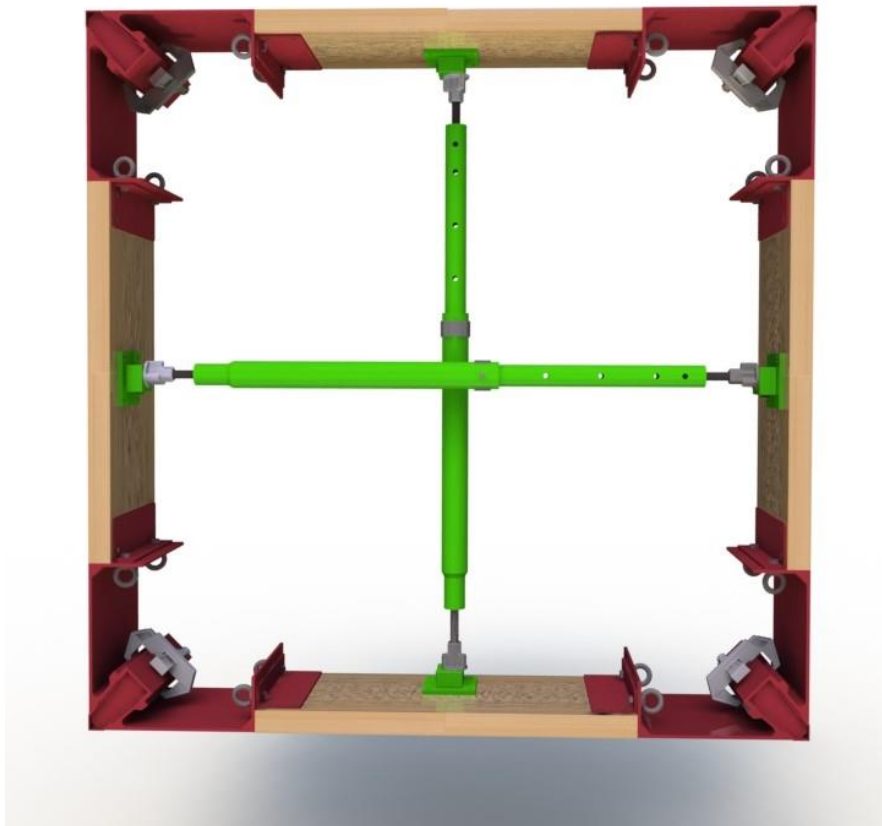


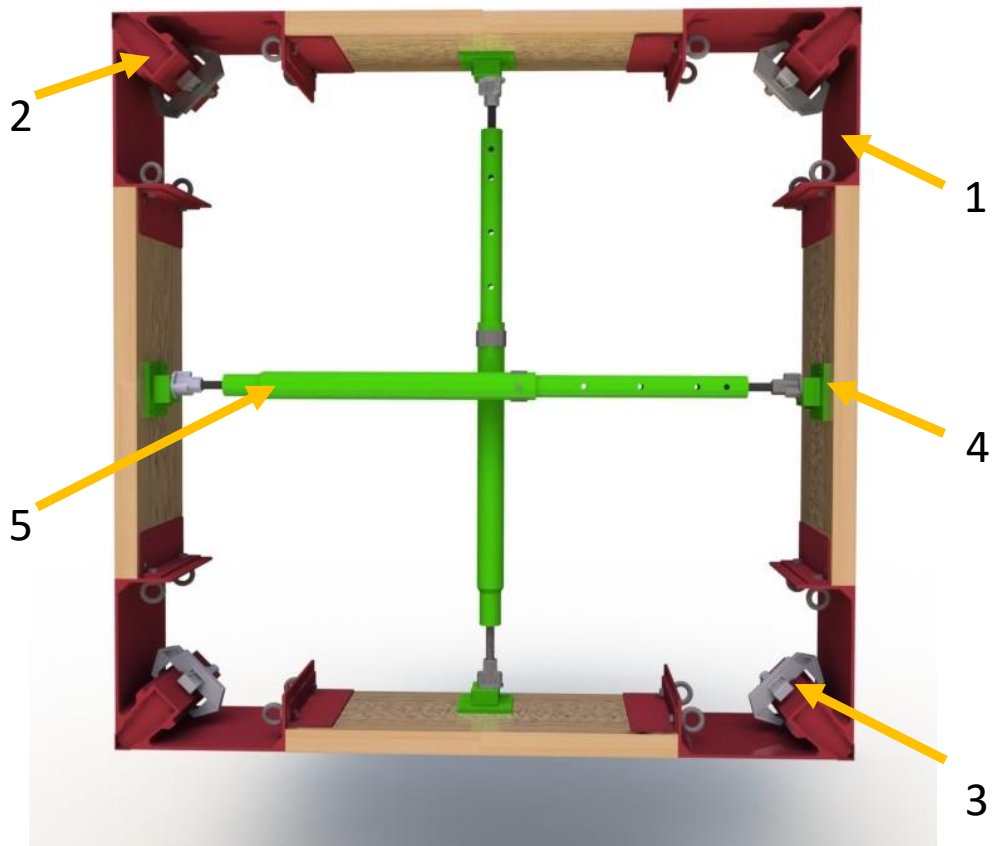
**TIMRON window formwork
with vario corner element VE**
instruction for assembly and use 04 / 2020



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TIMRON window formwork - overview

window formwork with vario corner element VE

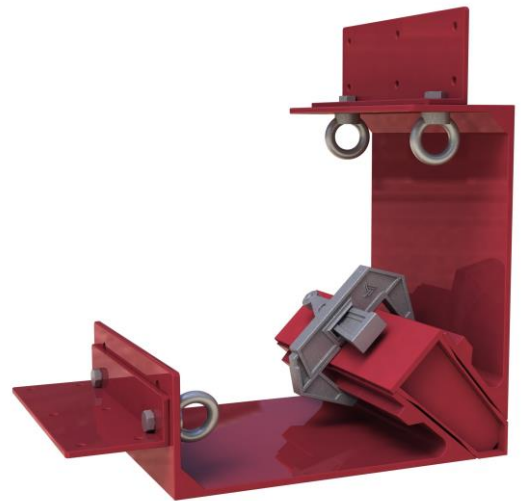


- 1 vario corner element VE
- 2 corner wedge SEK
- 3 formwork clamp
- 4 strut coupler KP
- 5 multi strut MS

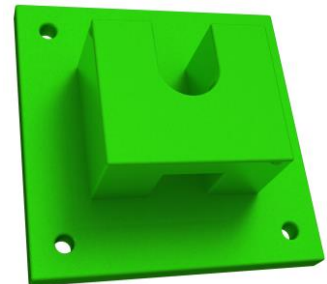
two vario corner elements VE
with formwork clamp and
corner wedge SEK



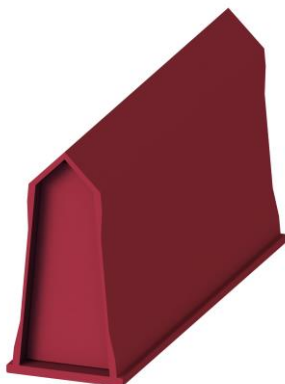
vario corner element VE



formwork clamp



strut coupler KP



corner wedge SEK



multi strut MS

Note: Before using the window formwork please read the following instruction for assembly and use!

Target groups

Companies

This instruction for assembly and use is directed to companies that

- use the formwork for shuttering and striking or
- use the formwork for concrete building or
- have subcontractors use the formwork

Experts

The coordinator for safety and health matters

- will be named by the building contractor
- has to detect possible risks during the planning phase
- defines measures that protect from risks
- prepares a safety and health plan
- coordinates the safety measures of companies and workers, thus they do not endanger each other
- ensures compliance with the safety and health measures

People qualified for examination

Due to expert knowledge acquired through professional training, professional experience and recent professional activity, the person qualified for examination has reliable knowledge of safety-related matters and is able to properly carry out examinations. Different expert skills are demanded depending on the complexity of the test procedure e. g. the scope of testing, type of testing or the use of specific measuring devices.

Technically qualified employees

Window formworks may only be used for shuttering and striking by professionally competent personnel. Those employees have to receive appropriate training and instruction including the following:

- explanation of the instruction for assembly, rebuilding and dismantling in an easily understandable manner and language
- description of safety measures for assembling, rebuilding and dismantling the window formwork
- naming measures to prevent the risk of objects falling

- information about the admissible load
- description of further risks related to the assembly, rebuilding and dismantling of the formwork

Note: In countries other than Germany you need to make sure to comply with the latest version of your country's national requirements and regulations!
In case there are no country-specific requirements and regulations for your country, we recommend acting upon German requirements and regulations.

* In Germany the following regulations shall apply : Regel zum Arbeitsschutz auf Baustellen 30 (RAB 30)

** The instruction shall be carried out by the company itself or by a qualified authorized person.

Additional technical documents

- instruction for assembly and use:
 - window formwork
 - shuttering formwork
 - shuttering element
 - length compensation
- operating instruction
 - modular palett
 - stacking rack
- brochure „simply perfect“

Intended use

Product description

TIMRON products are designed exclusively for commercial use by users with technical expertise.

TIMRON window formworks are formworks made from aluminum and can be used for different recess sizes used for situ concrete construction. Different widths can be realized depending on the type of formwork. The vario corner elements are being connected using the corner wedge SEK and the TIMRON formwork clamp. The bracing of the vario corner elements is done by using the multi struts MS and the strut couplers KP and KPD (see illustrations on page 27 – 29) according to the needs on the construction site. The window formwork must be secured on the main formwork panel by using a stop fillet or a multi angle MW 15. Different colors indicate different formworks for each wall thickness

System dimensions

vario corner element VE

length: 30 cm / width: 20 – 24 – 25 – 30 cm

Usage

The standard system can be used for windows of the following size:

recess size: from 75 to 300 cm

wall thickness: 20 / 24 / 25 / 30 cm

Instructions for use

Any deviation from the intended use of the system or any improper use which is not in compliance with the instruction for assembly and use leads to a safety risk.

Only original components manufactured by TIMRON are permitted to be used.

The use of other parts and spare parts than those mentioned above is not allowed.

Modifications to the original TIMRON components are inadmissible.

Instructions for appropriate cleaning and maintenance

The formwork elements may be cleaned after use in order to maintain the value and usability of the formwork components in the long run. Still, maintenance and repair may need to be carried out due to frequent use. In order to avoid unnecessary repair and maintenance please read and follow the instructions below.

A concrete release agent needs to be applied on the side of the formwork directed to the concrete. Furthermore, the concrete release agent needs to be applied on the telescopic rods in order to ensure quick and easy cleaning of the formwork. The concrete release agent needs to be applied thin and even.

During ongoing concrete work please apply the concrete release agent directly after striking the formwork and afterwards use a rubber scraper or brush for cleaning.

Do NEVER use a steel brush or metal scraper on powder-coated components.

Important: high-pressure cleaner

IMPORTANT: All dirt and remaining concrete need to be removed from the components of the window formwork and a concrete release agent needs to be applied directly after striking. This ensures the usability and durability of the formwork.

In order to reduce and avoid damages on the TIMRON formwork, the internal vibration needle shall be provided with a rubber cap to avoid “inserting” the vibrating head between the concrete reinforcement and the formwork facing.

Dimensions

Dimensions generally are given in centimeters (e. g. for illustrations)

Diverging dimensions e. g. given in meters are indicated in the illustrations

Notes on the components presented

The presentation of the components on the title page needs to be seen as system visualization. The assembly steps in this instruction for assembly and use are shown only for one size of components but are representative for other sizes included in the standard assembly.

Detailed description is partly left out for a better understanding (e.g. safety measures). The safety measures not indicated within the descriptions still need to be fulfilled. Safety instructions and load capacities must be followed carefully. Modifications and deviations need to be approved by a separate static calculation.

Across all systems

General

The company needs to make sure that the instruction for assembly and use delivered by TIMRON is available and made comprehensible for the operator at all times.

The instruction for assembly and use can serve as a basis for the risk assessment. The risk assessment needs to be prepared by the company and the instruction for assembly and use can not be used as a replacement for the risk assessment.

You have to be in compliance with the safety measures and the admissible load capacities at all times.

Please follow the latest regulations and requirements of your home country in order to use and maintain TIMRON products.

Please check the material and the workspace on a regularly basis and especially before use for the following:

- damages
- stability
- function

Damaged parts need to be sorted out immediately and may no longer be used.

Do not remove safety components until they are no longer necessary.

Components provided by the customer need to be in compliance with the characteristics indicated in the instruction for assembly and use and the latest national regulations, requirements and standards.

Deviations from the instruction for assembly and use only are allowed after a further risk assessment executed by the company/customer. Appropriate work, operational and stability safety regulations need to be established based on the new risk assessment.

Before and after extraordinary occurrences affecting the safety and security of the window formwork the company/customer must:

- conduct another risk assessment in order to define measures to ensure the stability of the window formwork
- conduct an extraordinary inspection by a qualified person aiming to detect damages early in order to repair them and thereby ensure safe use

Extraordinary occurrence may be:

- accidents
- long period of non-use
- natural events such as heavy rainfalls, icing, heavy snowfall, storms or earthquakes

Assembly, rebuilding and dismantling

Only technically qualified people are allowed to assemble, rebuild or dismantle a window formwork. The technically qualified employees therefore need to receive proper training concerning specific risks in advance.

By means of the risk assessment and the instruction for assembly and use the company/customer needs to develop an assembly instruction in order to guarantee a safe assembly, rebuilding and dismantling of the window formwork.

Therefore all window formworks need to be checked for safe functioning by a technically qualified person before being ready for use. The results of the check need to be documented in a test report.

The company/customer is responsible for providing and ensuring the use of adequate safety equipment for the assembly, rebuilding and dismantling of the window formwork such as:

- safety helmets
- safety shoes
- safety gloves

The company/customer needs to:

- provide a safe work environment accessible via safe traffic routes and additionally shut off and indicate danger zones
- ensure the stability during all phases of construction and especially during the assembly, rebuilding and dismantling phase
- ensure the transmission of all occurring loads and show proof

Use

Every company/customer using window formworks or components thereof (directly or indirectly) is held responsible for the proper condition and maintenance of the equipment.

The coordinator for safety and health matters has to coordinate the teams and point out possible reciprocal risks and dangers when different companies are using the window formworks at the same time or directly one after another.

Across all systems

Striking the formwork components shall only be done after the concrete has cured and the person in charge has given the corresponding instructions.

Storage and transport

Formwork components need to be secured safely when stored and transported. The lifting gear and sling may only be taken off when the formwork components have been put down safely and are no longer moved. Do not drop the components!

When moving the components:

Please make sure that accidentally falling over, falling apart, slipping, dropping or rolling away will be avoided.

No person may be present in the danger zone underneath the load!

The ground must be sufficiently loadbearing for the transport. You may only use adequate lifting gear and only secure the components on the indicated lifting points.

When moving or transporting the components please remove loose components and secure them separately.

Note : Transport units need to be stacked and secured according to professional technical standards. You need to be in compliance with the national traffic rules and regulations for the transport!

Modular pallet for storage and transport of the window formwork



Instruction for assembly – TIMRON window formwork

Mount the window formwork with vario corner elements VE

Note: Carefully read the following instruction before starting!

Division of panel formwork. Please make sure that no strain anchor hits a formwork element.

The assembly always needs to be carried out horizontal on a levelled ground in front of the installation point/panel formwork



Two vario corner elements VE are connected via a wooden plank (size of the plank depends on the size of the recess)



Ring nuts are loosened by using a roofing hammer. Afterwards the wedge is adjusted to the wood thickness and the ring nuts are tightened again.

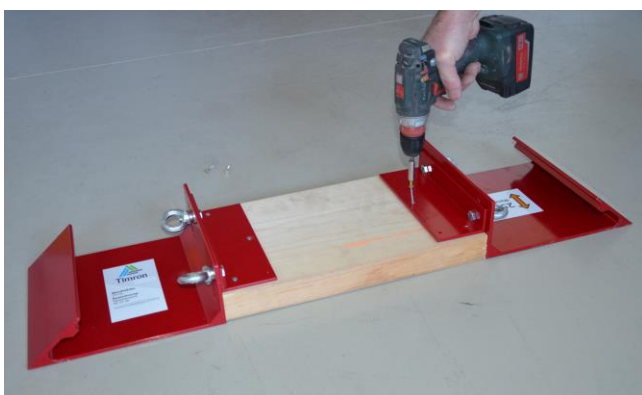
Instruction for assembly – TIMRON window formwork

3



The wooden plank is then screwed on the vario corner element VE.

4



The second vario corner element VE is also connected to the wooden plank using screws.

Do not use nails!

5



Vario corner element VE is now ready for use

Instruction for assembly – TIMRON window formwork

6

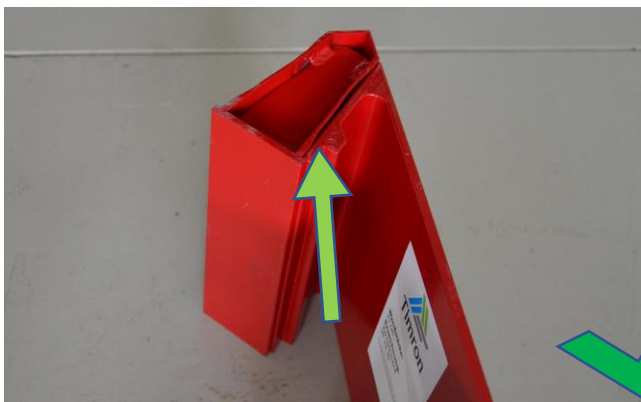


7



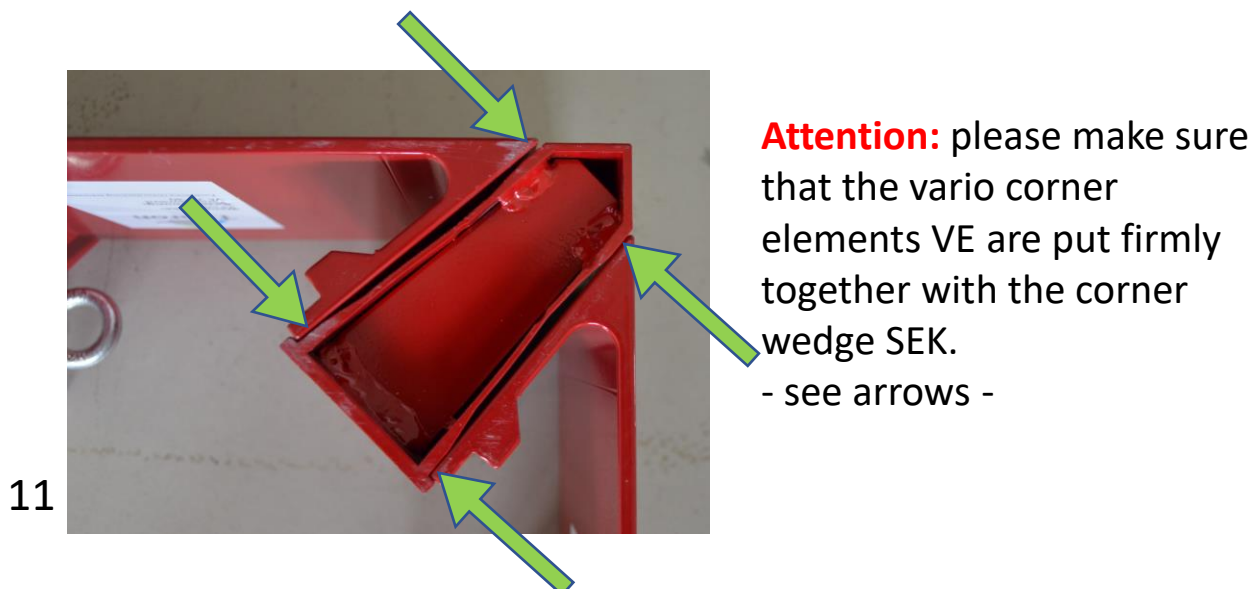
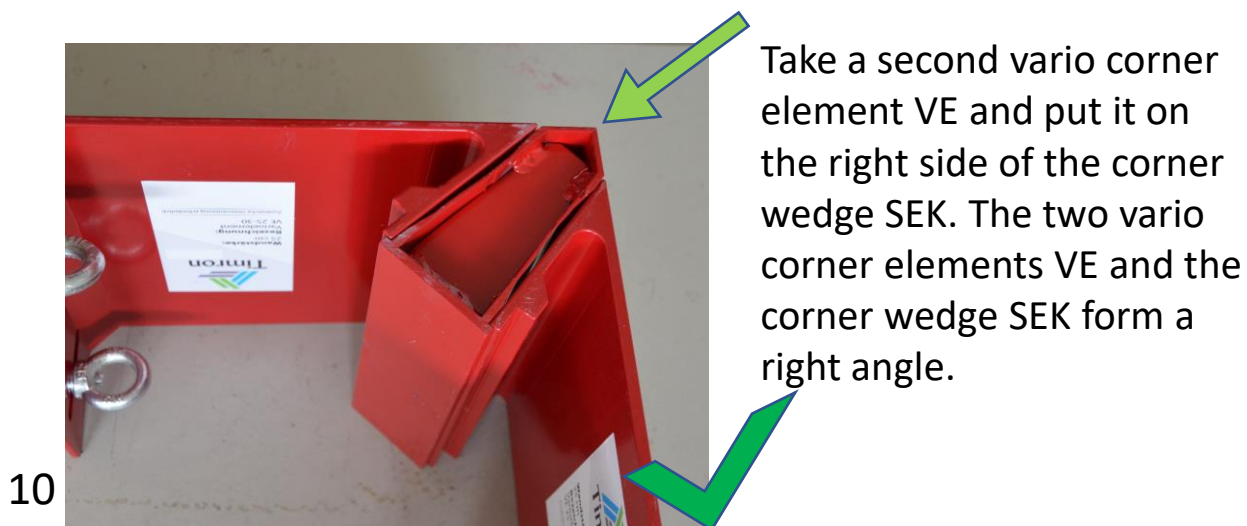
For the assembly put all the components of the window formwork on the ground.

8



Corner wedge SEK is put on one the left side of the vario corner element VE. Please make sure that it is put together firmly!

Instruction for assembly – TIMRON window formwork



Instruction for assembly – TIMRON window formwork



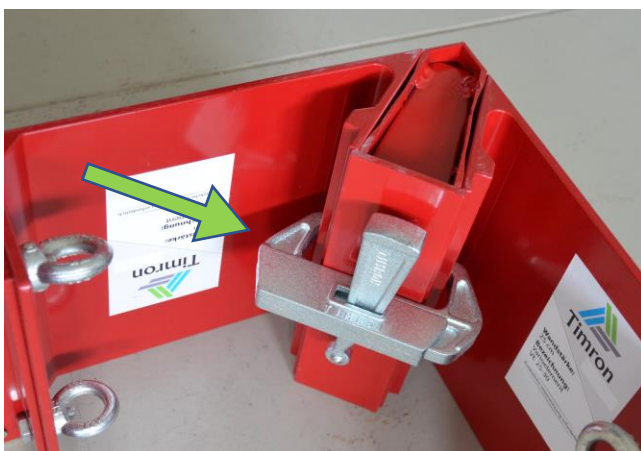
Assembly for instruction – TIMRON window formwork

15



Open the formwork clamp and insert it from the top, so that the claws are enclosing the vario corner element VE and the corner wedge SEK.

16



Move the formwork clamp to the middle of the corner wedge SEK.

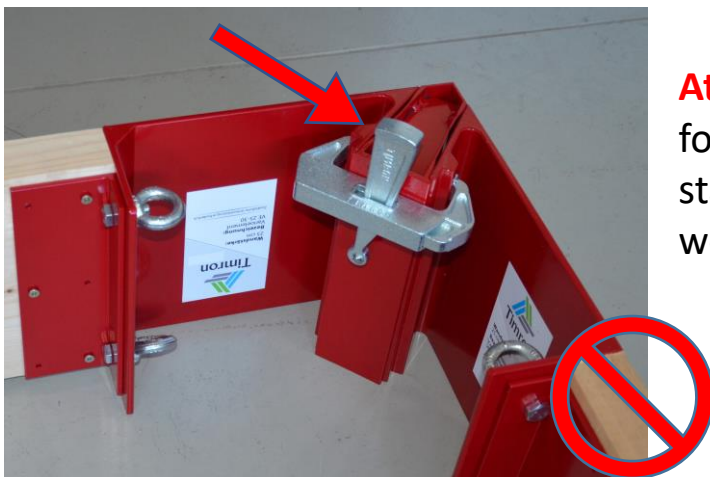
17



Fix and secure the formwork clamp by using a hammer. The vario corner elements VE thereby are being firmly connected.

Instruction for assembly– TIMRON window formwork

18



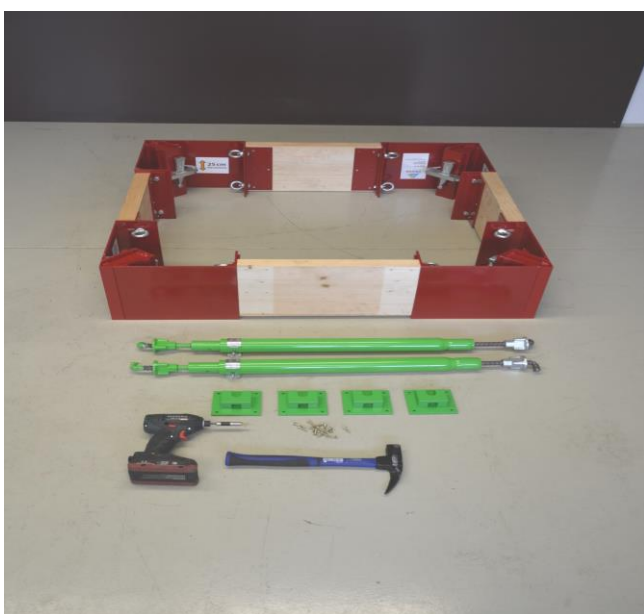
Attention: The wedge of the formwork clamp may not stand out over the corner wedge SEK.

19



The four vario corner elements VE are now firmly connected into a rectangle.

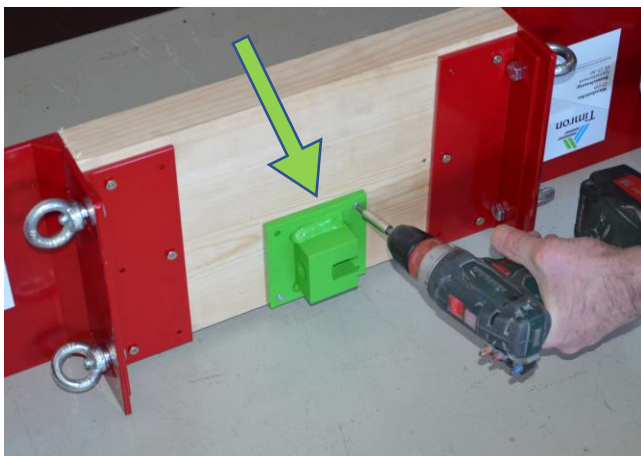
20



Please put all components of the window formwork on the ground next to the rectangle.

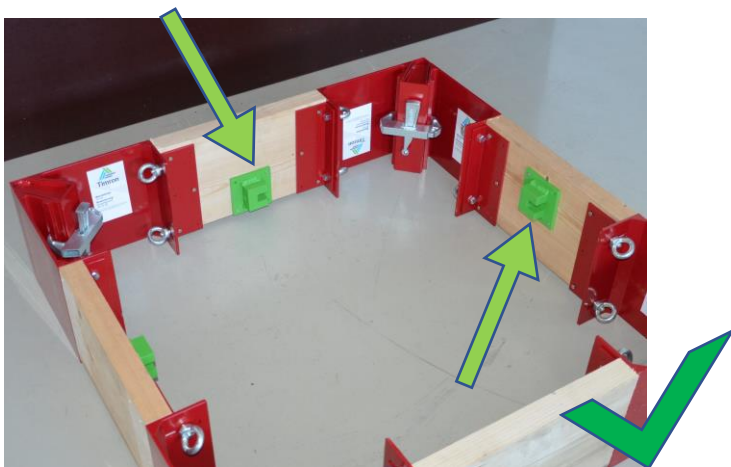
Instruction for assembly – TIMRON window formwork

21



The strut couplers KP are connected to the wooden plank using four screws.

22



23



The multi strut MS is roughly adjusted via the suspension strut. Then use the DYWIDAG thread to adjust the strut to the size of the recess and mount the multi strut MS afterwards.

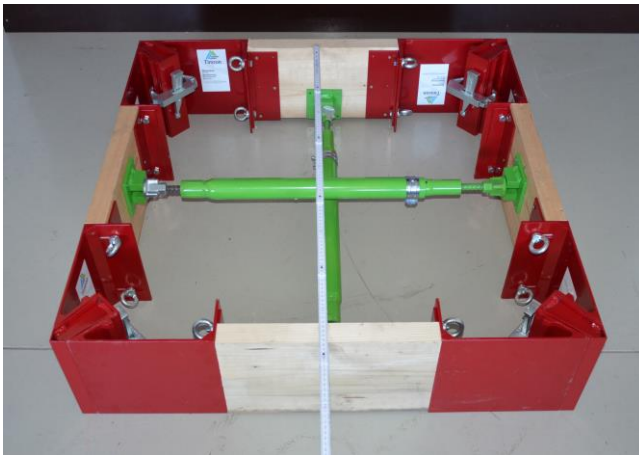
Instruction for assembly – TIMRON window formwork

24



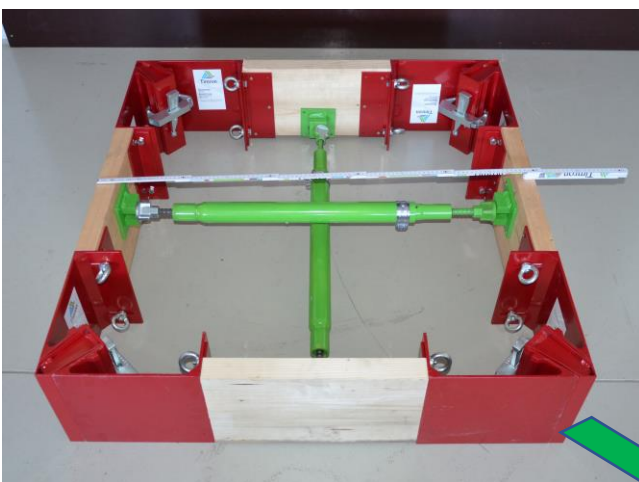
Fix both flanged wing nuts with a hammer.

25



Measure the gap, mount the second multi strut MS and adjust it by turning if necessary.

26



The window formwork is now ready to be fixed on the panel formwork.

Important: Use release agent!



Instruction for assembly – TIMRON window formwork



27

Horizontally mount the stop fillet on the panel formwork.

Do not use nails!

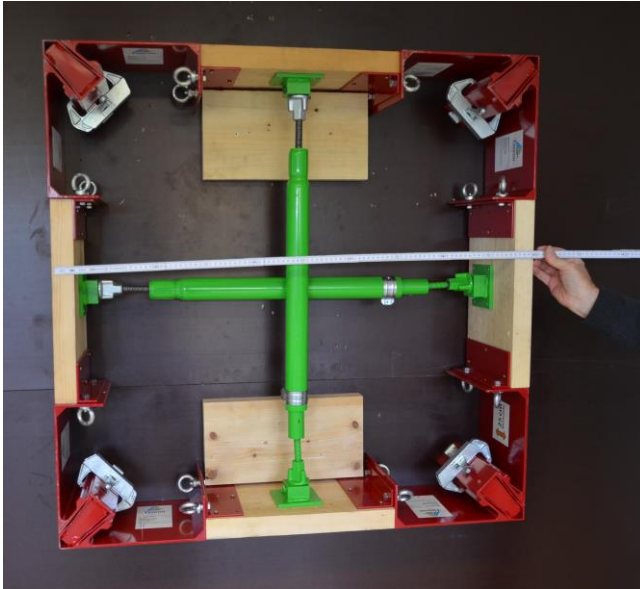


28

You only may use nails if the panel formwork needs to be dismantled at first.

Instruction for assembly – TIMRON window formwork

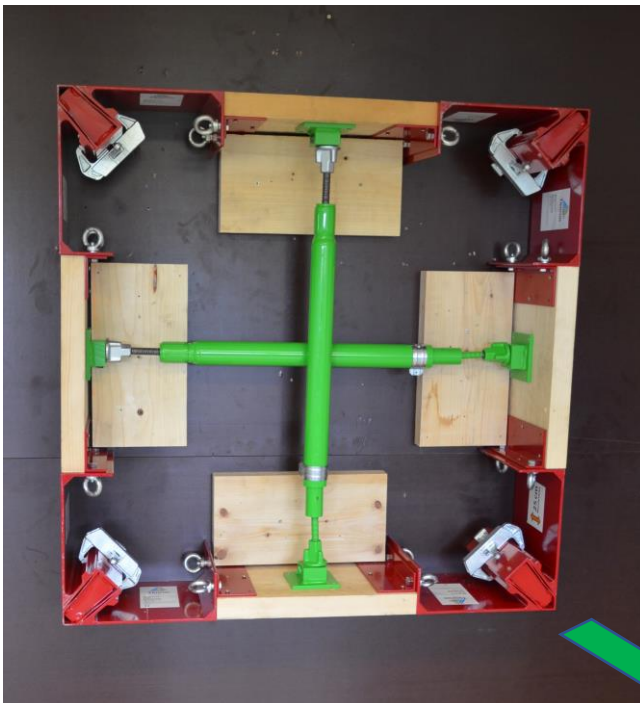
29



Then mount the second stop fillet and place the window formwork. Afterwards check the size of the recess.

Attention: The spigot on the wedge of the formwork clamp needs to point to the direction of the formwork that needs to be opened at first.

30



To be ready for use, please mount the remaining stop fillets. The panel formwork may now be mounted and the concreting process can start.

Attention: If the height of the concrete is higher or the concrete pouring rate is faster than indicated, please look at page 28 ²² 29!

Instruction for assembly – TIMRON window formwork



31

PRACTICAL HINT:

As your own control mechanism you can use a pencil to mark the placing of the stop fillet.



32

Pencil mark

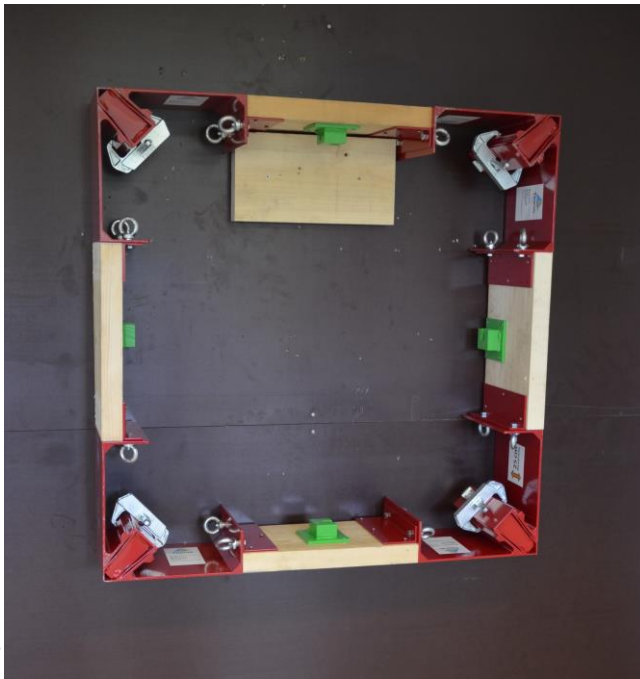
Instruction for assembly – TIMRON window formwork

33



After the concreting process you can use the pencil mark in order to see whether the stop fillet has moved due to high concrete pressure or one-sided concrete pressure. In case the stop fillet has moved you need to take further measures when using the formwork for the next recess.

Dismantling of the formwork



34

Remove the components of the window formwork in the following order:

1. Multi struts MS
2. Stop fillets



35

Use a hammer to open the formwork clamp and take it out.

Instruction for assembly – TIMRON window formwork

36



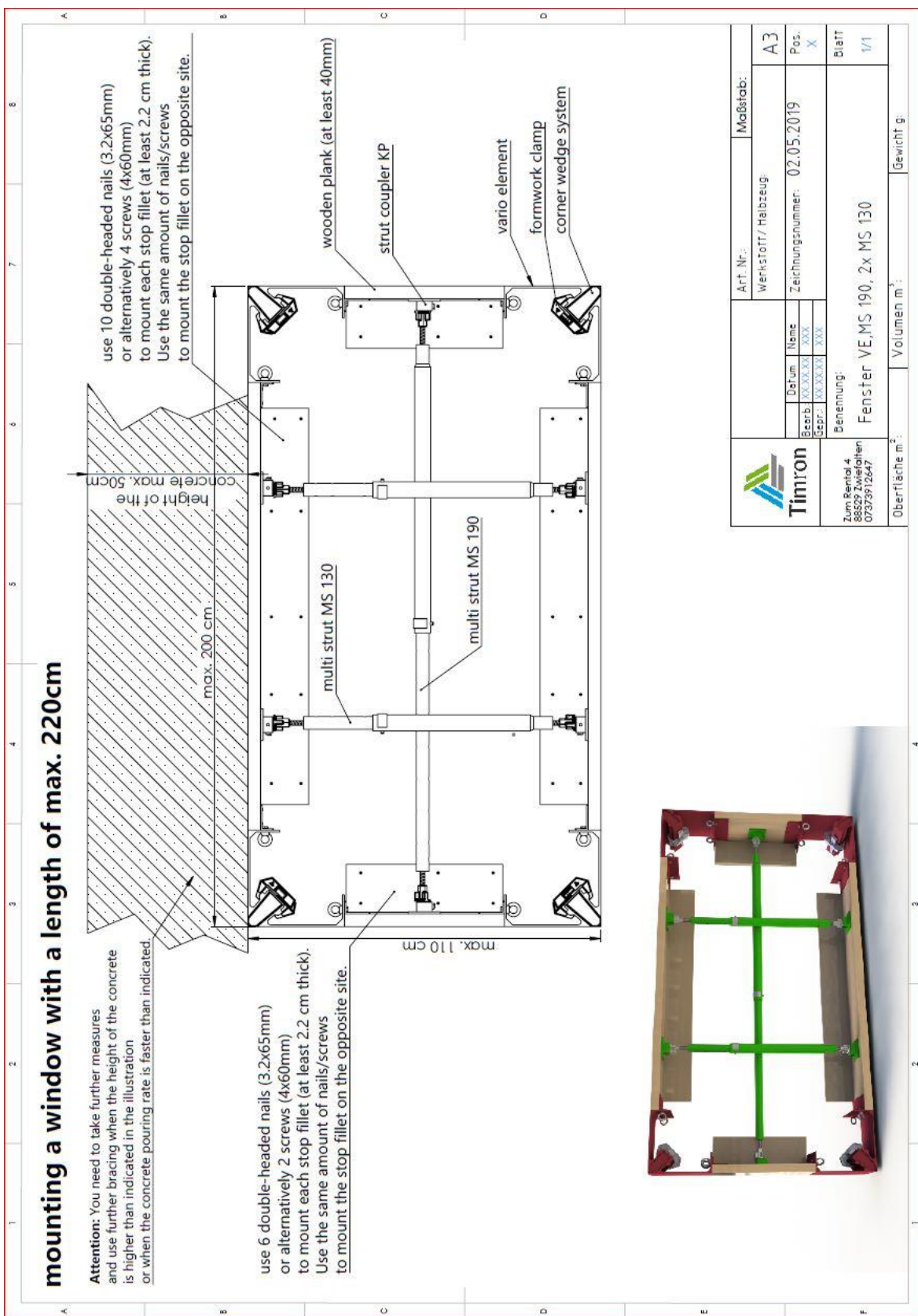
Loosen the corner wedge SEK by a slight hammer blow on the edge.

37



Repeat the process described above and remove the vario corner elements VE.

Instruction for assembly – TIMRON window formwork



Instruction for assembly – TIMRON window formwork

12345678

ABCDEF

mounting a window with a length of max. 300cm

use 6 double-headed nails (3,2x65mm) or alternatively 2 screws (4x60mm) to mount each stop fillet (at least 2.2 cm thick). Use the same amount of nails/screws to mount the stop fillet on the opposite site.

use 12 double-headed nails (3,2x65mm) or alternatively 6 screws (4x60mm) to mount each stop fillet (at least 2.2 cm thick). Use the same amount of nails/screws to mount the stop fillet on the opposite site.

max. 110 cm

max. 300 cm

height up to 50cm

concrete

multi strut MS 130

multi strut MS 130


wooden plank (at least 40mm)


strut coupler KP

vario element

formwork clamp

corner wedge system



	Art. Nr.:		Maßstab:	
	Werkstoff/ Halbzeug:		A3	
	Zeichnungsnummer:		02.05.2019	
Bezb.	Datum	Name	Pos.	
00-00-00	00-00-00	XXX	X	
00-00-00	00-00-00	XXX		
Benennung:				
Zum Rental 4				
88527 Zwisofilen				
0737912647				
Oberfläche m ² :		Volumen m ³ :		Gewicht g:



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