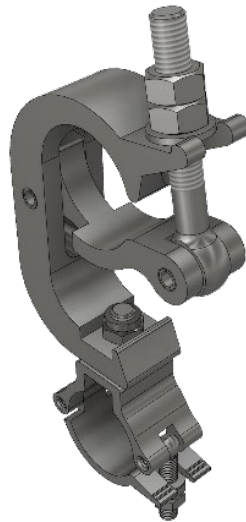


FRAME-PF-UNI-CLP Series

Double clamp adapter for 50 or 60 mm suspension pipes to 30 or 40mm pipes on EVO-FRAMEs, 4 piece set

Manual Version 1.0



| Date | Revision No. | Author | Checked | Approved | Description |
|------------|--------------|--------|---------|----------|-----------------|
| 04.04.2020 | 1.0 | TSN | GJN | RBR | Initial release |

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Manual FRAME-PF-UNI-CLP Series

1. Preamble

The products of FRAME-PF-UNI-CLP Series had been developed and manufactured with the highest care and attention. However, improper handling can cause a risk for safety and / or damage. Read these instructions carefully before handling and installing the product so that you can safely enjoy your device. In the following pages, you will find all the needed information for a safe and fast installation.

After the installation is done properly, you can enjoy all the features of your new product. Please consider keeping the original box and packaging materials, in case you ever need to ship the product.

Model number: **FRAME-PF-UNI-CLP5030**
 FRAME-PF-UNI-CLP5040
 FRAME-PF-UNI-CLP6030
 FRAME-PF-UNI-CLP6040

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1.1 Tools required

The only tools required is a 19 mm and a 13 mm screw wrench.



- 1 x Nr. 19 Screw wrench
- 1 x Nr. 13 Screw wrench

2. Safety instructions



These installation instructions must always be handed over to the person who is carrying out the installation.

Read these instructions carefully before installing the system.

2.1 Warnings



The FRAME-PF-UNI-CLP Series is intended for use by fully qualified, trained and competent persons to provide safe and secure transportation, installation and adjustment of projectors.



Warning: Handling only by instructed, qualified and authorised person with a minimum age 18 years and of sound mind.



For indoor usage only

Only use the FRAME-PF-UNI-CLP Series in a closed environment (conference rooms, theatres, convention halls, etc.) where there is no wind, moisture, excessive heat etc.



Make sure that only the designated EVO-Frames are installed with the products of FRAME-PF-UNI-CLP Series! Do not try to use it with other products because serious accidents can occur!



Always use a rigging sling with steel cable insert and a shackle that is stable enough for the load including dynamic forces when falling into the rigging sling! (two sets of rigging sling and shackle are recommended) Otherwise it is not allowed to use the product and serious accidents or death can happen.



Do not remove or replace any parts of the FRAME-PF-UNI-CLP Series on your own. Contact the manufacturer or service partner in case of damage or loss. Removing or replacing parts by non-certified companies or people might result in serious accidents and death.

Manual FRAME-PF-UNI-CLP Series

Definition of qualified persons:

Trained/Qualified person

A person can be considered as trained/qualified when it has been thoroughly informed and/or trained about the assigned task and the possible dangers that can occur in case of improper behaviour and / or not observing precisely the installation instructions.

Qualified/Specialised person

A person can be considered qualified or specialised when, based on specialised training, knowledge and experience, it can assess the work assigned and recognise possible dangers.

Only use the FRAME-PF-UNI-CLP series for its intended use.

- If this product is used for something else than its intended use, serious accidents and death may result. See chapter 6.1 Intended use

Installation work should only be carried out by a qualified technician.

- If this product is not installed correctly, serious accidents and death may result.

Do not use the product outdoors.

- This product is made only for indoor usage. If the FRAME-PF-UNI-CLP Series is mounted outdoor, there are many influences like wind or rain that can have an effect on the stability of the whole system.
- This can cause property damage, serious accidents and death.

A visual inspection must be done prior to every installation, in which the system is involved. The inspection must be performed by a qualified person.

- All parts of the product must be inspected in detail prior to any usage, see also chapter 14. System maintenance and inspection (Re-examination)
- Only if the product and all its components are in a flawless condition, it is safe to use the system.
- Using a double clamp which has damages, missing parts or the like can cause serious accidents and death.

Only use projector frames that are specified by the manufacturer to be used with the FRAME-PF-UNI-CLP Series.

- Use only EVO-Frames by EXACT solutions with the FRAME-PF-UNI-CLP Series.

Manual FRAME-PF-UNI-CLP Series

- See the specific EVO-Frame Manual regarding maximum stacking information as well as where and how to mount the clamps to the EVO-Frame

Do not install the clamps with the EVO-Frame while people are present under the mounting zone during the installation process.

- When installing the system, make sure no one is in the area underneath the installation zone. Otherwise, this will be a risk for all people underneath, that could cause serious injuries and death.

Make sure that the structure from which you hang the EVO-Frames including projector is capable of carrying the overall weight. Do not hang the frame from unstable or inappropriate structures.

- Prior to any installation, you must do a visual inspection to make sure that the system is in a good condition
- If the frame is hung on an unstable structure, the entire system can fall down and injuries may occur. Make sure that the construction can support a total weight.
- Ignoring this might cause significant damage to the product and serious accidents or death may result

Do not hang more projector frames under each other than allowed by the manufacturer

- Do not exceed the maximum number of hung EVO-FRAMES as this may cause the whole system or parts of it to fall down
- Refer to the specific EVO-FRAME manual to understand the maximum amount of frames that can be hung under each other. This differs depending on the specific ECO-FRAME
- Ignoring this might cause significant damage to the product and serious accidents or death may result

Always secure the frames to the rigging truss with rigging slings with steel cable insert and shackles (two sets of rigging sling and shackle are recommended).

- The frames must always be secured with an appropriate rigging sling and shackle so that in case of a malfunction it doesn't fall more than 10 cm. It is recommended to use two sets of rigging sling and shackle to avoid too much dynamic forces as well as the projector swinging. Please consult the local laws or regulations regarding the additional safety of hanging equipment.
- It is important to use correct rigging slings with cable inserts and shackles that are capable to resist the high dynamic forces.

Manual FRAME-PF-UNI-CLP Series

- The rigging slings and shackles act as a secondary safety element and it is mandatory to use them. Not using them or using the wrong products might cause serious accidents and death.

Service work shall only be done by qualified personnel that is authorized by the manufacturer. Furthermore, only original spare parts shall be used.

- Unauthorized personnel shall never do service work on the products, as service work requires special training and knowledge
- Spare parts must always be original ones, provided by the manufacturer
- Not observing these rules on service work ends with immediate effect the responsibility of the manufacturer and, where applicable, warranty is irrecoverably lost. The product is no longer safe to use. This may cause serious accidents or death and property damage.

The FRAME-PF-UNI-CLP Series is made to be used with aluminium or steel tubes

- Do not use the clamps on other materials.
- Serious accidents or death may occur when ignoring this.

The FRAME-PF-UNI-CLP Series are made for specific tube diameter. Make sure to use the clamps only on suitable tubes

- Using the clamps on unsuitable diameter pipes, the functionality is in danger and the usage is not allowed.
- Ignoring this might cause significant damage to the product and serious accidents or death may result.

2.2 Caution

Periodic inspections are mandatory

- Depending on local laws and regulations owners / users must do periodic inspections of the frame and all components. In case of German regulations this must be done and documented once a year by a qualified and authorised person.

Use only gentle cleaning agents to avoid damage

- Cleaning may be done with a soft cloth and a little bit of warm, slightly soapy water
- Do not use any oil, acid etc. on the frame or its components. This may damage the system.

Incorrect disposal is a risk to humans and nature

- Disposal must be done in accordance with local laws and regulations. Contact the manufacturer in case of any questions.

2.3 Risk Situations

Risk of injury due to the possibility of falling objects during the assembly or disassembly of an EVO-FRAME.

- Protection objective: avoid injury from falling parts.
- Wear appropriate safety shoes, gloves and helmet.
- Make sure the area under the frame is clear during installation.

Risk of hitting the head with an EVO-FRAME during the hanging set up process.

- Protection objective: avoid injury from hitting the head.
- Wear a helmet

Incorrect installation may lead to certain parts of an EVO-FRAME or the entire EVO-FRAME to fall down.

- Protection objective: prevent personal injury and property damage.
- Double check the EVO-FRAME and its installation.

Insufficient load capacity of the supporting structure may lead to certain parts of the EVO-FRAME or the entire EVO-FRAME to fall down.

- Protection objective: prevent personal injury and property damage.
- Provide adequate dimensioning of the supporting structure. The supporting structure must be able to support the combined weight of all the equipment attached to, or hung from it
- Ensure correct installation of the supporting structure.

Usage of unsafe ladders/steps/scaffolding may lead to serious personal injuries

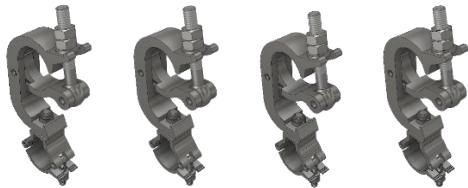
- Protection objective: prevent personal injury by using only safe ladders/steps/scaffolding.
- Use only appropriate and safe equipment
- Always follow the documentation of the manufacturer of the provided ladders/steps/scaffolding
- Use personal safety equipment if necessary

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3. Scope of delivery

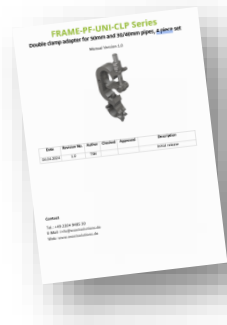


Note: Please check the delivery for completeness and damage immediately after you receive the shipment. Please contact your vendor in case of missing or damaged parts.



FRAME-PF-UNI-CLP5030
Or
FRAME-PF-UNI-CLP5040
Or
FRAME-PF-UNI-CLP6030
Or
FRAME-PF-UNI-CLP6040

- Used for projector installation
- Number of units: 4 pcs set
- Weight: approx. **3,1 kg / 6,85 lbs**



User manual
for FRAME-PF-UNI Series

4. Overview of model numbers and compatibility

| Product Number | Compatible EVO Frames |
|--|---|
| FRAME-PF-UNI-CLP5030 FRAME-PF-UNI-CLP6030 | FRAME-EVO-P10 FRAME-EVO-P11 FRAME-EVO-P14 FRAME-EVO-P17 FRAME-EVO-P20 FRAME-EVO-P30 FRAME-EVO-E10 FRAME-EVO-E20 FRAME-EVO-C20 |
| FRAME-PF-UNI-CLP5040 FRAME-PF-UNI-CLP6040 | FRAME-EVO-P31H |



The FRAME-PF-UNI-CLP Series are made for specific tube diameter. Make sure to use the clamps only on suitable tubes. Most EVO Frames have a 30 mm tube diameter. Currently only FRAME-EVO-P31H has a 40 mm tube diameter.



Note: The above table lists frame models that are compatible. Please contact us if you are missing a frame.



In this manual, when reference is made to “FRAME-PF-UNI Series” it is automatically a reference to all products from this series

6. Description of the product

6.1 Intended use

The products of FRAME-PF-UNI-CLP Series are double clamp sets which are designed and intended to mount projector frames of the EVO-FRAME Series to a trussing.

The FRAME-PF-UNI-CLP Series is intended for use by fully qualified, trained and competent persons to provide save installation and adjustment of EVO-FRAMES and the mounted projectors. The FRAME-PF-UNI-CLP Series as well as the EVO-Frames are made only for indoor usage. The FRAME-PF-UNI-CLP Series are made to be used only with aluminium or steel tubes.

The different products of the FRAME-PF-UNI-CLP Series vary in the possible pipe diameter to where it can connect. The following section will provide an overview of the different types.

FRAME-PF-UNI-CLP5030 is made to mount EVO Frames with 30mm pipe diameter to a suspension pipe with 50 mm diameter.

FRAME-PF-UNI-CLP5040 is made to mount EVO Frames with 40mm pipe diameter to a suspension pipe with 50 mm diameter.

FRAME-PF-UNI-CLP6030 is made to mount EVO Frames with 30mm pipe diameter to a suspension pipe with 60 mm diameter.

FRAME-PF-UNI-CLP6040 is made to mount EVO Frames with 40mm pipe diameter to a suspension pipe with 60 mm diameter.

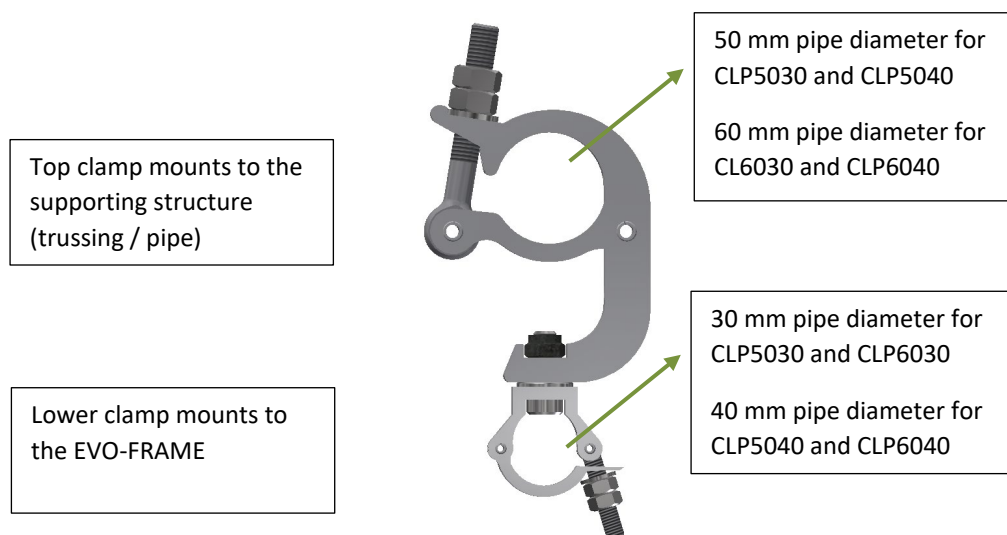


Figure 1 Pipe diameter

6.2 Specifications

| Parameter | Value |
|---|------------------------|
| Size [mm] | See drawings |
| Weight [kg] | 3,1 kg / 6,84 lbs |
| Maximum weight load for a complete set of 4 pcs double clamps | 100,0 kg / 220,0 lbs |
| Operating temperature [°C] | 0 - 45 |
| Operating rel. humidity [%rH] | 10 - 75 |
| Operation area | Indoor in closed rooms |

7. Installing the clamps to the frame



Make sure that only EVO-FRAMES are installed with FRAME-PF-UNI-CLP Series! Do not try to use it with other products because serious accidents can occur!



Make sure to not exceed max. weight loads for ceiling mounting. Insufficient load capacity of the supporting structure may lead to certain parts of the EVO-FRAME or the entire EVO-FRAME to fall down.



Always secure the frames using appropriate **rigging slings with steel cable insert and shackles**. Make sure they are chosen correctly regarding strength, format and length. Please avoid high dynamic forces by ensuring that the frame will not drop more than **10 cm** into the rigging slings. Please consult the local laws or regulations regarding the additional safety of hanging equipment.



Make sure to use always all four clamp sets.

The clamps and the frame need to be mounted so that the clamps are mounted vertical down. See exemplary images below in Figure 2.

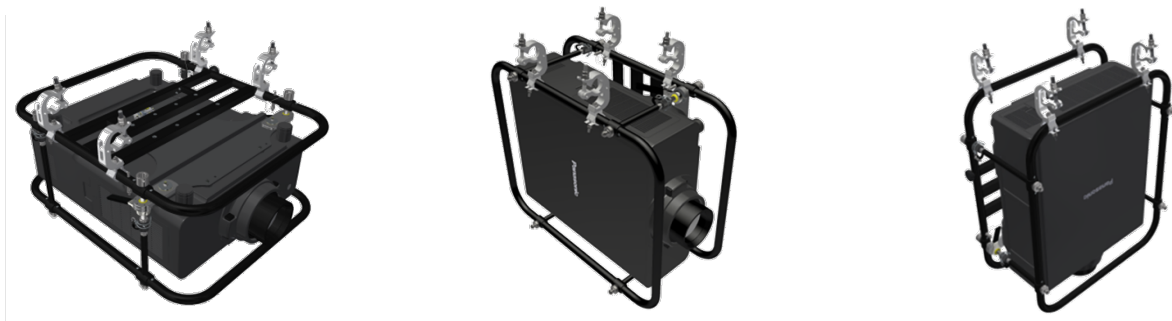


Figure 2 Exemplary images of FRAME-PF-UNI-CL5030 (from left to right: landscape-, portrait-, face down-orientation)

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Figure 3 illustrates the correct installation of a FRAME-PF-UNI-CLP Series clamp set. The forces of the weight load go straight through the clamp.

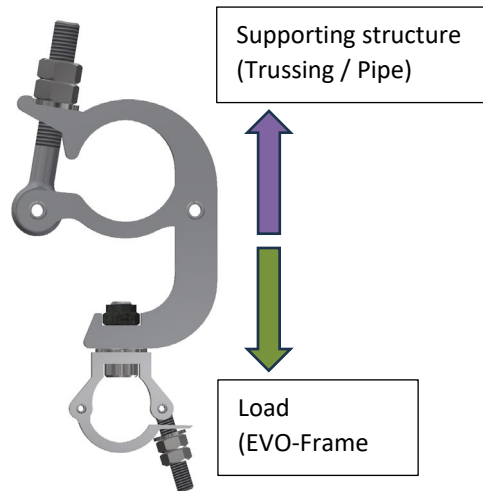


Figure 3 Correct load direction on clamps

Figure 4 illustrated an incorrect installation where torsional and shearing forces are created which the system is not made for.

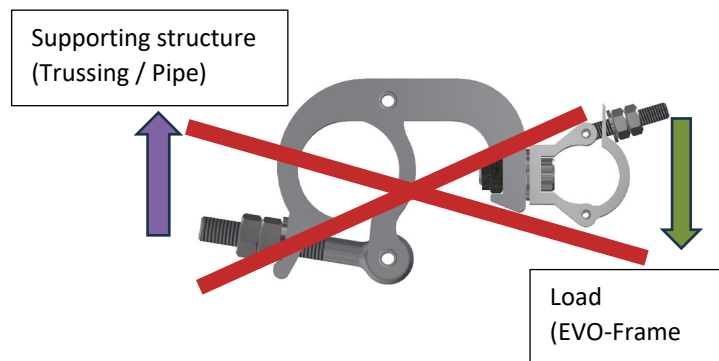


Figure 4 Incorrect load direction on clamps



The clamps are only made for a straight pull between the frame and the supporting structure.



The needed torque to tighten the clamps varies and should be chosen carefully to not damage the supporting structure or the clamp. Of course, the clamps need to be securely fastened. It is difficult to define a torque but a torque of 15 Nm / 11lbft is a good indication.

Manual FRAME-PF-UNI-CLP Series

Step by Step installation procedure

First mount all four smaller clamps (either 30 mm or 40 mm) to the EVO-FRAME. For this untighten the nuts and open the clamps. Mount the clamps to the correct position on the frame. Tighten the nuts by hand so that you can slide the clamps later to find the ideal position. Proceed like that with all of the four clamps.

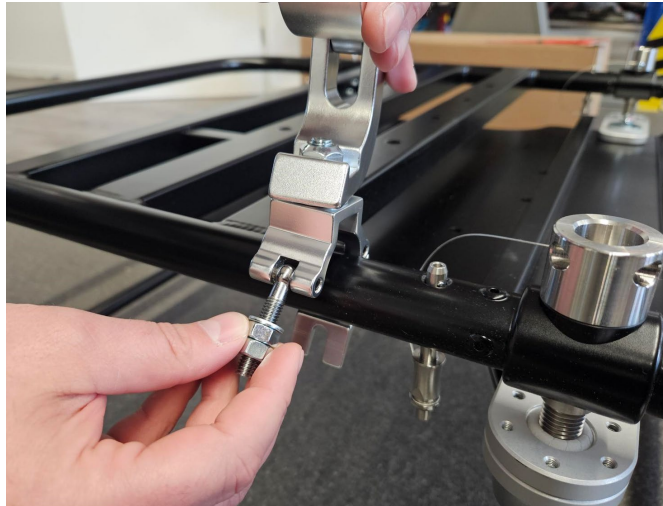


Figure 5 Mounting small clamps to the Frame



The correct position differs between the various EVO-FRAMES and further instructions can be found in the specific EVO-FRAME manual.



Figure 6 Four clamp set mounted to exemplary EVO-FRAME

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Now position the supporting trussing / pipe over the frame with the mounted clamps. Untighten the nuts and open the larger clamps. Mount the clamps to the correct position on the trussing / pipe. Close the larger clamps, hand tighten the first nut. Proceed like that with all four clamp sets.



Figure 7 Mounting large clamps to supporting structure (trussing / pipe)

Once you have found the correction position, tighten the first nut using a spanner to secure the clamp. Proceed like that with all four clamp sets.



Figure 8 Tightening the first nut on the large clamp

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Tighten the second nut using a spanner on top of the first nut to secure the first nut from loosening. Proceed like that with all four clamp sets.



Figure 9 Tightening the second nut on the large clamp

At this point all larger clamps of the four sets should be securely fastened to the supporting structure. Check the position of the smaller clamps and if necessary, adjust the position so that the clamps of one set are perfectly aligned straight down.

Tighten the first nut of the smaller clamps using a spanner to secure the clamps. Proceed like that with all four clamp sets.

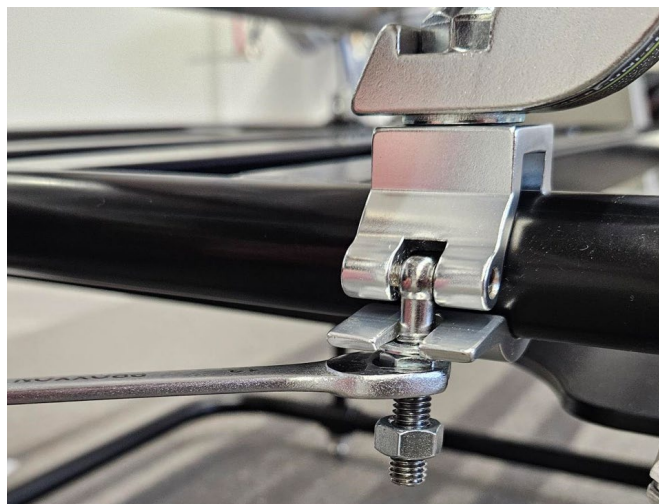


Figure 10 Tightening the first nut on the small clamp

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Tighten the second nut using a spanner on top of the first nut to secure the first nut from loosening. Proceed like that with all four clamp sets.

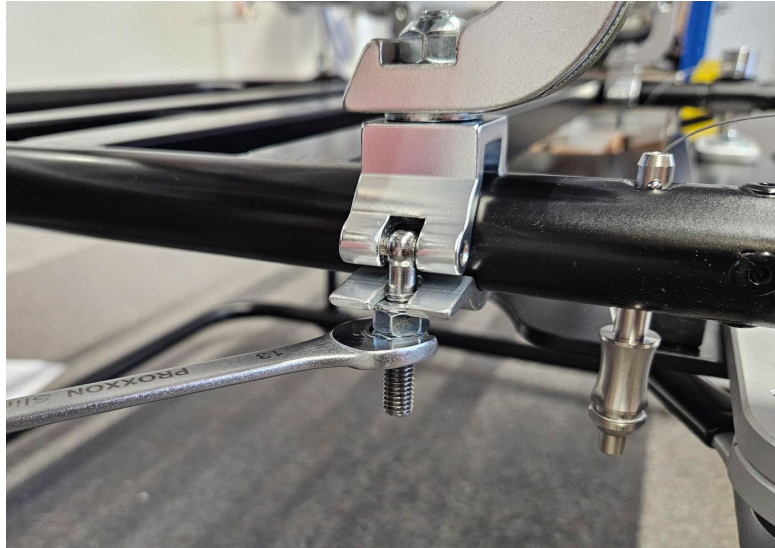


Figure 11 Tightening the second nut on the small clamp

Before applying the load of the frame to the clamps, check all connections are safe and correct.

After all clamps are correctly positioned and closed the load of the frame can be applied to the clamps.



Over tightening the nuts may deform the trussing / tube to which it is attached and by this damage those parts. Furthermore, the clamp itself can also be damaged by applying too much torque while tightening the nuts.



The position of the clamp sets on the frame varies depending on the specific frame. Furthermore, the orientation (landscape, portrait, face down) vary and depend on the specific frame. The installation guideline above is exemplary for a landscape installation. For further information see the specific EVO-Frame manual.



Before transport and storage close the clamps and hand tighten the nuts.

14. System maintenance and inspection (Re-examination)



The FRAME-PF-UNI-CLP series does not require special maintenance but a visual inspection **must be done prior to every installation** in which the system is involved. The inspection must be done by a qualified person!



Periodic inspections are mandatory. Depending on local laws and regulations owners / users must do periodic inspections of the frame and all components.



Note: The necessary inspection can also be done by the manufacturer.

The following inspections should be made:

- Check for any deformation of the clamp
- Make sure that the nuts can be turned easily by hand
- Make sure that the clamp opens and closes smoothly
- The clamp should smoothly fit around the correct pipe
- Check for any missing parts such as splints, nuts, washer etc
- There should be no holes, cracks, abrasion or corrosion on any of the parts

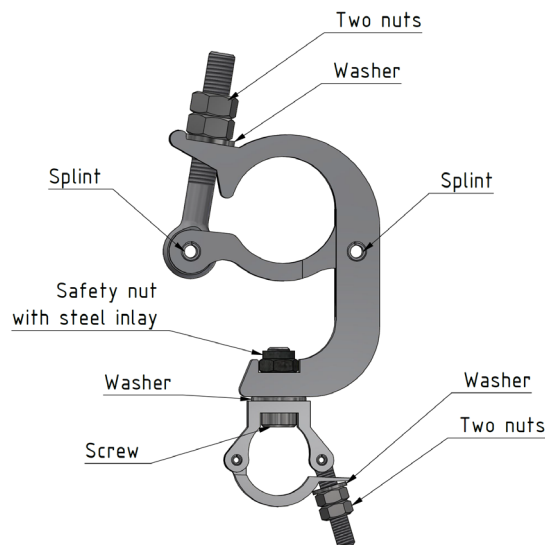


Figure 12 Parts of a clamp set

15. Disposal of components

15.1 Metal parts and packaging

All metal parts and packaging can be recycled.

15.2 Disposal of entire devices

You have the possibility to send old devices back to us. Please note that you have to take over the transportation costs for this. Please send the devices to:

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