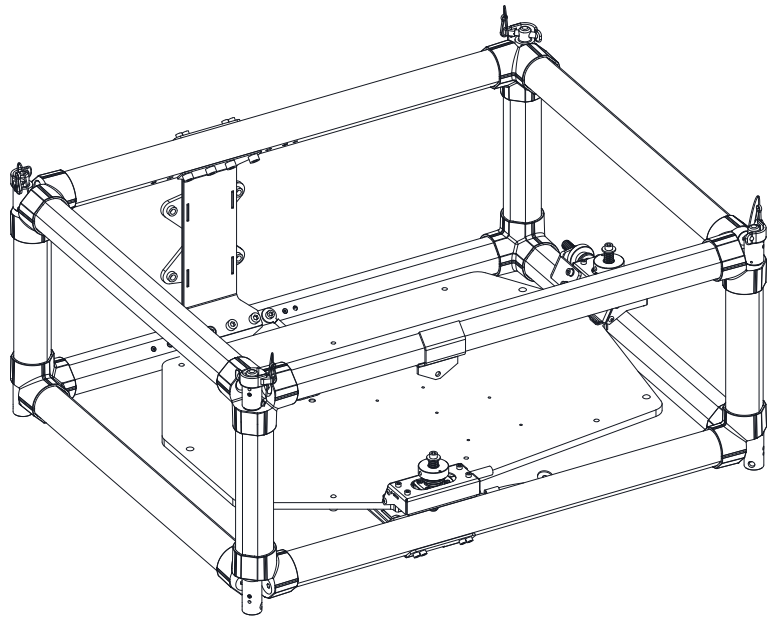


Rigging frame F80 series



Installation manual

R9802230

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F80 series multifunctional frame

1

Purpose of the multifunctional frame

The multifunctional frame is exclusively designed for the Barco F80 projectors and can thus not be used on any other equipment.

Overview

- Safety
- Introduction
- Installing the projector onto the multifunctional frame
- Stacking multiple projectors
- Suspending the projector from a truss
- Skewing the projector
- Tilting the projector
- Rotating the projector
- Dimensions

1.1 Safety

About this chapter

Read this chapter attentively. It contains important information to prevent damage to the rigging frame. Ensure that you understand and follow all safety instructions mentioned in this chapter before installing the rigging frame. After this chapter, additional “warnings” and “cautions” are given depending on the installation procedure. Read and follow these “warnings” and “cautions” as well.

Installation personnel

The installation of the projector must be performed by authorized and qualified technical personnel only.



CAUTION: Make sure that all the screws are sufficiently tightened. Respect the torque required to tighten all screws. Forgetting or neglecting to do this may result in an unsafe rigging frame.



CAUTION: When the safety cables have undergone a heavy shock, invisible damage may have occurred to the safety cables. In this case the safety cables must be replaced.

Maximum stacking and hanging

F80 projectors can be stacked on top of each other on a flat surface, or suspended from a truss using the multifunctional frame.

Keep the following in mind:

- It is allowed to stack **maximum three** projectors.
- It is allowed to suspend **maximum two** projectors.

Transportation of the frame

Never transport the multifunctional frame in portrait position with a projector mounted. Failure to do so can cause damage the multifunctional frame. Refer to Image 1-1 for a bad and good example of transportation.

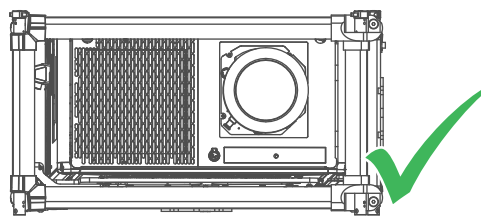
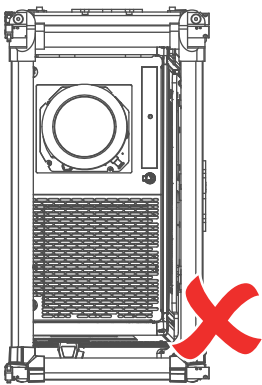


Image 1-1: Transportation method of the frame



This limitation only counts for **transportation** of a rigging frame with projector mounted. You can still **install** the projector in portrait position while in the rigging frame.

1.2 Introduction

Functionality

A F80 projector mounted in the multifunctional frame makes the projector more rugged and handy.

The multifunctional frame makes it possible to stack multiple projectors. This can be useful for a dual projection 3D system. In the multifunctional frame, the projector can be rotated around x, y and z axis in order to obtain a seamless adjustment.

Furthermore, the multifunctional frame can be used to suspend the projector from a truss. This can be done either in a upright or upside down position.

Content of the kit

Content	Pieces
Multifunctional frame	1
Hex screw with socket head M6 x 45	2
Hex screw with socket head M8 x 45	3
Spring washer M8	3
Plain washer M8	3
Spring washer M6	2
Plain washer M6	2

1.3 Installing the projector onto the multifunctional frame



CAUTION: Do not tighten the hex screws of the frame until you have positioned all screws into the projector.

How to install

1. When a lens is installed on the projector, remove this lens.
2. Take a thick piece of foam rubber and put it on the floor.
3. Place the projector upside down on the foam rubber.
4. Remove the 3 adjustable feet from the projector (F).

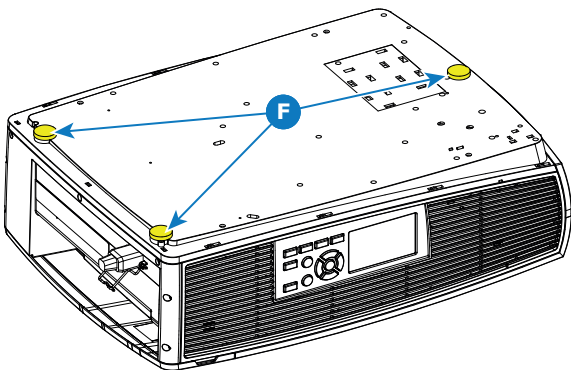


Image 1-2: Remove feet

5. Place the rigging frame over the projector as illustrated. Align the M8 mounting holes (1) of the rigging frame to the mounting holes for the feet of the projector. Align the 2 M6 mounting holes (2) of the rigging frame to the mounting holes in the projector.

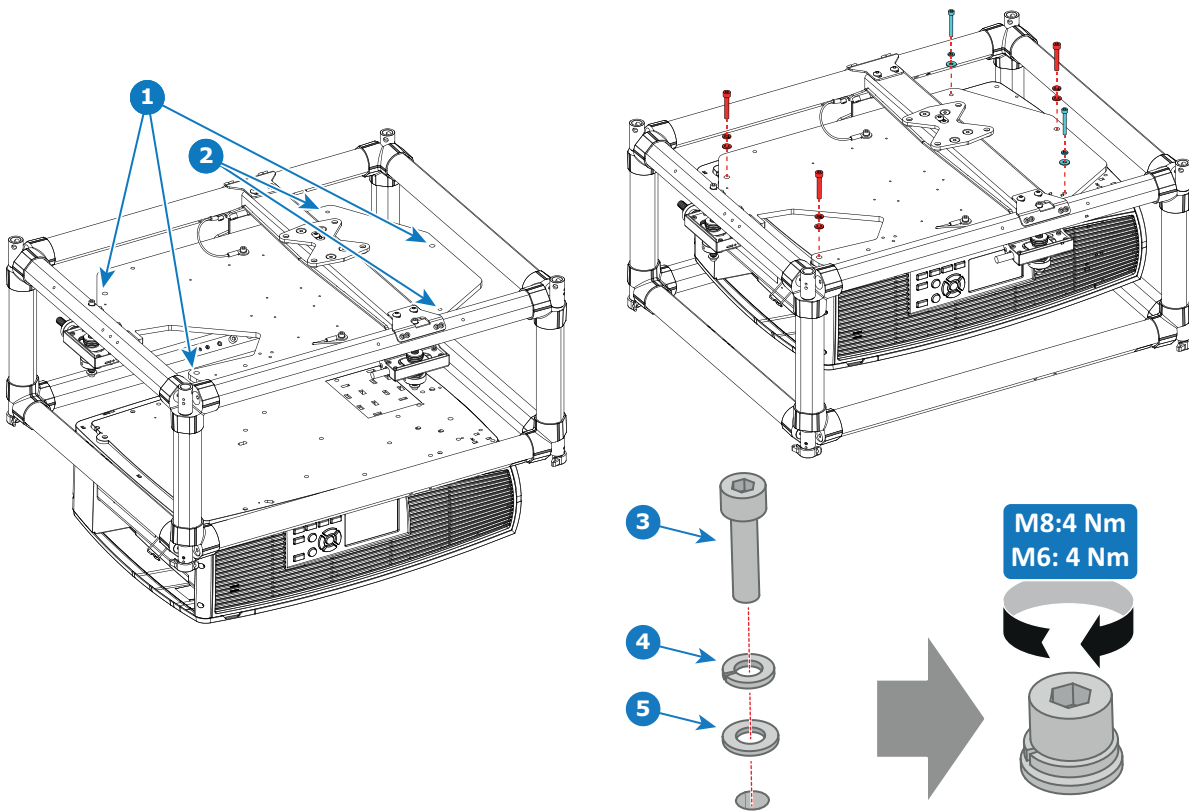


Image 1-3: Mount frame and screws

6. Mount the 3 M8 hex screws (M8x45) and the two M6 hex screws (M6x45) (3) + spring washer (4) + plain washer (5) on the bottom of the rigging frame to tie the two together. Use a torque of 4 Nm for both type of screws.

How to finish the installation

1. Make sure that all screws are tightened correctly.
2. Lift up the rigging frame with projector and flip it upside down.
3. install the four locking pins in the top stacking pins.

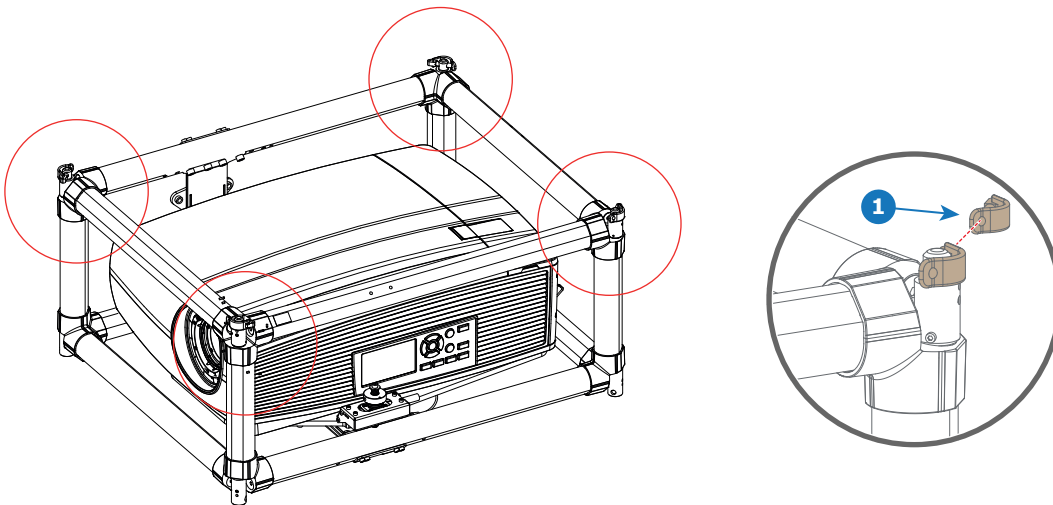


Image 1-4: Lock pins

1.4 Stacking multiple projectors



WARNING: It is not allowed to stack more than three projectors.

Stacking limit

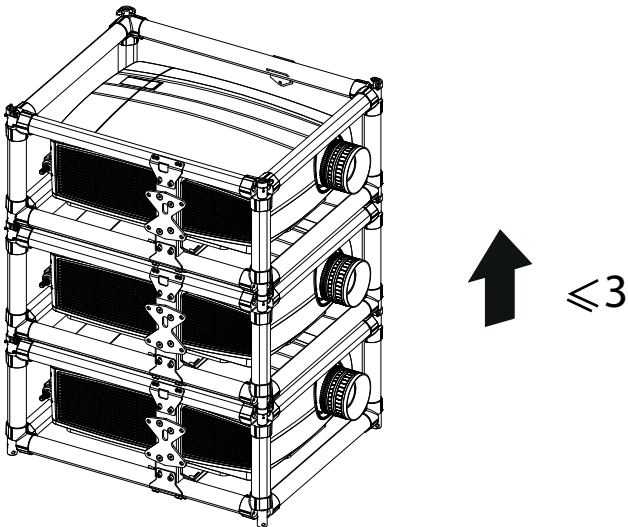


Image 1-5



Image 1-6: Example of double coupler
(recommended for fix install)

How to stack multiple projectors

1. Make sure each projector is mounted in its rigging frame.
2. Remove all four lock pins from each multifunctional frame, except the frame on top of the stack.

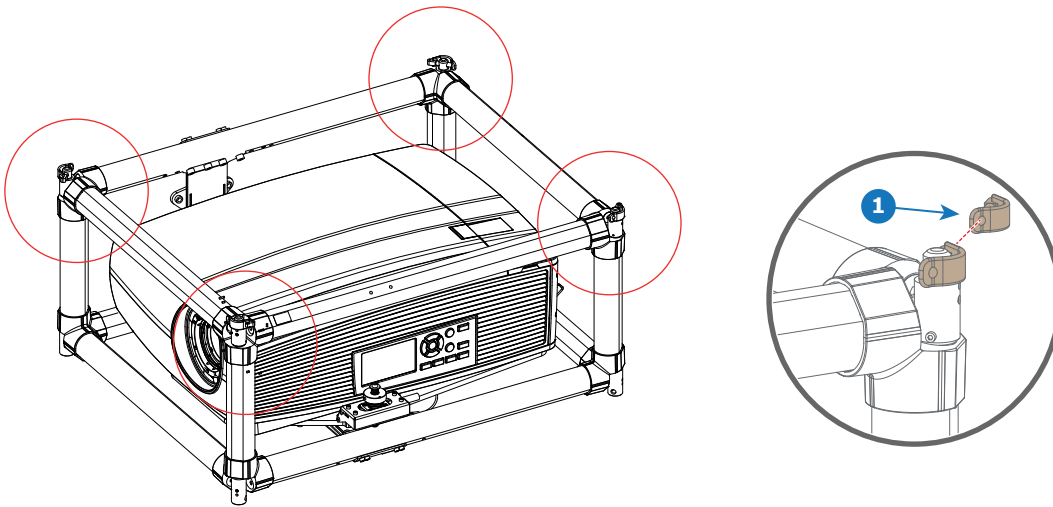


Image 1-7: Lock pins

- Note: Even if not all pins are necessary in your current setup, it is important to keep all locking pins to their respective rigging frame for future use.

3. Stack the multifunctional frames. Make sure the stacking pins of the both frames are aligned.

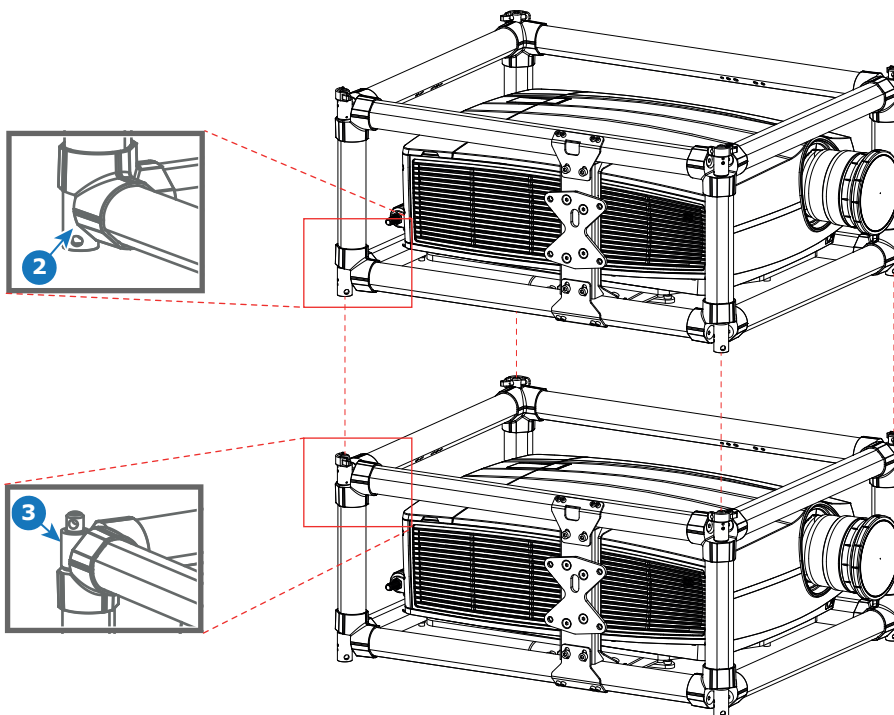


Image 1-8: Stack projectors

- 2 Lower stacking pins
- 3 Upper stacking pins

4. Install the locking pin (1) through the overlapping hole of both stacking pins.

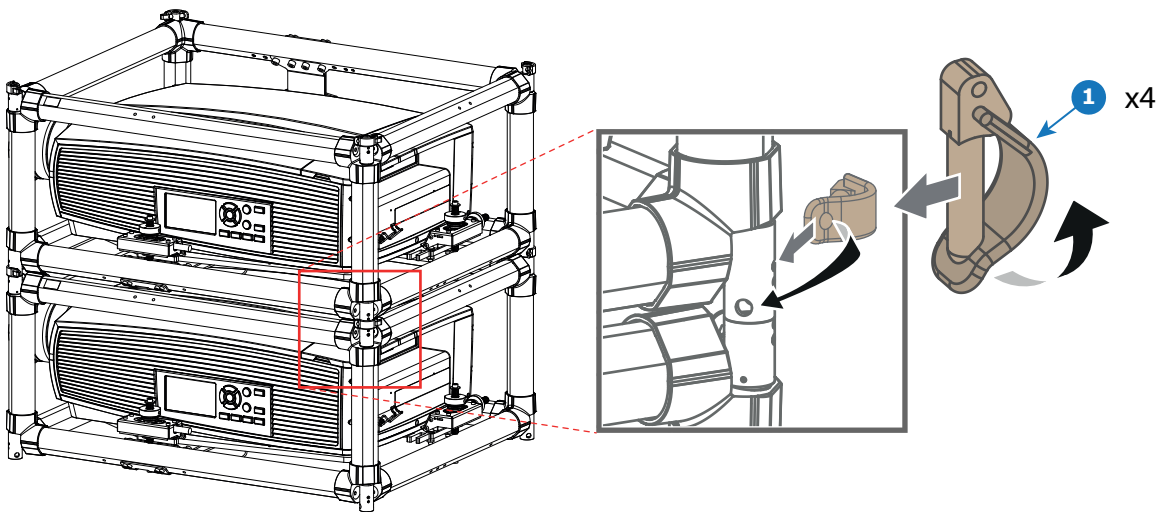


Image 1-9

5. Repeat the previous step for each overlapping corner of all stacked rigging frames.

1.5 Suspending the projector from a truss



WARNING: It is the responsibility of the installer to suspend the rigging frames in a safe and secure fashion. Safety cables must be applied according to local regulations and standards. Safety cables must be dimensioned for the applicable load and no drop distance is allowed or must be limited as much as possible.

Suspending the projector from a truss

The projector can be suspended from a truss using the multifunctional frame.

Take the following things into account:

- If suspension clamps are used, they can be placed on any of the round profiles of the frame. The number of clamps required depends on the types of clamps used. Always make sure you use at least 4 clamps: 2 clamps at 2 opposed sides of the frame. Make sure to take into account the total weight of all frames and projectors suspended from the truss.
- It is allowed to suspend **maximum two** projectors.

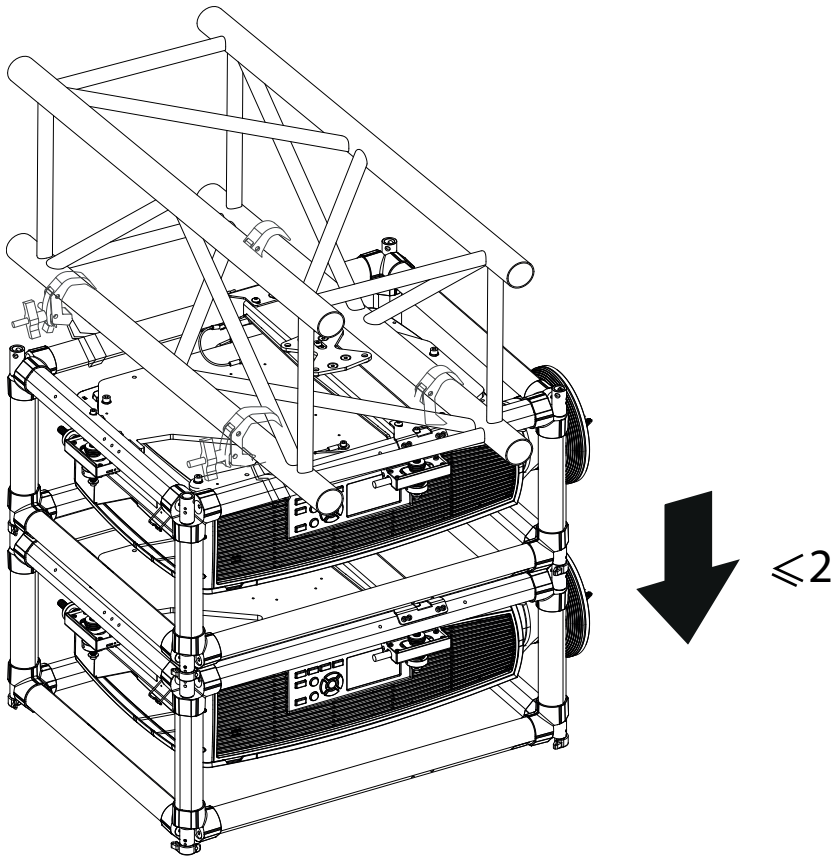


Image 1-10: Hanging limits

- Alternatively, when using a single point of connection, you can use one of the two rigging points for suspending the frames. When using this method, also make sure to attach two safety cables. Tie these cables from the truss towards two of the frame bars opposing each other.

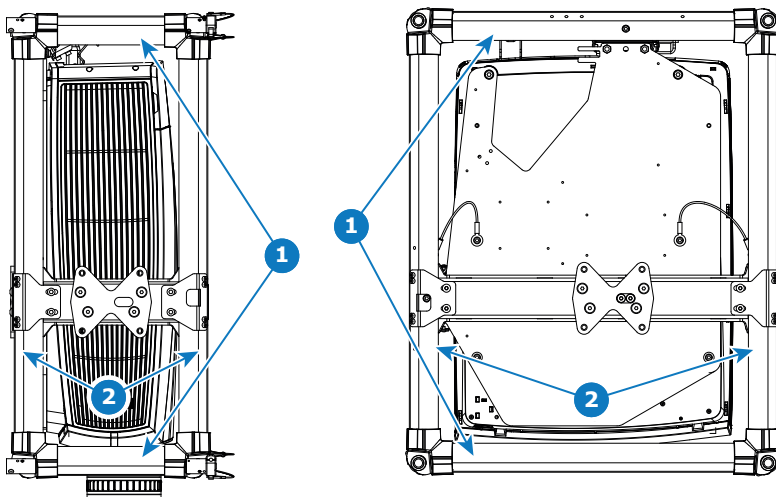


Image 1-11: Hanging positions

- When using a single point hanger, take into account that the 4 bolts connecting the single point hanger to the frame should be M8 bolts that must be inserted at least 15 mm into the frame rigging points.



CAUTION: When using single point suspension (both ceiling or portrait mode), it is not allowed to incline the frame for more than 20° towards the horizon.

How to suspend from a truss, using the rigging clamps

1. Measure the distance between the two used support bars of the truss, using the center tube as reference.

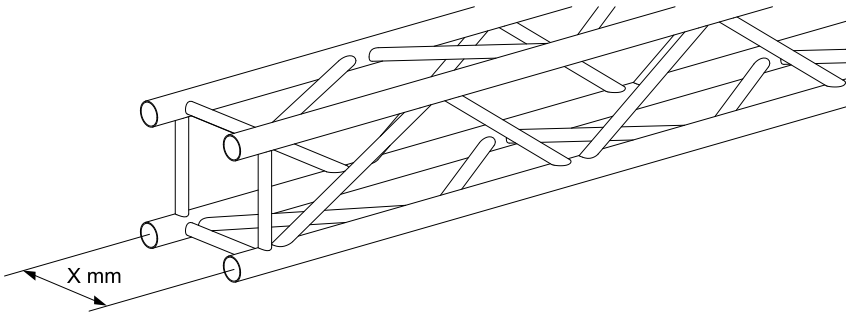


Image 1-12: Example of truss

2. Turn the projector upside down and install the rigging clamps, according the measured distance and secure this position. Ensure that the rigging points are symmetrically lined up, so that the projector will hang in balance.

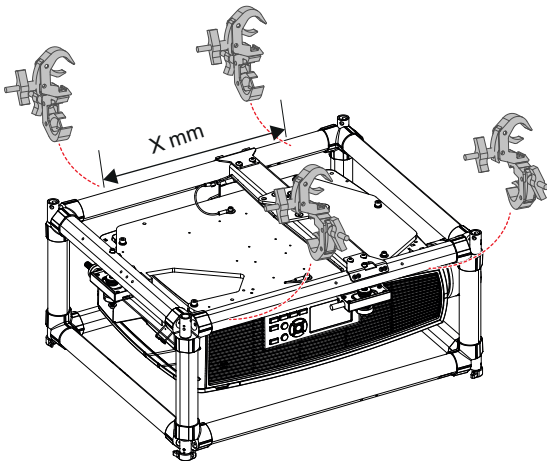


Image 1-13: Clamp position

⚠ Warning: Always use four (4) rigging points, equally spread, to suspend the projector.

3. Place the projector (upside down) under the truss installation and lower the truss until the support bars of the truss are nearby the rigging clamps mounted on the projector.

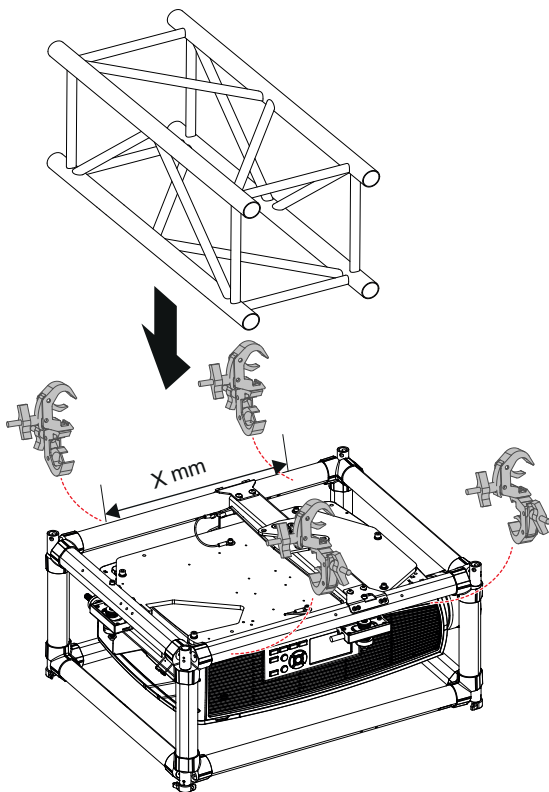


Image 1-14: Example of mounting to truss

⚠ Warning: Always secure the rigging points after adjustment.

4. Lock all four rigging clamps.
5. Lift up the truss with the attached projector to the desired height.

How to suspend from a truss, using a single point hanger

1. Turn the projector upside down.

Rotate the single point hanger so that the four big bolts matches the holes in the rigging frame.

Tighten the bolts to the rigging frame.

⚠ Caution: When using a single point hanger, take into account that the 4 bolts connecting the single point hanger to the frame should be M8 bolts that must be inserted at least 15 mm into the frame rigging points.

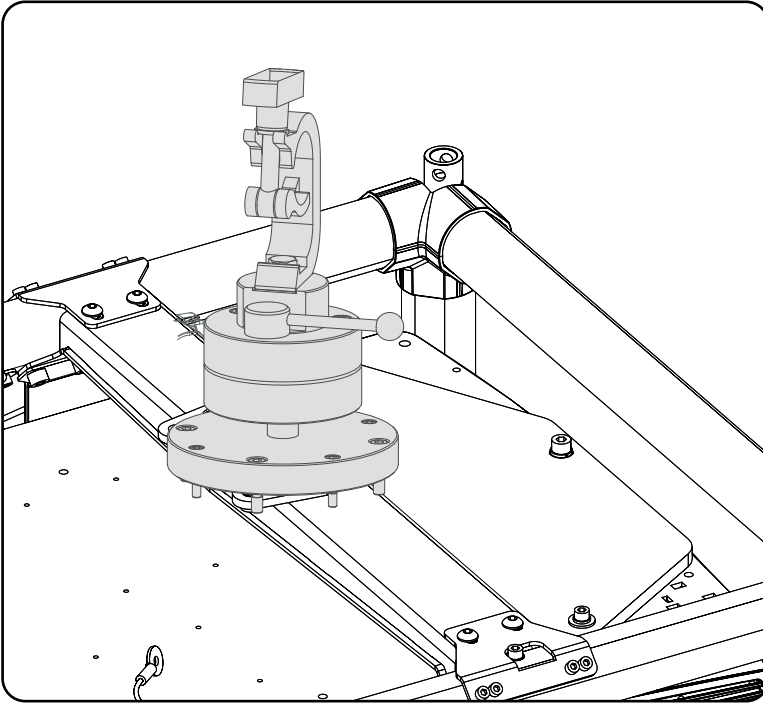


Image 1-15: Example of single point hanger installation in landscape

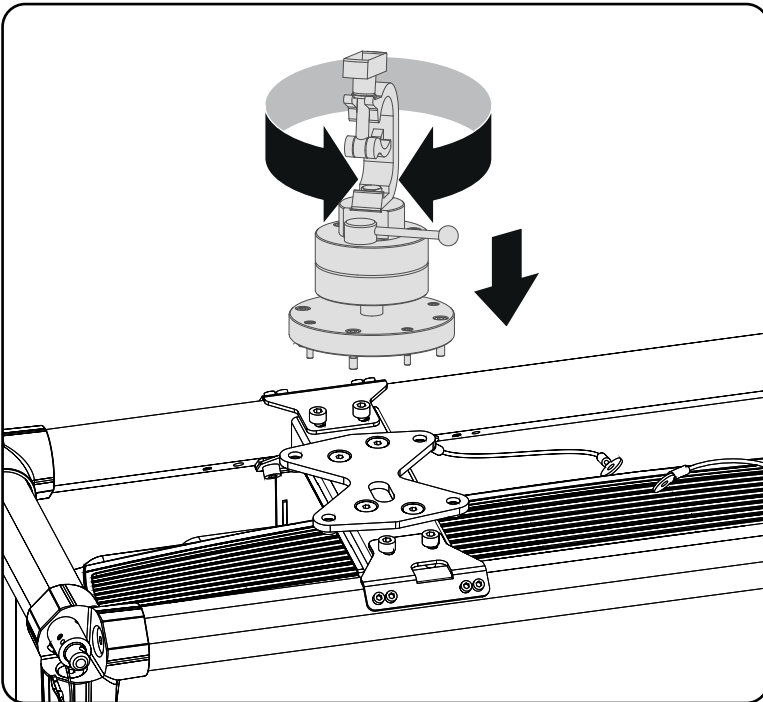


Image 1-16: Example of single point hanger installation in portrait

2. Place the projector with the hanger under the truss installation and lower the truss until the support bars of the truss are nearby the single point hanger mounted on the projector.

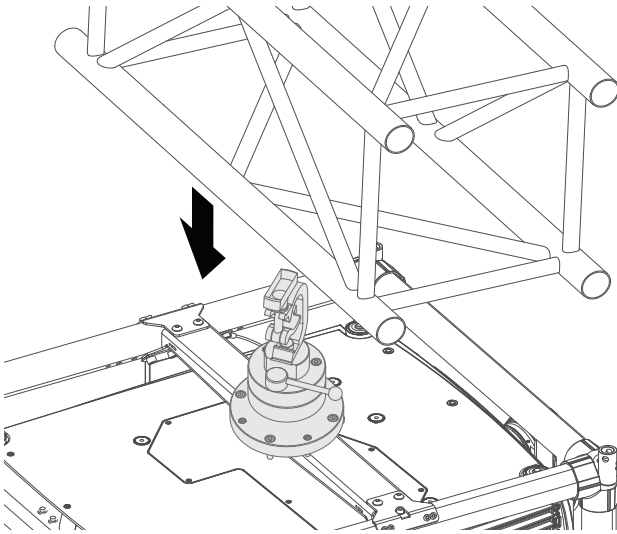


Image 1-17: Example of mounting to truss

3. Lock the single point hanger.
4. Install two safety cables around the frame bar (push the hook through the loop and then around the truss so that there is not too much play (maximum 20 cm). If necessary turn the cable a few times around the truss before clasp the safety hook around the cable.

Note: Mount the 2 safety cables in such a way that when something goes wrong, the projector cannot fall more than 20 cm. If necessary, turn the cables a few times around the truss to obtain this maximum distance.

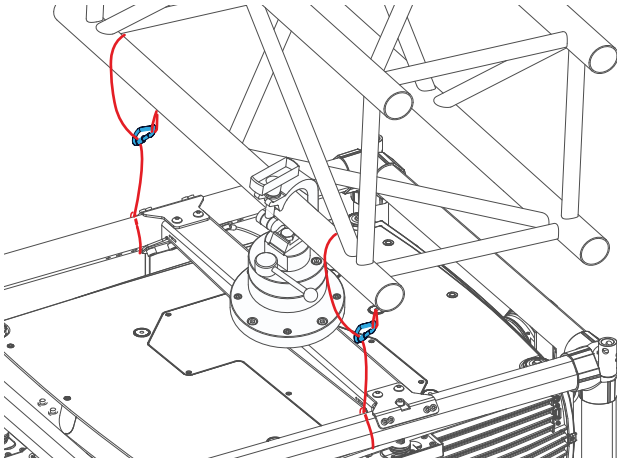


Image 1-18: Example of single point connection with safety cables

5. Lift up the truss with the attached projector to the desired height.

1.6 Skewing the projector

How to skew the projector

1. Turn the skew knob (1) at the back to skew the projector.

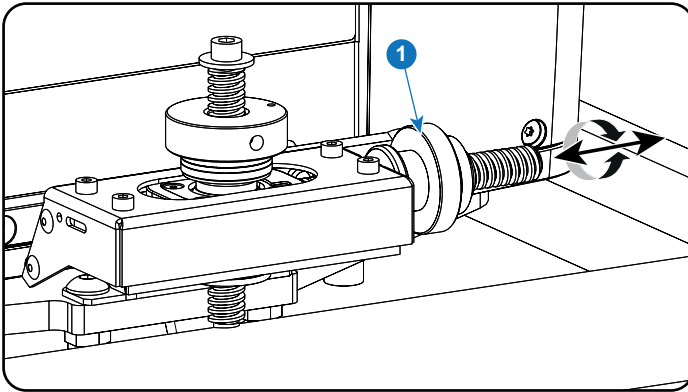
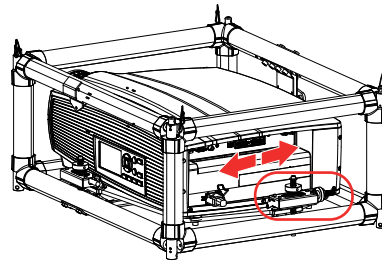


Image 1-19: Skew adjustment



1.7 Tilting the projector

How to tilt the projector

1. Turn the tilt adjustment knob (1) at the back to lift the projector up or down.

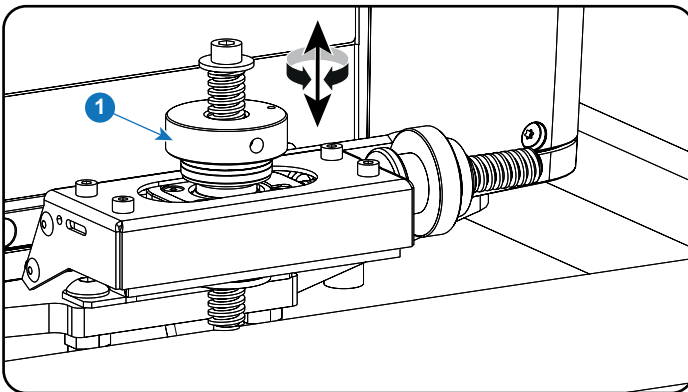
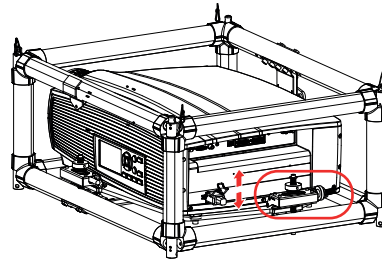


Image 1-20: Tilt adjustment



1.8 Rotating the projector

How to rotate the projector

1. Turn the rotate adjustment knob on the right side of the projector.

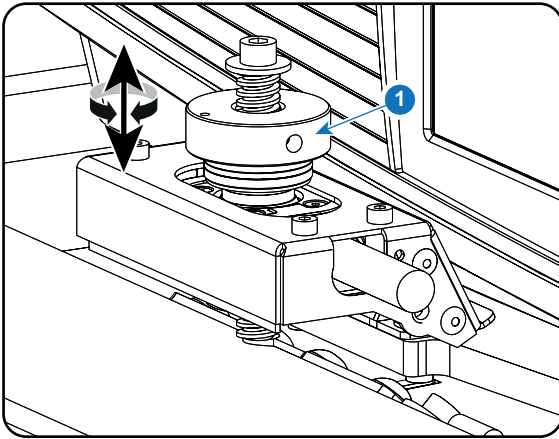
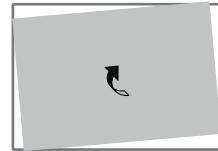
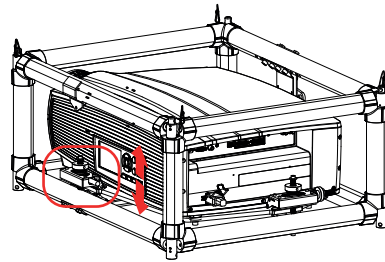


Image 1-21: Rotation



1.9 Dimensions

Dimensions

Dimensions in mm (inch)

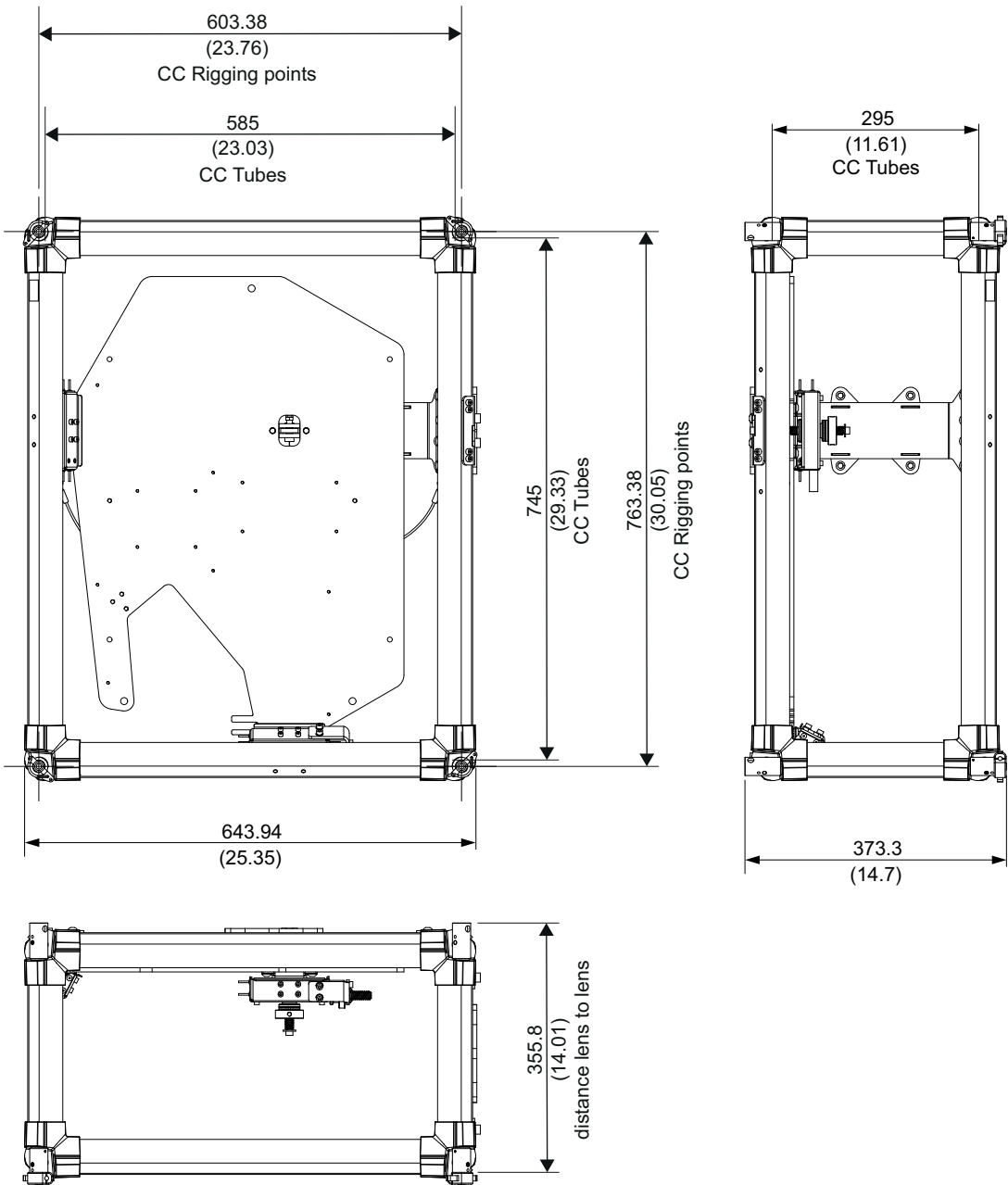


Image 1-22

Weight

The weight of the fully assembled frame without the projector is 23.2 kg (51.2 lbs)

