



# FORMWORKS MINIMAG

 Made in Italy





## MINIMAG FORMWORKS FOR VERTICAL CASTINGS

Modular and light weight formworks in steel, quick to assemble; they can be moved even manually and they are very flexible in their application. They are particularly suitable for sites where adequate lifting means are not available and for small-medium companies operating in the residential, industrial and roadway sectors. It is ideal for works where productivity and handiness are required.

Frame: height 120 mm, finishing: hot-dip galvanized.

The **MINIMAG** formworks belong to Class 7 according to **prEN 15113-1** standards.  
Maximum resistance to the pressure of fresh concrete is 60 kN/m<sup>2</sup>.

### APPLICATIONS

- foundation plinths and curbs
- pillars
- bearing walls and walls in general
- lift wells
- stairwells
- retaining walls

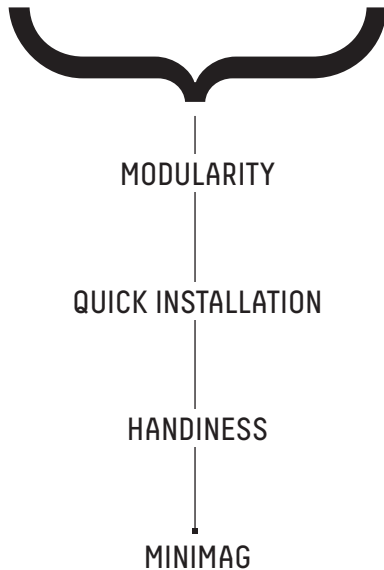
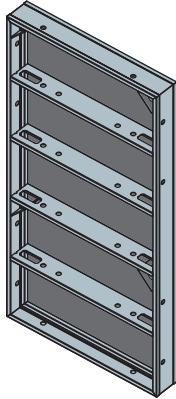


MINIMAG PANELS WEIGHT TABLE

width cm	height 300 cm	height 150 cm
75	76	41
60	66	36
50	60	32
40	54	29
30	46	25
20	41	22
75 (pillars)	89	50





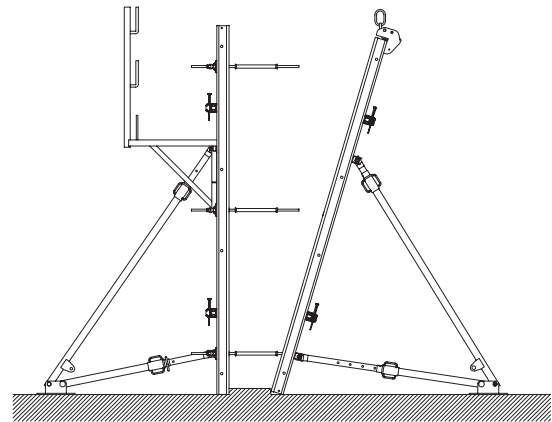
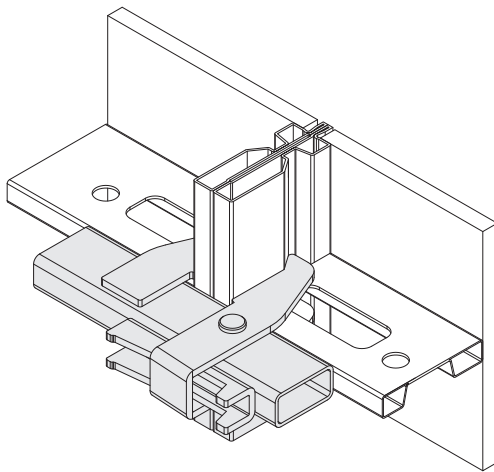


## STRENGTHS

- The standard weight of the panel is 34 kg/m<sup>2</sup> and it allows manual handling without the need to use lifting equipment.
- To assemble **MINIMAG** panels it is necessary to use:
  - only 2 contrast tie-rods for casting up to 3.0 m in height with pressures of 60 kN/m<sup>2</sup>. This allows reducing significantly reinforcement and dismantling times, it allows operating easily and safely because personnel can perform all operations on the ground without the need to “climb on the formwork” or to use ladders (the upper bar is placed at 2.10 m in height).
  - 2 connection clamps are necessary to ensure the perfect alignment of the formworks and a quick assembly.
- The panels of all sizes can be used both vertically and horizontally.
- The adjustable clamp is suitable to connect plywood panels up to 150 mm of thickness and it allows the connection to the **MAGNUM** system panels.
- The **MINIMAG** system can be combined with **MAGNUM** panels (large surface formworks) by using an adjustable clamp for greater flexibility and productivity. At industrial sites where large handmade products are used (suitable for use with the **MAGNUM** system) also when spaces or niches are present (ideal for the **MINIMAG** system), the ability to integrate the two lines of products allows keeping the productivity very high.
- The **MINIMAG** panels can be reinforced inclined:
  - maximum angle of 18 degrees with D15 wing nut
  - maximum angle of 13.5 degrees with D15 adjustable vise.

## 1 CONNECTION CLAMP

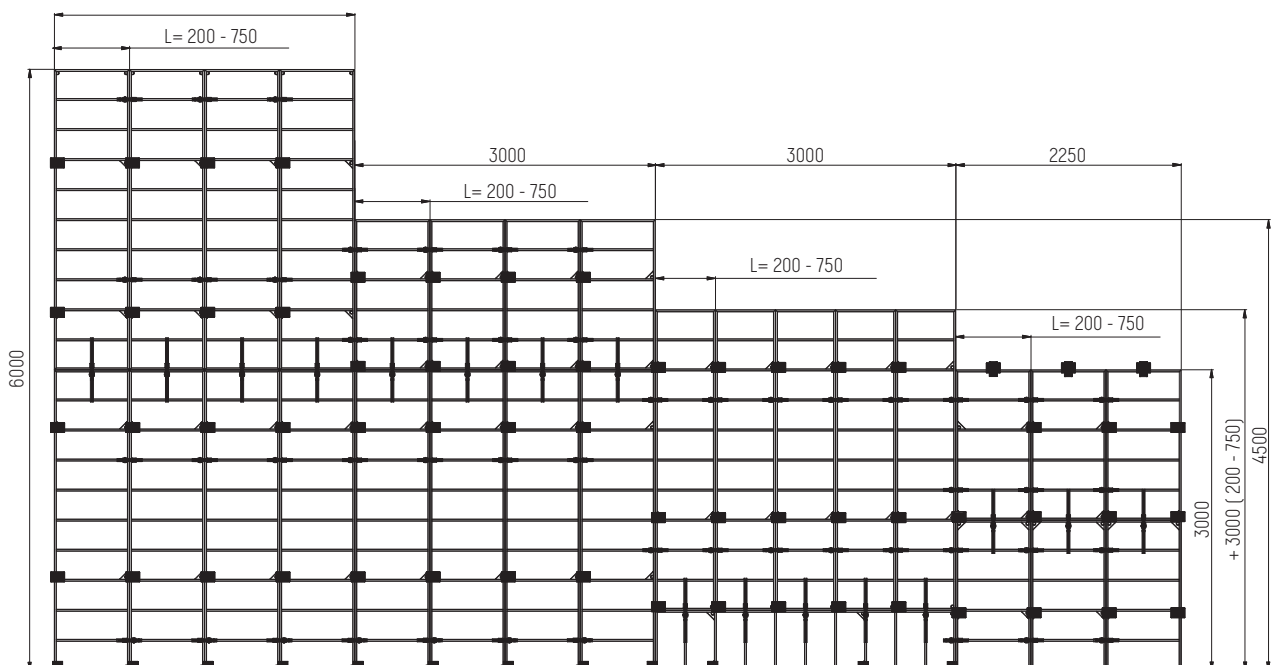
It is possible to reinforce and dismantle the connection clamp using a simple hammer.



### MINIMAG

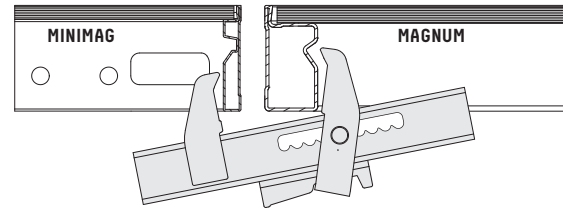
Reduced reinforcement and dismantling time using only 2 contrast tie-rods.

## 2 MINIMAG panels assembly diagram.



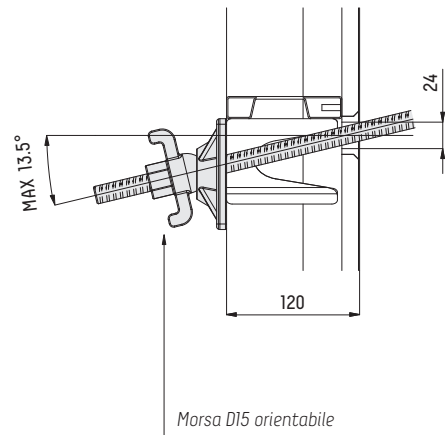
3 4

Adjustable clamp connecting plywood rods up to 150 mm and **MINIMAG** panels to the **MAGNUM** system.



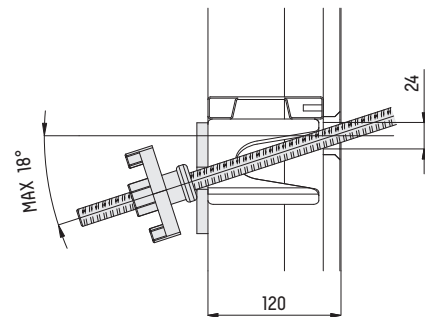
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Reinforcement of inclined bearing walls with **DW15** adjustable plate.



6

Reinforcement of inclined bearing walls with **DW15** wing nut.

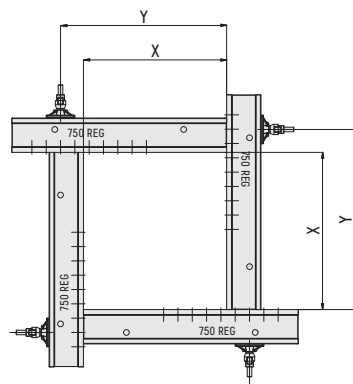




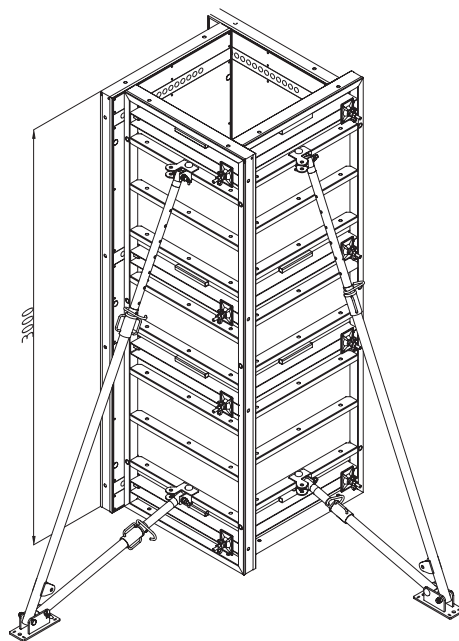
## ACCESSORIES

Panels for casting of pillars adjustable from 20 cm to 75 cm at intervals of 5 cm.

X	Y
200	280
250	330
300	380
350	430
400	480
450	530
500	580
550	630
600	680
650	730
700	780
750	830

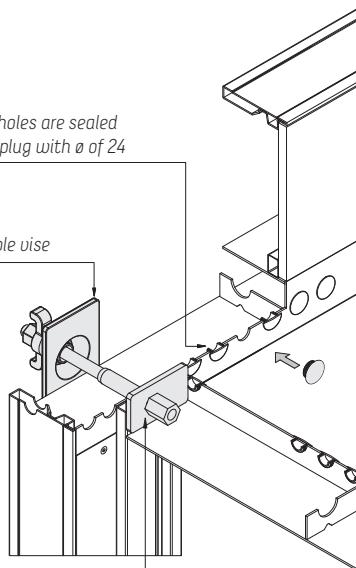


The mounting holes of the bar are arranged directly on a steel blade, which allows the quick choice of size and it ensures the lifetime of the product.

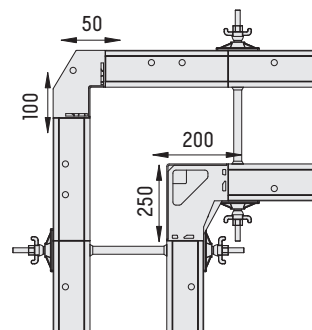


The unused holes are sealed using a PVC plug with  $\phi$  of 24

D15 adjustable vise



Pillar tie-rod



Angular panels to create corner nodes.



## STRIPPING CORNER WITH THREAD

With this new product, it is possible to detach the whole core formwork from the concrete wall and lift it by crane to the next level.

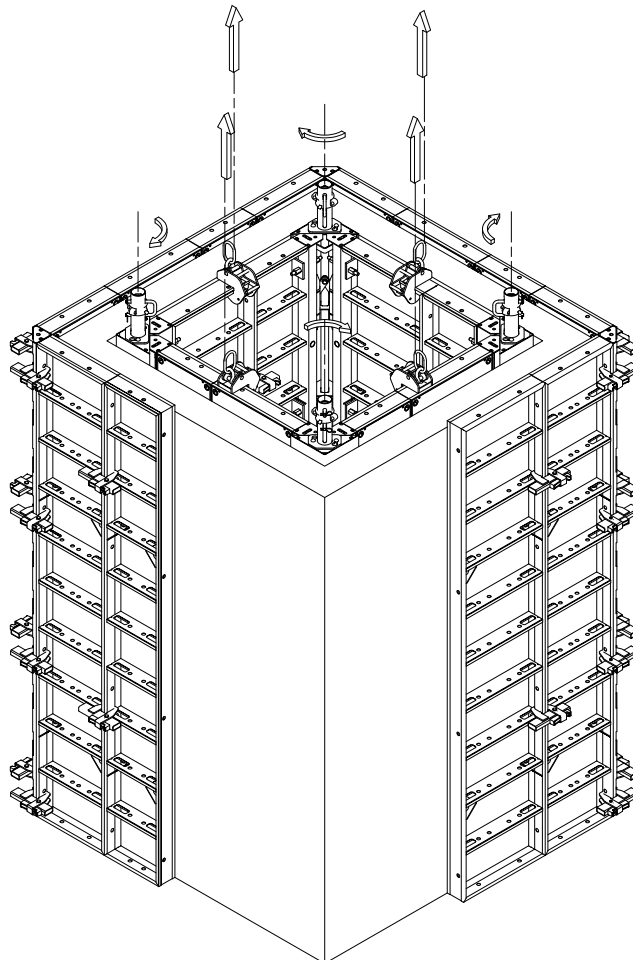
The main features of this product are:

- these corners can be stacked vertically together
- the striking of the complete formwork is localized at corner positions
- there is no negative impression on the concrete surface
- the whole inner formwork of the core can be lifted in one phase

They can be connected to the formwork panels with clamps or bolts, in any case the maximum pressure allowable on the formwork is guaranteed.

The new Stripping Corners with thread are available for all our systems of formworks (**MAGNUM 2.0, P300 and MINIMAG**).

To act on the Stripping Corner with thread, you only need a tie-rod 15mm connected to one of the holes in the threaded nut. Rotating the spindle nut clockwise or anti-clockwise, the Stripping Corner will close or open the formwork unit.



PANEL CHARACTERISTICS	PANEL 75X300	PANEL 60X300
reinforced surface m <sup>2</sup>	2,25	1,8
connecting accessories	2 Minimag connectors	2 Minimag connectors
threaded tie rods	2	2
incidence of tie rods per m <sup>2</sup>	1,125	0,9
multi-layer characteristics	15 mm 11 layers	
use per multilayer side (general data)	100	100
formwork capacity	60 kN/m <sup>2</sup>	60 kN/m <sup>2</sup>
element weight	72 kg	62,8 kg
incidence	32 kg/m <sup>2</sup>	34,8 kg/m <sup>2</sup>
manual handling	YES	YES
special panel for pillars	YES	
CONSUMABLE MATERIALS		
PVC caps	4	4
PVC spacers	2	2
PVC conic spacers	4	4

#### CHARACTERISTICS OF MATERIALS

To ensure high quality standards and durability, MINIMAG frames are hot-dip galvanized.

The multi-layer panel has a thickness of 15 mm with phenolic surface film (220 g/m<sup>2</sup>). It consists of 11 layers of birch and it has no moisture absorption when the panel is protected. The edges are protected with paint and they can be used about 50 times per side. The weight is 9.6 kg/m<sup>2</sup>.

The **MINIMAG** formwork system has been designed and manufactured at **Pilosio**'s plants in compliance with **prEN15113-1/206** standards, "Vertical formwork - Part 1 performance requirements, general design and assessment."

## EXAMPLES OF COMBINED APPLICATIONS

A particular application for casting of straight and curved bearing walls with variable radius. In the event of castings of combined bearing walls, it is possible to use standard **MINIMAG** panels with the addition of some traditional components, making sure to choose the **MINIMAG** panels with the most suitable undersizes. For an exposed concrete finish, it is sufficient to line the formworks using 4 mm plywood sheets.

