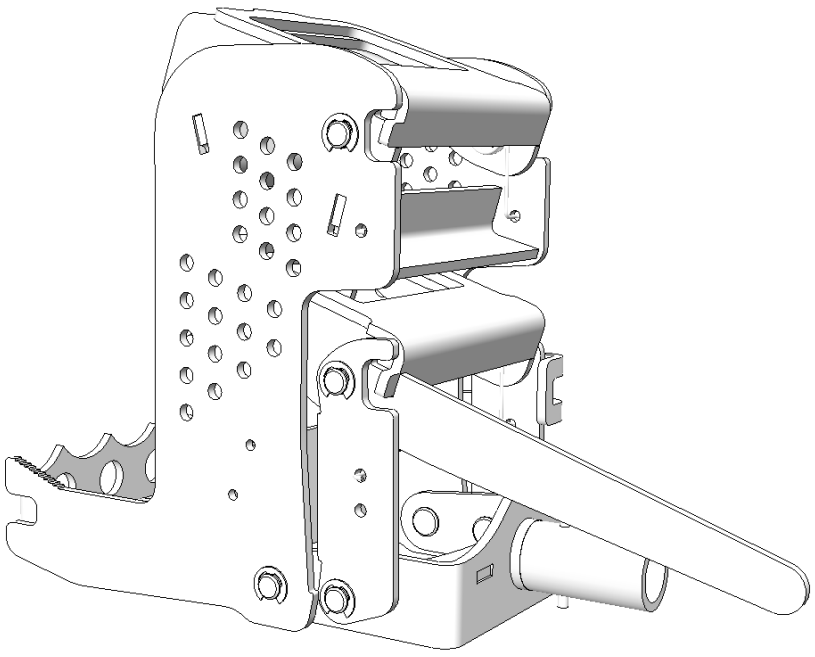
JACKIE L



USER'S GUIDE

PINNIUM s.r.o.

Residence: Za Pazdernou 2573/8, 397 01 Písek
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ORIGINAL USER'S GUIDE, SAFETY FUNDAMENTALS, OPERATION AND MAINTENANCE

Before using the product for the first time, hereinafter referred to as "Tool", carefully read this user's guide. Make sure you understand all of the information necessary for safe use, operate, maintain, and evaluate the risks that may arise during operation of the Tool. If you are not sure that you understood the information correctly or have questions about its usage, contact us using the contact information provided at www.pinnium.cz.

This user's guide has to be available to everyone, who already is or has to be authorized to operate the Tool. Keep it for future use! Do not use the Tool for different activities from a main purpose of the Tool, for which it was designed.

ONLINE USER'S GUIDE

User's guide is also accessible online on company website or by using the QR code on a production label of the Tool.

CONTENT

1 INTORUDCTORY STATEMENT

This original user's guide respects Government Regulation No. 176/2008 Coll. on technical requirements for the Machine Tool as amended in 2021.

Revision date: 12.10.2021

2 WARNING!

Do not use the Tool until you have read the whole user's guide and being sure, you understood correctly all the content.

Keep this manual for future utilization.

Pay special attention to the safety instructions.

Failure to observe the safety rules may cause an injury to an operating person or in the vicinity of the Tool, or damage of the Tool.

3 PRODUCER

Producer of this tool is company:

PINNIUM s.r.o.

Residence: Za Pazdernou 2573/8, 397 01 Písek

CIN: 109 01 442

EU VAT no.: CZ10901442

registered in the Commercial Register and kept at the Regional Court in České Budějovice, file number C 31090..

4 TOOL LABELING

Name: Lifting Tool

Typ (model): JACKIE L , JACKIE-V100-U1-2021

5 GENERAL DESCRIPTION

The lifting tool JACKIE L is a mechanical tool designed for lifting the walls of wooden buildings from a horizontal to a vertical position. Walls can be partially sheathed, but they must always respect the maximum permissible weight and the required number of lifting tools.

!!! ATTENTION !!!

THE LIFTING TOOL IS NOT INTENDED FOR USE SEPARATELY!
AT LEAST TWO LIFTERS ARE ALWAYS NEEDED TO BE USED
FOR LIFTING ONE WALL AT THE SAME TIME!

5.1 TECHNICAL PARAMETERS

Maximum load capacity (vertical):	**max. 268 kg***
Dimensions (without main rod):	327 x 185 x 294
Lifter weight:	7,8 kg
Assembly weight:	10,9 kg (heel and main rod included)
Material:	Steel

* Load capacity 268 kg (vertical) represents 400 kg wall weight with center of gravity (COG) in 67 % closer to the lifting Tool.

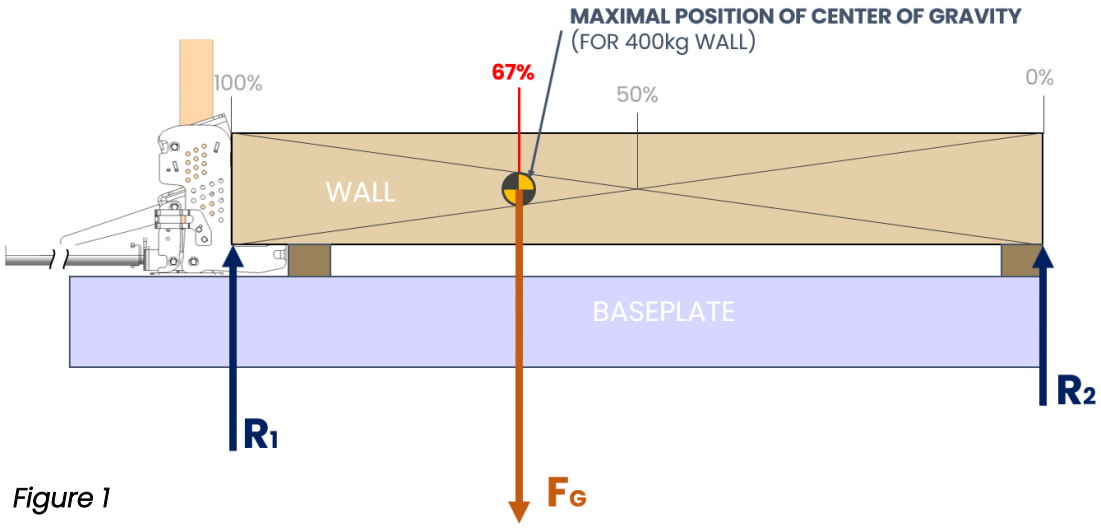


Figure 1

Tilted wall forces distribution in the horizontal position (ex. for a 400 kg wall):

$F_G = m*g = 400* 9,81 = 3\ 924$ N ..... Gravity force

$R_1 = m*g*0,67 = 400* 9,81*0,67 = 2\ 629$ N ..... Reaction force (at lifter side)

$R_2 = m*g*(1-0,67) = 400* 9,81*0,33 = 1\ 295$ N ..... Reaction force (at tilting axis)

where: g = gravity constant = 9,81 $m*s^{-2}$

5.2 LIFTING TOOL PARTS

(1) Lifting Tool body
(2) Main rod
(3) Heel
(4) Flaps
(5) Auxiliary lever
(6) Swinging arm

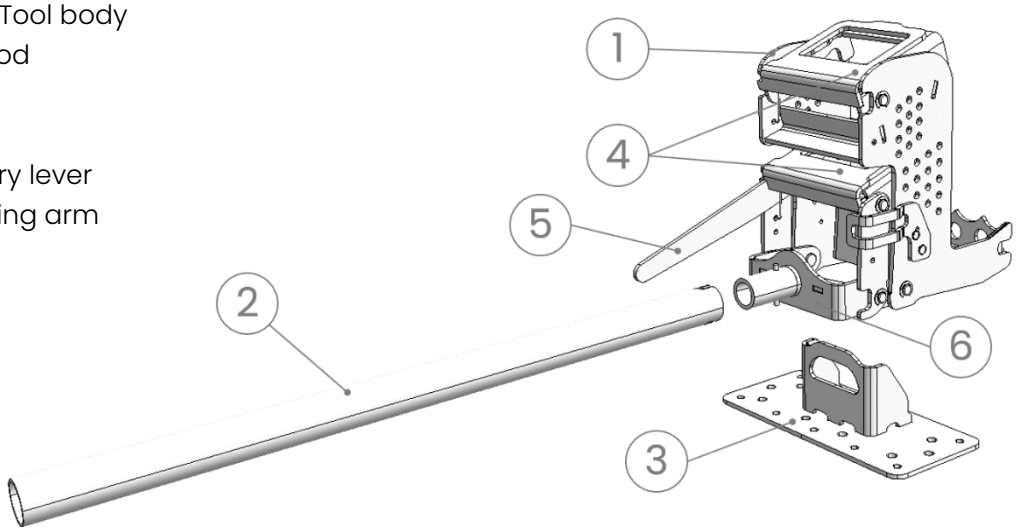


Figure 2

5.3 TERMS USED FOR WALLS AND ITS PARTS

There are described terms used for walls and its parts (see Figure 3).

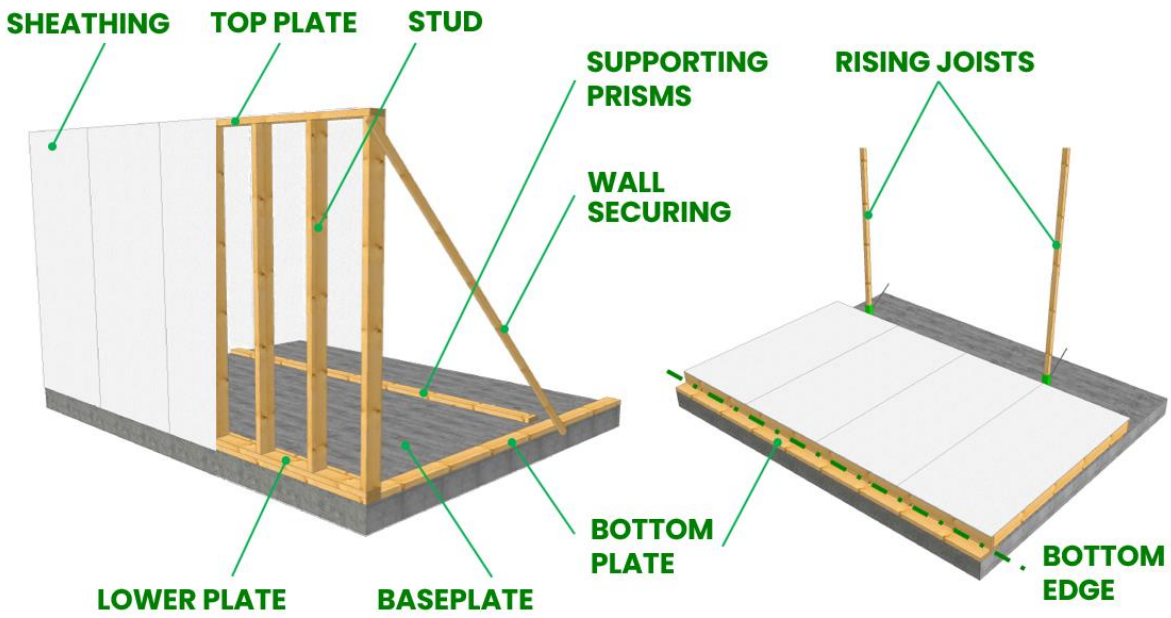


Figure 3

5.4 RISING JOIST – DEFINED BY REGULATION **DIN EN 336:2013-12**

The rising joist intended for insertion into the lifting Tool and for which the Tool is designed, is a KVH 100x60 mm joist with dimensional stability of the cross-section according to DIN EN 336: 2013-12.

We highly recommend to use a new rising joist to lift each wall to ensure trouble-free operation during the lifting.

!!! ATTENTION !!!

IF DIMENSIONS OF THE RISING JOIST
ARE OUT OF THE TOLERANCE ACCORDING TO DIN EN 336: 2013-12,
FUNCTIONALITY OF THE LIFTING TOOL IS NOT GUARANTEED!!

Minimal length of the rising joist according to a height of lifted wall is as follows:

Table 1

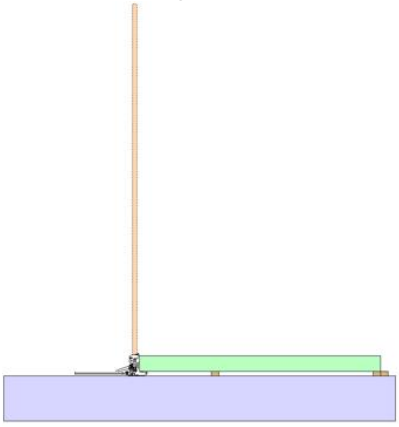
Lifted wall height [m]	2,4	2,5	2,6	2,7	2,8	2,9	3,0	3,1	3,2	3,3	3,4
Rising joist length [m]	3,7	3,9	4,0	4,2	4,3	4,5	4,6	4,7	4,9	5,0	5,2

In general:

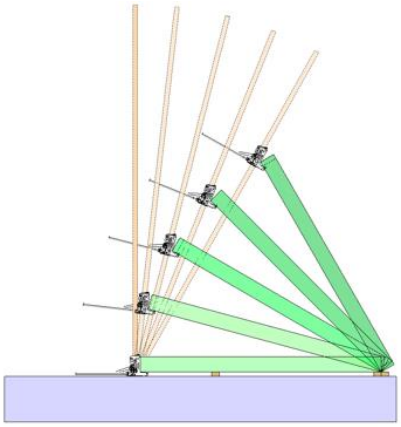
Minimal length of rising joist is 1,6x wall height!

5.5 LIFTING STEPS – QUICK OVERVIEW

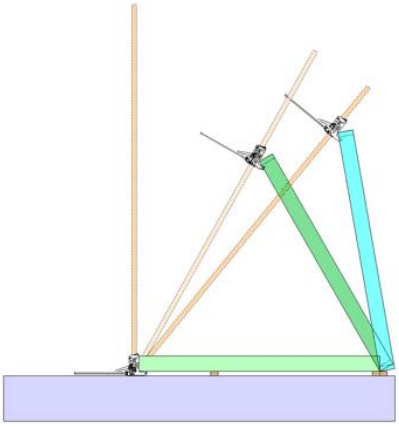
Lifting the wall is performed by tilting it over the bottom edge from horizontal position, usually up to an angle of 80-85 °, from where the wall is tilted to the vertical position by hand.



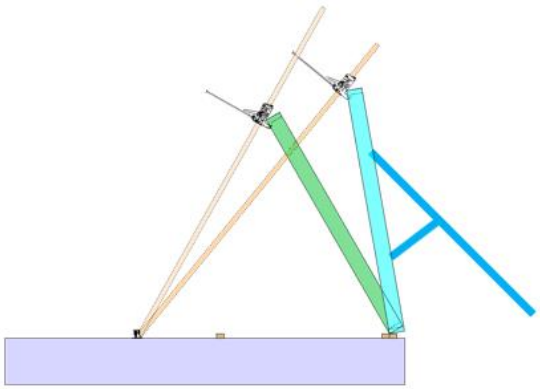
(1) Wall horizontal position



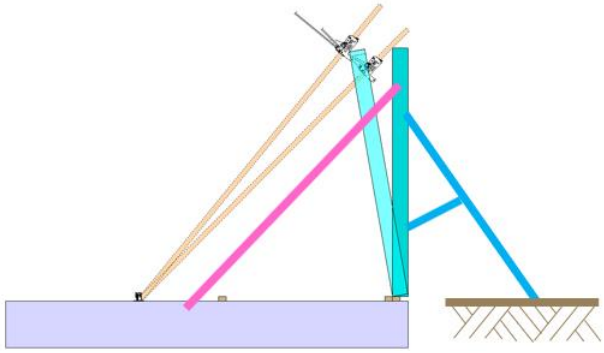
(2) Lifting the Wall using the Jackie Tool



(3) Lifting tool limit (80-85°)



(4) Securing the wall against overfall (illustration)



(5) Lifting the wall from 85° to 90° by hand

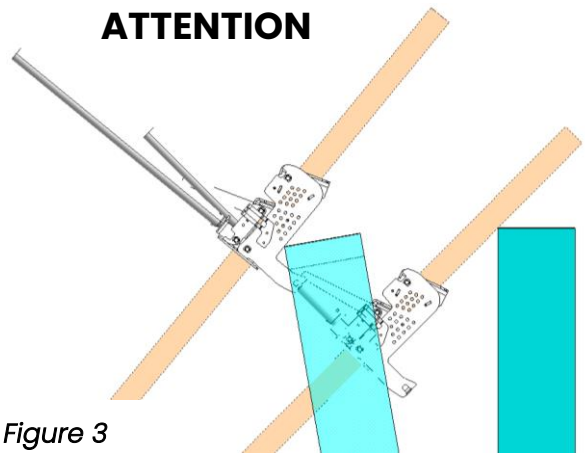


Figure 3

Securing the wall against overfall
Securing the wall against falling back

When lifting the wall manually (necessarily already secured against falling) from 85° to 90°, the Tool is released from working position.

The remaining part of rising joist then rests on the upper edge of the lifted wall. Therefore, it's necessary to pay attention to the correct length of the rising joist.

5.6 WALL LIFTING TECHNIQUE FROM HORIZONTAL POSITION

Lifting the wall is done by its tilting over the bottom edge from horizontal position, usually up to an angle about 85°. From this position the wall is tilted to the vertical by hand. **Pay special attention to secure the bottom edge of the wall against slipping or sliding!** Insufficient securing could lead to the wall slipping off the bottom plate. The same anchoring also applies to higher floors with anchoring the bottom plate to the respective floor.

3 OPTIONS OF WALL SECURING AT THE BOTTOM EDGE:

a) SECURING THE BOTTOM EDGE OF THE LIFTED WALL USING DOOR HINGES

Securing the wall against unwanted sliding using the door hinges is shown in Figure 5. On a bottom plate, already fixed to the baseplate, lay down the lower plate's long side of the coming wall, as it is shown in Figure 5. Below. Align frontal faces together. Screw at least 3 hinges along these flanges onto these surfaces. Make sure about the same mounting height of all hinges. After fixing the hinges to the bottom plate (D) and also to the lower plate of the wall, tilt the lower plate by 90°. In this position you will continue with the wall framing.

- ☑ Sheathed walls
- ☑ Unsheathed walls
- ☑ Wall sliding after lifting

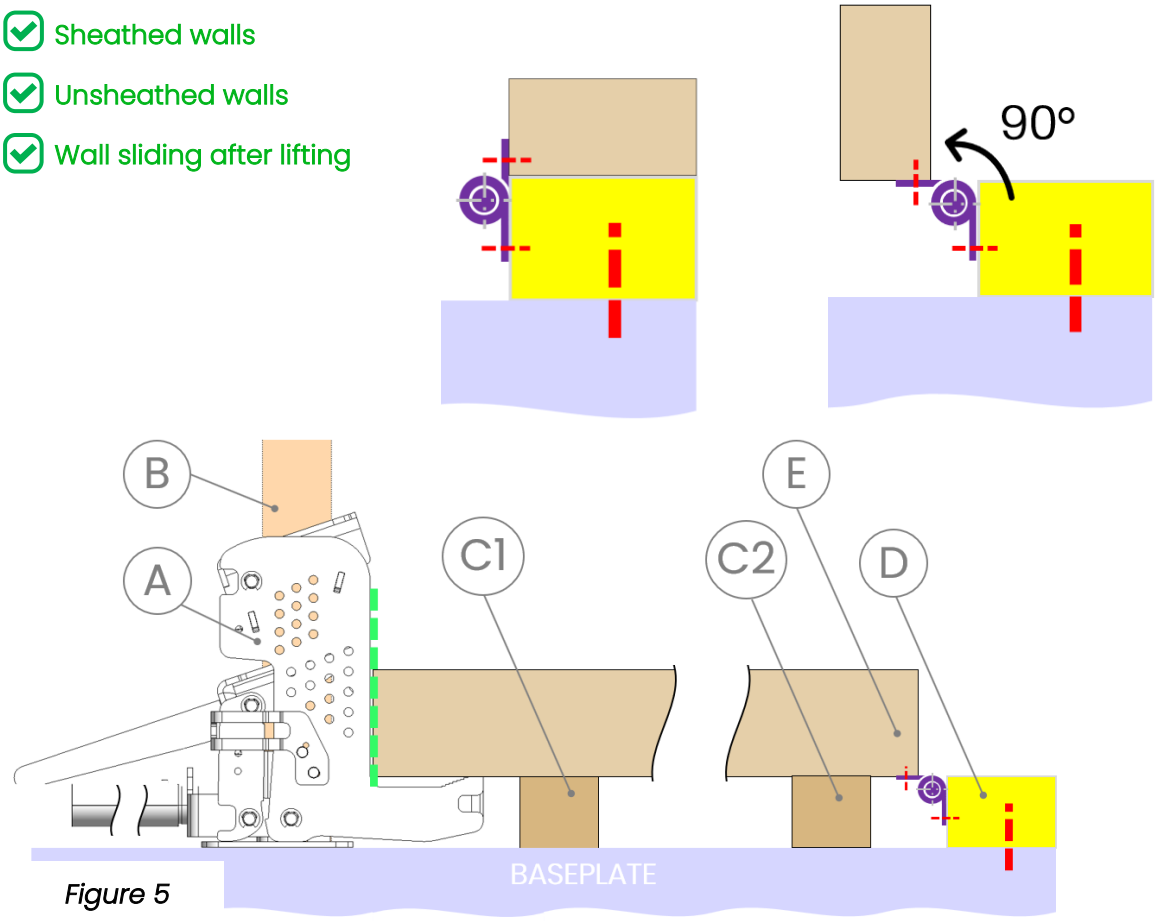


Figure 5

Legend:

(A) Lifting Tool	**(C)** Supporting prisms	**(E)** Lifted wall
(B) Rising Joist	**(D)** Bottom plate	**(F)** Wall securing (if used)

b) SECURING THE BOTTOM EDGE OF THE LIFTED WALL USING SECURING PRISMS

Securing the wall using securing prisms against unwanted sliding is done by fixing at least 3 prisms to the bottom plate from outside. Those prims have to be higher than a lower plate's longer side (see Figure 6). It is considered, that the bottom plate is already fixed to the baseplate.

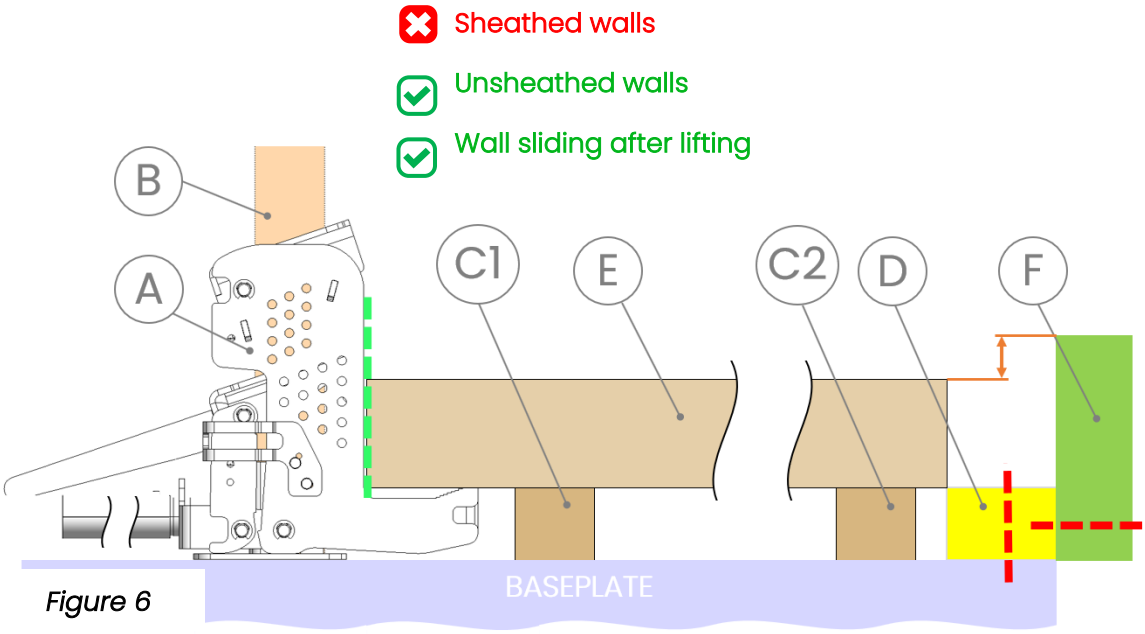


Figure 6

c) SECURING THE BOTTOM EDGE OF THE LIFTED WALL USING ANGLED SCREWS

Securing the wall against unwanted sliding is done by joining the lower plate with the bottom plate (D) using wood screws (see Figure 7), or long nails along the bottom edge of wall's lower plate. It's considered already with bottom plate firmly fixed to the baseplate. This connection creates a pivot axis for tilting the wall. Pay attention to this anchoring! This method doesn't allow the wall to be shifted after it's tilting to the vertical!

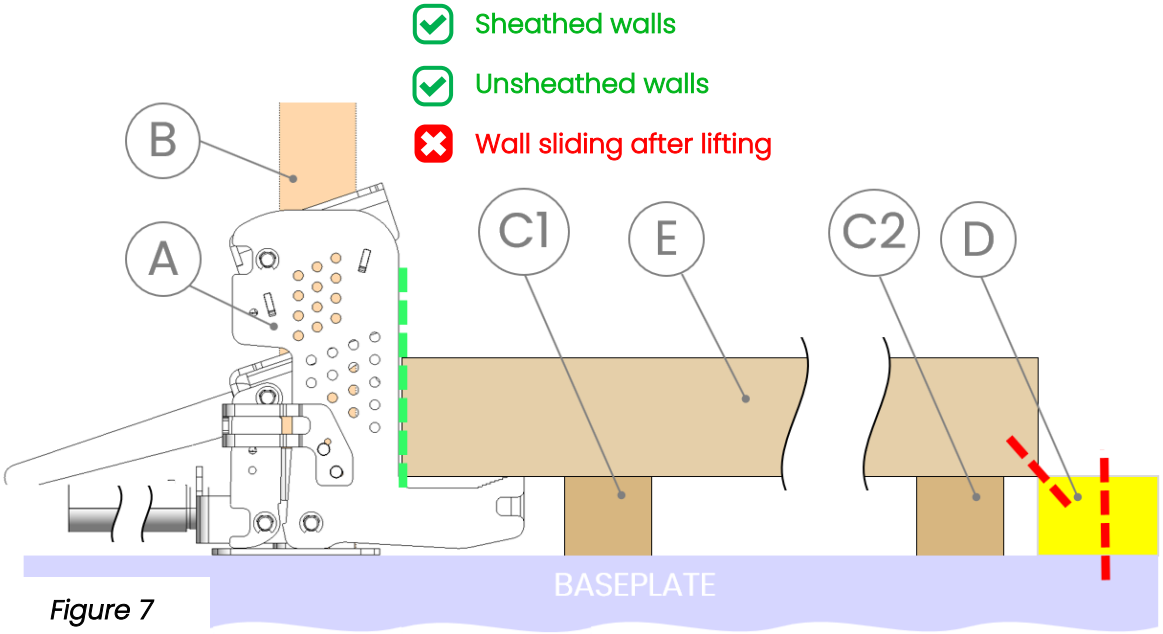


Figure 7

The wall is always lifted by the doble top plate by at least two lifting tools at the same time. To reduce deformations - deflections of double top plate and the wall, use more lifting tools. Determine the number of lifting tools according to the wall's dimensions and weight, see Table 2 in Chapter 5.8. This will reduce excessive deformation of the raised structure, which could lead to its damage or failure of its supports.

!!! ATTENTION !!!

THE LOWER EDGE OF LIFTED WALL HAS TO BE ALWAYS SECURED AGAINST ITS UNWANTED SLIDING OR MOVEMENT!

BOTTOM PLATE (Figure 5, letter (D)) HAS TO BE ALWAYS FIRMLY FIXED TO THE FLOOR OR BASEPLATE!

The lifting procedure is shown in the figures below:

1. Place the lifting Tool on a floor and insert the rising joist 100x60mm through the two flaps of the Tool up to the touch with the floor.

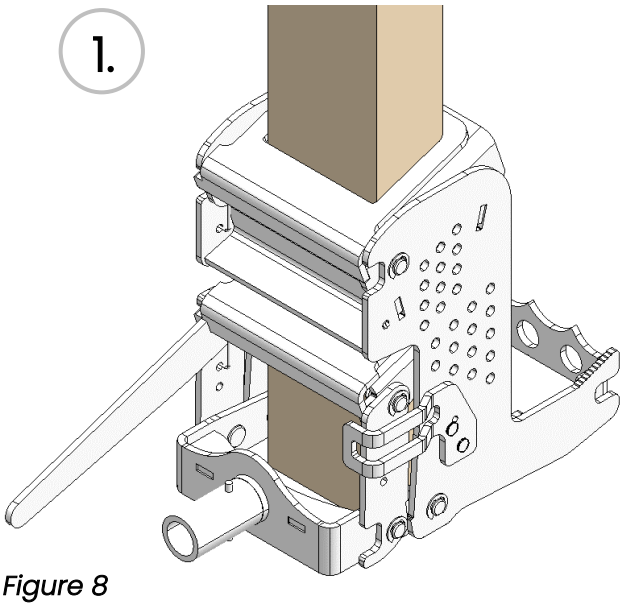


Figure 8

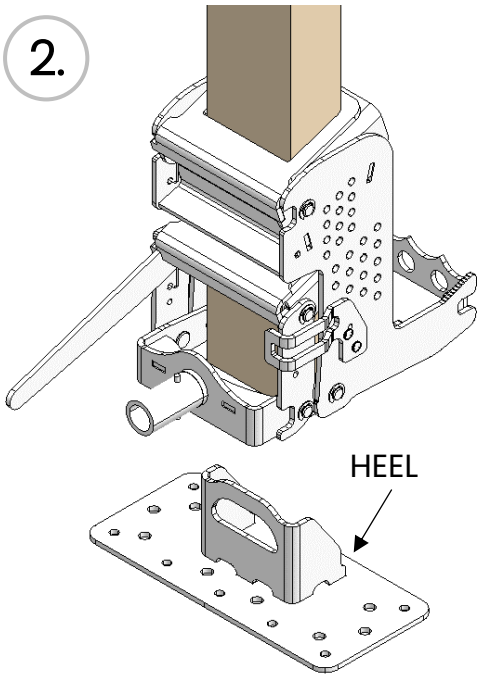


Figure 9

2. Put the lifting Tool, together with the rising joist inserted inside, on the heel. Do not fix the heel to the floor yet. Check, whether the rising joist rests directly on the heel. *(TIP: Now you can pump the Tool by your hand a few times to stiffen the Tool between the heel and the wall.)*

3. Put the main rod on the Tool and fix it by turning the rod clockwise.
(In the direction of an arrow – Fig. 10)

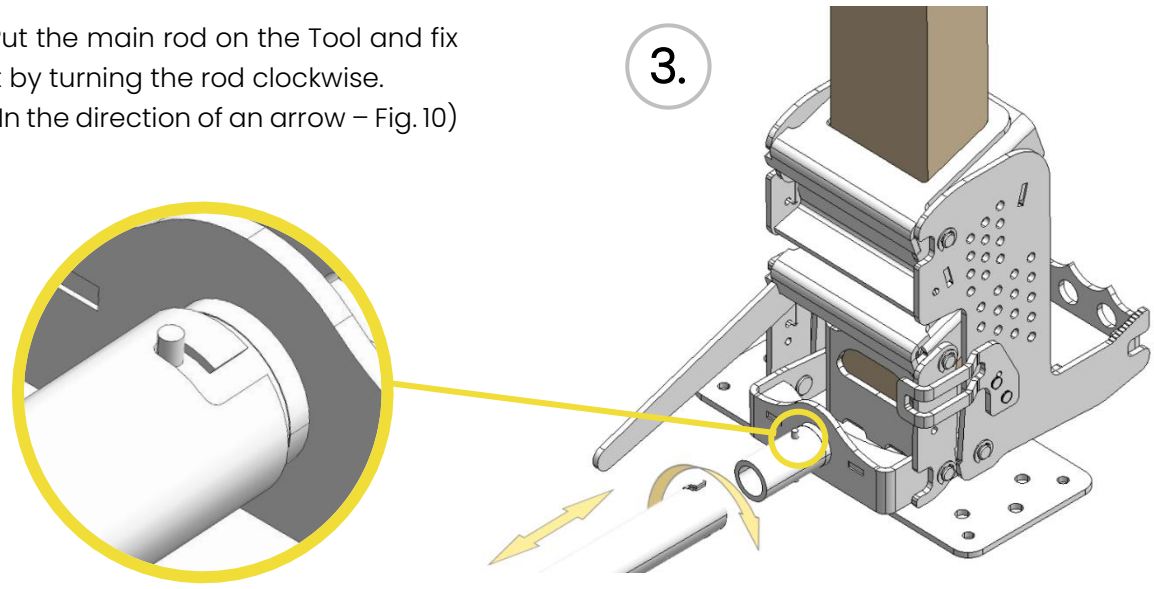


Figure 10

4. Put the lifting Tool together with the heel under the wall and make sure, whether the Tool is in close touch with the wall (green line on the Figure 11).

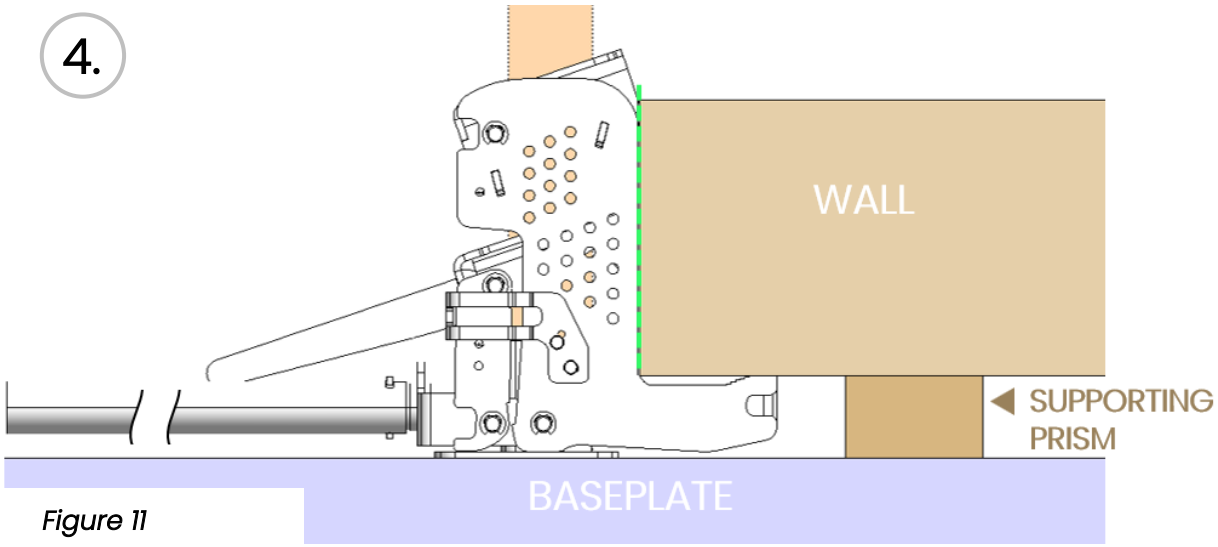


Figure 11

Correct lifting Tool position (Figure 12) – between the wall studs/ cripples

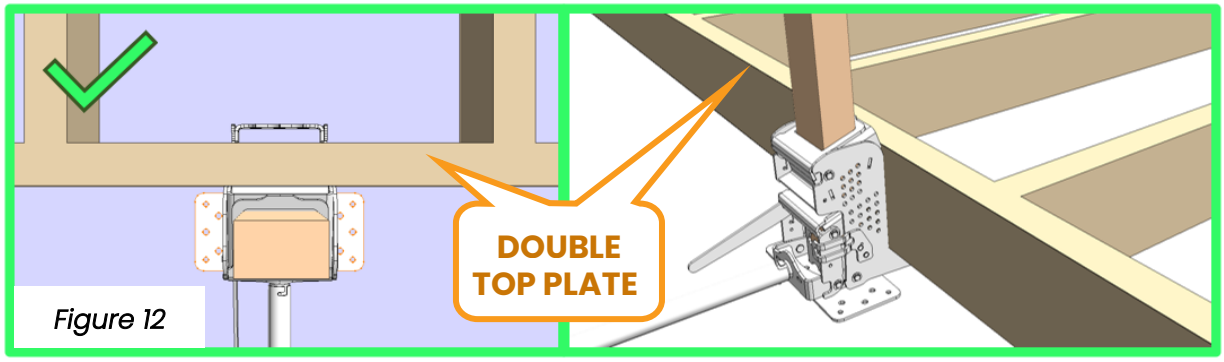


Figure 12

Incorrect lifting Tool position (Figure 13) – under the wall studs/ cripples

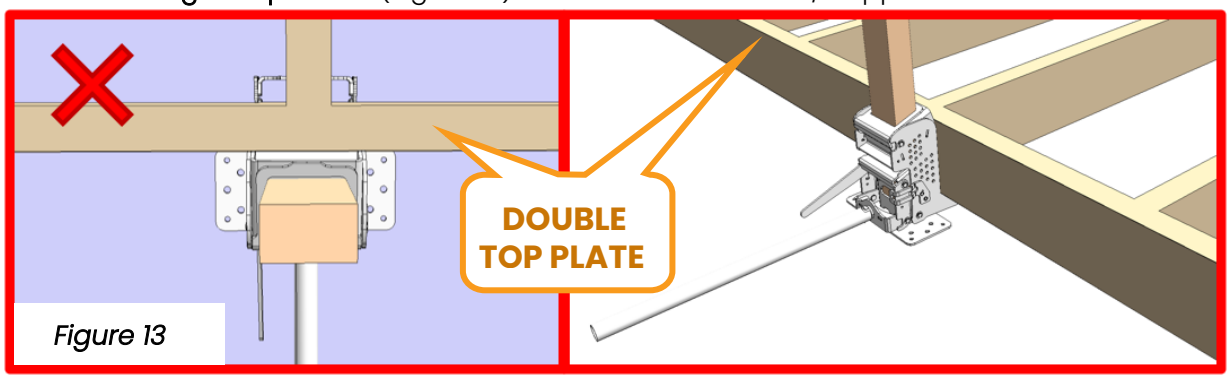


Figure 13

Grab hold of main rod by your hand and check, whether the rod is properly secured (see detail, Figure 14). Now you can pump the Tool by your hand a few times to stiffen the Tool between the heel and the wall. This secures the joist with the Tool against falling and gives you better access to the anchor holes in the foot at the same time.

5.

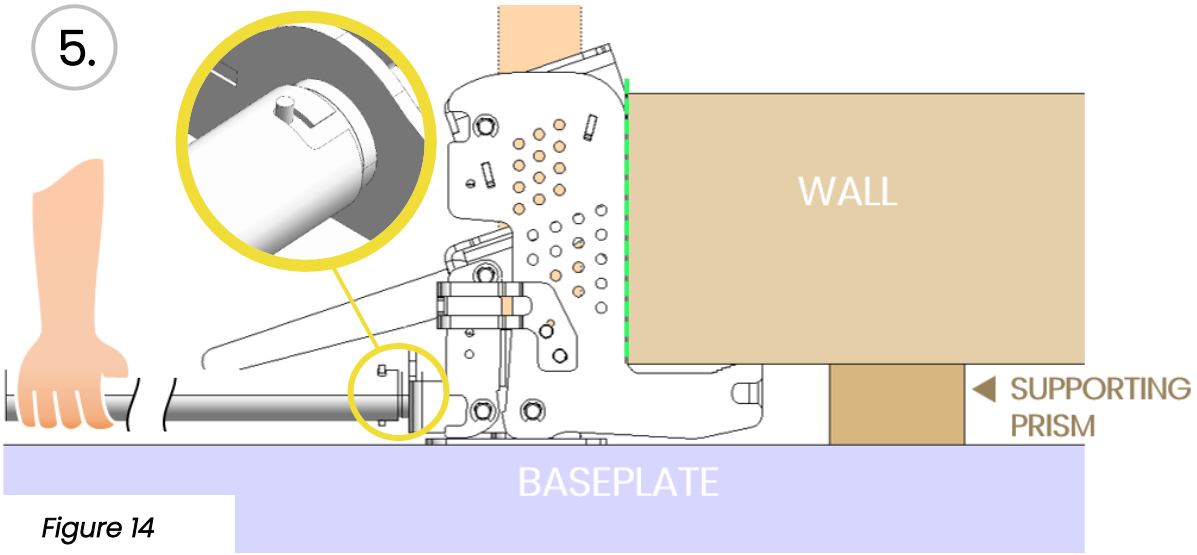


Figure 14

6. Fix the heel using 2 concrete anchors at minimum (when fixing to the baseplate - Figure 15, left), or by 4 wood screws (when fixing to the wooden ground in upper floors - Figure 15, right). There are several holes of diameters 9 and 11 mm prepared for this fixation.

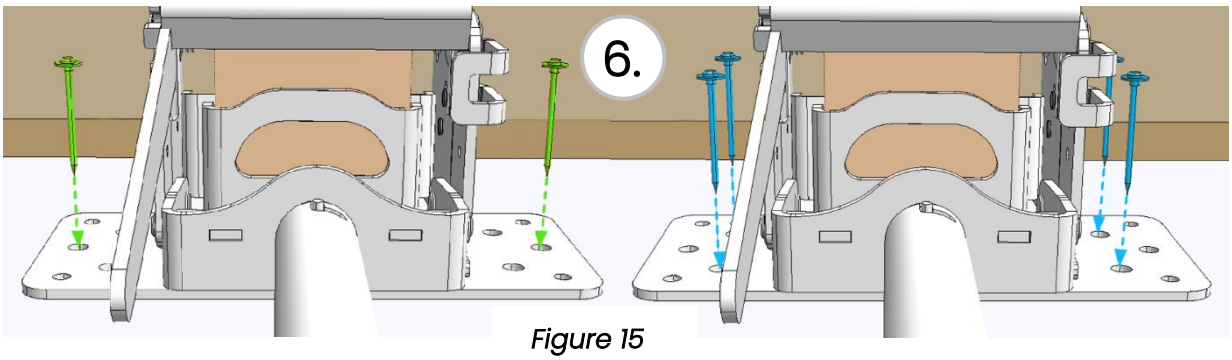


Figure 15

7. **Make sure yourself in particular:**
   a. Rising joist is properly inserted to the lifting tool and touches the heel on the floor.
   b. Bottom plates are firmly fixed to the ground and secured against any movement.
   c. Lifting Tool with the rising joist and the heel are well positioned under the lifted wall and the wall is touching the Tool on its vertical edges (Figure 11).
   d. The heel is properly fixed to the baseplate (or floor) by sufficient number of screws.
   e. Main rod of the lifting Tool is well secured into the locked position (Figure 14).
   f. There is no unauthorized person in the vicinity of the workplace.

Minimum size of screws heads to be used with the heel:

- For 9mm holes in the heel should be used screws with head diameter at least 13mm
- For 11mm holes in the heel should be used screws with head diameter at least 16mm

8. Pump up and down using the main rod. The lifting Tool will climb the rising joist up and start to tilt the wall.

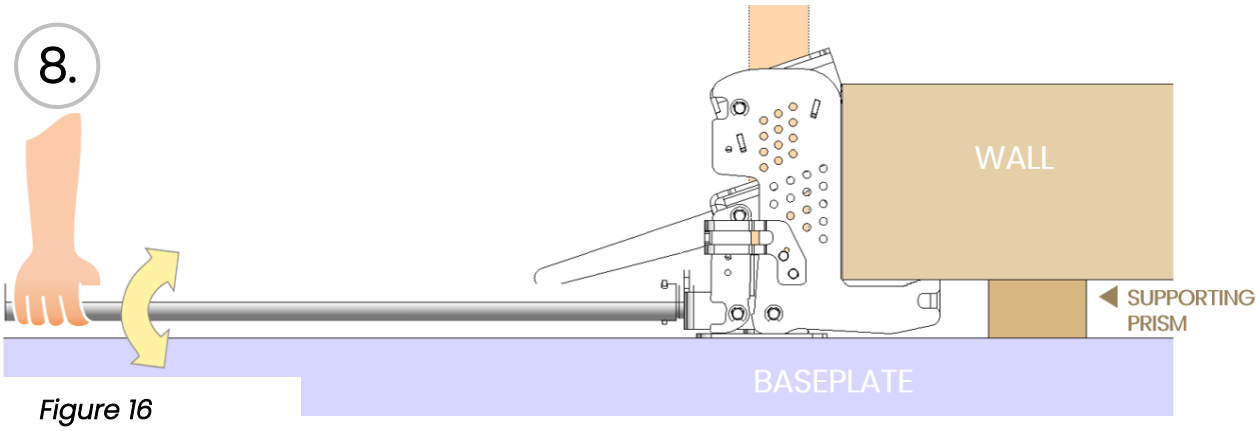


Figure 16

Those steps of lifting the wall goes on from horizontal position of the wall up to the angle of 80-85° at maximum. The remaining angle 5-10° is already possible to tilt up to 90 degrees by your hand. **Do not forget to secure the wall against falling down, see Chapter 5.5**.

The wall tilting and manipulation with the lifting Tool during the remaining angle 5-10° is shown in the Chapter 5.5 and 5.7.

NOTICE:

The lifting Tool contains two levers. Main rod (O) and auxiliary lever (P). Main lifting movement of the wall is reached by pumping with the Main rod up and down.

In case of the rising joist is thinner or slightly worn in some point or slightly out of the tolerance, it may cause some slipping of the Tool on the rising joist in this point. There is an auxiliary lever (P) to get over this point by pushing the auxiliary lever (P) down by your hand and pumping the main rod (O) in the same time. If the rising joist is damaged or the thickness is too small, we highly recommend to do not use this joist for lifting the walls.

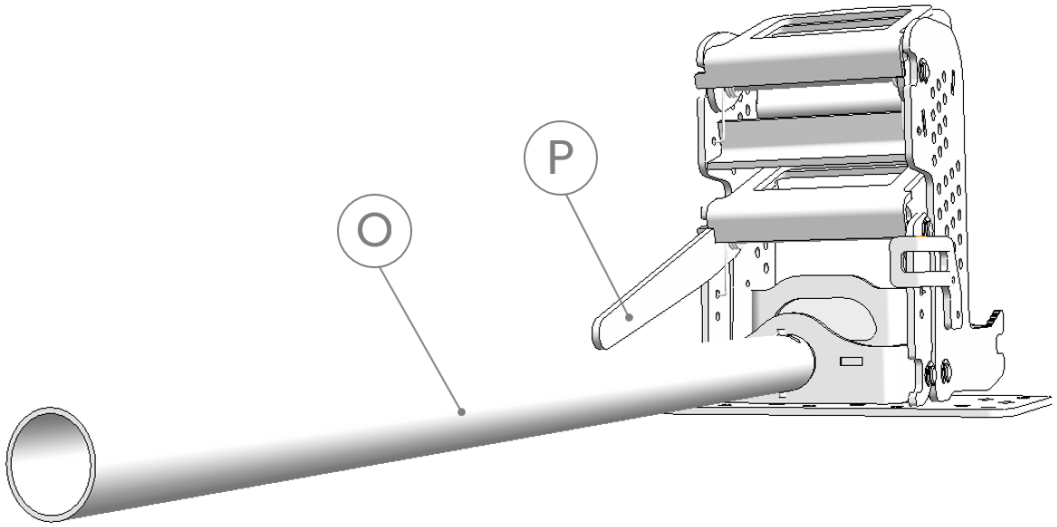


Figure 17

5.7 WALL RELEASING FROM THE LIFTING TOOL

a. Before lifting the wall to the final position make sure, that the wall is secured against flipping over the reverse side, as it is shown in Chapter 5.5 in point (5). Means screw up the straining beams on the wall to be able to secure it early from falling down or flipping over.
b. Before lifting the wall to the final position make sure, that the length of the rising joist is sufficient and the joist has a necessary overlap, as it is shown at Figure 18.
c. Get the wall into the vertical position, eventually check the verticality using the builder's level and fix it using the straining beam to the floor or bottom plate.
d. Check the position of the wall bottom edge at the lower plate, straighten it up and fix it to the bottom plate.
e. Now you can release the rising joist from the heel and wall and finally remove the lifting tool from the rising joist.

!!! ATTENTION !!!

AFTER REMOVING THE HEEL FROM THE GROUND (AND PUT OUT SCREWS) IS NECESSARY TO REPAIR WATERPROFING AND RADON INSULATION (IF IT IS HARMED) RESPECTING THE MANUFACTURER RECOMMENDATIONS.

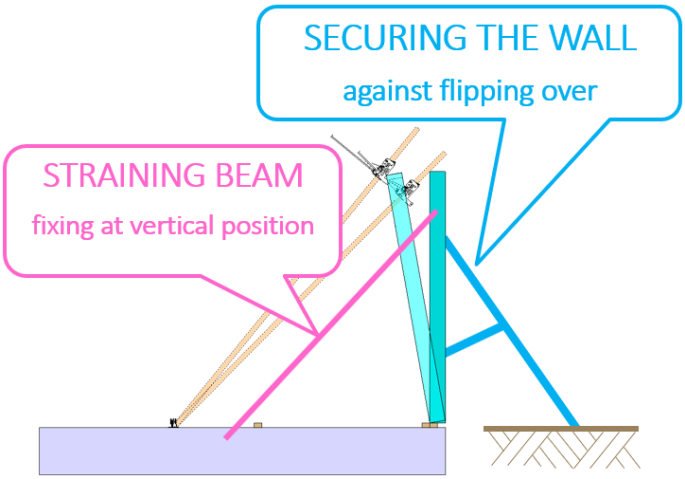


Figure 18

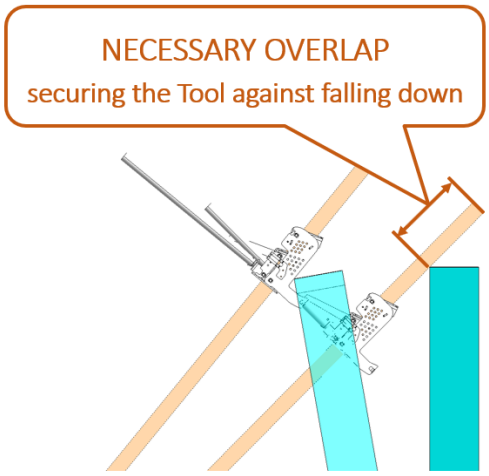


Figure 19

5.8 NUMBER OF LIFTING TOOLS REQUIRED FOR LIFTING THE WALLS DEPENDING ON THE SIZE AND WEIGHT OF THE LIFTED WALLS

To ensure the safety and stability of the wall during lifting, it is necessary to lift the walls by at least two lifting tools at the same time. Specific number of lifting tools depends on lifted wall parameters, such as its weight and dimensions.

To avoid an excessive wall deflection between the lifting tools, there is a limit of maximal permitted distance between the lifting tools and their distance from wall ends, as it is shown in Table 2 below.

Table 2 NUMBER OF LIFTING TOOLS NECESSARY TO LIFT THE WALLS DEPENDING ON THEIR SIZE AND WEIGHT.

TOP PROFILE HEIGHT	WALL LENG	WALL WEIGHT (kg) WITH SHEATING				DISTANCE FROM WALL ENDS MAX.	DISTANCE BETWEEN LIFTERS MAX.
		NONE	15 mm OSB desk	60 mm WFB or 12,5 mm PFB	100 mm WFB		
[mm]	[m]	[kg]	[kg]	[kg]	[kg]	[m]	[m]
#		A				B	C
140	4	200	285	370	483	1,0	3,00
160		250	340	430	550	1,0	3,00
200		290	365	440	540	1,0	3,00
140	6	320	450	580	753	1,5	4,00
160		340	480	620	807	1,5	4,00
200		420	545	670	837	1,5	4,00
140	8	420	590	760	987	2,0	5,00
160		490	640	790	990	2,0	5,00
200		550	705	860	1067	2,0	5,00
140	10	490	715	940	1240	2,0	3,75
160		540	760	980	1273	2,0	3,75
200		590	810	1030	1323	2,0	3,75
140	12	570	840	1110	1470	2,0	4,75
160		610	880	1150	1510	2,0	4,75
200		730	980	1230	1563	2,0	4,75

2 lifting Tools 3 lifting tools Tools 4 lifting Tools

DIMENSIONS LITERAL MARKING, SEE CHAPTER 5.7

NOTE – ALL MENTIONED VALUES ARE INDICATIVE ONLY!
It is considered with wall height 2900 mm, Wooden Fiber Board (WFB) with 265 kg/m^3 density and OSB desks (4th class) with 620 kg/m^3 density. Or eventually with Plaster Fiber Board (PFB) 1250 kg/m^3 density. **All the values given in the table have an informative character and could be used for a guidance only.**

5.9 RECOMMENDED LIFTING TOOL POSITIONS FOR SEVERAL WALLS DIMENSIONS

Each position of the Lifting Tool (below) can be considered as a position for workers also. Therefore, at least two workers are always required to lift one wall.

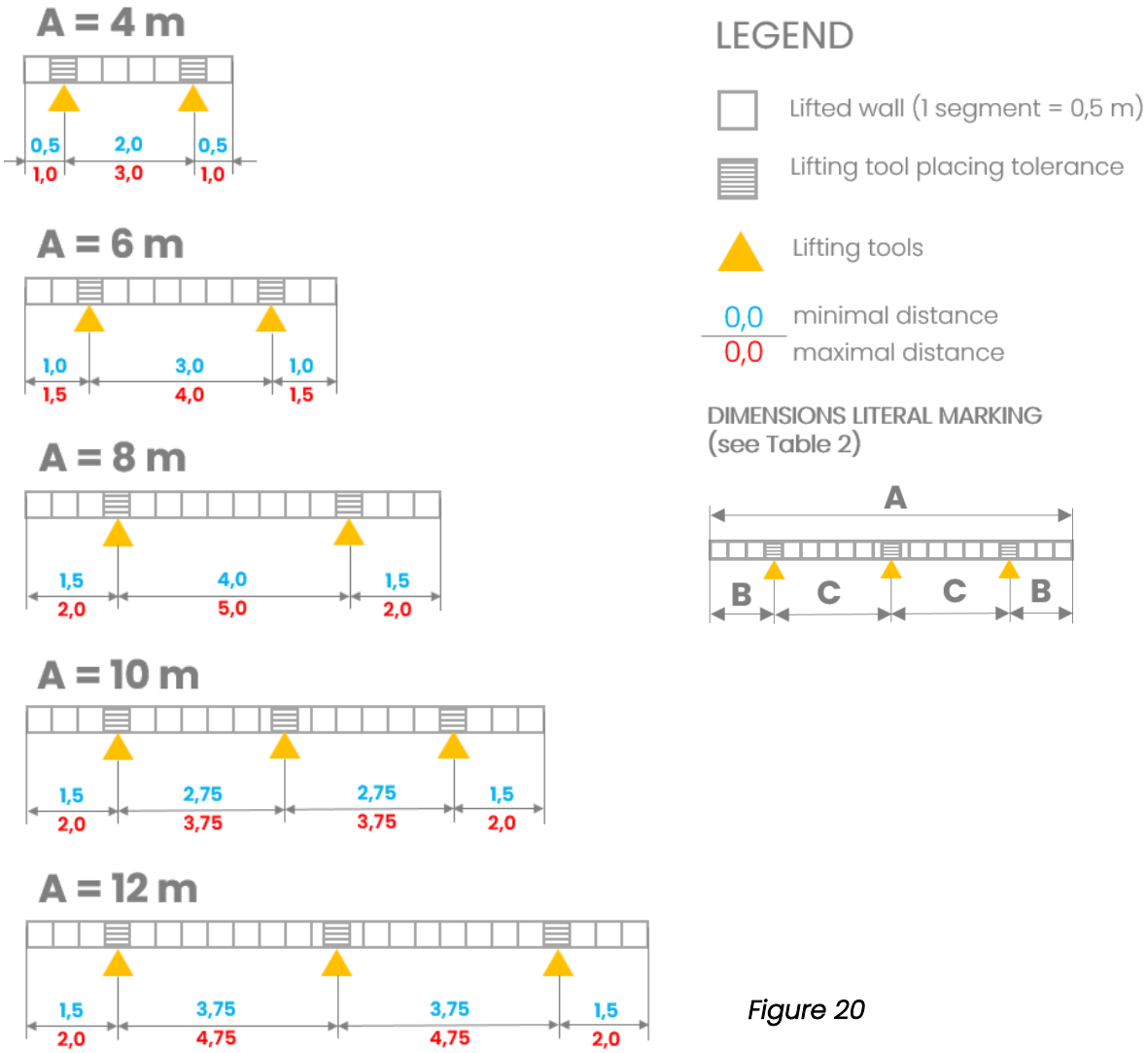
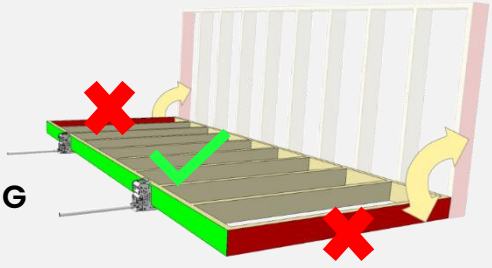


Figure 20

NEVER LIFT THE WALL BY ANY STUDS!

LIFTING TOOL HAS TO BE PLACED ALWAYS ON THE OPPOSITE SIDE TO THE TILTING AXIS OF THE LIFTED WALL!



6 SAFETY CONDITIONS

**LEARN THE DEVICE AND ITS OPERATING PROCEDURES CAREFULLY.
FOLLOW ALL THE SAFETY INSTRUCTIONS
AND PRINCIPLES WHEN USING THIS PRODUCT!**

6.1 SAFETY CONDITIONS – IN GENERAL

- The tool may be used only by persons over 18 years of age.
- It is strictly forbidden to make any modifications of the Tool or its parts.
- Keep the Tool in good conditions during its operating life. Do not expose the Tool to excessive temperatures, rain, frost or other adverse effects, that could adversely affect the operation of the Lifting Tool.
- Before each use of the Tool, check that some parts are not deformed, cracked or damaged somehow. If so, do not use the Tool!
- Use original spare parts for repairs only. By using non-genuine spare parts or parts not approved by the manufacturer may result in personal injury to the Tool operator and will violate the warranty.
- This Tool was not designed to be used in the rain and wet conditions.
- All persons, other than the operator, moving near to the lifting area are obliged to maintain a sufficient distance to ensure their own safety.
- Make sure that the load does not come into contact with other obstacles.
- Do not place multiple loads on the Lifting Tool at once!
- Do not allow the Tool to be damaged or put the health and lives of people in danger by non-compliant behave with the principles of work safety.
- Do not overload the Lifting Tool by placing heavier loads over the limit of the Lifting Tool.
- Do not allow anyone to stand on the lifted load.
- Do not leave the lifted load unattended. Finish the work first, secure the wall, only then can you leave the work area safely.
- Use the Lifting Tool for the purpose described in this manual only.

6.2 SAFETY CONDITIONS – BEFORE OPERATING

Ensure yourself before operating the Tool especially about:

- The lifted load is properly secured against sliding, slipping or unwanted movement. Especially in the lower part of lifted walls where the walls rests when lifted.
- The sill is stable and working conditions are suitable.
- Authorized persons to use the Tool knows well, how to operate it safely and they are aware of the dangers and threats that can occur if the Tool is used incorrectly.
- Children, unauthorized persons or animals do not have an access to the immediate vicinity of the lifted load.
- The tool is in good condition, ready to use, all components work properly and it is not damaged in any way.

6.3 SAFETY CONDITIONS – DURING OPERATING

Ensure yourself during operating the Tool especially about:

- Never work under the influence of alcohol or drugs alone or with anyone who exhibits such behavior.
- Keep a stable posture during work.
- Do not operate the Lifting Tool in limited or poor visibility or otherwise unsuitable conditions.
- Keep the workplace clean. Clutter in the workplace can cause an accident.
- Never put your hands or feet in the working area of the Lifting Tool.
- Never leave the Lifting Tool unattended when it is loaded.
- When operating the Lifting Tool, use a personal protective equipment required by work safety on the construction site, such as goggles, hearing protection, helmets, safety shoes, etc.
- Never perform maintenance while the Tool is in use.
- Do not overload the Tool or any accessories.
- If you notice any unusual operation during work or hear unusual noises from the Tool or the lifted load, notify your surroundings immediately and leave the workplace.
- When using two or more Lifting Tools, each one must be operated by its own operator.

6.4 SAFETY CONDITIONS – AFTER OPERATING

Ensure yourself after every operating the Tool especially about:

- Check the Tool for any damage.
- Keep the Tool clean, prepare it for further use, ie perform maintenance according to Chapter 7.
- Store the Tool in a dry and safe place where it will be protected from dirt or mechanical damage.

7 TOOL MAINTENANCE

After every usage clean thoroughly moving parts and its bearings. Remove the dirt such as clay, sand and sawdust from the Tool with a cloth or compressed air. Always wear safety goggles when using compressed air.

8 WARRANTY CONDITIONS

PINNIUM s.r.o. provides a guarantee for the delivered goods according to the terms and conditions of the company respecting the provision of the statute. In accordance with the applicable laws, the manufacturer provides a warranty for a defined type of goods defects only, in particular material defects, manufacturing defects or defects caused by these defects.

THE WARRANTY DOES NOT COVER THE CASES BELOW:

- Wear of functional parts of products due to their use,
- Demonstrably unprofessional use of the goods (in contradiction with the operating instructions),
- Arbitrarily (unauthorized) done modifications to the Tool and its Equipment,
- Mechanical damage caused by careless handling,
- Operating the Tool and its Equipment in unsuitable conditions or environments,
- Routine maintenance of goods (cleaning, adjustment, etc.).
- The warranty does not cover damage caused by excessive load.

PROCEDURE IN CASE OF FAILURE:

The complaint procedure and complaint conditions are listed on the company's website www.pinnium.cz in the "Complaints Procedure" section. Contact the company PINNIUM s.r.o. via e-mail reklamace@pinnium.cz with mentioning the defect or breakdown that occurred to the product. You can also contact us via correspondence addressed to:

PINNIUM s.r.o.
Za Pazdernou 2573/8
397 01, Písek

9 EC – DECLARATION OF CONFORMITY

EC DECLARATION OF CONFORMITY

Producer:

- business name: PINNIUM s.r.o.
- full address: Za Pazdernou 2573/8, 397 01 PÍSEK, Česká republika

Person authorised to compile the technical file:

- business name: PINNIUM s.r.o.
- full address: Za Pazdernou 2573/8, 397 01 PÍSEK, Česká republika

Machine equipment:

- name: Zvedací zařízení
- type: JACKIE L, JACKIE-V100-U1-2021
  JACKIE M, JACKIE-V60-U1-2021

Description of machine equipment:

The JACKIE lifting device is a mechanical aid intended for lifting the walls of wooden buildings from a horizontal to a vertical position.

Machine equipment complies with all relevant provisions

- directives (government regulations):
  1. Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast)
- harmonized standards:
  ČSN EN ISO 12100:2011; ČSN EN 614-1+A1:2009

In Písek date 12.10.2021

Name and function of the person authorized for signature:
Jindřich Svoboda, CEO

Signature: Svoboda

PINNIUM s.r.o.
Za Pazdernou 2573/8, 397 01 Písek
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NOTES

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