

# Instructions for Assembly & Installation



Thank you for choosing this KRUMMA-Gull 131 product from Krumma ehf.

## KRUMMA-Gull 131

Package details: 130kg & 0,3m<sup>3</sup>

### Equipment delivery part list:

- 1 x Instructions for Assembly & Installation (this document)
- 4 x Posts
- 4 x Sockets
- 1 x Swing beam
- 2 x Swings
- 2 x Side plates
- 8 x 10x120mm Bolts
- 8 x 10,5x20mm Washers
- 8 x 10,5x25,5mm Washers
- 8 x 10mm Self locking nuts
- 8 x Black Covers: Bottoms and tops
- 8 x Red Covers: Bottoms and tops
- 8 x 8,4x16mm Washers
- 8 x 8x80mm Wood screws
- 4 x 8x30mm Bolts
- 4 x 8mm Selflocking nuts
- 16 x 10mm Flange nuts

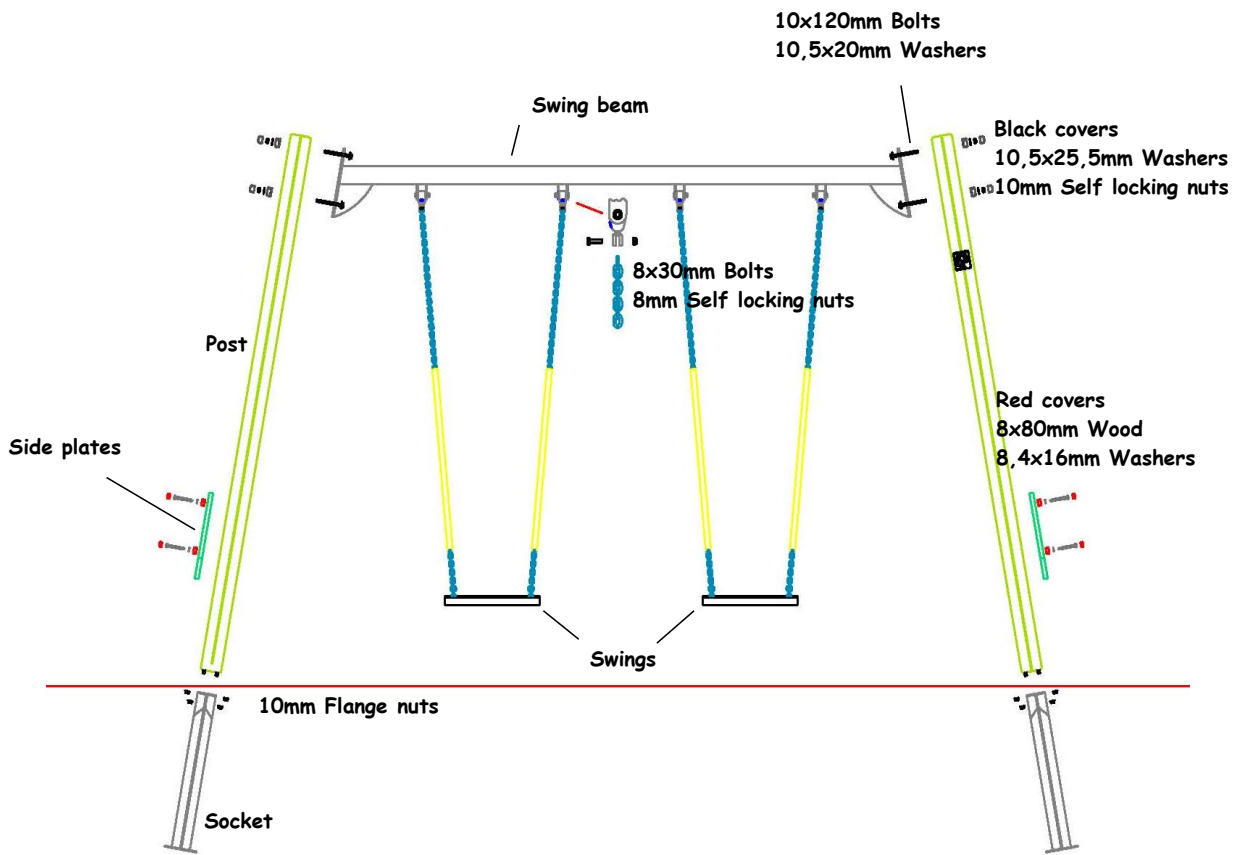


### Installers and Installation tools:

- 2 x Installers are required to successfully install the equipment
- 1 x Ratchet with 13mm, 15mm and 17mm sockets
- 1 x 13mm wrench
- 1 x 17mm wrench
- 1 x Measuring tape
- 1 x Soft head hammer
- 2 x Shovel
- 0,2m<sup>3</sup> Concrete
- 0,4m<sup>3</sup> Gravel

## Installation Instructions:

Figure 1 displays assembly parts.

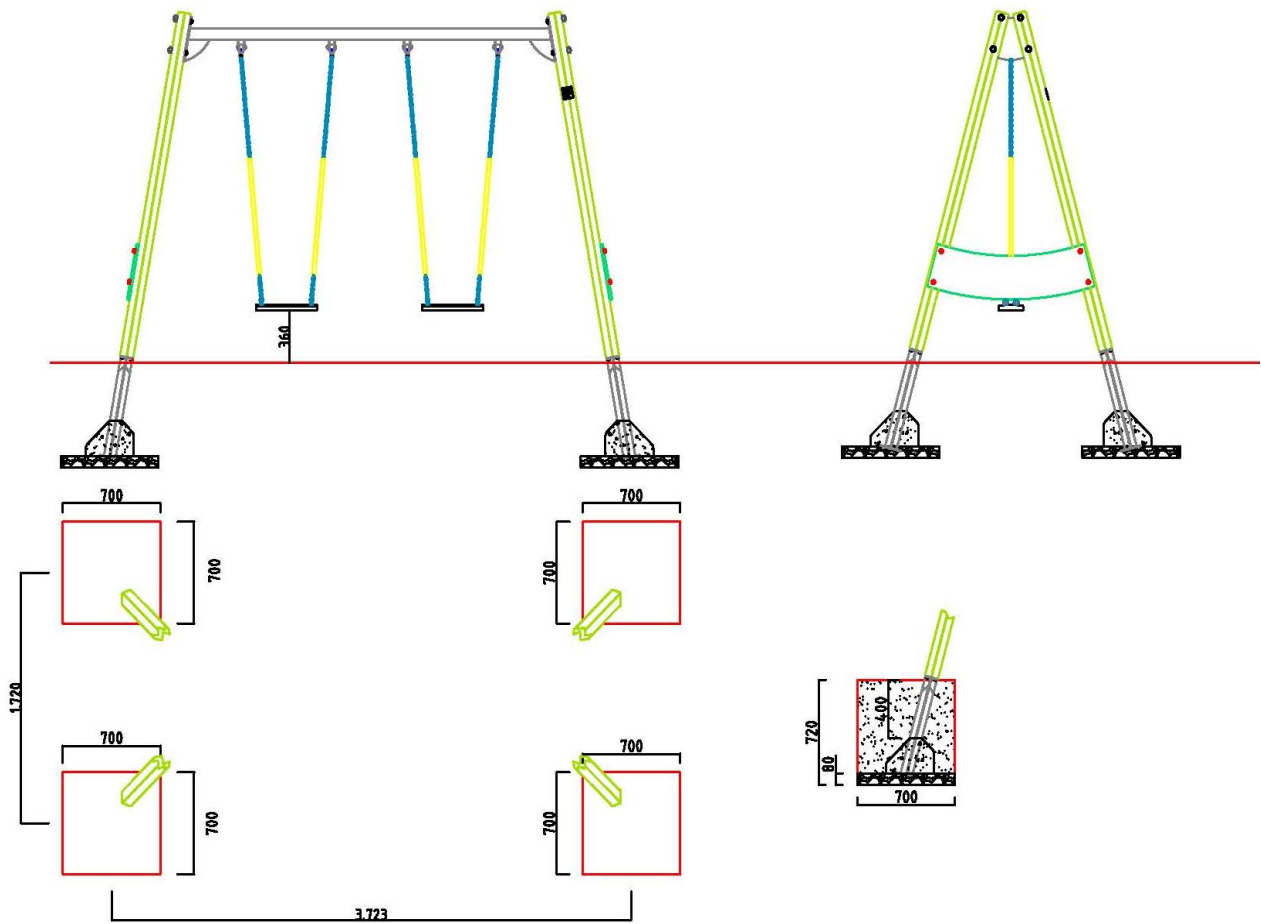


### Assembly sequence:

- 1 Attach sockets to posts with 10mm flange nuts using 15mm wrench.
- 2 Attach posts to the swing beam as figure 1 displays, using the 17mm wrench and ratchet with 17mm socket.
- 3 Use the soft headed hammer to close the covers.
- 4 Place the side plates onto the posts as figure 1 displays and use the ratchet with the 13mm socket.

## Placing of the equipment and foundation:

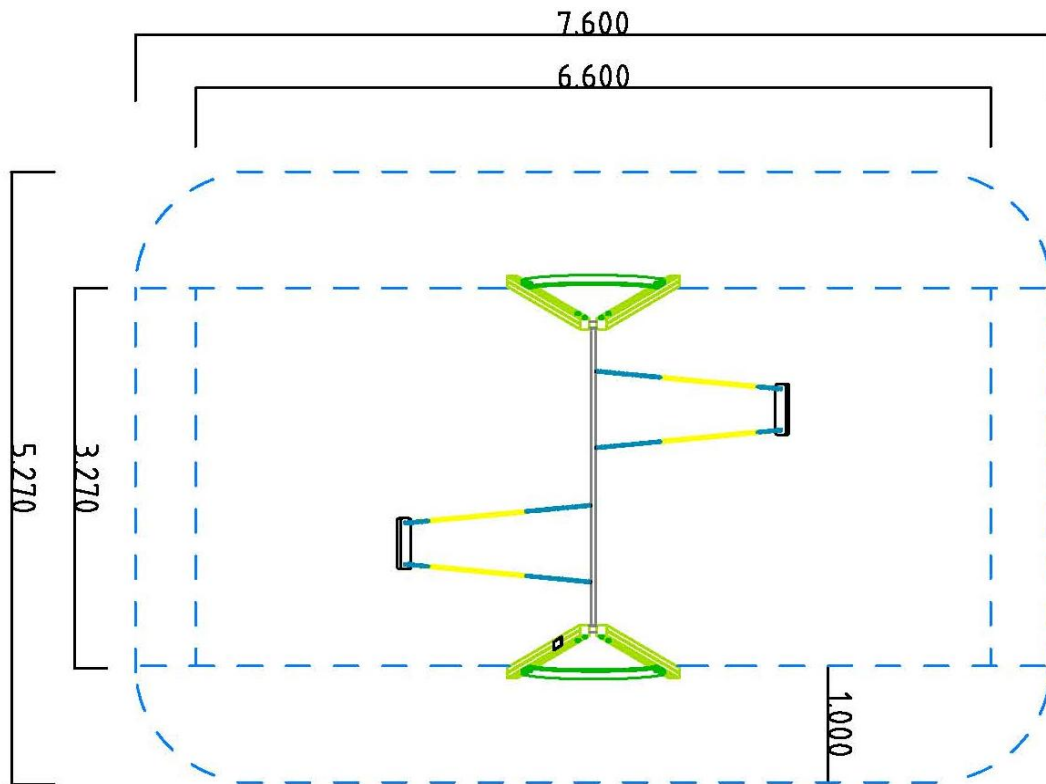
Figure 2 displays the holes for the ground fasteners. All measurements are in mm.



- 1 Dig holes as displayed in figure 2. Place 80mm of compressed gravel into all four holes.
- 2 Place the equipment into the holes as figure 2 displays. The surface signage on the posts should be at surface level.
- 3 Caution: The timber shall not have contact to the ground soil.
- 4 Place approximately 1/4th of the amount of concrete into each hole. Make sure the concrete is at least 400mm below ground surface.
- 5 Fill up with gravel and make sure to leave space for the fall protection surface.
- 6 Caution: when using different types of fall protection be certain that it fulfills all safety requirements as described on next page.
- 7 Caution: The swings must have a minimum ground clearance of 360mm.

## Safety:

Figure 3 displays minimum space requirements, safety clearance and maximum fall height. Measurements are in mm.



- KRUMMA-Gull 131 is certified by Dansk Technologisk Institut according to EN1176.
- The maximum fall height determines the fall protection surface. The surface must have 1000HIC or less, where HIC is the measurement for the surface impact.
- The time it takes to dampen the impact must be less than 3msec.
- The following impact attenuating materials need to have a minimum depth of 200mm for this product: Bark; Woodchip; Sand (0,2-2 grain size) and Gravel (2-8 grain size).
- When using other types of fall protection, make sure it dampens falling height of 1,3m.
- Turf / topsoil is not sufficient fall protection for this product.

## Maintenance:

### Impact protection surface:

- Maintain the impact attenuating adequately on a regular basis.
- Keep the safety zone free from external obstacles.

### Product:

- Use sal ammoniac soap to clean painting. Next option is to use white sprit but make sure to clean the surface with sal ammoniac soap afterwards.
- Paint posts with Trebitt, Henna 0818 from Jotun, [www.jotun.com](http://www.jotun.com).
- Paint plywood with Hardtop AS paint from Jotun, [www.jotun.com](http://www.jotun.com), green colour: Hardtop 4090.

### Recomended Maintenance routines:

- Have a calendar schedule and register when maintenance checks are performed.
- Perform routine visual inspection daily or monthly depending on use. Remove sharp and other external obstacles from the safety zone and restore loose fill impact material to the correct level.
- Perform operational inspection every 1-3rd month, depending on use. Clean the equipment, remove external obstacles from the safety zone and restore loose fill impact material to the correct level. Check the operation and stability of the equipment and if parts or fastenings have been removed from the equipment.
- During annual inspection all bearing parts shall be checked. Exchange bearing posts if rotting is noticed. Tighten and fasten all fastenings. Re-paint and re-treat all timber surfaces. If changes have been made to the product, due to effects of weather or vandalism, restore it to its original shape to retain the overall level of safety.