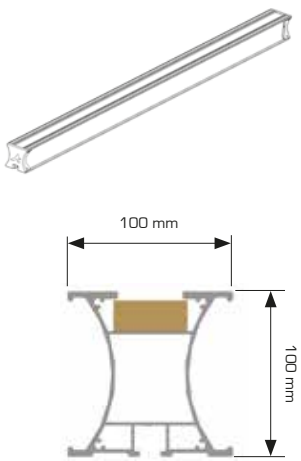
LIKE ALL **ALPHI ALUMINIUM PRODUCTS**, **AL200** FORMWORK BEAMS CAN BE PROTECTED FROM THEFT.

BV Cert. 6150814
ORIGINE FRANCE® GARANTIE

EQUIPMENT

Formwork beams - ALUMINIUM

AL200 beam	Name	Technical characteristics*	Length (m)	Unit weight (kg)	Description
	AL200 - 180	Maximum allowable moment: 13.5 kN.m Inertia: 800 cm^4 Allowable shear force: 37.5 kN Young's modulus: 69,000 MPa	1.80	9.70	▪ Lightweight, strong aluminium beams ▪ Height 20 cm ▪ Integrated 30 mm timber insert, suitable for nailing ▪ Possible protection from theft and fraudulent recycling of aluminium
	AL200 - 240		2.40	13.00	
	AL200 - 270		2.70	14.00	
	AL200 - 360		3.60	19.00	

AL100 beam	Name	Technical characteristics*	Length (m)	Unit weight (kg)	Description
	AL100 - 180	Allowable plastic moment: 4.80 kN.m Inertia: 164 cm^4 Allowable threshold shear force: 13.60 kN Young's modulus: 69,000 MPa	1.80	6.50	▪ Lightweight, strong aluminium beams with anti-tipping feature ▪ Integrated timber insert, suitable for nailing ▪ Protection from theft and fraudulent recycling of aluminium via the inclusion of an insert ▪ Clamps onto the primaries via a clip to prevent tipping during use in cantilever configuration
	AL100 - 220		2.20	8.10	
	AL100 - 290		2.90	10.40	
	AL100 - 360		3.60	12.80	

*Compliant with NF P 93-322 standard Press test and certification by the independent laboratory Locie of University of Savoie Mont Blanc.

Formwork beams - TIMBER

H20 beam	Name	Technical characteristics*	Length (m)	Unit weight (kg)	Description
	H20 - 195	Maximum allowable moment: 5 kN.m*** Inertia: 4750 cm^4 Allowable shear force: 11 kN*** Young's modulus: 10,000 MPa Linear weight: 4.70 kg/m	1.95	9.15	▪ Can be equipped with a protective end fitting, for longer product life
	H20 - 245		2.45	11.50	
	H20 - 290		2.90	13.60	
	H20 - 330		3.30**	15.50	
	H20 - 360		3.60**	17.00	
	H20 - 390		3.90	18.30	
	H20 - 490		4.90**	23.00	

**For sale only
***Compliant with EN 13377 standard

BEAM ACCESSORIES

Elements

Fork	Working height (cm)	Description
	14	▪ For use with timber beams and AL200

Mounting clip	Unit weight (kg)	Description
	0.19	▪ Suitable for securing beams

Fork end plate for clams (for AL200 only)	Unit weight (kg)	Description
	0.20	▪ Prevents AL200 beams from sliding when they are positioned on a slope

H20/AL200 clams	Unit weight (kg)	Description
	0.20	▪ For mounting H20 on AL200

DOCUMENTATION

View full documentation.

Formwork support bracket	Material	Unit weight (kg)	MWL (kN)	Safety coefficient on loads and material	Description
	S235	6.20	20	1.65	▪ Engraving See page 249 for details of formwork support bracket

Handling

Rack	Name	Spacing (cm)	Unit weight (kg)	Quantity		
				AL100	AL200	H20
	Rack MWL 1.5 t	91.5	50.00	80	50	50
	Painted rack	89.8	25.00	64	40	50
	Galva rack	89.8	28.00	64	40	50

EXAMPLES OF USE

With AL200 beams

- Hollow slab shoring with AL200 beams.

- Pre-slab shoring with AL200 beams.

With AL200 and AL100 beams

- Cast-in-place slab shoring with AL200 and AL100 beams.

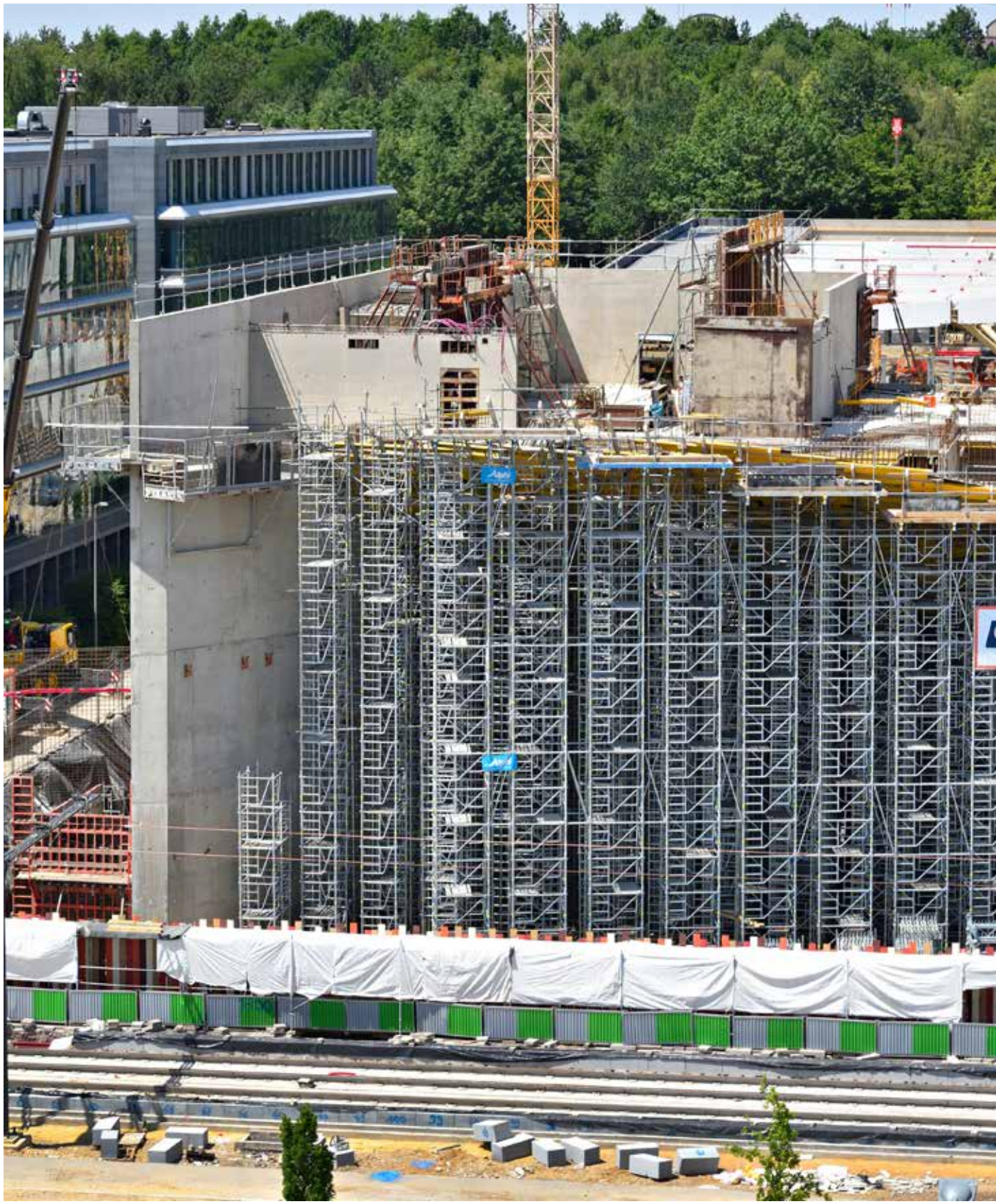
With AL200 and H20 beams

- Cast-in-place slab shoring with AL200 and H20 beams.

SAFETY | SIMPLICITY | PRODUCTIVITY | INNOVATION

TourEchaf®

The TourEchaf shoring tower with built-in safety features is quick and easy to use. It can be adapted to all possible configurations. Ergonomic, it offers a proper work surface for worker safety.



Site: National Library of Luxembourg
Client: Tralux
Location: Kirchberg

TourEchaf

Changes in French and European tower regulations have led Alphi to focus on a new shoring tower for construction work.

The TourEchaf tower is innovative in its **safety and ease of use,** and its lightweight components.

Its compatibility with scaffolding elements means that cross-bracing, connections and decking between towers can easily be created.

SIMPLICITY

Four identical frames per level

Each frame incorporates:

- safety: riser, sill, access ladder,
- automatic locking without pin,
- hoisting eye identified by yellow marking.
- The assembly kinematics are simplified by the single frame, with the same parts being used for each level.

SPEED

1 single plank

- Plank with trapdoor covering half the surface area of a level.
- Unit weight of handled parts less than 15 kg to reduce repetitive strain injury.

COMPLIANT WITH CRAMIF **NT24** GUIDELINES

STURDINESS

- The brackets enable strong load support.
- Load support of 6 tonnes per base, regardless of the configuration.

BUILT-IN SAFETY FEATURES

- Plank covering between towers for formwork and formwork removal operations. The work surface created is perfectly secure.
- Plank covering at the head of the towers to link the girders.

Brackets on TourEchaf

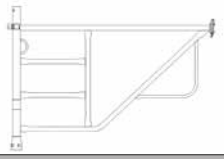
ADAPTABILITY

- All configurations are possible: height difference at head, at bases, between towers.
- The components are all compatible and make it possible to combine frames of different sizes to obtain a tower assembly as close as possible to requirements.

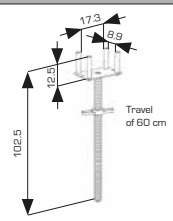
Height difference at bases

COMPONENTS

Frames

1.50 m frame	Catalogue Number	Dimensions h x l (m)	Unit weight (kg)
	011156-7	1.00 x 1.50	12.40
1.00 m frame	**Catalogue Number**	**Dimensions h x l (m)**	**Unit weight (kg)**
	011106-2	1.00 x 1.00	10.80
1.50 m entrance frame	**Catalogue Number**	**Dimensions h x l (m)**	**Unit weight (kg)**
	011157-5	1.00 x 1.50	11.50
1.00 m entrance frame	**Catalogue Number**	**Dimensions h x l (m)**	**Unit weight (kg)**
	011107-0	1.00 x 1.00	8.40

Jacks

2-inlet head jack	Catalogue Number	Travel (cm)	Unit weight (kg)
	011100-5	60	9.00
Base jack	**Catalogue Number**	**Travel (cm)**	**Unit weight (kg)**
	011155-9	49	9.20

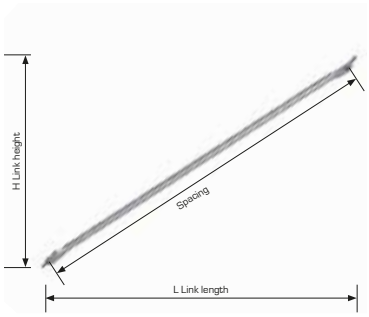
Traffic

Plank with trapdoor	Catalogue Number	Dimensions (m)	Unit weight (kg)
	011104-7	1.00	11.30
	011154-2	1.50	14.80

Steel toeboard	Catalogue Number	Dimensions (m)	Unit weight (kg)
	023724-8	from 1.00 to 3.00	From 1.60 to 5.60

Steel floor	Catalogue Number	Dimensions w x l (m)	Unit weight (kg)
	According to dimensions	0.20 x 1.00 to 1.50	From 4.70 to 19.50
		0.25 x 1.00 to 3.00	
		0.30 x 1.00 to 3.00	

Additional

Diagonal	Catalogue Number	Dimensions w x l (m)	Unit weight (kg)	Spacing (m)
	According to dimensions	0.50 x 1.00 to 1.50	From 2.90 to 9.20	from 1.04 to 3.53
		1.00 x 0.70 to 2.50		
		2.00 x 0.70 to 3.00		

Bracket	Catalogue Number	Description	Unit weight (kg)
	011152-6	0.38 m bracket	4.40
	250710-1	1.00 m bracket	8.00
	250000-7	Connector	2.20

Connector	Catalogue Number	Dimensions (m)	Unit weight (kg)
	According to dimensions	from 0.15 to 3.00	from 0.90 to 9.60

TOURECHAF ACCESSORIES

Additional

Simple post	Catalogue Number	Dimensions (m)	Unit weight (kg)
	011170-8	0.50	2.80
	011171-6	1.00	5.10

Riser	Catalogue Number	Dimensions (m)	Unit weight (kg)
	250101-3	1.00	5.30
	250102-1	2.00	9.60

Linking pin (for riser)	Catalogue Number	Unit weight (kg)
	021009-6	0.25

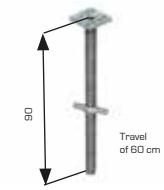
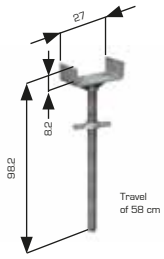
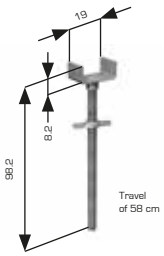
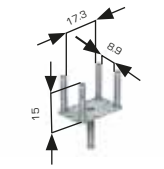
Base	Catalogue Number	Unit weight (kg)
	011169-0	1.80

TourEchaf stud-free base	Catalogue Number	Unit weight (kg)
	011192-2	3.30

Additional

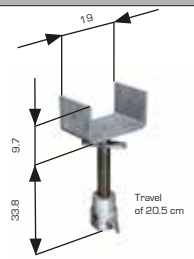
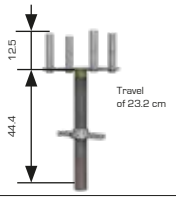
Formwork support bracket	Material	Unit weight (kg)	MWL (kN)	Safety coefficient on loads and material	Description
	S235	6.20	20	1.65	▪ Engraving See page 249 for details of formwork support bracket

Additional materials for head jacks

Head jack	Catalogue Number	Travel (cm)	Unit weight (kg)
	050120-5	60	8.50
Jack triple fork	**Catalogue Number**	**Travel (cm)**	**Unit weight (kg)**
	192460-4	58	11.20
Jack fork	**Catalogue Number**	**Travel (cm)**	**Unit weight (kg)**
	011153-4	58	9.10
Four-inlet fork	**Catalogue Number**	**Travel (cm)**	**Unit weight (kg)**
	050100-7	-	3.50

TOURECHAF ACCESSORIES

Additional materials for head jacks

T1 head jack (MT65)	Catalogue Number	Travel (cm)	Unit weight (kg)
	024628-0	20.5	7.20
1-clamp U-bracket	**Catalogue Number**	**Unit weight (kg)**	
	251001-4	0.75	
Short head jack	**Catalogue Number**	**Travel (cm)**	**Unit weight (kg)**
	011101-03	23.2	6.5

Safety

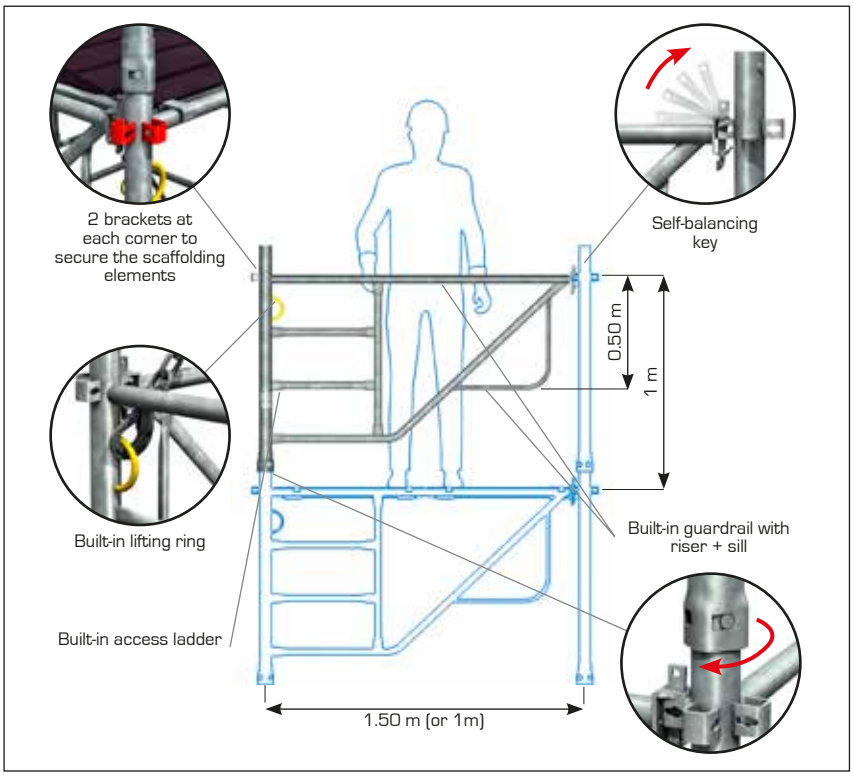
MDS guardrail	Catalogue Number	Height (m)	Unit weight (kg)
	256070-4	0.70	5.90
	256100-9	1.00	6.30
	256150-4	1.5	10.10
	256200-7	2.00	11.40
	256250-2	2.50	13.20
	256300-5	3.00	15.00
Clinch-fit guardrail	**Catalogue Number**	**Dimensions h x l (m)**	**Unit weight (kg)**
	011110-4	2.17 x 1.10	12.00
	011115-3	1.85 x 1.52	13.90

Handling

Storage container	Catalogue Number	MWL (daN)	Unit weight (kg)	Description
	011165-8	1500	110.00	▪ Medium capacity: ▪ 1.00 m connector: 210 ▪ 1.50 m connector: 130 ▪ 2-inlet head jack: 50 ▪ base jack: 100
20-frame rack	**Catalogue Number**	**Dimensions (m)**	**Unit weight (kg)**	**Description**
	011159-1	1.00	77.40	▪ Loading of 20 classic or entrance frames (1.00 m or 1.50 m).
	011160-9	1.50	84.00	
13-plank rack	**Catalogue Number**	**Dimensions (m)**	**Unit weight (kg)**	**Description**
	011158-3	1.00	56.00	▪ Loading of 13 trapdoor floor planks (1.00 m or 1.50 m).
	11161-7	1.50	60.00	
Shifting trolley	**Catalogue Number**	**Dimensions (m)**	**Unit weight (kg)**	**Description**
	050103-1	0.90 x 1.20	20.00	▪ Moving on a concrete slab for heights less than 3 frames
Shifting trolley with jack	**Catalogue Number**	**Dimensions (m)**	**Unit weight (kg)**	**Description**
	011167-4	1.50 x 1.50	106.00	▪ Suitable for 1.0 and 1.50 m meshes.
TourEchaf wheel (with base)	**Catalogue Number**	**Dimensions (m)**	**Unit weight (kg)**	**Description**
	011190-6	0.50 / 0.823	8.50	▪ 200 kg max on mobile equipment = workers with tools

BUILT-IN SAFETY FEATURES & COLLECTIVE PROTECTION GUARANTEED

"FRAME": THE BENEFITS OF BUILT-IN SAFETY FEATURES



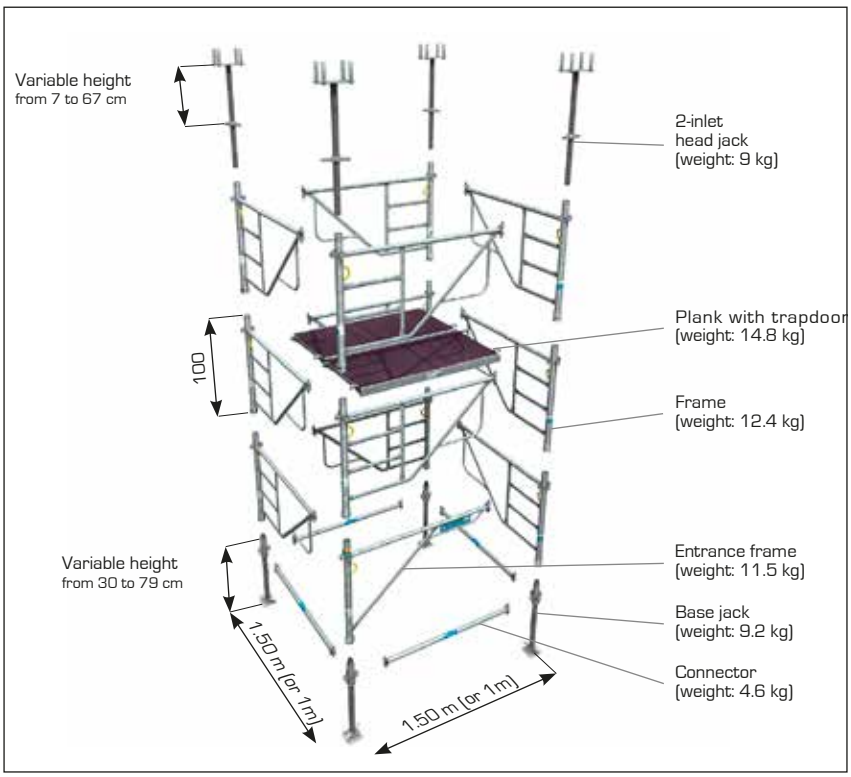
The design of TourEchaf is based on a triangular frame. The frame incorporates all the safety elements: riser, sill, access ladder, automatic locking and a hoisting ring to secure movements using the crane.

The TourEchaf frame weighs 12.4 kg

Built-in automatic locking by rotation:
- between frames,
- between frame and base jack.

Movement with a crane is secured.

"TOWER": COLLECTIVE PROTECTION GUARANTEED



With no slides or parts that can fall off; the whole assembly is self-locking and can be moved using a crane.

SIMPLIFIED USER GUIDE

ASSEMBLING A 1.50 X 1.50 M TOWER

- Take care regarding the ground load distribution.
- Place the base perfectly level.
- Assemble the first level of frames from inside the tower.
- Position the trapdoor opposite the ladder.
- Make sure the towers are stable.
- Centre the load in the forks.
- Make sure the jacks are vertical.

- Location and levelling.

- From the inside of the tower, install the 1st frame in the diagonal axis and then rotate to lock.

- Install the entrance frame to facilitate access.

- Install two 1-m planks with trapdoor and assemble the 2nd level.

- Assemble one floor level in temporary position.
- Install a 1st 1-m plank with trapdoor.

- Access to the upper level and then installation of the 2th plank with trapdoor.

- Assemble the 3rd level.

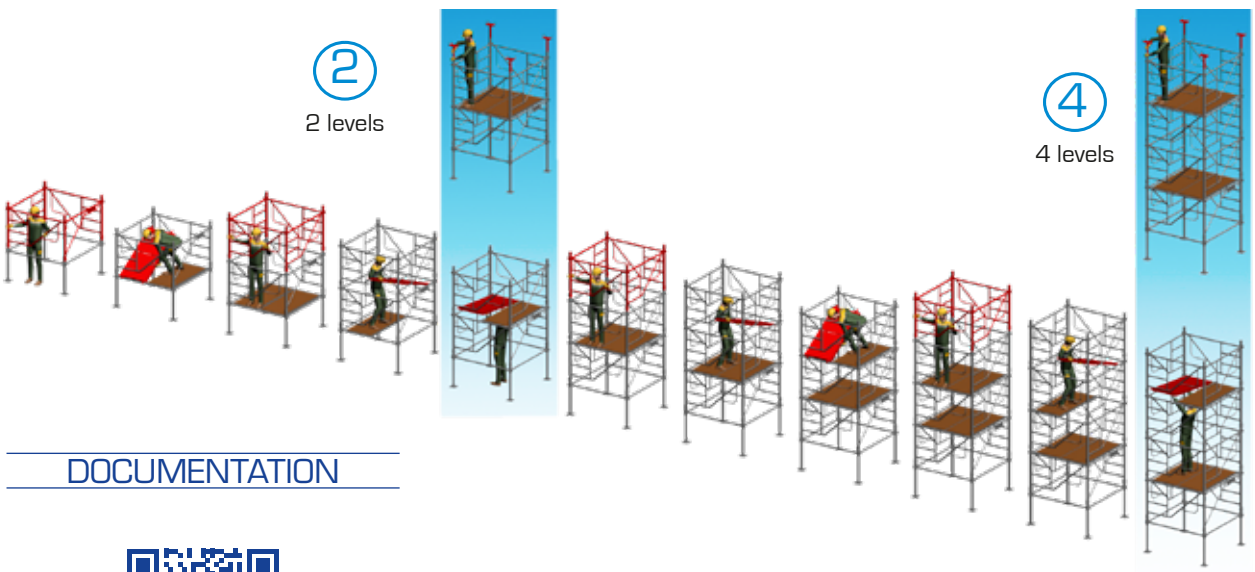
Reinstall the planks with trapdoor in their final position to obtain 2.00 m between floor levels.
- Moving the 1st plank with trapdoor.

- Moving the 2nd plank with trapdoor from the lower level.

- The first floor level can be removed.
- Access to the upper level via the built-in ladder.

- Set up and adjust the head jacks.

Assembling a TourEchaf with 2 and 4 levels (even) of frames



DOCUMENTATION

View full user guide.

COMPOSITION CHARTS

Tower 1.50 x 1.50 m	Number of frame levels	1	2	3	4	5	Tip for counting
	Minimum height (m)	1.82*	2.37	3.37	4.37	5.37	= number of levels + 0.37 m
	Maximum height (m)	2.46	3.46	4.46	5.46	6.46	= number of levels + 1.46 m
	Base jack	4	4	4	4	4	= 4
	1.50 m connector	4	4	4	4	4	= 4
	1.50 m entrance frame	1	1	1	1	1	= 1
	1.50 m frame	3	7	11	15	19	= (number of levels x 4) - 1
	2-inlet head jack	4	4	4	4	4	= 4
	1.50 m trapdoor plank with trapdoor	0/2	2	2**	4	4	
	Unit weight (kg)	140/170	220	270	350	400	

Tower 1.50 x 1.00 m	Number of frame levels	1	2	3	4	5
	Minimum height (m)	1.82*	2.37	3.37	4.37	5.37
	Maximum height (m)	2.46	3.46	4.46	5.46	6.46
	Base jack	4	4	4	4	4
	1.50 m connector	2	2	2	2	2
	1.00 m connector	2	2	2	2	2
	1.50 m entrance frame	1	1	1	1	1
	1.50 m frame	1	3	5	7	9
	1.00 m frame	2	4	6	8	10
	2-inlet head jack	4	4	4	4	4
	1.00 m trapdoor floor plank with trapdoor	0/2	2	2**	4	4
	Unit weight (kg)	130/150	200	250	310	360

*Minimum height determined by the length of the two jacks
**Allow two additional floor planks with trapdoor for assembly

Tower 1.00 x 1.00 m	Number of frame levels	1	2	3	4	5
	Minimum height (m)	1.82*	2.37	3.37	4.37	5.37
	Maximum height (m)	2.46	3.46	4.46	5.46	6.46
	Base jack	4	4	4	4	4
	1.00 m connector	4	4	4	4	4
	1.00 m entrance frame	1	1	1	1	1
	1.00 m frame	3	7	11	15	19
	2-inlet head jack	4	4	4	4	4
	1.00 m trapdoor plank with trapdoor	0	1	1	2	2
	Floor plank 0.20 x 1.0	0	1	1	2	2
	Floor plank 0.30 x 1.00	0/3	0	0***	0***	0***
	Unit weight (kg)	130/140	190	230	290	330

*** Allow for three additional 0.30 x 1.00 m floor planks for assembly starting from 3-level towers

SPECIFIC POINTS

ERGONOMICS

- TourEchaf was specially designed to limit repetitive strain injury.
- The weight of the most common parts is less than 15 kg and they are ergonomic to handle.
- Their design makes them easy to lift with a crane in order to limit disassembling and reassembling.

Shifting

- On a concrete slab, the towers are easy to move, with their special trolleys.
- Do not shift a tower taller than three frames (four frames with the shifting trolleys with jack).

Lifting

- The possibility of lifting with a crane is provided via built-in hoisting rings. This operation is facilitated and secured by the automatic locking of the tower elements, including the base jack.

Handling

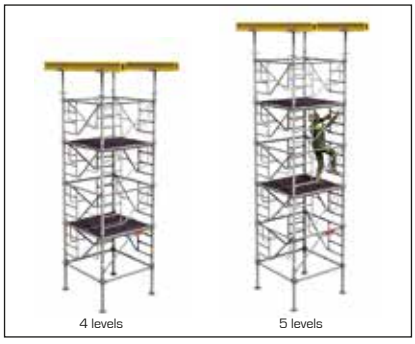
- The TourEchaf frame is installed from the inside of the tower, with just one interlocking point.

Installing a plank
- To facilitate installation, hold the end with the right hand and forearm.
- Start by placing both hooks under the ladder.

- Lower the plank, leaning on the frame.

Access

Raise the plank
- Two handles have been specially added under the plank to facilitate this operation.



- The two planks with trapdoor are placed every 2.00 m for a "scaffolding" type access.

Storage

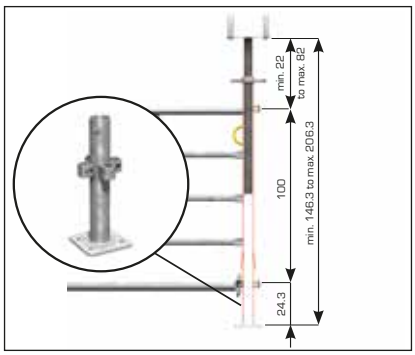
- The frames are packaged vertically, ready to be assembled to avoid having to bend down to straighten them.

EFFECTIVE DIMENSIONS

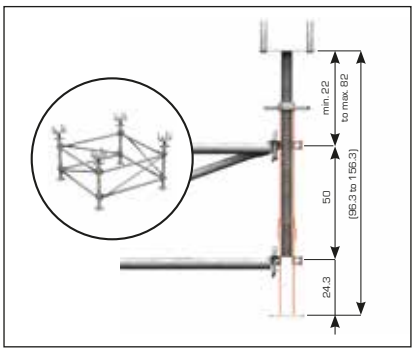
TECHNOLOGY AND STRENGTH

- The allowable vertical load is 6 tonnes per post for a tower height below 6 m.
- Beyond that height, a special strength and stability calculation must be performed.

Low TourEchaf

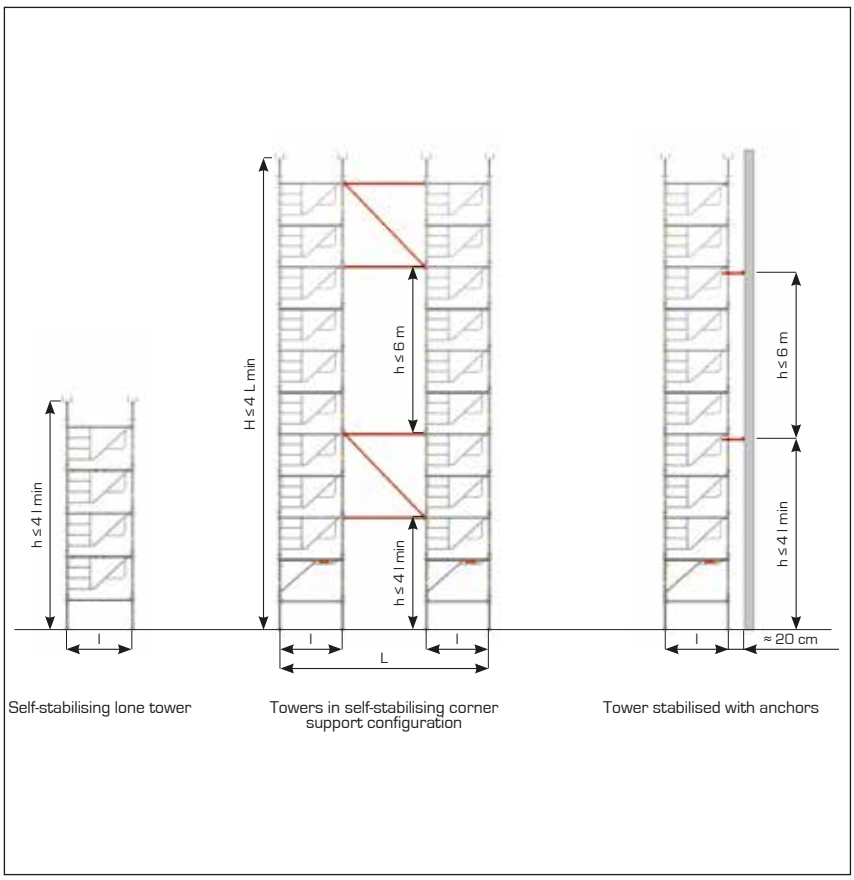


Standard TourEchaf with 2-inlet head jacks and stud-free bases
- Variable height: 1.46 to 2.06 m.



TourEchaf with 2-inlet head jacks and stud-free bases
- Tower consisting of single 0.50 m posts and diagonal braces.
- Variable height: 0.96 to 1.56 m.

Stability



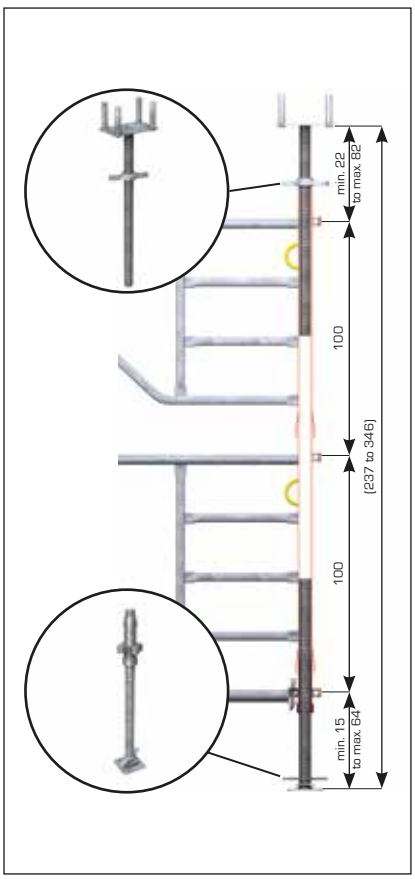
Self-stabilising lone tower

Towers in self-stabilising corner support configuration

Tower stabilised with anchors

- Because of the wind, stabilisation rules must be applied, particularly during assembly and disassembly.
- These rules are based on guidelines as set out by the Syndicat Français de l'Échafaudage, du Coffrage et de l'Étaiement (SFECE) in sheet A3: wind 55 kmph, off-centred load 35 kg, fitters present.
- Under harsher conditions of use, towers must no longer be isolated, but braced together or secured to the existing structure in order to stabilise them in all directions.

Functional dimensions



Standard TourEchaf with 2-inlet head jacks and base jacks
- With a single frame level: variable height of 1.82 to 2.46 m.
- Minimum height determined by the length of the two jacks.

SAFETY | PERFORMANCE | ADAPTABILITY | COMPLIANCE

ShoringTowerA®120

The A120 tower is a shoring tower that can be assembled and disassembled in complete safety. High-performance, it allows a load of 3 tonnes/foot.

Site:
La Cartoucherie - Car park
Client: Eiffage
Location: Toulouse

Shoring Tower A120

Alphi shoring towers satisfy the needs of all types of projects: the **A120 tower** is an effective solution for user safety; **low towers** are available for specific requirements.

As recommended in the CRAMIF NT24 guidelines, the A120 tower can be assembled and disassembled **in complete safety,** limiting the risks of falls from height.

COMPLIANT
WITH THE GUIDELINES
OF **CRAMIF TECHNICAL REPORT NO. 24**

SAFETY

- Safe assembly from the lower level.
- Built-in safety features.
- No connectors between ladder frames.

Compliant with the guidelines of CRAMIF technical report No. 24

- This technical report concerns ladder shoring towers and other shoring towers from 2.50 to 6 m tall.
- Its aim is to improve this equipment and therefore also user safety.

The guidelines concern limiting:

- falls from heights,
- repetitive strain injury,
- falls at ground level,
- towers collapsing or tipping,
- handling and manoeuvring.

ADAPTABILITY

- The A120 tower exists in three sizes: 120x130 - 120x160 - 120x220 cm.
- It can be used with TopDalle formwork, with Alto formwork decks, and with the whole range of Alphi beams (AL200, AL100, and H20).

PERFORMANCE

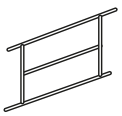
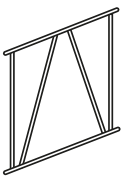
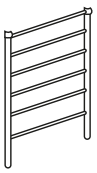
- Allowable load of 30 kN/foot.
- Can be handled with a crane.

HANDLING

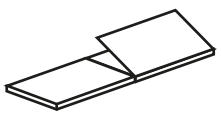
- Monte-Tour helps gain 52% productivity in both the assembly and disassembly phases
- It helps reduce arduous working conditions and repetitive strain injuries and prevents falls from height (see page 263).

COMPONENTS

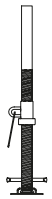
Central structure

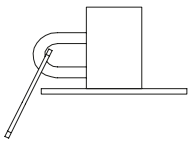
Guardrail	Dimensions (m)	Unit weight (kg)	Description
	0.75 x 1.60	8.36	▪ For 1.00 m ladder
Access guardrail	**Dimensions (m)**	**Unit weight (kg)**	**Description**
	1.25 x 1.60	13.50	▪ For 1.50 m ladder
Ladder	**Height (m)**	**Unit weight (kg)**	**Description**
	1.00	16.50	▪ 4 rungs
	1.50	24.30	▪ 6 rungs

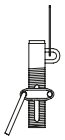
Decks

Deck with trapdoor	Dimensions (m)	Unit weight (kg)	Description
	0.52 x 1.60	14.49	▪ Aluminium and timber floor
Deck without trapdoor	**Dimensions (m)**	**Unit weight (kg)**	**Description**
	0.50 x 1.60	13.40	▪ Steel floor

Base

Adjustable base	Min/max height (cm)	Unit weight (kg)
	from 20 to 70	6.50

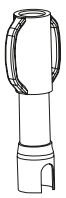
Base plate	Height (cm)	Unit weight (kg)
	9.6	1.60

Intermediate base jack	Unit weight (kg)
	2.84

Slide 1.50 m	Min/max height with jack (cm)	Unit weight (kg)
	from 36 to 136	6.50

Head

Slide 1.50 m	Min/max height with jack (cm)	Unit weight (kg)
	from 36 to 136	6.50

Intermediate head jack	Unit weight (kg)
	2.91

2-inlet adjustable fork	Min/max height (cm)	Unit weight (kg)
	from 8 to 66	7.56

Additional

Formwork support bracket	Material	Unit weight (kg)	MWL (kN)	Safety coefficient on loads and material	Description
	Galvanised steel	6.20	20	1.65	▪ Engraving See page 249 for details of formwork support bracket

A120 TOWER ACCESSORIES

Safety

Clinch-fit beam guardrail	Dimension (m)	Unit weight (kg)	Description
	1.60	4.00	▪ Fixed guardrail
	1.20	4.00	▪ Component with hook
	1.20	4.00	▪ Offset component with hook

Skin clamp	Unit weight (kg)	Description
	3.00	▪ Stabilising clamp for use with 48 mm tube and collars

Tower clamp	Unit weight (kg)	Description
	3.50	▪ Used to secure the tower to a skin ▪ Has a safety hook

Dywidag form panel hole clamp	Unit weight (kg)	Description
	3.00	▪ The loop is used either to stabilise a riser, or to receive a tube for holding multiple risers

Handling

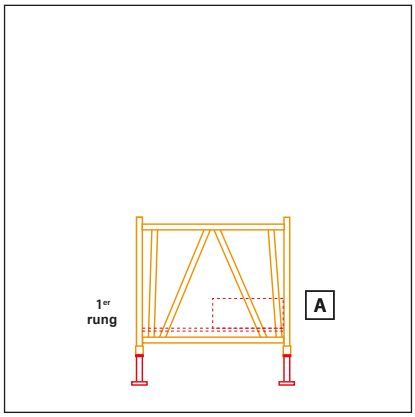
Shifting trolley with rack	Dimensions (m)	Unit weight (kg)	Description
	1.60 x 0.98 x 1.19	85.40	▪ Can be used to move towers without disassembly

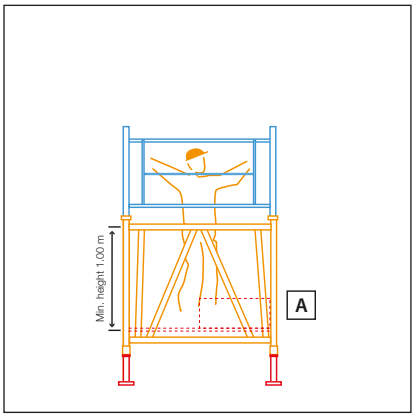
Monte-Tour	Description
	See page 263 for description of Monte-Tour

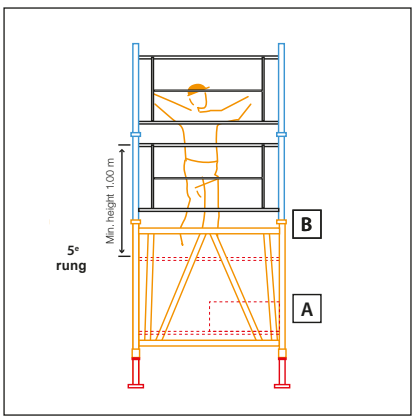
SIMPLIFIED USER GUIDE

SAFETY

- A120 Tower assembly procedure for complete safety at all times.

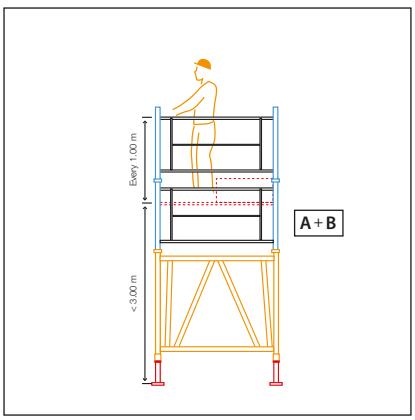


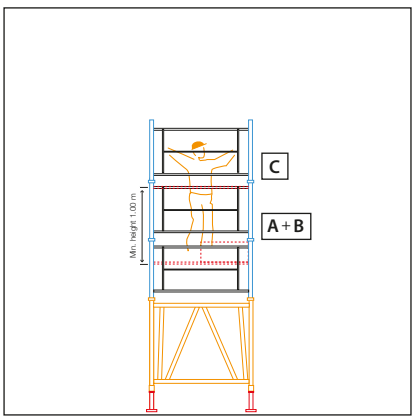


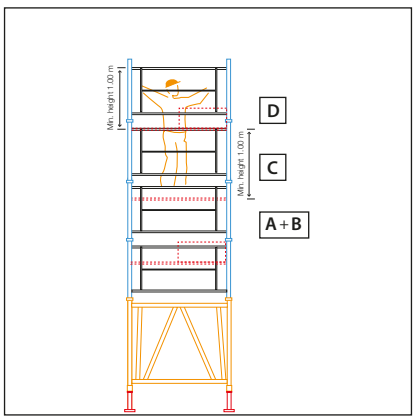


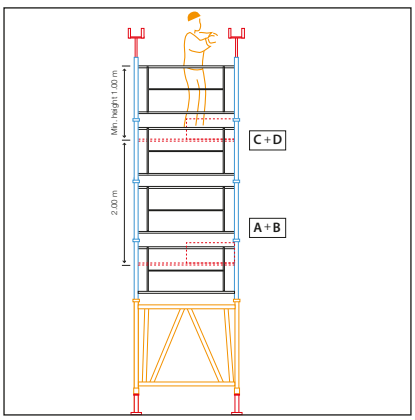
LINKING

- From 5 metres upwards, towers must be cross-braced by a planar linkage every 3 metres in height, with Ø 48.3 mm tubes and fixed Ø 49/60 mm scaffolding collars.









A and D: decks with trapdoor
B and C: decks without trapdoor

COMPOSITION CHARTS

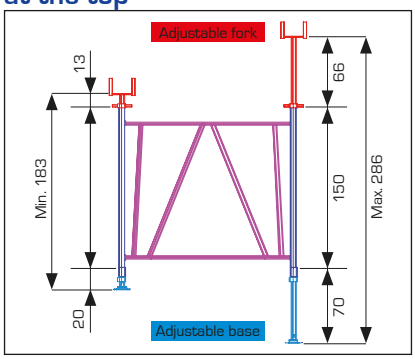
Towers with adjustable bases at the bottom and adjustable forks at the top						
	Height at bottom of fork min. - max (cm)	183 - 286	278 - 386	378 - 486	478 - 586	578 - 686
	Component	Quantity				
	Adjustable base	4	4	4	4	4
	Ladder 1.50 m	2	2	2	2	2
	Ladder 1.00 m	0	2	4	6	8
	Access guardrail 1.60 x 1.25 m	2	2	2	2	2
	Guardrail 1.60 m	0	2	4	6	8
	S-pin	0	4	8	12	16
	Adjustable fork	4	4	4	4	4
	½ single plank	1	1	1	2	2
	½ plank with trapdoor	0	0	1	1	2
		Unit weight (kg)				
	Unit weight of a basic steel tower measuring 1.20 x 1.60 m	129.00	180.00	231.00	281.00	332.00

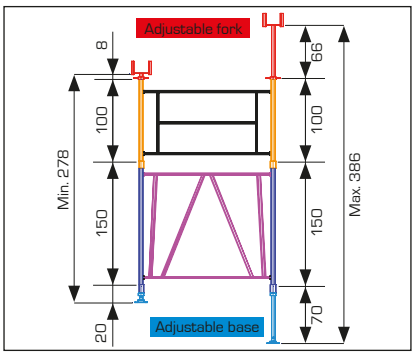
Towers with base plates at the bottom and adjustable forks at the top						
	Height at bottom of fork min. - max (cm)	168 - 226	268 - 326	468 - 526	468 - 526	568 - 626
	Component	Quantity				
	Base plate	4	4	4	4	4
	Ladder 1.50 m	2	2	2	2	2
	Ladder 1.00 m	0	2	4	6	8
	Access guardrail 1.60 x 1.25 m	2	2	2	2	2
	Guardrail 1.60 m	0	2	4	6	8
	S-pin	0	4	8	12	16
	Adjustable fork	4	4	4	4	4
	½ single plank	1	1	1	2	2
	½ plank with trapdoor	0	0	1	1	2
		Unit weight (kg)				
	Unit weight of a basic steel tower measuring 1.20 x 1.60 m	109.00	159.00	210.00	261.00	312.00

EFFECTIVE DIMENSIONS

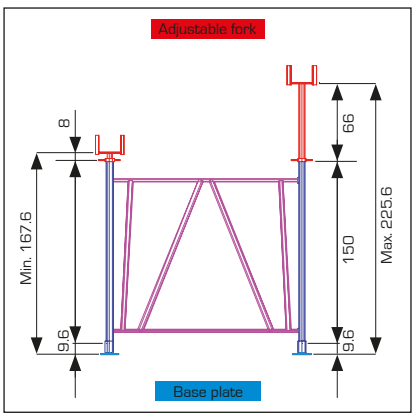
SAMPLE CONFIGURATIONS

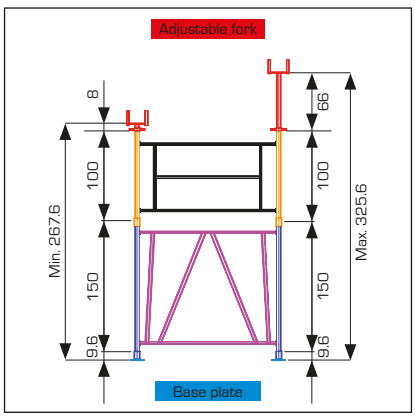
Towers with adjustable bases at the bottom and adjustable forks at the top





Towers with base plates at the bottom and adjustable forks at the top

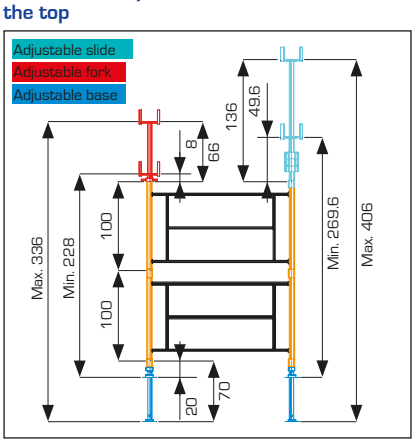




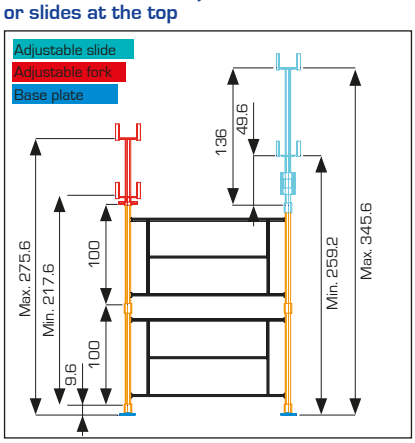
DOCUMENTATION

View full user guide.

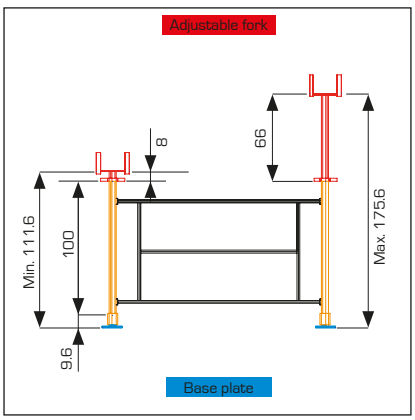
Low towers with adjustable bases at the bottom and adjustable forks or slides at the top



Low towers with base plates at the bottom and adjustable forks or slides at the top



Low towers with base plates at the bottom and adjustable forks at the top



Alto®

Alto decks can be used to create platforms
on shoring towers and work surfaces for form panels,
material stockpiles, prefabricated components
and front face overhangs.

Site: Comurhex II conversion plant
Client: GTM Sud, SM Entreprise
Location: Narbonne

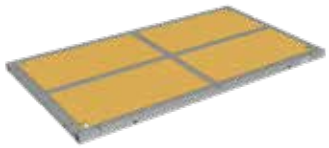
Alto

Alto decks come in **3 sizes**. All decks are equipped with **safety** features and accessories that facilitate **handling.**

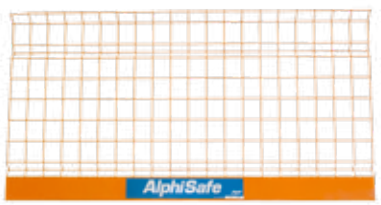
The **AlphiSafe** safety system can be mounted at ground level.

Retractable **hoisting rings** are built into the deck. The slinging procedure is completely safe, from laying on the ground to the definitive positioning of the deck.

COMPONENTS

	Alto	External dimensions (m)	Total surface area (m^2)	Panel weight (kg)	Plywood type	Maximum allowable load (kN/m^2)
Decks		4.40 x 1.40	6.16	225.00	30 mm gross thickness	15
		2.40 x 2.26	5.42	235.00		
		4.40 x 2.40	10.56	435.00		

ALTO ACCESSORIES

	Mesh	Dimensions w x h (m)	Unit weight (kg)	Description
Safety		1.25 x 1.30	7.60	▪ The wire mesh is galvanised, with polyester powder coating
		2.50 x 1.30	14.50	
	Galvanised post	Cross-section (cm)	Height (m)	Unit weight (kg)
		3.5 x 3.5	1.34	3.50
	Adapter with anti-dropout	Name	Diameter (mm)	Unit weight (kg)
		Prop adapter	38	1.96

ALTO ACCESSORIES

Handling	Hoisting eye	Description
		▪ Lifting/slinging
	Lifting beam	Description
		▪ For lifting and moving Alto deck
	Deck clamp	Description
		▪ Securing Alto deck to a skin

SIMPLIFIED USER GUIDE

LIFTING/SLINGING

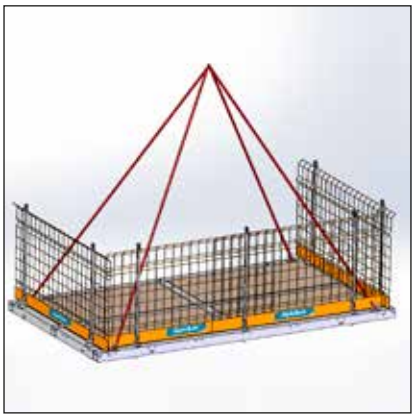
- When slinging the panel, make sure no material or equipment is stored on the Alto deck.

- Eight keys are located all over the Alto panel to insert quarter-turn hoisting eyes.

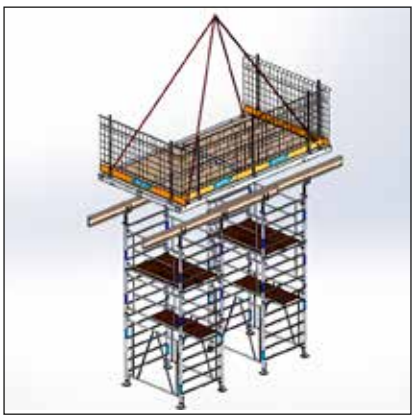
- Built-in retractable hoisting rings.

POSITIONING WITH SLING

- Use of a sling with four 4-m long strands.
- Each strand and its hook should have a minimum MWL of 1 tonne.

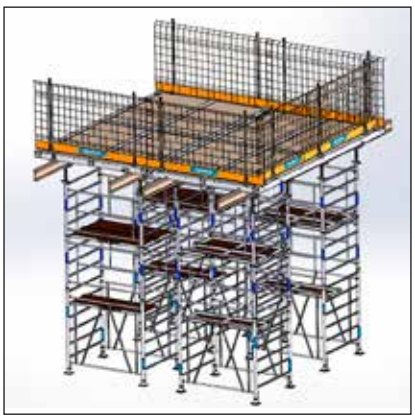


- Sling the Alto deck, with safety system mounted on the ground.

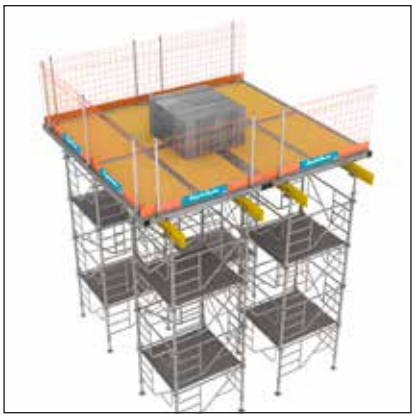


- Set up towers according to the plan provided and position the Alto decks on the primaries.

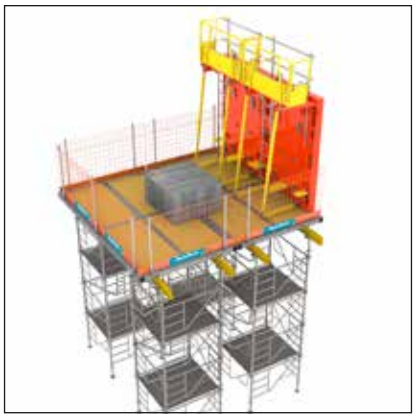
- Check that the deck is correctly positioned on the towers (distance from base to edge of deck < 60 cm).



- Warning (stability): comply with the layout plan and Alphi recommendations.



- Installation of the form panel ballast.



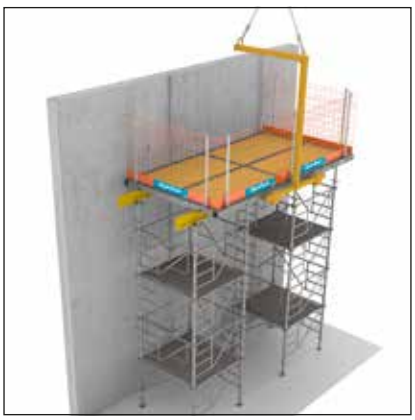
- Form panel installation

- Warning (stability): in the context of a point load such as form panel ballast, comply with the plans provided and the specific procedures.

POSITIONING WITH LIFTING BEAM

- A lifting beam should be used when the use of slings is not authorised.
- However, installation with slings is the preferred method.

- The position of the Alto deck should be centred on the lifting beam forks so as to balance the loads.



- Warning (stability): limit overhangs to prevent the risk of tipping.

DOCUMENTATION

View full user guide.


ZEUS

Support Bracket

This support bracket can be used with all commercially available beams compatible with the two-inlet fork. It can be mounted easily, on a skin, post or girder, using a concrete screw.

Support Bracket

The Alphi formwork support bracket has a **load capacity of 20 kN.** It can be mounted easily, **on a skin, post or girder,** using a concrete screw. It is used with a 48 mm diameter adjustable fork.

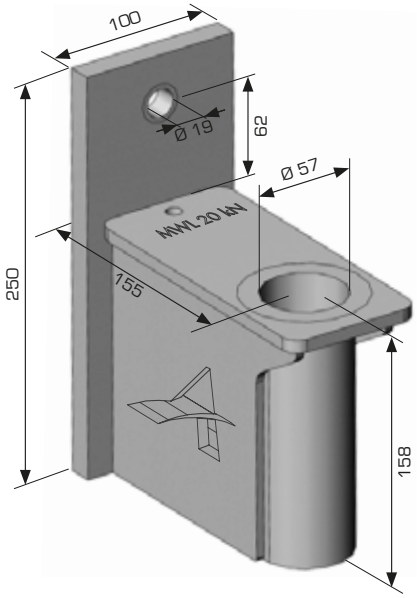
DOCUMENTATION

View full documentation.

Formwork support bracket in use

COMPONENT

Component

Formwork support bracket (mm)	Material	Unit weight (kg)	MWL (kN)	Safety coefficient on loads and material	Description
	Galvanised steel	6.20	20	1.65	▪ Engraving

FORMWORK SUPPORT BRACKET ACCESSORIES

Additional

2-inlet adjustable fork	Unit weight (kg)	
	7.56	
Hilti screw	**Length (mm)**	**Description**
	115	▪ HUS4-H14 h_{nom} = 115 mm load: refer to manufacturer's instructions
21 mm wrench	**Diameter (mm)**	
	21	


AlphiSafe
Alphi
180 Alphi 180

AlphiSafe®

The AlphiSafe collective protection system is set up safely from below. The mesh is designed with two layers increasing its stiffness.
A comprehensive range of adapters which make all assembly configurations possible.

Site:
La Poste Immo
Client: Spie Batignolles
Location: Lyon 7th arrondissement

AlphiSafe

AlphiSafe is a collective protection system for formwork and slab edges.

The system's technical innovations allow, in particular, **safe installation** and **automatic locking.**

Robust AlphiSafe is certified by Ginger CEBTP, **as per the EN 13374 standard,** classes A and B for certain elements.

AlphiSafe is distinguished by its **height of 1.30 m,** which is above the minimum height of one metre set by the standard, and protects traditional slab formwork up to 30 cm thick.

AlphiSafe is the first certified system to have a protective mesh of **less than 15 kg,** for a length of 2.50 m.

BV Cert. 6150814

SAFETY

- Safe installation from bottom.
- Height of 1.3m.
- Compliant with the EN 13374 standard or July which specifies that safety systems must be designed "to avoid accidental removal or displacement of any component in any direction during use".

SIMPLICITY

- Anti-dropout.
- Automatic locking of the grid.
- Inseparable components.

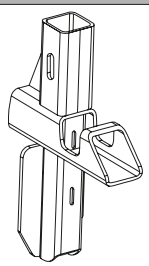
ERGONOMICS

- Unit weight of components: less than 15 kg for the mesh and less than 7 kg for the other elements.
- Helps to reduce repetitive strain injuries.

COMPLIANT
WITH
EN 13374 STANDARD

3 SIMPLE COMPONENTS

1 Adapters

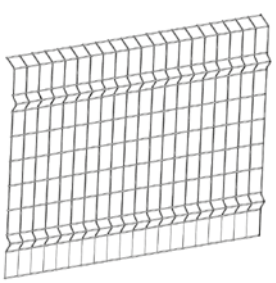
Primary adapter	Unit weight (kg)	Description
	1.40	▪ A comprehensive range of adapters which make all assembly configurations possible

2 Posts

Galvanised post	Cross-section (cm)	Height (m)	Unit weight (kg)	Description
	3.5 x 3.5	1.34	3.50	▪ The clips are incorporated into the posts which means they cannot be lost.

Post	Cross-section (cm)	Height (m)	Unit weight (kg)	Description
	3.5 x 3.5	1.49	4.60	▪ Includes the baseboard support and a Ø 25 mm extension

3 Meshes

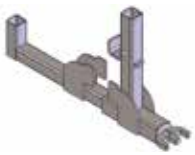
Mesh	Dimensions w x h (m)	Unit weight (kg)	Description
	1.25 x 1.30	7.60	▪ The mesh is available in 3 lengths: 1.25, 2.40 and 2.50 m ▪ Other lengths on request ▪ Mesh size: 120 x 145 mm ▪ It is designed with 2 layers that increase its stiffness and 1 low baseboard (solid board) ▪ Baseboard height: 16 cm ▪ The mesh can be customised to the client's colours
	2.50 x 1.30	14.50	

ALPHISAFE ACCESSORIES

Adapters

Primary adapter	Unit weight (kg)
	2.30

Prop adapter	Unit weight (kg)
	2.10

HorizontAL adapter	Unit weight (kg)
	6.30

Slab base	Unit weight (kg)
	1.40

Adapter Ø 25 mm	Unit weight (kg)
	1.00

Adapter Ø 40 mm	Unit weight (kg)
	1.30

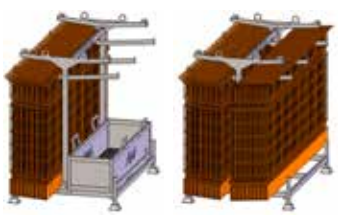
Adapter for town barrier application	Unit weight (kg)
	3.60

TopTable adapters		Unit weight (kg)	
Axial	Lateral		
		5.90	3.30

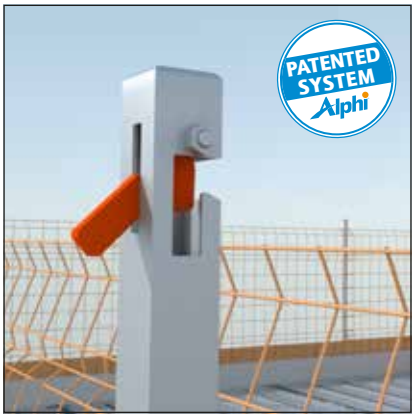
Table die adapter	Unit weight (kg)
	2.20

Beam adapters		Unit weight (kg)	
Universal	H20		
		7.20	3.60

Handling

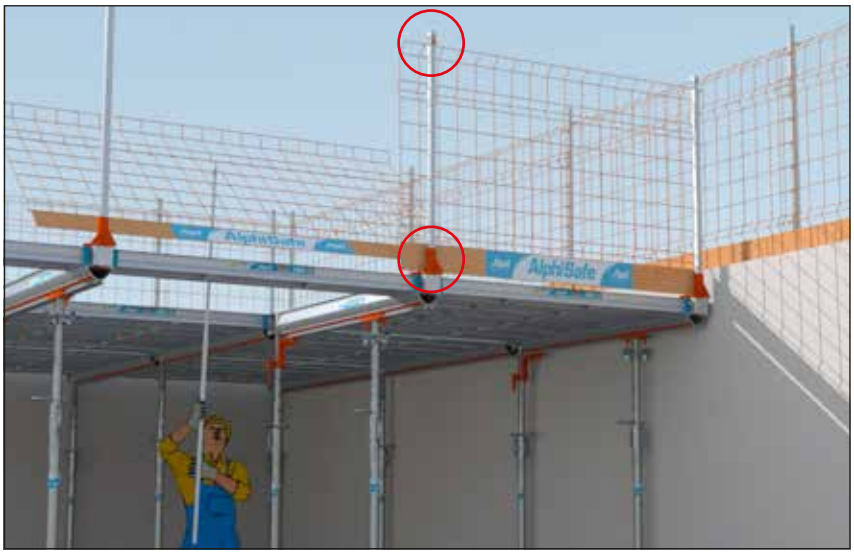
AlphiSafe rack	External dimensions L x W x H (m)	Empty weight (kg)	Number of meshes carried	Maximum working load (kg)	Description
	1.69 x 1.23 x 1.71	228	30 or 60	1000	▪ Option to stack 2 racks with the following accessories: posts, adapters, stacking frame, 1.25 x 1.60 m crosspieces ▪ Removable bins with truck fork passages ▪ Option to stack multiple bins for storage

AUTOMATIC LOCKING

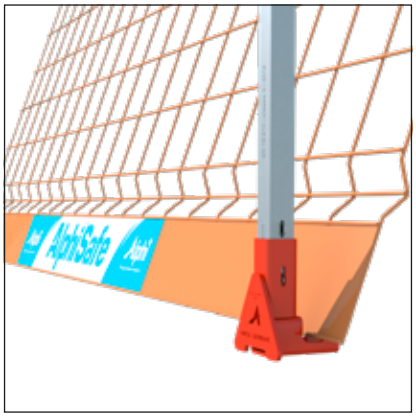


INNOVATIONS

The system's main technical innovations:
- automatic head locking,
- lift protection,
- base locking in rotation.



- The mesh is locked at the top by the anti-lifting pin and is locked at the base.



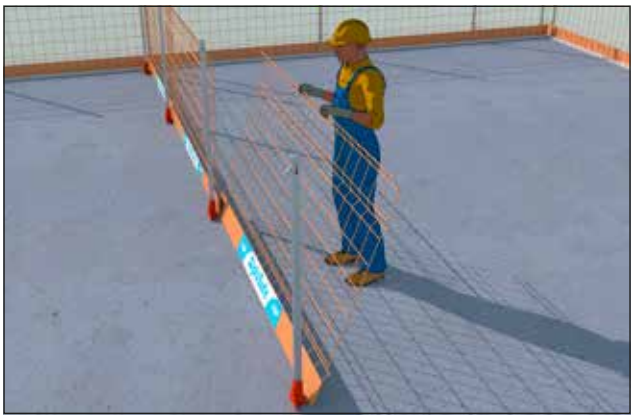
SIMPLIFIED USER GUIDE

ON SLABS

- A tensile force of 8.85 kN shall be applied to the screw with an ultimate load combination.
- For more information concerning use of the screw, please refer to the screw manufacturer's recommendations.

- Secure the adapter to its support. A concrete screw of at least 12 mm in diameter is recommended.

- Clip the post in the adapter.

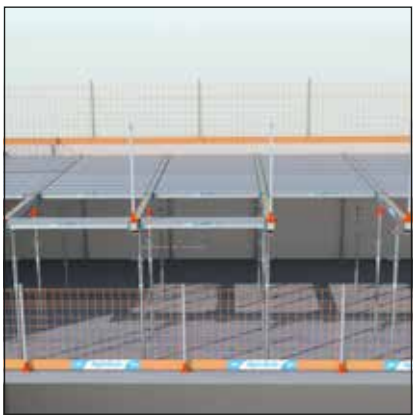


- Lift the mesh so that it locks automatically into the posts.

- The mesh is locked at the top by the anti-lifting pin and is locked at the base.

IN CANTILEVER CONFIGURATION ON DALPHI, TOPDALLE AND TOPDALLE ECO FORMWORK

- The collective protection is set up from ground level, so that users can walk on the formwork in complete safety.



WITH THE TOPDALLE SYSTEM ON PROPS

- The AlphiSafe system helps secure worksite phases progressively.
- Once the first area is secured, the formwork set-up can continue.

DOCUMENTATION

View full user guide.

Monte-Tour

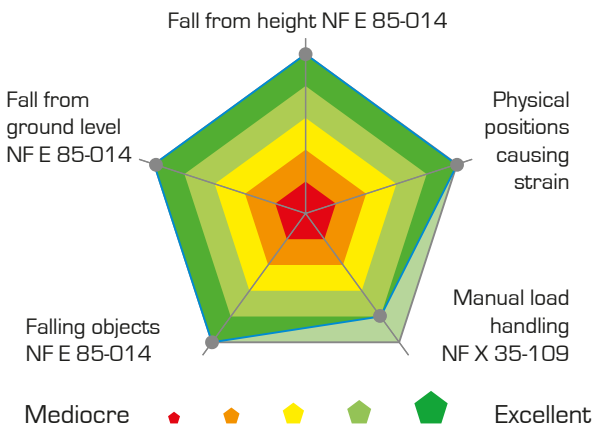
The Monte-Tour systems offers a revolutionary tower assembly system, in the opposite direction from traditional assembly. This removes the risks of falls form height and falling objects.

Monte-Tour in use

Monte-Tour

Traditionally, a shoring tower is assembled from the lowest level upwards, finishing at the top.

Alphi innovates and offers a new way to assemble towers, **in the opposite direction from traditional assembly.** The workers start by assembling the top, and finish at the bottom.



SAFETY AND ARDUOUSNESS PERFORMANCES

All handling operations are carried out by two workers from ground level. Safety is ensured and the work is less arduous. The hands are never higher than heart level.

PRODUCTIVITY

- The clear increase in productivity is 52%, for both assembly and disassembly.
- Beyond 6 m, sections can be erected and assembled using a crane.
- The Monte-Tour can be used in any weather because it is watertight.

SAFETY

- Falls from heights are eliminated: the worker no longer needs to climb the tower before its assembly is complete.
- The tower cannot be assembled without all of its safety elements (pins, frames, etc.).
- Disassembly takes place under the same safety conditions.

HANDLING

- Can be used to move an assembled tower up to 6 m in height.
- The stability of the system allows it to be moved on uneven surfaces.

ARDUOUSNESS

- Reduced arduousness and repetitive strain injury: no element is lifted higher than the heart.

SAFETY INSTRUCTIONS

RECOMMENDATIONS

- The useful recommendations for handling the Monte-Tour are indicated on the apparatus.

ONLY duly authorised operators can use this machine.

Keep your distance from the machine work area.

Do not pass under the load.

BEFORE USE

Visually inspect the machine in order to detect any damage.

Check that there are no obstructions or overhead hazards.

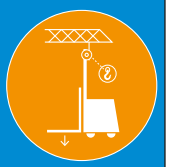
USE

The machine MUST be stabilised before use.

Never move over soil, but only over concrete slabs.

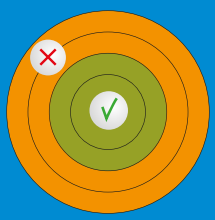
CRANE HANDLING

Lower the mast and use the crane handling hooks located on either side of the mast (yellow colour).



Avoid significant shocks when positioning on the ground.

The water level bubble should be centred.



SIMPLIFIED USER GUIDE

ASSEMBLY

- This guide indicates the various stages of use of the Monte-Tour.
- In order to find out the assembly drawing for a shoring tower, refer to the document provided by the shoring tower supplier.
- Do not pass under the load.

- Position a 1 metre ladder with its guardrails.
- Assemble the guardrails: ensure that the keys lock (automatic).

- Position a second 1 metre ladder.
- Position the pre-set forks as desired.

- Using the Monte-Tour, raise the first level so as to be able to insert a second 1 metre ladder.

- Assemble a second ladder under the first level using pins.
- Repeat the operation for the other ladder.

- Assemble the guardrails: ensure that the keys lock (automatic).
- Position the working planks in the tower.

- Repeat the operations to the desired height.
- Pre-set and position the base jacks on 1.5 metre ladders.

- Insert the first followed by the second 1.5 metre ladder.
- Assemble the 2 levels using the pins.

- Fit an entrance frame.
- Position the final working planks in the tower.

DISASSEMBLY

- Take care to position the forks correctly in the final tower ladder level.

- Lift the tower from the ground using the Monte-Tour.

- Disassemble the cross-members.
- Disassemble the ladders.

- Lower the tower as disassembly progresses.
- Remove the guardrails.
- Remove the decks.

- Remove the ladders.
- Repeat the operations.

DOCUMENTATION

View full user guide.

Escalib MDS

Escalib MDS is a metal spiral staircase with side exit. Access to levels is easy and secure, by means of a triangular step acting as a landing. Assembly and disassembly are performed in complete safety, with collective protection.

Escalib MDS | Worksite spiral staircase with side exit

Site in Switzerland
Client: Induni
Location: Geneva

Escalib MDS

Escalib MDS (Safe Assembly and Disassembly) is a metal spiral staircase with **side exit.** The triangular step then acts as a landing.

Simply arrange Escalib MDS by rotating by a quarter-turn so that one of the steps is aligned with the slab to be served. It is formed from a base, 1 to 8 modules that are easy to stack with a crane and a head guardrail closing the passage (maximum height 20.10 m).

Set-up under collective protection (harness-free) is quick and easy: 4 nuts per module. Each module is equipped with collapsible guardrails, hinged about a non-detachable end.

Escalib can be moved using a crane.

Its small footprint facilitates its installation, even on small sites.

Escalib MDS | Worksite spiral staircase with side exit

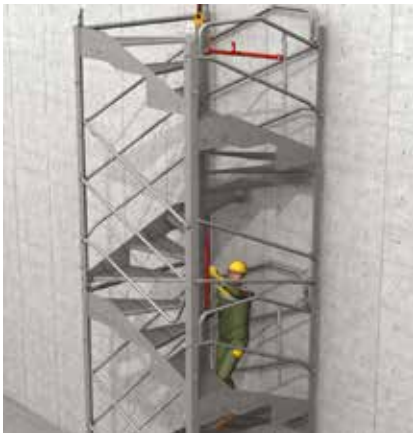
SAFETY

Easy, secure access
All levels are accessible without adaptation.

Assembly and disassembly with collective protection
The guardrails are built-in (harness-free).

PRODUCTIVITY

- Quick installation and movement.
- Compact footprint.
- Only 3 different single-block elements.
- Can be handled with a crane.
- Compatible with 2- and 3-rail Escalib.



QUALITY

Robust and galvanised
Powder-coated paint version available.

CONTAINER TRANSPORTATION: ESCALIB IN KIT FORM

- To enable container transportation, bolted versions of Escalib MDS modules are also available. They are geometrically identical to the welded version and perfectly compatible.
- The risers, stringers and steps are supplied as spare parts, ready to be assembled.
- The base is used as a template for assembly. Once the assembly has been bolted, the guardrail rails need to be assembled as for a standard module.

Each module is packaged in pack form.

Detailed assembly instructions are supplied with the equipment, making the operation quick and easy.
Modules in kit form are supplied with the tools and fasteners required.
The technical data in respect of strength, use and assembly specified in this document remain valid.

COMPONENTS

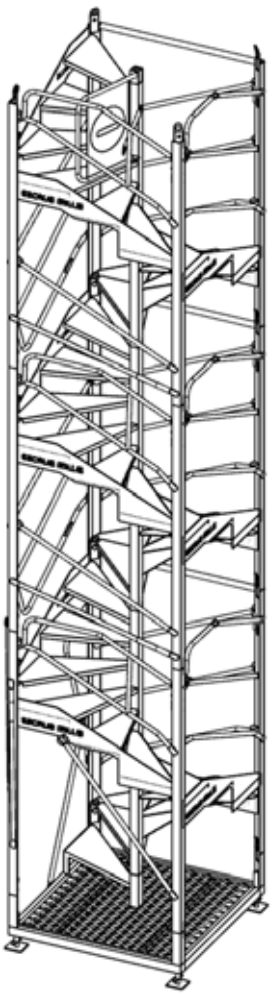
Head module

Module	Catalogue Number	Height (m)	Unit weight (kg)
	013252-2	2.52	380

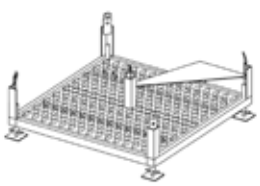
Closing guardrail	Catalogue Number	Unit weight (kg)
	013119-3	15

Assembled module	Unit weight (kg)
	395

Assembly



Base

Base	Catalogue Number	Dimensions (m)	Min/max height (m)	Unit weight (kg)
	013045-0	1.68 x 1.68	from 0.47 to 0.67	184

ESCALIB MDS ACCESSORIES

Tethering and anchoring equipment

Collar	Catalogue Number	Unit weight (kg)	Description
	013049-2	2.0	▪ Slip resistance: 515 daN SLS ▪ Positioned along module risers

Tethering half-collar	Catalogue Number	Unit weight (kg)	Description
	018570-2	0.66	▪ Slip resistance: 515 daN SLS ▪ Mounted on the holes situated 1.50 m from the bottom of the modules

Petzl ring	Unit weight (kg)	Description
	0.06	▪ Use to secure the tower clamp onto a skin

Tower clamp	Unit weight (kg)	Description
	3.50	▪ Used to secure the tower to a skin ▪ Has a safety hook

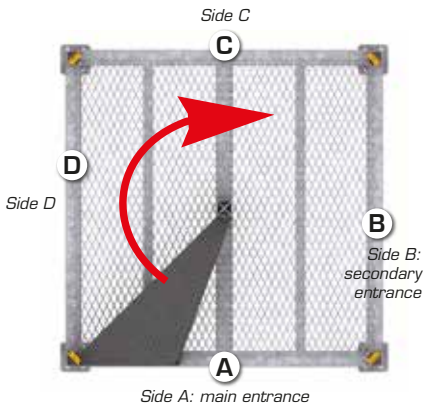
Additional

Plastic folder for verification report	Catalogue Number	Unit weight (kg)
	NC0410	0.30
	NC0411	

SIMPLIFIED USER GUIDE

HEIGHT COMPOSITION

- Not more than 8 stacked modules. Above this value, please contact the design office.
- 8 users per module, limited to 20 on Escalib MDS.
- Make sure that the ground level intended to receive the Escalib MDS is capable of withstanding the loads.
- Tethering mandatory for winds above 72 km/h.
- Tethering mandatory from 3 modules, then every 3 modules for winds below 150 km/h.

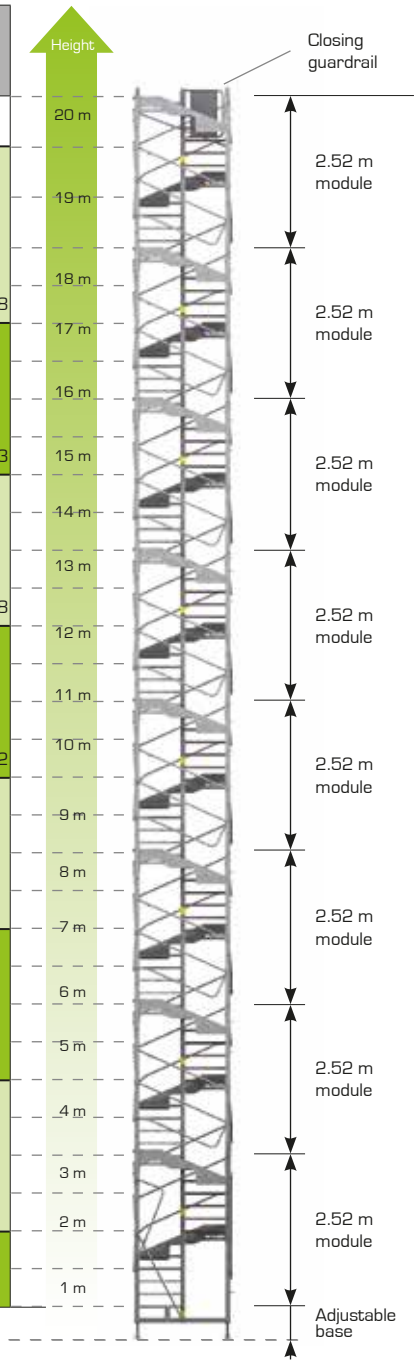


Example 1: Height of slab to be served 4.50 m, Escalib MDS consisting of 2 modules. Exit side C on second module.

Example 2: Height of slab to be served 5.50 m, Escalib MDS consisting of 3 modules. Exit side A on second module.

No. of modules	Total weight (kg)	Wall end face	Height of slab to be served (m)	
8 max. slab of 20.1 m	3239	B*	19.7 to **20.1**	
		C	19.0 to 19.7	
		D	18.4 to 19.0	
		A*	17.8 to 18.4	
7 max. slab of 17.6 m	2859	B*	17.2 to **17.6**	17.6 to 17.8
		C	16.5 to 17.2	
		D	15.9 to 16.5	
		A*	15.3 to 15.9	
6 max. slab of 15.1 m	2479	B*	14.6 to **15.1**	15.1 to 15.3
		C	14.0 to 14.6	
		D	13.4 to 14.0	
		A*	12.8 to 13.4	
5 max. slab of 12.6 m	2099	B*	12.1 to **12.6**	12.6 to 12.8
		C	11.5 to 12.1	
		D	10.9 to 11.5	
		A*	10.2 to 10.9	
4 max. slab of 10.0 m	1719	B*	9.6 to **10.0**	10.0 to 10.2
		C	9.0 to 9.6	
		D	8.4 to 9.0	
		A*	7.7 to 8.4	
3 max. slab of 7.5 m	1339	B*	7.1 to **7.5**	7.5 to 7.7
		C	6.5 to 7.1	
		D	5.8 to 6.5	
		A*	5.2 to 5.8	
2 max. slab of 5.0 m	959	B*	4.6 to **5.0**	5.0 to 5.2
		C	3.9 to 4.6	
		D	3.3 to 3.9	
		A*	2.7 to 3.3	
1 max. slab of 2.5 m	579	B*	2.0 to **2.5**	2.5 to 2.7
		C	1.4 to 2.0	
		D	0.8 to 1.4	

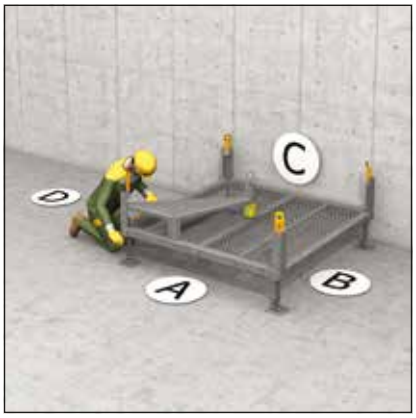
A*, B*: Position the upper module to access the last 4 steps



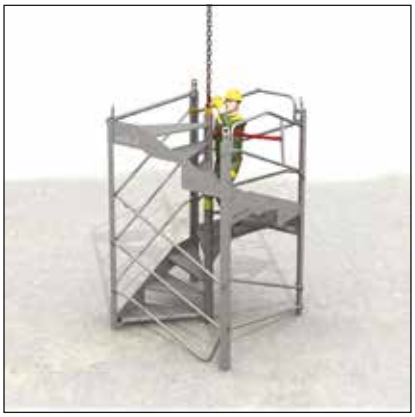
SIMPLIFIED USER GUIDE

ASSEMBLY & DISASSEMBLY

- Fit tethers as assembly progresses.
- Perform disassembly in the reverse order of assembly.
- Make sure that the ground level intended to receive the Escalib MDS is capable of withstanding the loads.
- General handling and stability guidelines must be adhered to.
- The assembly rail cannot act as a substitute for the closing guardrail.



- Orient the base according to height of slab to be served and level.
- Installation 8 cm from the wall to facilitate tilting of the guardrail at the exit.



- In the module, attach the sling, with the guardrail in the closed position and the assembly rail in the horizontal position.

- Fit the module onto the base.
- Assemble the 4 risers.
- Detach the sling.

- Position a new module.

- Rotate the assembly rail into the vertical position and lock on the top step.
- Assemble the risers.
- Detach the slings.
- Repeat the previous steps and tether.

- Position and bolt the closing guardrail: the assembly rail is in the horizontal position.

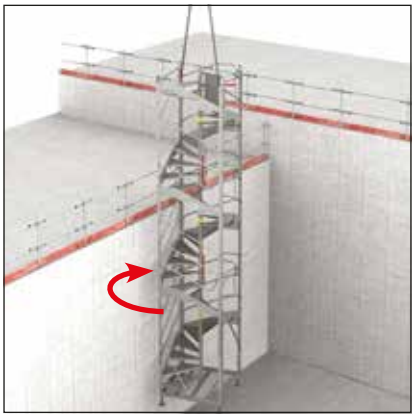
- With the slings attached to the 2 hoisting rings, position the head module.
- Assemble the 4 risers.

- At the entrances, position the rails, prioritising the main entrance on side A.

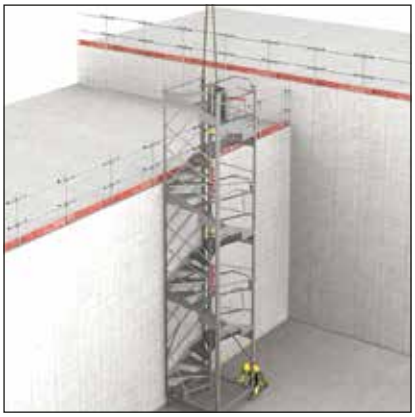
HOISTING & MOVING

- Fit tethers as assembly progresses.
- Perform disassembly in the reverse order of assembly.
- Make sure that the ground level intended to receive the Escalib MDS is capable of withstanding the loads.
- General handling and stability guidelines must be adhered to.

- Put the guardrails back in place to prevent any side exit.
- Check that the M24 screws are fastened.
- Attach the crane hooks onto the 2 hoisting rings and remove the tethers.



- Moving the Escalib MDS.
- Orientation according to the height to be served by pivoting in 90° steps.
- Installation 8 cm from the wall.



- Ground positioning and levelling of Escalib MDS.

- Tether the Escalib MDS before detaching the slings from the crane.

- At the entrances, position the rails, prioritising the main entrance on side A.

- Make sure that the tethers are fitted before detaching the slings.
- Tilt the guardrails to create the exit at the desired level.

DOCUMENTATION

View full user guide.

Podium

Modular and reusable, the new Podium safety platform
meets all worksite constraints.
Its millimetric settings mean that it can adapt to all shaft dimensions.


AlphiSafe

Podium

Podium is a **safety platform with adjustable dimensions** for temporarily filling the various shafts in a building: lift, goods lift, technical duct, stairwell, etc.

This extendable platform is designed to **adapt to the size of the shaft** in order to receive the vertical formwork used to produce the skins.

The range is made up of different modules and supports, meeting **all worksite constraints.** Made of galvanised steel, the podium is **reusable.**

Using a simple and quick procedure. the size of the Podium is adjusted using a central nut positioned on each side.

The AlphiSafe collective safety system can be fitted to the Podium.

Podium

SAFETY

- Lifting side panels providing an **outside view** of proper positioning of the Podium on its supports.
- Retractable stands for secure transportation.

PRODUCTIVITY

- Adjustable dimensions enabling equipment **reuse** and **optimisation**.
- Quick and easy installation thanks to the Podium's **built-in gauges**.
- Wheels for easier setting and movement.
- Marked for **immediate identification** in procedural drawings and on the worksite.

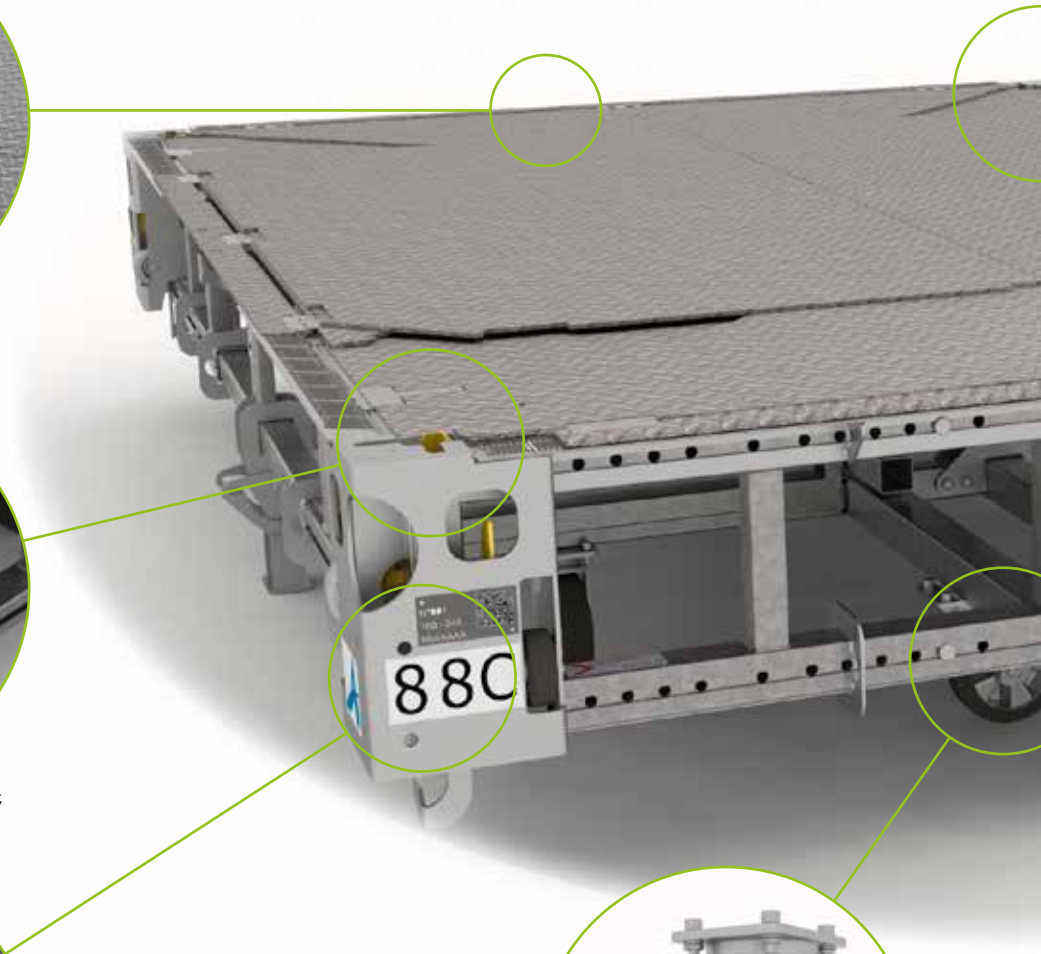
SIMPLICITY

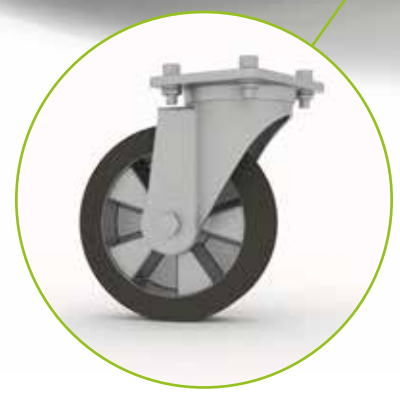
- Form panel wrench-compatible nut for adjusting podium size.
- Rollers guiding the podium inside the shaft.
- Can be handled with a forklift or crane thanks to the lifting rings.

Lifting side panel

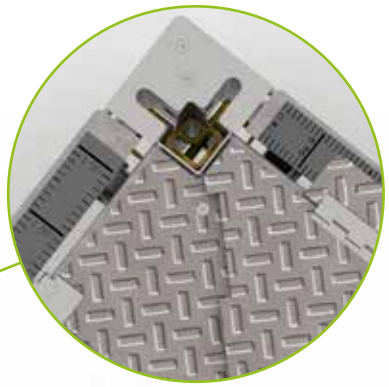
Rollers for positioning in the shaft and lifting rings

Marking





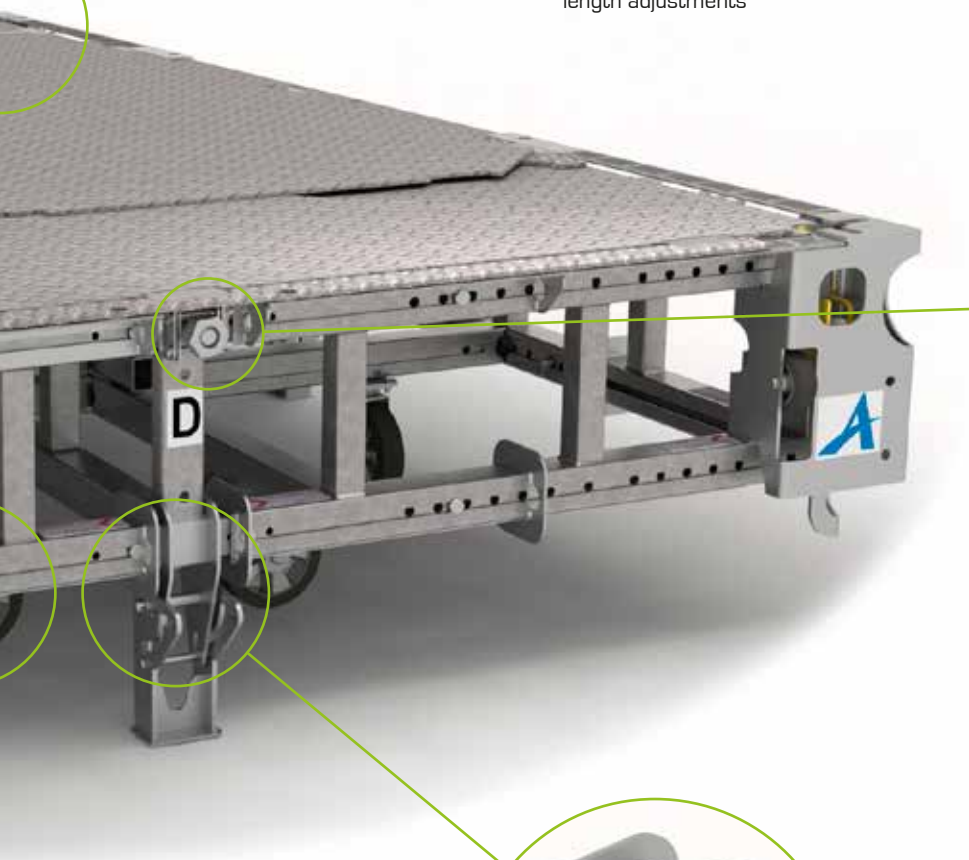
Wheel for easier setting and movement

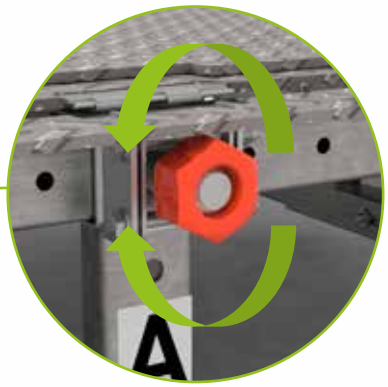


Gauges simplifying
length adjustments

DURABILITY

MADE OF GALVANISED STEEL, THE PODIUM IS STURDY AND REUSABLE.





Form panel wrench-compatible
nut for adjusting size

Retractable stands

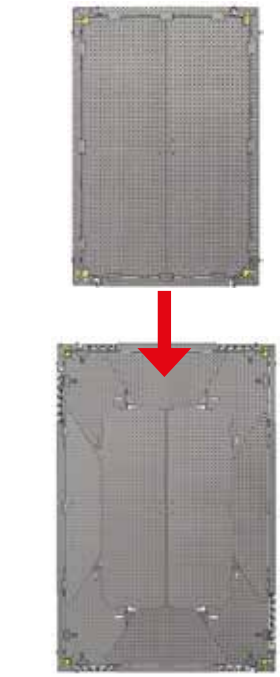
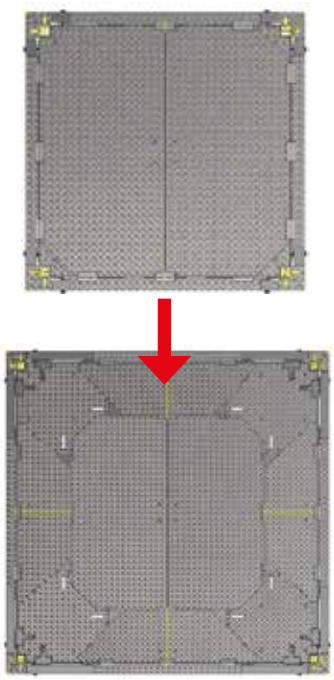
MODULARITY

DIFFERENT DIMENSIONS FOR ALL SHAFT SIZES.

CONTINUOUS **ADJUSTMENT** TO THE NEAREST **MILLIMETRE.**

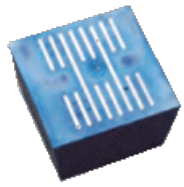
COMPONENTS

Platforms

Podium	Shaft dimensions (m)		Unit weight (kg)
	l x w min	l x w max	
	1.68 x 2.48	2.48 x 3.73	1,100
	2.48 x 2.48	3.73 x 3.73	1,455
	2.48 x 3.33	3.73 x 4.98	1,820
	1.28 x 1.28	1.78 x 1.78	570
	1.28 x 1.68	1.78 x 2.48	780
	1.68 x 1.68	2.48 x 2.48	825

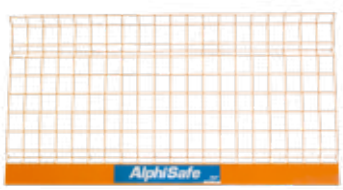
PODIUM ACCESSORIES

Mounting equipment

Clapper	Unit weight (kg)	Description
	13.00	▪ Podium support ▪ Mounted on the skin before positioning the Podium ▪ Reserved area or Ø 32 bore ▪ MWL = 2 000 DaN
Ratchet	**Unit weight (kg)**	**Description**
	25.00	▪ Podium support ▪ Mounted on the Podium ▪ Reserved area to be provided beforehand ▪ Stand can be used for transportation ▪ MWL = 3 000 DaN
Magnetic reserved area	**Description**	
	▪ Magnet to be positioned on vertical formwork to leave a reserved area to support the ratchet	
Flywheel attachment	**Unit weight (kg)**	**Description**
	12.00	▪ Safely fitted and released from inside the building

ACCESSORIES

Safety

Mesh	Dimensions w x h (m)	Unit weight (kg)	Description
	1.25 x 1.30	7.60	▪ The wire mesh is galvanised and coated with polyester powder ▪ Compliant with EN 13374 standard
	2.50 x 1.30	14.50	

Galvanised post	Cross-section (cm)	Height (m)	Unit weight (kg)
	3.5 x 3.5	1.34	4.20

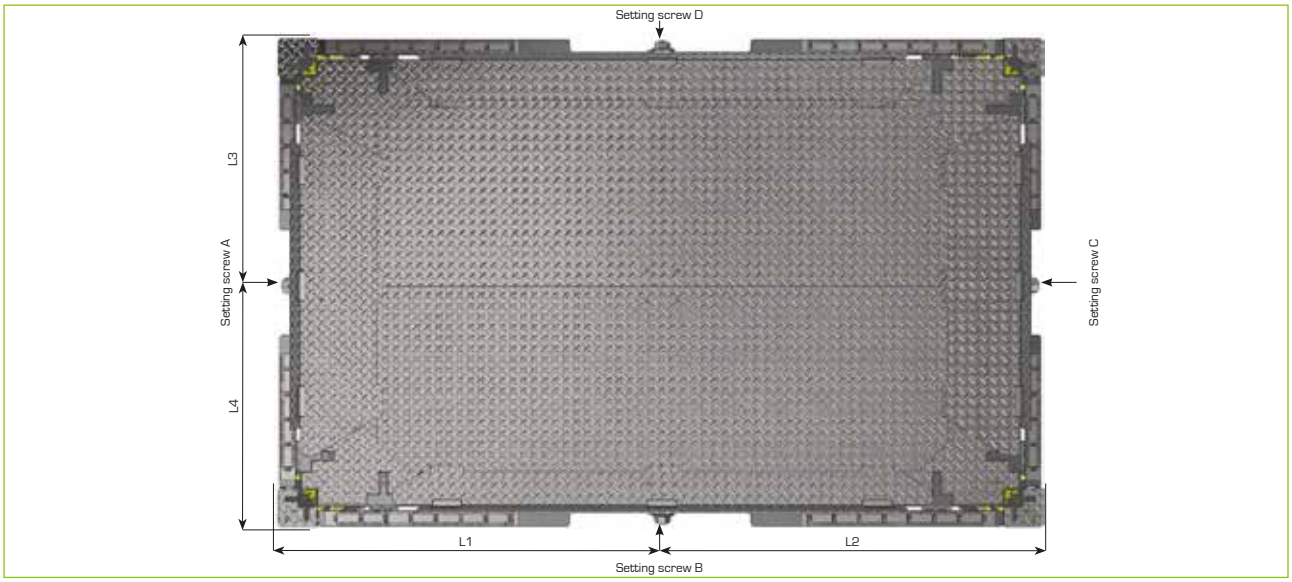
AlphiSafe adapter	Unit weight (kg)
	1.00

Additional

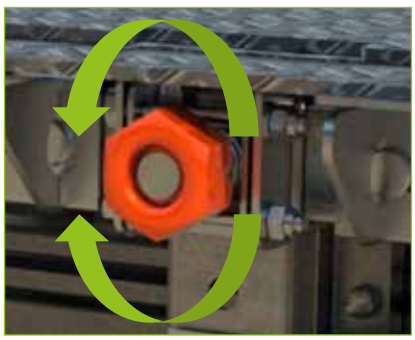
Preparation sheet	Description
	▪ Worksite configuration sheet specifying the mounting method and the associated safety devices

USER GUIDE: PODIUM PREPARATION

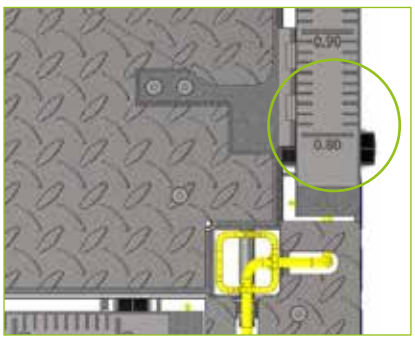
SIZE ADJUSTMENT



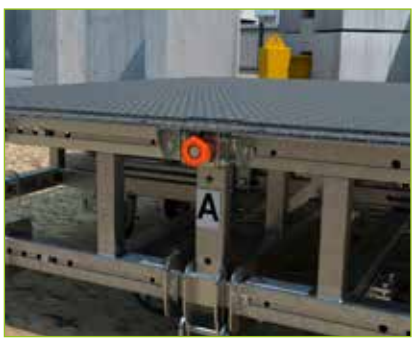
- Stand in retracted position.



- Length is adjusted by fastening/unfastening the setting screws.
- The Podium rests on its wheels during this operation, therefore, the transport stand must be retracted.



- The length adjustment is made with built-in gauges.



- Setting screw (HM36 nut).

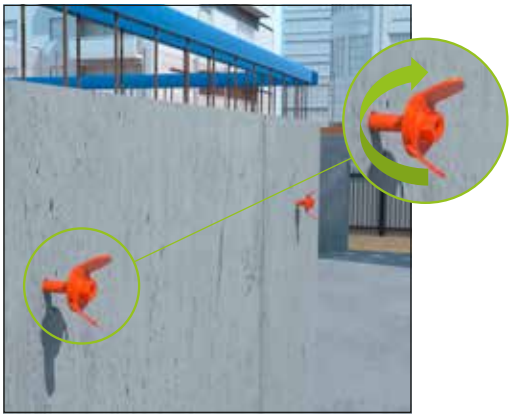
Setting screw	Length setting
A	L1
B	L4
C	L2
D	L3

SIMPLIFIED USER GUIDE: ASSEMBLY WITH CLAPPERS

CLAPPERS

The clapper is a support for receiving the Podium.
- It is fitted prior to positioning the Podium and then operates automatically.
- MWL = 2,000 daN

- The Podium is positioned in the shaft.
- The clappers are inserted into the reserved spaces from inside the cage.



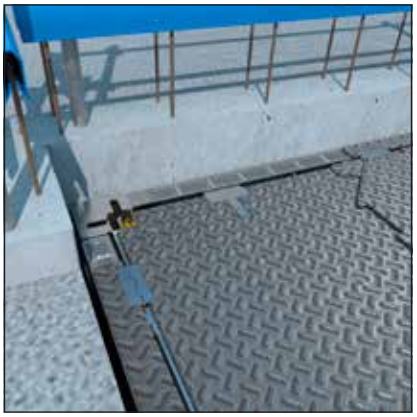
- A winged nut is fastened on the other side of the skin to clamp and lock each clapper.

- The Podium is lifted using a crane.
- The side panels lift automatically.

- The clappers retract when the Podium passes.

- The clappers open out automatically and the Podium passes over them.

- Place the Podium on its bottom profile.



- Remove the slings.
- The lifting hooks retract and the panels are lowered automatically.

- Install the form panels.

SIMPLIFIED USER GUIDE: ASSEMBLY WITH RATCHETS

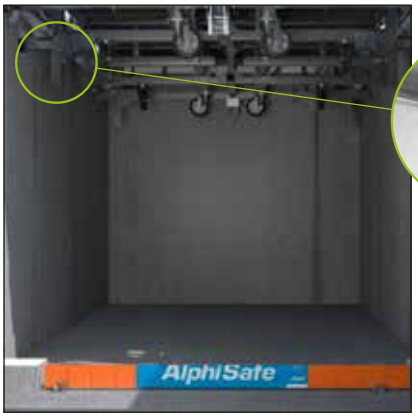
RATCHETS

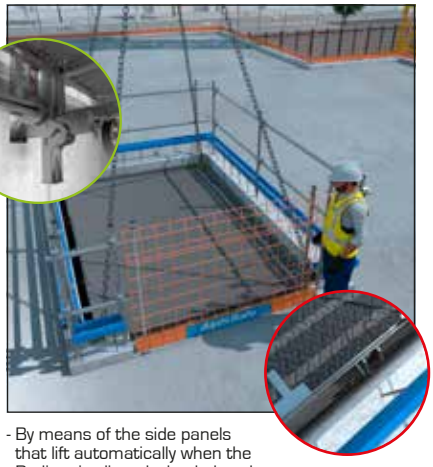
The ratchet is secured to the Podium. A reserved area must be provided beforehand in the skin.

- Firstly, the fool-proofing system is used to lower the Podium into the cage without human intervention to lock the ratchets.
- Secondly, it can be used to check that the ratchets are positioned correctly in the reserved areas.
- The stand protects the ratchet from being crushed.
- MWL = 3,000 daN

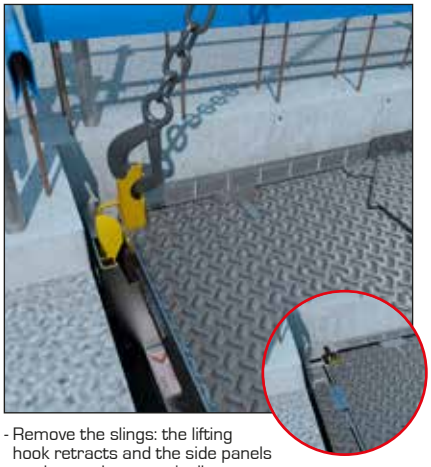
- Place the Podium at the bottom of the shaft to be secured.

- Release the ratchets.
- Raise the Podium to fit the ratchets in the reserved areas on the walls.





- By means of the side panels that lift automatically when the Podium is slinged, check that the ratchets are positioned correctly in the reserved areas provided.



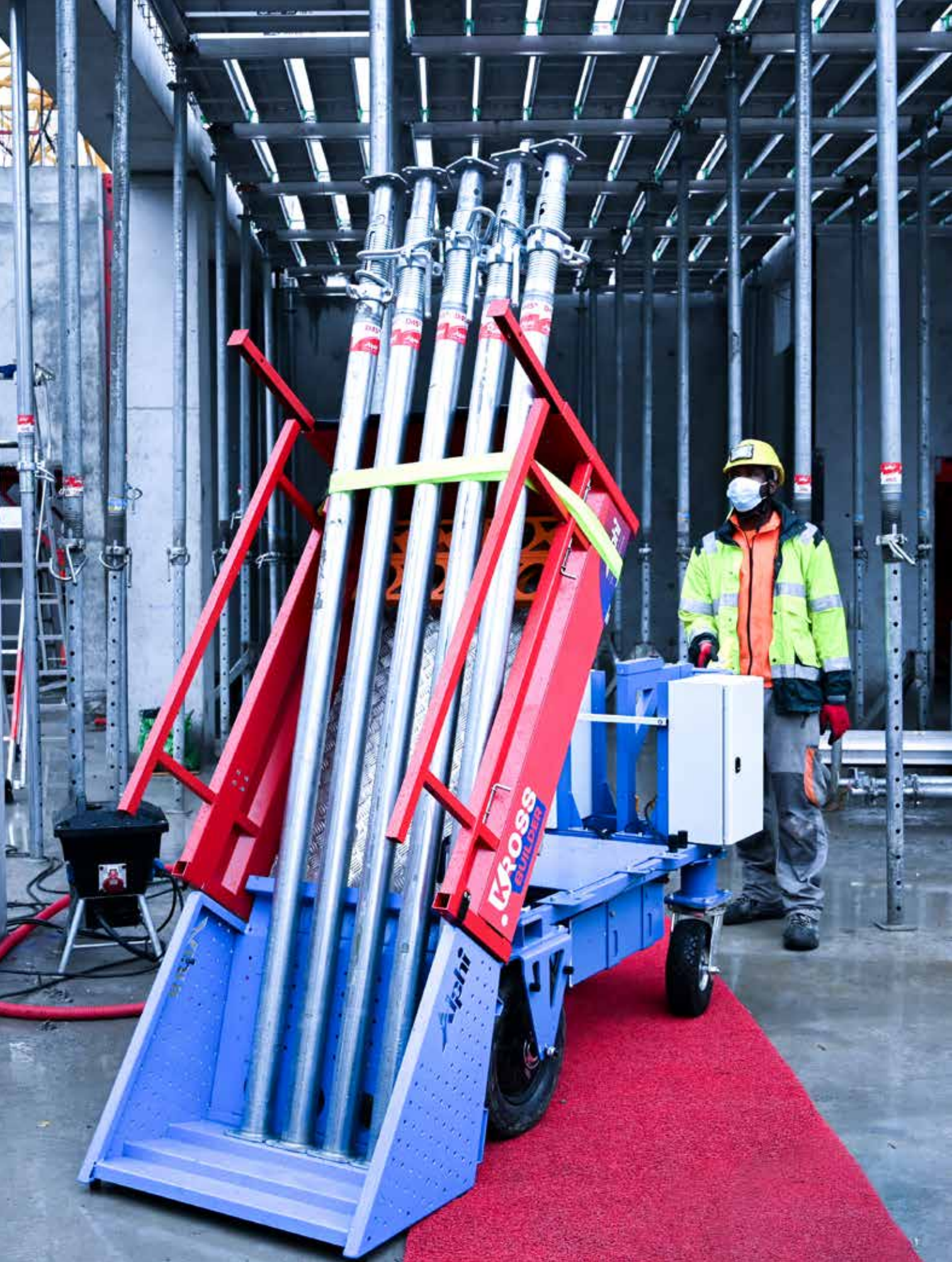
- Remove the slings: the lifting hook retracts and the side panels are lowered automatically.

- Install the wall formwork.

- Repeat the operation for the other levels.

DOCUMENTATION

View video of full user guide.


KROSS
BUILDER

KROSS BUILDER

Designed by Alphi and K-Ryole, the French electric handling forklift, Kross Builder 500, can move up to 500 kg of equipment effortlessly. By optimising the formwork and shoring phases, this innovation helps increase worksite productivity.

Kross builder 500 is an electric handling forklift that can be used to transport up to **500 kg of equipment effortlessly.**

Alphi has designed, in partnership with K-Ryole, a specific module for handling formwork and shoring components. **Productivity increases 8-fold!**

Electric and ergonomic, the Kross builder 500 helps **reduce repetitive strain injuries and occupational accidents**

It can be used in **any areas,** even those which are restricted and have no crane access, on uneven surfaces and on access ramps.

DOCUMENTATION

View full documentation.

Handling of props

PRODUCTIVITY

- Handling times are divided by 8.
- Can be used to transport a large volume of equipment straight to the work area, to avoid several round trips with manual loading.
- Anyone can use it: the forklift does not require skilled workers.
- Real-time load cancelling technology: 500 kg = 1% of worker's load.
- Capable of transporting 1 tonne of equipment per hour: 1 day of standard handling is reduced to 1 hour with Kross builder 500.

ERGONOMIC DESIGN

- Load handling-related arduous working conditions and repetitive strain injuries are reduced.
- Thanks to its tiltable bin, the props can be loaded almost vertically.
- The reduction in manual handling limits occupational accident risks.
- No noise or air pollution.

SIMPLICITY

- Easy to learn.
- Easy handling using just a handle or a button.
- When the handle is pushed or pulled, the motors respond instantaneously to cancel the forklift's weight and load.
- No specific training or accreditation needed.

Kross Builder

Side panels: removable panels for easier loading and flexible working volume, flat bottom

Bin angle of up to 70°: easier loading / unloading for heavy use

Control and operation: easy-to-use ergonomic handle Start button, horn, antitheft security

Remote control

Engine assemblies: 2 x 1,500 watt electric engines

Tipping system: hydraulic jack and unit to manage module tilt

Housing, electric charger

100% ELECTRIC

- Battery life in heavy use 2 days (7 hrs/day)
- Battery life in moderate use 3 days (4 hrs/day)
- Quick charging: 5 hrs

CLEARANCE

- Zero tipping risk
- Clears a 15 cm edge
- Clears a 17% gradient

DIMENSIONS

- Width 85 cm
- Length 272 cm
- Height 65 cm

AREAS OF USE

Handling of props

Handling beams

Handling frames and formwork panels

Handling shoring tower components

Pro Tools

The professional tools designed by Leborgne help make work less arduous. The nanovib® range consisting of hammers and prop keys meets Alphi requirements in respect of safety, and vibration and noise reduction.

Pro Tools

Alphi's ongoing innovation process is aimed at making work less arduous and reducing repetitive strain injuries. For this reason, the company has naturally joined forces with Leborgne, a company specialised in professional tools for the construction sector to **prevent arduous worksite conditions.**

Of the various ranges offered by Leborgne, Alphi is particularly impressed with the hand tool range, **nanovib®.** The tools in this range are the result of a process conducted with various prevention bodies such as OPPBTP, CARSAT or SIST-BTP, and offers a solution for every professional in the construction sector.

The partnership signed in 2012 between Leborgne, CAPEB and IRIS-ST makes it possible to test tools and ensure the impartiality and objectivity of the results obtained.

DOCUMENTATION

View full Leborgne documentation.

Alphi distributes LEBORGNE

EQUIPMENT

Hammers

Formwork hammer	Specific features	Description
	▪ Rounded claw angles	▪ 40% less vibrations ▪ Steel shaft with high resistance to off-target blows ▪ Ergonomic handle ▪ Non-slip grip ▪ Flared handled end to prevent slippage ▪ Magnetic nail holder ▪ Lateral hammering surfaces ▪ Sharp top edges
1-tooth carpentry hammer	Specific features	
	▪ Straightening lug ▪ Hammering surface with 2 rounded angles	
Wood-frame house assembly hammer		
		

Other tools

Long-range form stripping tool	Specific features	Description
	▪ Prevents risks of bad postures and accidents	▪ 1.85 m handle, which does not require the use of a rolling safety ladder ▪ Offset tip with respect to the handle so that the user is not under the plywood panel when it falls down
Hammer holder	**Specific features**	**Description**
	▪ Its 45° angle prevents the hammer from falling when the worker crouches down	▪ Universal hammer holder ▪ For right- and left-handed use ▪ Built-in 100% graphite carpentry pencil

handling Racks

Alphi offers a wide range of galvanised, stackable or wheeled racks adapting to all handling requirements and to all of its products.


180
180
180

The vertical storage rack in use

handling Racks

Alphi handling racks have been designed to reduce **repetitive strain injuries.**

The wheeled racks make it possible to store Alphi products **effortlessly** and make it easier to travel through worksites.

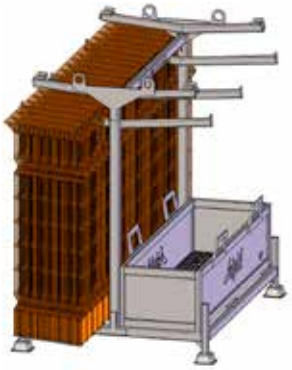
The entire Alphi rack range can be transported using **cranes** or using **slings** thanks to four hoisting rings.

DOCUMENTATION

View full documentation.

EQUIPMENT

Special racks

Vertical storage rack	External dimensions W x L x H (m)	Number of TopDalle secondary beams carried	Empty weight of rack (kg)	Handling Maximum allowable load (kg)	Description
	0.83 x 1.04 x 1.60	18	85.00	400	▪ Can be handled by the crane when full thanks to four hoisting rings ▪ Wheels: 4 steerable (including 2 with brakes)
AlphiSafe rack	**External dimensions w x l x h (m)**	**Number of meshes carried**	**Empty weight of rack (kg)**	**Maximum working load (kg)**	**Description**
	1.23 x 1.69 x 1.71	30 or 60	228.00	1000	▪ Option to stack 2 racks with the following accessories: posts, adapters, stacking frame, 1.25 x 1.60 m crosspieces ▪ Removable bins with truck fork passages ▪ Option to stack multiple bins for storage

All-purpose racks

Rack on wheels	External dimensions W x L x H (m)	Empty weight of rack (kg)	Maximum working load (kg)	Description
	0.77 x 0.95 x 1.09	49.00	1,000	▪ Slinging using 4 lifting rings ▪ 4 steerable wheels (including 2 with brakes) positioned in the corners for optimum handling and stability

Stackable racks

Painted rack	External dimensions W x L x H (m)	Empty weight of rack (kg)	Maximum working load (kg)	Description
	1.07 x 1.15 x 1.04	27.00	900	▪ Slinging using 4 lifting rings
Galvanised rack	**External dimensions W x L x H (m)**	**Empty weight of rack (kg)**	**Maximum working load (kg)**	**Description**
	1.07 x 1.15 x 1.04	28.00	900	▪ Slinging using 4 lifting rings
Meshed sheet metal rack	**External dimensions w x l x h (m)**	**Empty weight of rack (kg)**	**Maximum working load (kg)**	**Description**
	1.67 x 1.20 x 0.84	110.00	1,500	▪ Slinging using 4 lifting rings
Small-format sheet metal rack	**External dimensions W x L x H (m)**	**Empty weight of rack (kg)**	**Maximum working load (kg)**	**Description**
	1.20 x 0.80 x 0.80	115.00	1,500	▪ Slinging using 4 lifting rings

EQUIPMENT

Stackable racks

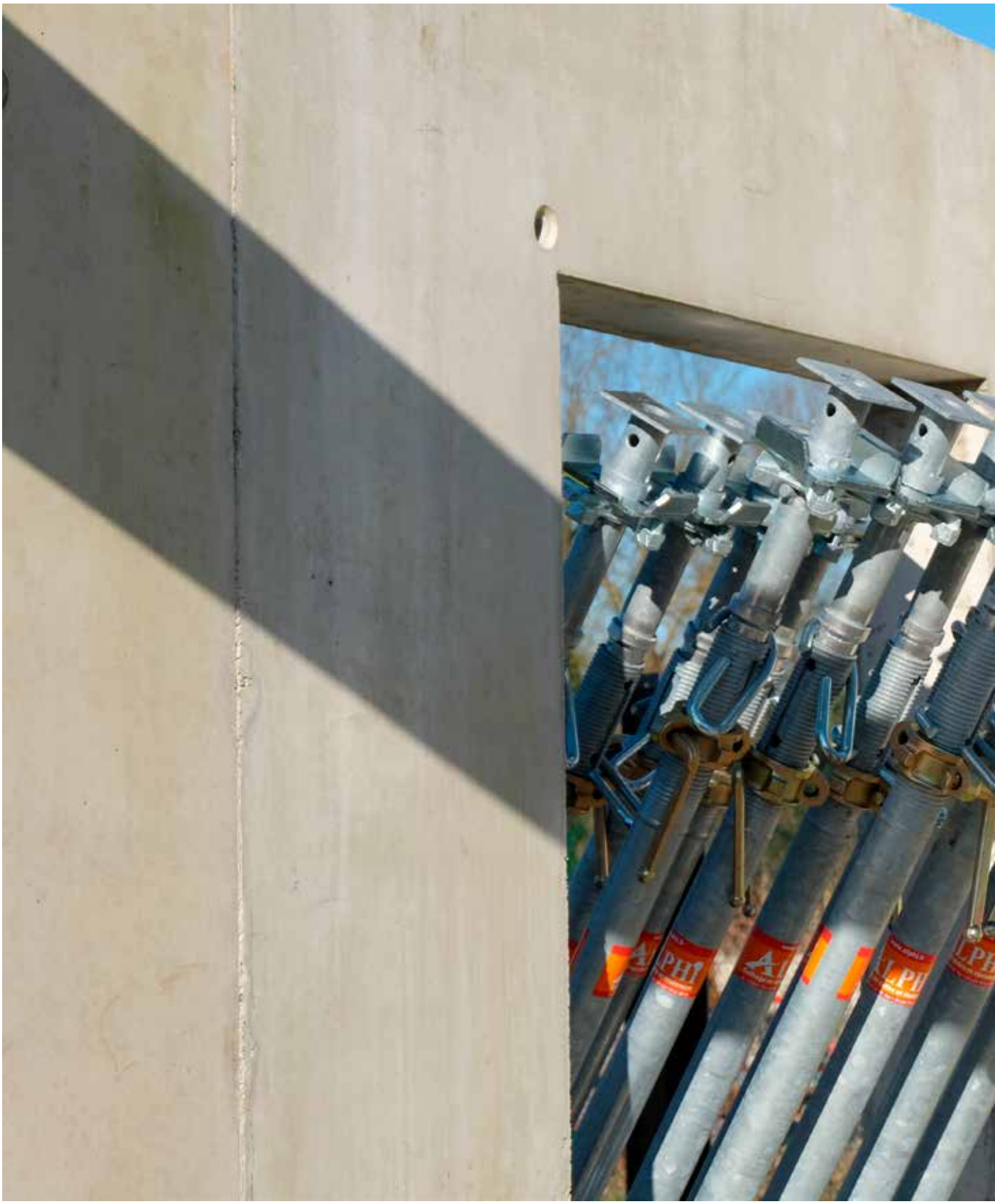
Beam rack	External dimensions W x L x H (m)	Empty weight of rack (kg)	Maximum working load (kg)	Description
	1.10 x 1.23 x 1.21	50.00	1,500	▪ Slinging using 4 lifting rings ▪ Galvanised
Prop rack	**External dimensions W x L x H (m)**	**Empty weight of rack (kg)**	**Maximum working load (kg)**	**Description**
	1.05 x 1.33 x 0.95	44.00	1,500	▪ 4-point slinging at top ▪ Galvanised

VerticAL racks

Accessory rack	Dimensions w x l x h (m)	Unit weight (kg)	Description
	0.7 x 1.545 x 0.475	80.00	▪ Stackable container with built-in lifting rings ▪ Rating plate can be customised with client's name ▪ Partitions for storing all the accessories (MWL 1500 kg) ▪ Optional protective cover
Galvanised rack	**Dimensions l x w (m)**	**Unit weight (kg)**	**Description**
	1 x 1.5	107.00	▪ Can be handled with a crane (sockets for slings) or a forklift ▪ End partitions removable for easy cleaning ▪ Rating plate with client's name
	0.90 x 2.7	118.00	
	1 x 3	126.72	

TranEtais® housing

The TranEtais Housing trolley is particularly suitable for residential building sites. Its angle of inclination and its four steerable wheels make it easy to pass through doors and travel through corridors.



TransÉtais Logement trolley in use

TransEtais housing

Alphi has designed the TransEtais Housing trolley, which facilitates the work of form fitters and helps to reduce **repetitive strain injury.**

It can carry enough props to **create a 20 m² surface area.**

It is especially suitable for **residential building sites.** Travel through corridors is easy thanks to the four steerable wheels.

An **automatic prop locking** system has been developed to **prevent the risk of falling objects** during handling.

DOCUMENTATION

View full documentation.

SAFETY | ARDUOUSNESS | ERGONOMICS | SLINGING

TransEtais®

The TransEtais trolley is particularly suitable for transporting long props. Its design helps ensure form fitters' safety and reduce repetitive strain injuries.

TransEtais | Easy transport of long props

TransEtais trolley in use

TransEtais

For **long props,** Alphi has designed the TransEtais trolley to facilitate the work of form fitters.

The low raising of the props (only 10 cm), the various compartments of the trolley, the non-skid system, and the ergonomic bar of the TransEtais contribute to **the safety of personnel** and the **reduction of repetitive strain injuries.**

DOCUMENTATION

View full documentation.

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