

RAPTOR

RIGGING DEVICE FOR TIMBER ELEMENTS



UNIVERSAL

RAPTOR can be installed with configurations that make it suitable for the most common applications on the construction site:

- 6 screws: maximum strength and capacity
- 4 or 2 screws: for lifting and transporting lighter panels

The screws must be applied symmetrically.

VERSATILE

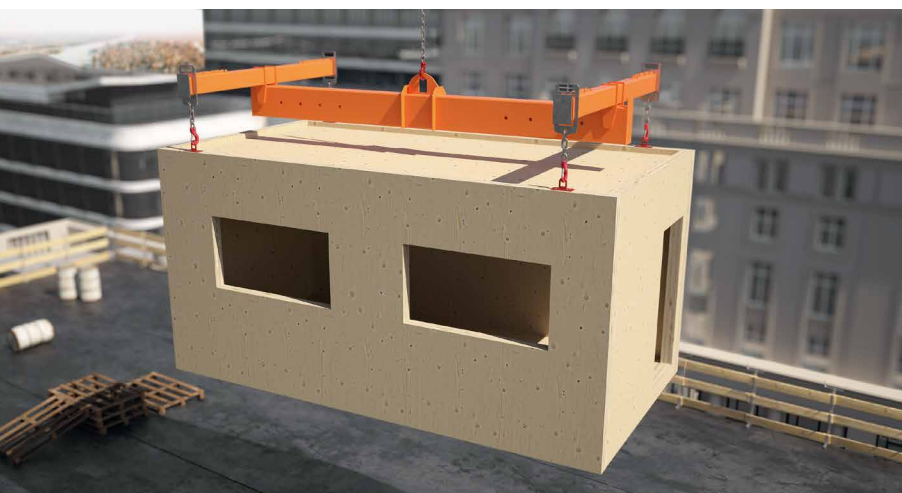
The device is suitable for many different handling configurations. It can be used to work with any inclination of the chain, working effectively in both tension and shear, but also in intermediate configurations.

CERTIFIED

The plate is certified according to the Machinery Directive 2006/42/EC for weights exceeding 3 tonnes.

USE AS A TEMPORARY ANCHOR POINT

One product – two functions. The plate can be used either as a lifting device to transport timber elements, or as a temporary fall protection anchor point.



FIELDS OF USE

- CLT panels for floor or wall
- Solid timber or glulam beams
- Prefabricated timber frame walls
- Ribbed structural elements
- Prefabricated modular structures
- Special structures
- Temporary fall protection anchor point



MATERIAL

The sturdy steel plate and lifting hook ensure safe lifting; the red coating improves visibility and protection on site, enhancing overall site safety.

CONFIGURATIONS

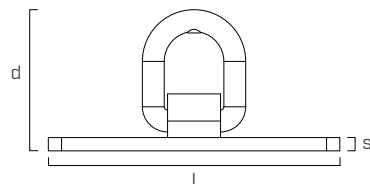
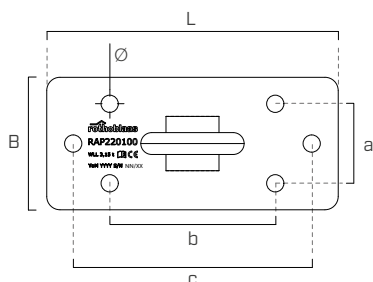
The 6 holes provide 3 assembly options with different screws, ensuring optimal installation for various lifting conditions and materials.

CODE

CODE	plate sizes	max. capacity	suitable screws	pcs
RAPTOR	100 x 220 mm 4" x 8 5/8"	3150 kg 6945 lb	VGS PLATE Ø11 mm	1
			HBS PLATE/HBS PLATE EVO Ø10 mm	
			VGS Ø11 mm (+ HUS10)	

DIMENSIONS

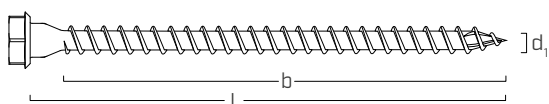
CODE	B	L	s	Ø	a	b	c	d	B	L	s	Ø	a	b	c	d
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[in]	[in]	[in]	[in]	[in]	[in]	[in]	[in]
RAPTOR	100	220	10	13	60	125	180	107	4	8 5/8	3/8	1/2	2 3/8	4 15/16	7 1/8	4 3/16



COMPATIBLE SCREWS

VGS PLATE

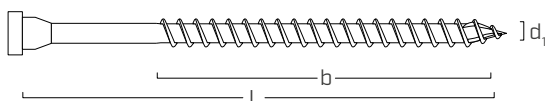
pan head screw for lifting



d ₁	CODE	L	b	L	b	pcs
[mm]		[mm]	[mm]	[in]	[in]	
[in]						
11 0.44 SW17 TX50	VGSPL1160	60	50	2 3/8	1 7/8	25
	VGSPL1180	80	70	3 1/8	2 11/16	25
	VGSPL11100	100	90	4	3 7/16	25
	VGSPL11120	120	110	4 3/4	4 1/4	25
	VGSPL11140	140	130	5 1/2	5 1/16	25
	VGSPL11160	160	150	6 1/4	5 13/16	25
	VGSPL11180	180	170	7 1/8	6 5/8	25
	VGSPL11200	200	190	8	7 3/8	25
	VGSPL11240	240	230	9 1/2	9	25
	VGSPL11280	280	270	11	10 9/16	25

HBS PLATE - HBS PLATE EVO

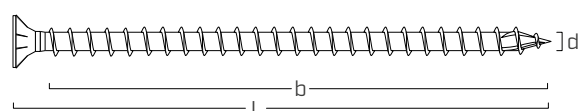
pan head screw for plates



d ₁	CODE	L	b	L	b	pcs
[mm]		[mm]	[mm]	[in]	[in]	
[in]						
10 0.40 TX 40	HBSPLEVO1060	60	52	2 3/8	2 1/16	50
	HBSPL1080	80	60	3 1/8	2 3/8	50
	HBSPL10100	100	75	4	2 15/16	50
	HBSPL10120	120	95	4 3/4	3 3/4	50
	HBSPL10140	140	110	5 1/2	4 3/8	50
	HBSPL10160	160	130	6 1/4	5 1/8	50
	HBSPL10180	180	150	7 1/8	6	50

VGS

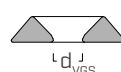
full thread screw
with countersunk head



d ₁	CODE	L	b	L	b	pcs
[mm]		[mm]	[mm]	[in]	[in]	
[in]						
11 0.44 TX 50	VGS1180	80	70	3 1/8	2 3/4	25
	VGS11100	100	90	4	3 1/2	25
	VGS11125	125	115	4 15/16	4 1/2	25
	VGS11150	150	140	6	5 1/2	25
	VGS11175	175	165	6 7/8	6 1/2	25
	VGS11200	200	190	8	7 1/2	25
	VGS11225	225	215	8 7/8	8 7/16	25
	VGS11250	250	240	10	9 1/2	25
	VGS11275	275	265	10 7/8	10 7/16	25
	VGS11300	300	290	11 3/4	11 7/16	25
	VGS11325	325	315	12 3/4	12 3/8	25
	VGS11350	350	340	13 3/4	13 3/8	25
	VGS11375	375	365	14 3/4	14 3/8	25
	VGS11400	400	390	15 3/4	15 3/8	25

The VGS screw can only be installed in combination with HUS washer.

HUS - turned washer

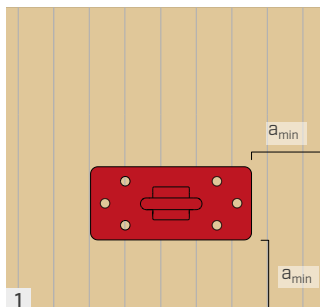


CODE	d _{VGS}		pcs
	[mm]	[in]	
HUS10	11	0.44	50

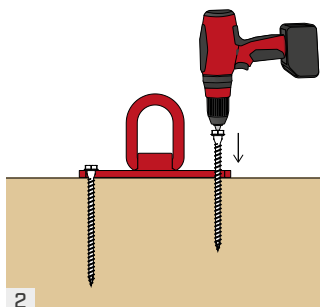
RAPTOR INSTALLATION



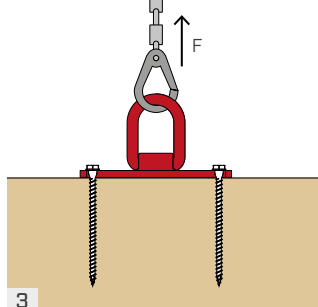
HBSPL Ø10 $M_{ins,max} = 35 \text{ Nm}$
VGS | VGSPL Ø11 $M_{ins,max} = 40 \text{ Nm}$



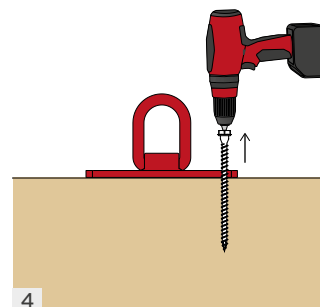
Read the instructions for use carefully and follow the directions regarding minimum recommended distances, lifting directions and angles, and maximum load capacity.



Length and quantity of screws depend on the application and the weight of the element. Ensure correct tightening torque is applied, following the torque values specified in the corresponding installation instructions.

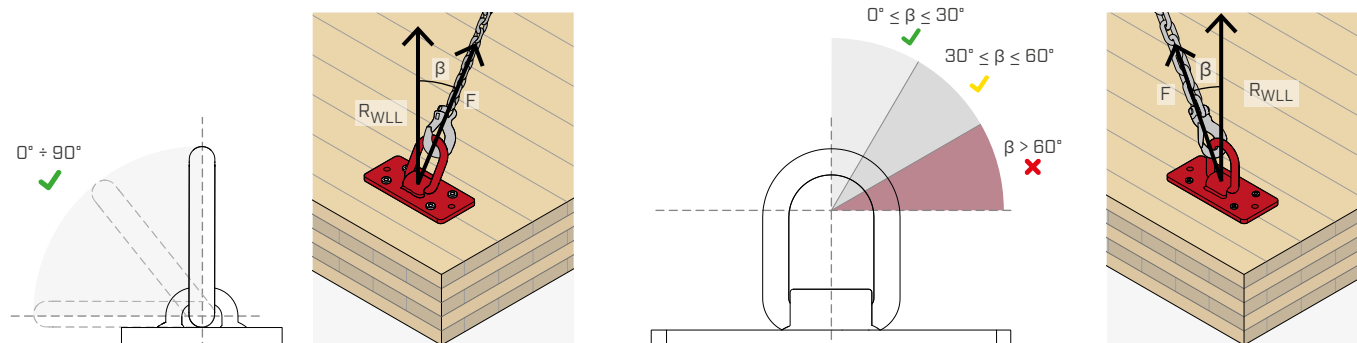


Connect the crane hook and carefully lift the element. Pay attention to the permitted lifting angles and directions, as well as the corresponding maximum load capacities.

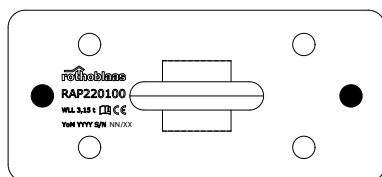


When lifting is complete, remove the screws and dispose of them. They can be used for a single lifting operation, except the VGS PL, which is reusable for transport under specific conditions. See the instructions.

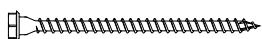
LOAD DIRECTIONS ALLOWED



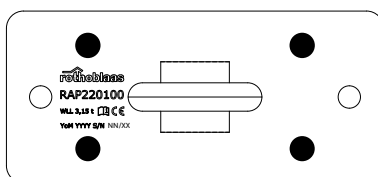
POSSIBLE LAYOUT OF SCREWS



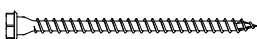
VGS PLATE



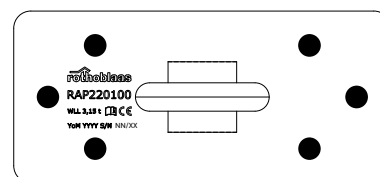
x2 VGS PLATE



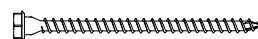
VGS PLATE



x4 VGS PLATE

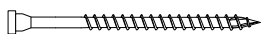


VGS PLATE

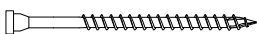


x6 VGS PLATE

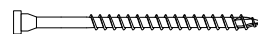
HBS PLATE - HBS PLATE EVO



x2 HBS PLATE

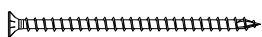


x4 HBS PLATE

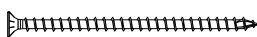


x6 HBS PLATE

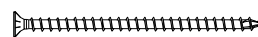
VGS + HUS



x2 VGS + x2 HUS



x4 VGS + x4 HUS



x6 VGS + x6 HUS

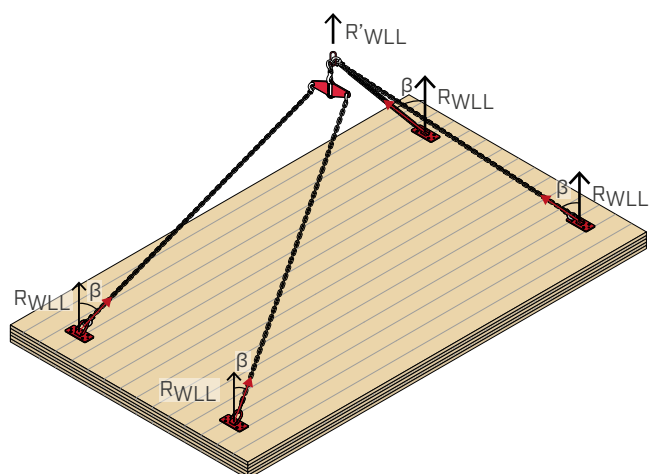
NOTES:

- The RAPTOR plate must be fixed with homogeneous connectors, same type (HBS PLATE, VGS PLATE or VGS) of the same length. The same configuration must be replicated on all plates used on the element to be moved.

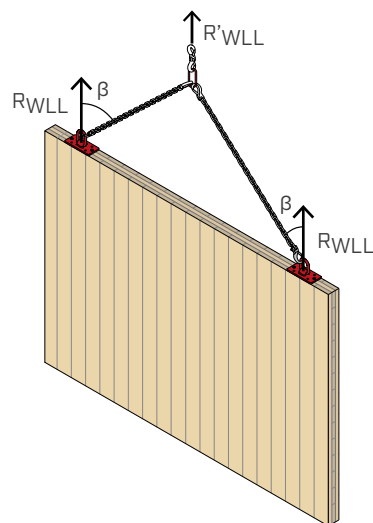
APPLICATION EXAMPLES

To consult the detailed technical tables with load values for different applications, visit the dedicated section on the official Rothoblaas website: www.rothoblaas.com.

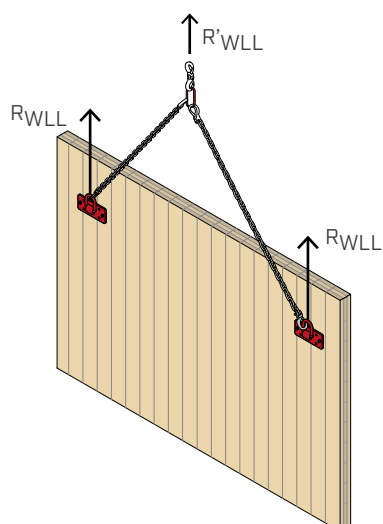
HORIZONTAL CLT PANEL



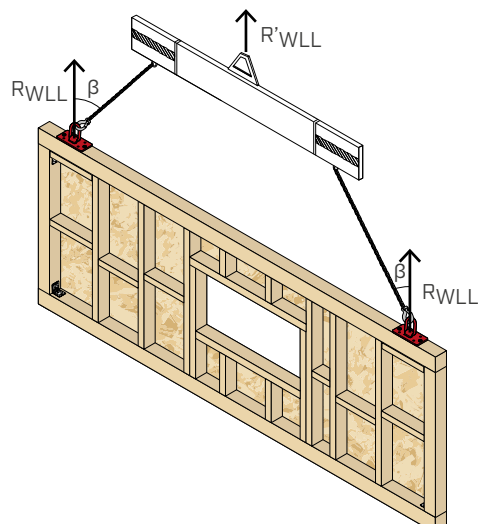
VERTICAL CLT PANEL FROM THE EDGE



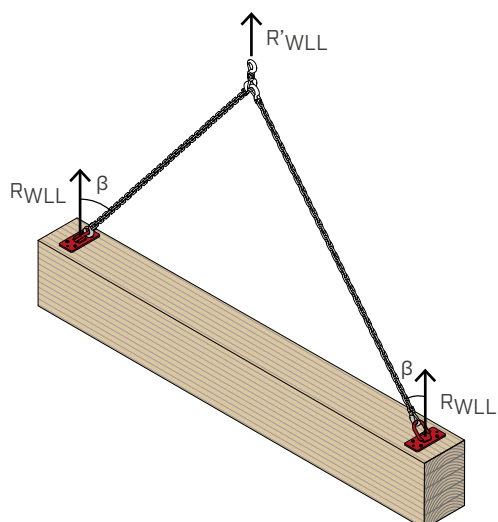
VERTICAL CLT WALL - WIDE FACE



FRAME WALL



HORIZONTAL BEAM



R_{WLL} = reference rigging capacity for a single anchor system
 R'_{WLL} = total system rigging capacity
 β = lifting angle (angle between vertical axis and chain)

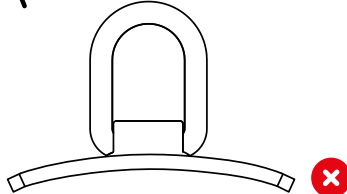
MINIMUM DISTANCES

For detailed information on the minimum usage distances of the lifting system, consult the full technical data sheet available at www.rothoblaas.com.

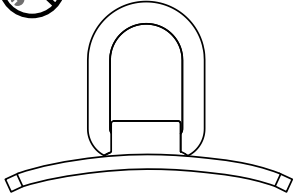
MAINTENANCE



Always follow the instructions in the manual.



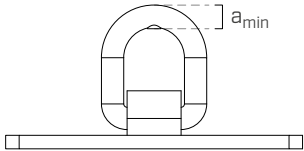
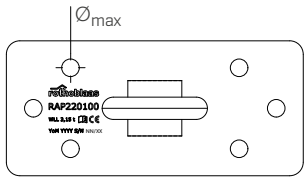
Visual inspection before each use. If there are any defects, the product must not be used again.



Repairs are not permitted!

DIMENSIONS TO BE CHECKED

CODE	$\varnothing_{max}$ [mm]	a_{min} [mm]	$\varnothing_{max}$ [in]	a_{min} [in]
RAP220100	13,5	16,0	0.53	0.63



GENERAL PRINCIPLES:

- The load capacity of the system depends primarily on the screws. The maximum permitted capacity of the transport plate is indicated above. The screw load capacity has been calculated for selected exemplary applications and can be consulted in the detailed technical data sheet at www.rothoblaas.com.
- For safety reasons, VGS and HBS PLATE screws may only be used once. Once tightened and loaded, the screws must not be loosened and used a second time to secure the transport plate. As soon as the timber element to be transported has been lifted to its final position and the transport plate is no longer needed for this purpose, the screws must be unscrewed and disposed of properly. Only the VGSPL screw may be reused under certain conditions. It is essential to follow the manual's instructions.
- The lifting plate may only be used by qualified personnel. The user manual (supplied with the product and available at www.rothoblaas.com) must be read and understood before use. The information and instructions contained therein must be followed. If in doubt, contact the Rothoblaas Technical Department before use.
- Special conditions apply when using the system as a temporary fall protection anchor point – see the relevant user manual.



The **data sheet** complete with **structural values** is available at www.rothoblaas.com

