



FORMWORK
ENGINEERING
SOLUTIONS
EXPERTISE
SERVICE

Alsína



Alsina

Alsina is an international leading company specializing in the design, manufacture, sale and rental of formwork that is in charge of its own engineering systems development for the implementation of concrete structures.

With over 70 years of experience, Alsina is known for its customer-oriented service and its constant investment in research and development over the years, offering efficient solutions for concrete structures that help our customers to improve the efficiency and safety of their projects through a committed and proximity service in the global market, by innovating and investing in people as a fundamental component of the business.

From its headquarters in Barcelona, with ISO 9001:2015 Certification, the Alsina Group is expanding its working methodology at its centers all around the world, dedicated to the sale and rental of concrete formwork equipment.



REFERENCE IN HOUSING

One of the biggest keys to the company expansion in the recent years is the export of new building systems that have proven effective for over 40 years in Spain. Mecanoconcept: a mechanized slab formwork system that effectively enables saving time in construction process. Nowadays Alsina is working to introduce the Mecanoconcept system worldwide.



CIVIL ENGINEERING

The Alsina Group has a active presence in Civil Works and transportation projects. The construction of roads, bridges, underpasses, overpasses, tunnels in a mine, etc. Also in Industrial Engineering (energy processing plants, processing plants, etc.) and Maritime Engineering (construction of ports, dikes, dams, etc.).



HYDRAULIC PROJECTS

Alsina is the leading company in supplying formwork systems for the implementation of water projects. More than 500-implemented projects in the recent years support our ability to do this type of project: desalination, water treatment plants, reservoirs, etc. We also offer engineering and calculation processes in order to optimize our range of formwork systems.

“We provide solutions
for concrete structures.”
Together, we move forward.



| MECANOFLEX

Formwork system for forged components. The Mecanoflex system only uses two basic elements (Multiple U-shape joist bearer and Joist inlaid with wood, both lightweight and resistant). With these two elements and a work method that has been used by the Alsina clients for more than 30 years, Mecanoflex is the ideal solution for making concrete forged items economically, for any type of perimeter.





The system's structural elements, the Joist bearer and the Joists inlaid with wood have been designed to be overlapped in both directions.



The Multiple U-shape joist bearer can house a Joist inlaid with wood. Both elements are fixed and fastened during assembly to ensure the formwork process.



The Joist includes an inlaid wooden slat which allows the board to be attached and detached easily.



Mecanoconcept combines Alsina's wide experience in formwork systems in forged concrete components, including added value in safety, productivity and cost-effectiveness.



HANGING BEAM (with Mecanoflex and Joist Brace)

Formwork system designed to implement hanging beams on site. The Alsina Mecanoflex Hanging Beam solution is formed by just two elements, which have been designed to ensure a safe and quick assembly. The use of this solution greatly increases productivity of works, making it possible to save in terms of labor and material costs.



| VCM

Alsina presents its formwork for Modular Hanging Beams. Another solution for safe, profitable and reusable beams formwork. It has been designed to revolutionize beam formwork; easily combined, reusable and above all quick-to-assemble are some of the characteristics of this new system.

- Lightweight: 22 kg/m^2 . Resistant: 25 kN/m^2 .
- Modular Hanging Beam eliminates the expensive use of woodpiles and hours of carpentry in beam formwork of all types.
- 90% of formwork material can be recovered on the third day after concrete is poured.
- The finished beam does not need to be re-shored; with the removable bottom, the shoring support can be left.
- The system needs just one post-shore every 1.57 m, which represents a considerable savings.
- It adapts to great heights with the use of the Alsina CL-40 scaffolding system.
- Safety during assembly. Fast assembly and stripping.



VISTAFORM

Traditional formwork system for exposed slabs composed of structural wood beams, consisting of structural wooden beams supported by bearing elements which can be regulated at different heights. It allows the distribution of the beams and the shoring in accordance with the weight of the slab to form. It also facilitates the meeting with walls and hanging joists with the ability to overlap the wood beams with each other.



MULTIFORM TABLE

Preassembled system for slabs, especially indicated in large-scale projects and surfaces with regular geometry. Multiform Table allows to implement all types of slabs although it is especially designed for solid slabs. The system offers systematic assembly, resulting in quick and safe form removal and the use of fewer spare parts. Multiform Table can be assembled on site in every size.





I G EUROPROP

The Alsina Europrop G are props with an extension device according to the standard EN 1065 with integrated safety system. They serve as vertical prop for temporary structures. They also come with a quick release system which reduces their removal time.



New quick, comfortable and safe release. Durability: less wear and tear. The incorporated release system means quicker form removal, reducing the postshore removal time around 80%, compared with a conventional post-shore.



Tube and body anti-separating system. Regulator with stopper for the thread. Safety distance against getting hands caught. The G with a tube and body anti-separation system, prevents the tubes from falling: especially dangerous when using the crane.





| A EUROPROP

the A prop brings new and significant technological improvements to the market. All of this in a prop weighing only 12 Kg. The Alsina Europrop A prop has been designed and manufactured in compliance with European standard EN 1065, certified by the prestigious German institution Sigma Karlsruhe GmbH.



New quick, comfortable and safe release. Durability: less wear and tear. The incorporated release system means quicker form removal, reducing the postshore removal time around 80%, compared with a conventional prop.



Tube and body anti-separating system. Regulator with stopper for the thread. Safety distance against getting hands caught. The A, with a tube and body anti-separation system, prevents the tubes from falling: especially dangerous when using the crane.





| CL SHORING

Multidirectional support structure for slab formwork. The system features light weight, easy component assembly and a bearing capacity of up to 40 kN per support, making it an extremely useful element for the support of slab formwork, whether by means of independent towers or fixed scaffolding, depending on application requirements. Based on a scaffold with multidirectional connections used by a vast number of construction professionals.



| AR SHORING

AR Shoring is a support structure for slab formwork. Its most outstanding feature is its high bearing capacity: 80 kN per support. It is based on a Shoring system with multidirectional connections. Easy to assemble and used by a vast number of construction professionals, it provides support for both independent towers and fixed shoring, depending on application requirements.

| ACCESSES AND SAFETY



SITE STAIRWAY

Easy to transport, folding, preassembled stairway made mostly of steel. The angle of the stairway can be adjusted so the same stairway can adjust to different heights. Available with 12, 15 and 18 steps.



SITE STAIRS TOWER

It facilitates worker access and movement through the worksite. A safe element, manufactured from high strength steel, with a multidirectional connection design.



MOBILE WORK PLATFORM

Accessory for safe working conditions at high elevations. Mainly indicated for concrete pouring and vibration compaction of columns and walls.



REINFORCED SCAFFOLD

This scaffold consists of multidirectional elements that allow the operator to place the steel framework in completely safe conditions. Special tools are not required for assembly.



I ALISPILAR

After many years working with column formwork systems, Alsina has developed a product that considerably improves the working method for the execution of standard columns in building. The system consists of a high-strength steel frame and a 12 mm phenolic plywood lining that gives it a higher quality concrete finish.



The Alispilar System means less manual labor during assembly and form removal of the columns. A quick and easy joining system; with only one hit of a hammer the wedge and the bolt included in the panel are easily secured, leaving the panel assembly fully assembled.

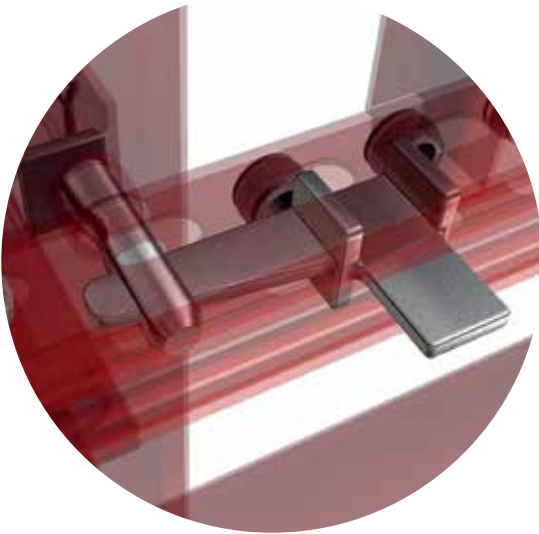


Significant time and labour savings are achieved thanks to Alupilar's attachment system: a simple hammer tap will easily lock the wedge and bolt built into the panels.



The Alispilar panel is made of high resistance steel 6 lbs/sqft (30 kg/m²) and finished with red polyes-ter paint, providing resistance and durability on site, with a design pressure of 1670 psf (80 kN/m²).

- Light, thanks to the light weight of the panels.
- Fast, thanks to its easy assembly.
- Cost-efficient, thanks to the finish offered by the phenolic surface.
- Panel made of high resistance steel.
- Weight of the Alispilar panel: 30 kg/m².
- Panel available painted or galvanized
- Maximum pressure: 80 kN/m².
- Phenolic formwork surface 12 mm thick with protection of 220 gr/m² giving an optimum number of repetitions.
- Anchoring components incorporated in the panel.
- Execution of columns up to 60 x 60 cm without any connecting fittings or through threaded bars, which increases productivity on site and eliminates losses of accessories.



ALSINA CHAMFER STRIP

For better finishing the edge of the column, use the Alsina chamfer strip. Also prevents the grout of the concrete from leaking out. This accessory adheres to the panel using a spring especially designed for this purpose. It does not have to be nailed in and therefore avoids damaging the phenolic surface.



| ALISPLY UNIVERSAL

Reusable formwork system for adjustment columns designed to be handled with a crane. Alisply Universal forms the column with an exposed concrete finish, ideal for creating large sections (up to 120 cm).

The Universal Panel has the same features as the Alisply Panel but with one important difference: its cross-beams are reinforced and modified to be able to create columns adjustable on four sides.



The development and design of its metal structure makes the Alisply Universal one of the most resistant panels on the market, able to withstand a pressure of up to 2100 (100 kN/m²) psf with a weight of 176.37 pounds (80 kg).



The design of the metallic panel frame makes Alisply Universal one of the most resistant column systems on the market.



The Alisply Universal System is also compatible with Alisply Walls to solve tasks involving bulkheads, beginnings, corners and other on site solutions.



| SPRINGFORM ROUND COLUMN

A system for the formwork of cylindrical columns consisting of a fibreglass mould with a single vertical joint. The closing system is made with wedges and bolts, one hit with a hammer closes the column. The Springform Round Column System is cost-effective on site; it is an ideal product for making a large number of columns with the same mould.

- Made of polyester and fibreglass, it withstands a maximum radial pressure of 11,500 Kg/m².
- The thickness of the fibreglass material increases as the diameter of the formwork increases, from approximately 3 mm to 6 mm. All sizes are reinforced with additional thickness in the brace area.
- Concrete finish with smooth surface.
- A single vertical joint in the column.
- Speed and ease in assembling and dismantling formwork.
- High performance on site: 100 uses, far superior to other systems made of wood, cardboard, steel,...
- Lightweight, no crane required for handling.





I STEEL ROUND COLUMN

The Steel Round Columns allow for the creation of round columns or shielded columns with semicircular ends. Likewise, when the Alispaly profile is on the ends, the joints are made with the GR-2 Clamp. This characteristic makes it totally compatible with the Alispaly product range and offers quick and easy assembly.

- The metal panels support a maximum pressure of 100 kN/m².
- Made of sheet metal with reinforcing cross beams.
- Available sizes: Diameters from 20 cm to 200 cm, with intervals of 5 cm up to 100 cm in diameter; and with intervals of 10 cm up to 200 cm in diameter.
- Concrete finish with smooth surface.
- Speed and ease in assembling and dismantling formwork.



ALISPLY QUICK CORE

Quick core formwork for hollow shapes offers the versatility required to address shapes such as elevator shafts or columns. Complements the Alisply system accessory set to handle stripping of hollow shapes with a crane. The system offers great productivity thanks to its automatic operation by means of the vertical effort of the crane.



TRIPLE HINGED CORNER

To facilitate the formwork for hollow columns and wall interiors, Alsina has developed the Triple Hinged Corner, the most striking feature of which is that it is a retractable element. This element allows wall formwork removal without the need to dismount the panels, since the corner shrinks partially and releases the formwork.



BICONICAL CORNER

Retractable corner for Alisply, intended for formwork stripping and recovering inner formwork from hollow spaces, such as columns and elevators shafts. The system's main feature is that the corners reduce the overall dimensions of the inner formwork, thus allowing it to be recovered.





| ALISPLY WALLS

Removable formwork system for concrete walls, designed to be handled by crane. Large surface areas (3 and 6 m²) can be created with minimal space between the panels due to its carefully researched reinforced steel structure. This allows the wall to have a finish without excessive imperfections.



The joint and alignment system of the panels is made using the GR-2 Alisply Clamp. Its design allows you to join and align the panels with only one hand. Alisply Adjustable Clamps may also be used, which allow you to incorporate extensions wide between panels.

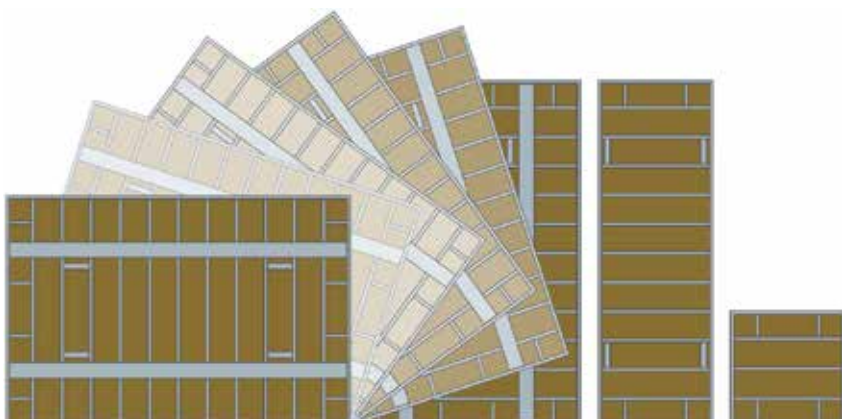
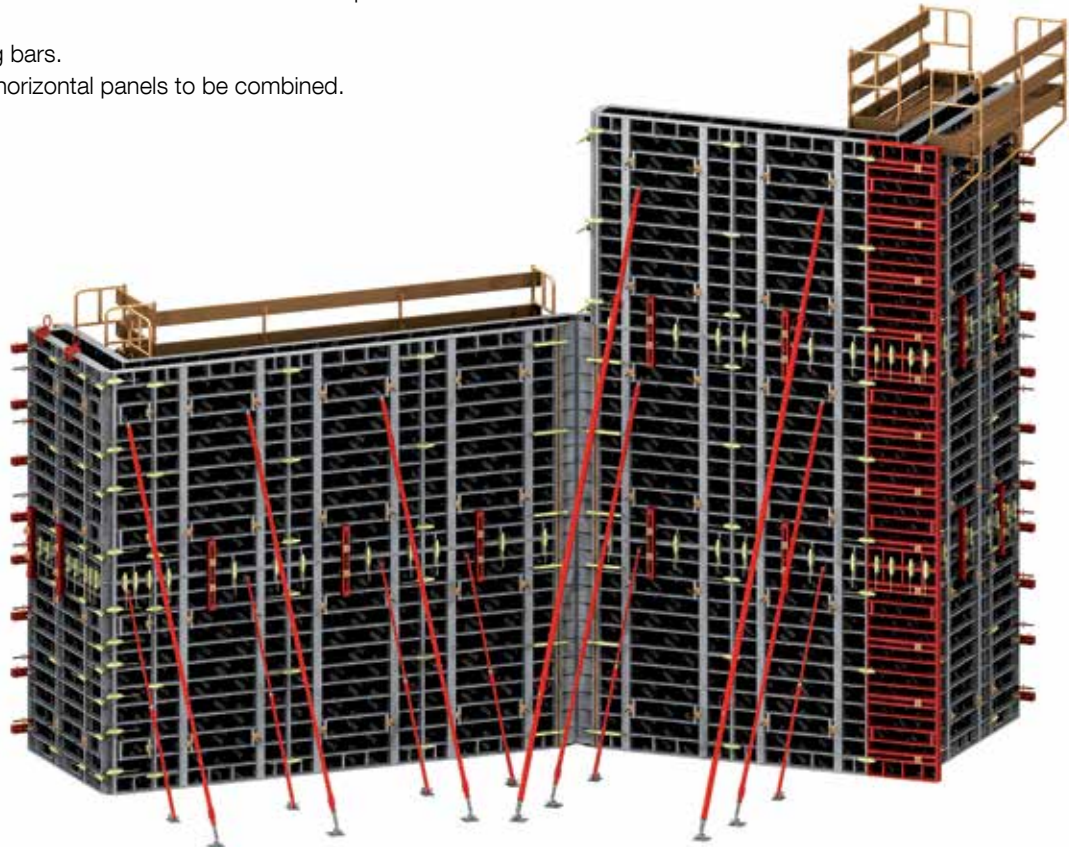


The Alisply Wall System, along with its accessories, is designed for quick and easy assembly. The support of the 15 cm framework facilitates assembly and alignment of the panels.



Alisply Walls, with a phenolic resin-coated plywood formwork surface, provide a fair-faced concrete finish. Also, it allows for the defining of the texture of the concrete through the positioning of chamfer strips or other components that easily adhere to the lining.

- Pressure rating: 60 kN/m².
- Only two ties at 3 m in height.
- The holes for the tie bars are not in the frame, which improves the finish and allows production of sloping walls.
- Plywood drill protection with bonded PVC sleeves.
- The metal frames have a galvanized finish, and the accessories have an electrolyte zinc finish that protects against corrosion.
- Unique system for panel connection with manual clamps: Quick and tool-free installation.
- No need for aligning bars.
- Allows vertical and horizontal panels to be combined.



- Standard Panels: 3x1 and 3x2 meters and set of 15 panel sizes, in variations of 5 to 5 cm.
- Possibility to take down the panel on assembling, offers multiple on site solutions.
- All of the sizes are metric enabling easy combination of all of the panels.
- Accessories to solve any on site solution: one sided-walls, climbing, etc.



| ALISPLY CIRCULAR

Circular wall formwork system, to be handled by crane, consisting of a galvanized steel frame and a phenolic plywood surface. The modules are pre-assembled from the factory and only need to be given the radius on site. The panel incorporates the necessary elements, and does not require any special tool to bend the phenolic board.



The Alisply Circular preassembled modules are sent flattened to the job site.

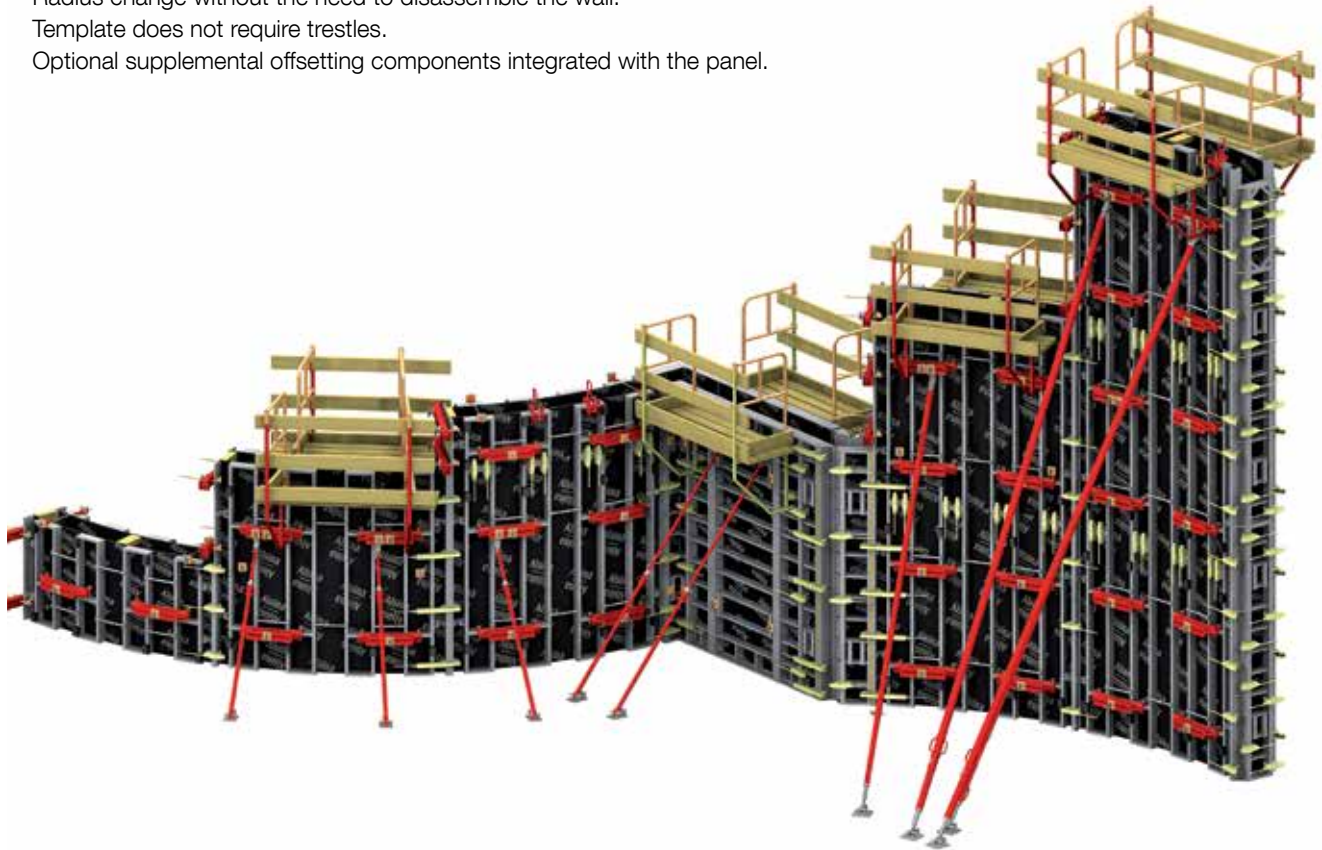


The panel includes the necessary elements to change the radius so no special tools are not required.



The modules adapt to each radius on site, so they are useful to implementing different kinds of circular walls.

- Metal frames and phenolic board formwork surface.
- Formwork of up to 250 cm minimum inner radius with pressures of 60 kN/m².
- Plywood thickness of 1.8 cm
- Pre-assembled and extra flat module.
- Vertical and horizontal connection with clamps.
- Threads protected from knocks and concrete.
- Accessories and joints compatible with Alispaly Walls.
- Unique reinforcement system for the end jamb.
- Radius change without the need to disassemble the wall.
- Template does not require trestles.
- Optional supplemental offsetting components integrated with the panel.



Alispaly Circular makes it possible to build single-faced circular walls by using the prop brace frames on one side and at heights between 3 and 9 meters.



Reinforcement system with end tensors ensures correct radius curving in the panel.



Compatible with climbing systems for an easy and fast execution of high circular walls, without having to disassemble the walls.



I ALISPLY MANUAL WALLS (HANDSET)

Modular formwork system designed for use manually or with a crane for the production of exposed concrete walls and columns. Its strength and versatility, using standard components, make it a product capable of providing a solution in the majority of circumstances encountered in Construction and Civil Engineering.



Really lightweight system, ideal for projects that do not contemplate using a crane. Nevertheless, thanks to the wide range of system accessories, large screens can be mounted, using a crane for handling and positioning.

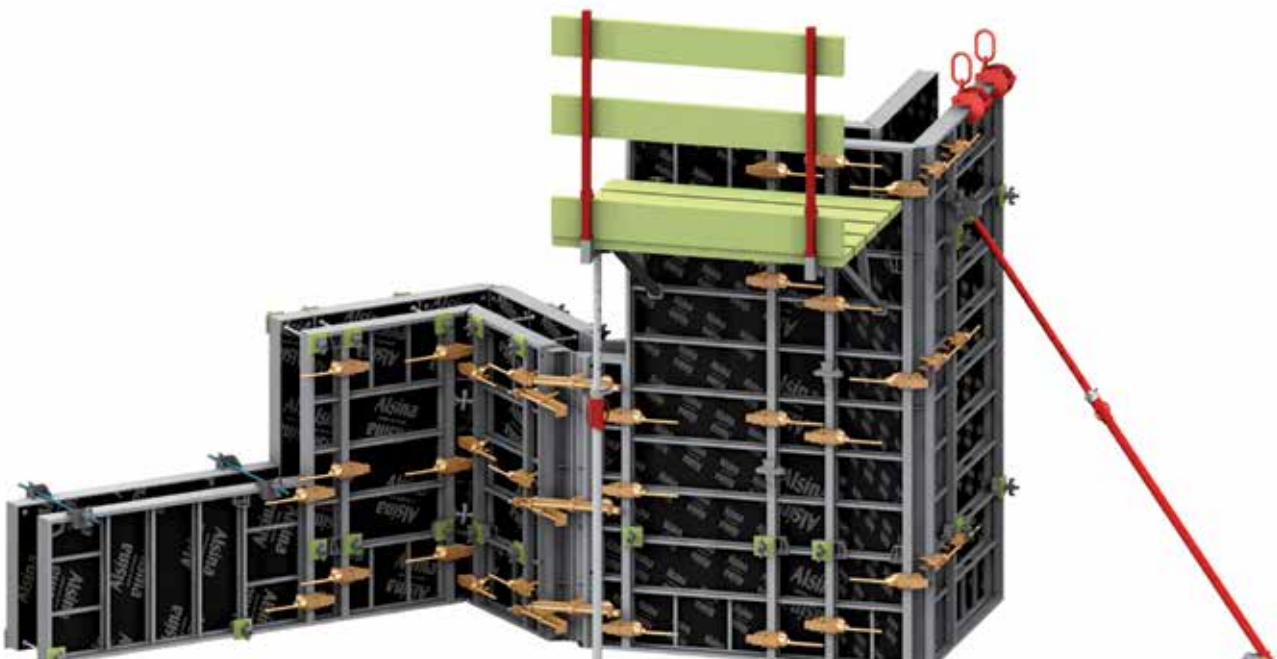


Designed for a fast and easy assembly. The 11 cm frame support makes it easier to assemble and align the panels. The Alisply Manual Clip makes joins possible anywhere on the frame, and aligns the panels as well.



Due to the great variety of modules and accessories, any kind of wall can be erected with panels 15/20/30/40/.../75 and 90 cm wide and also allow for polygonal walls.

- Weight of the panels 30 Kg/ m².
- Pressure rating: 60 kN/ m² (6.000 kg/m²). Complies with DIN 18202 Standard.
- Modules 2.70 m high with only two tie bars (Dywidag Bar) at heights (0.66 tie bars per m² of surface).
- The holes for the tie bars are not located in the frame, which improves the finish and allows production of sloping walls.
- Plywood drill protection with bonded PVC sleeves.
- The metal frames have a galvanized finish, and the accessories have an electrolyte zinc finish that protects against corrosion.
- Minimal use of accessories improves productivity and minimizes the risk of losses on site.
- The quality of the phenolic plywood ensures a quality finish for the maximum number of repetitions.



Due to Alsiply Manual modules diversity, it is easy to solve the corners on the most common type of walls. The Outside Corner Angle is used to join together two standard panels of the appropriate width, according to the wall thickness. This type of solution makes the most of the material, because it limits the number of specific parts. The different inner corner measurements provide an easy solution for matching perpendicular walls.



ONE SIDED WALL

Support structure to create one sided walls. It consists of reinforced brace frames that are coupled to the Alisply Panel with two horizontal primary beams. Its components ensure the safe transfer of concreting forces by combining assembled steel profiles to the wall formwork and inclined anchors for their positioning.



- **3 M HEIGHT**
- Easy to assemble, versatile system.
- Low bulk and easy to transport and move through the site.
- Permissible pressure: 60 kN/m².
- Maximum height 3.30 m.
- This element can be moved together with the Alisply Wall formwork system.



- **6 M HEIGHT**
- Permissible pressure of 60 kN/m² (up to 7 m high).
- Adjustable front support: allows formwork adjusting to the ground, preventing concrete grout leak.
- A variety of crane lifting points are available, depending on gravity loads.



- **9 M HEIGHT**
- Permissible pressure: 40 kN/m².
- Easy assembly between brace frames.
- Does not require disassembly of the formwork from the Upper Brace Frames when the brace frame is placed under 9 m.
- A variety of crane lifting points are available.

VAULT DOME FORMWORK

Formwork system to execute with circular vaults with radius from 2.50 m and pressures up to 60 kN/m^2 , handled by crane. The system's horizontal formwork consists of pre-assembled panels with an electrolytic zinc-plated steel frame and an 18 mm thick phenolic plywood formwork surface. Vertical support is done with the Alsina multidirectional modular shoring system, the high load capacity of which (up to 80 KN per vertical) is safe for heavy load requirements.



TUNNEL ENTRANCE FORMWORK

Circular system, to be crane handled, consisting of a galvanized steel frame and a phenolic resin-coated plywood surface. The modules come preassembled from the workshop, only the radius has to be defined on site. In order to do this, the design of the panel includes all the necessary components. The system allows the external closure of the tunnel entrance formwork using the coating carriage.





C160 CLIMBING SYSTEM

Element designed to climb the wall formwork for concrete fillings up to a height of 4 m ensuring total safety for workers. The assembly of the climbing platform and its safety platform can be carried out on the ground, before positioning it on the wall, or by placing the walkway bracket in the anchoring rings and mounting the platform later.



C240 CLIMBING SYSTEM

Element designed to climb the wall formwork for concrete fillings up to heights of 6 m ensuring total safety for workers. It can be positioned with either of two anchoring systems: using M-24 tie bars or using metal cones with ties set in the concrete.

INTERIOR CLIMBING SYSTEM

System designed for safely carrying out: interior climbing systems in hollow column formwork, elevator shaft formwork and all types of hollow structures with multiple sections. The Interior Climbing System has simplicity as a design principle: it is very easy to assemble, without the need for tools and movement is quick and simple.



ONE SIDED CLIMBING SYSTEM

System designed for implementing large slabs of concrete where it is not possible to transfer the loads via bars to the formwork on the opposite side. Therefore, the structure diverts the stresses towards the concrete already in place. The system offers a versatile range of on-site solutions, using standard material, and all the elements needed to guarantee worker safety during each stage of the project.



MULTIFORM CLIMBING SYSTEM

System designed to anchor different types of structures to a wall using the Multiform system. Its most frequent use is as a climbing platform. Given the versatility of the Multiform system, it can be adapted to both standard shapes and special solutions. Makes it possible to safely climb walls to formwork heights of up to 6 m.





I MULTIFORM

Multiform is a greatly versatile formwork system adaptable to a great range of shapes to implement on site different structural elements such as: Viaduct, Walls, Columns, Beams, Slabs, Shoring Towers, Climbing Systems and all kind of concrete structure. Designed as a modular system that, by means of the use and combination of standard elements, can be adapted to the different shapes of the project.



The Multiform system has been designed to adapt easily to complex geometrical shapes in the construction of walls, columns, bridges, formwork carriages, shoring and climbing systems in a safety and profitable way.



The structure formed by the steel primary beams and the wood secondary beams allows configuration of the shape to form. According to the load it has to bear, thus optimizing formwork elements and costs.



One of the design premises of the Multiform system has been to ensure high levels of productivity once it has been assembled. System components has been designed for being assembled in a faster and simple way.



SHORING TOWER



SLAB TABLE



COLUMNS



SEAWALL CARRIAGES



HEAVY DUTY TOWER



CLIMBING SYSTEMS



TRUSS STRUCTURE



CARRIAGES



ZERO SEGMENT



OUTSTANDING PILES



TUNNEL ENTRANCES



BRIDGES



I MULTIFORM VERTICAL

A reusable formwork system for straight-faced or circular-faced walls with all sorts of polygonal shapes and exposed concrete finish. The equipment is configured specifically according to the load to bear, which can be greater than that of steel frame walls.

- Easy adaptation to complex and irregular shapes, while maintaining its capacity as reusable formwork.
- Multiform Walls makes it easy to change the required radius without the need to disassemble the wall.
- Due to its structural combination of wooden beams and phenolic plywood, it is the best solution for any required structural design.
- Horizontal clamp connections are made with the Clamp and the Adjustable Clamp.
- Multiform makes panel joints nearly invisible since both are butted, it offers an architectural concrete finish.



50T SUPPORT BRACKET

High load bearing capacity support bracket for the formwork of lintels, capitals and slabs at great heights without the need for shoring towers. It allows the unloading and levelling of the system, facilitating the assembly and disassembly of the formwork.



SCAP SYSTEM

The system provides a solution for bridge column construction, providing productivity and complete safety. The use of SCAP avoids the need for shoring support and is therefore especially useful in bridge columns placed on uneven terrain. This feature also greatly facilitates formwork dismantling using sliding wedges and reduces multiple repetition of movements.





| ALSIPERCHA

Personal overhead fall protection system for the stage of the formwork decking process, or installation of: guardrails, gallows-type safety nets, formwork risers, and in general, all formwork assembly activities that entail the risk of falling from heights, can be carried out in an entirely safe manner.

For more solutions visit
www.alsipercha.com

- Provides a fall factor "0"
- Structure made of high-quality elastic steel, providing a 360° free rotation, maximizing the freedom of the worker.
- To be inserted into a housing tube pre-installed on the concrete structure (column / wall).
- Built-in energy absorber that reduces the impact forces transmitted to the user and the structure, in case of fall.
- Provides the worker with a safe area up to 125m² (aprox), and a working radius of 6,5 m.
- Combined with the use of a SRL that avoid the fall of the user.
- Steel structure of 80kgs, made of high-quality and elastic steel (elastic limits 42 - 46 Kg/mm², breaking limit 61 - 76 Kg/mm²)
- Designed to be moved and handled by crane.
- A wide range of accessories, which allows multiple applications at jobsites, is available.
- The benefit of changing from one Alsipercha to the next one with full protection, will be when the columns are distanced maximum 8,5m.





| ALUPERCHA

Individual protection system which provides an anchoring point above workers, installed manually and without the need for a crane thanks to its reduced weight (19 kg), which makes it possible to safely carry out tasks for placing boards, guardrails, safety netting and formwork risers when a crane is not available on site. Significantly increases the protection of workers on site, acting as a complement to collective protection.

For more solutions visit
www.alsipercha.com

- Lightweight structure weighing just 19 Kg, made of high-quality elastic aluminium.
- To be manoeuvred and installed by a single person with no lifting equipments, or the need of crane.
- A built-in energy absorber device reduces the forces transmitted to the structure and to the user.
- Inverted "L" shaped and 100% aluminium structure measuring 2.0 m long and 3.10 m high (2.25 m when attached to the column).
- Allows the user to work safely covering an area of aprox 125 m2 and moving within a radius of 6.0 m around the column, with the PPE length up to 4m, and aprox 230 m2 when combined with PPE length up to 6,5 m (refer to the "working procedure with extended PPE" section in the UI).
- Alupercha housing steel tube measuring 85 cm long.
- A system designed for columns spaced up to 8,0 m.



| OUTSTANDING PROJECTS

Rizal Province Water
Supply Improvement
(Rizal, Philippines)



Navayuga Polavaram
Dam Project
(Polavaram, India)



Intercontinental
Hotel and Resort
(Ras Al Khaimah, UAE)





Leighton NLEX (Manila, Philippines)



Cebu bridge (Cebu, Philippines)



MHTL Mumbai Transharbour sea link (Mumbai, India)



Mumbai Metro (Mumbai, India)



Residential building in Health care city (Dubai, UAE)



Farjan Project (Dubai, UAE)

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