FORMWORK FOR VAULTS

Vaults are structures in great demand not only for the renovation of old edifices but also for the construction of new buildings. They are an architectural element with a timeless appeal, they satisfy both aesthetic and structural requirements, and can be used in multiple situations, from commercial premises to cellars, to private houses. Our formworks are of polystyrene foam, cut to size, and coated with different types of materials according to the specific requirements. We can produce cross vaults, barrel vaults, sail vaults, and tent vaults, without shape or size constraints.

Our highly experienced technical and sales personnel is available to customers.



types

CROSS VAULT

It is formed by crossing two barrel vaults. They can be made with any type of curve, size and even have a rectangular base. This formwork is made in such a way that it can be removed and reused.



CROSS VAULT with sails

The cross vault with sails takes on a three-dimensional shape compared to the cross vault while maintaining the diagonals that are not visible in the classic sail vault. It is an intermediate solution between the cross vault and the cloister vault.



CLOISTER VAULT

It is formed by crossing 2 barrel vaults without outer arches. The curves are tangent to the walls of the room and are designed and adapted to the sizes of the base and the rise.



BARREL VAULT

It is generally semi-cylindrical but can also be made with any other type of curve. In case of a round curve, the inside of the formwork is hollow to enable removal and reuse.



casting a sail vault



DESCRIPTION OF THE FORMWORK

The formwork is cut to size from a block of polystyrene foam and then coated with the polyurethane resin Syform on the side that comes into contact with the concrete casting. The Syform coating allows to strengthen the polystyrene foam surface and therefore to perform the setting up, casting, and removal.



INSTALLATION

The formwork can be placed on one or more levels of falsework, according to sizes, shape and building requirements.

Adhesive tape is applied on the joins in order to prevent the concrete from penetrating between the elements.



PERIMETER SEALING

Polystyrene elements are applied around the perimeter to seal the gap between the formwork and the wall.

casting a sail vault



REMOVAL OF THE ARCHES

The lateral arches of the vault are removed by compressing the formwork towards the center. The middle arch-shaped space and the wooden boards glued to the base enable you to carry out this operation also with large size arches. The boards are drawn towards the middle space by using wires and twisting them. The force needed for detaching can vary from 100 to 300 kg.



REMOVAL OF THE VAULT

The elements of the vault are removed with a hydraulic jack. Constant pressure is exerted on the panel placed on the front of the casing. The pressure needed for removal can vary from around 100 to 500 kg per element.



FINISHED JOB





photo gallery



