



Grip Factory Munich
YOUR INNOVATIVE PARTNER FOR CAMERA SUPPORT

GF-Multi Jib

Instruction Manual

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SAFETY GUIDELINES

The assembly instructions must be read and understood before set-up or operation. The jib may only be assembled in accordance with the manufacturer's instruction manual. The manufacturer's technical specifications and limits must be adhered to at all times and in no way exceeded.

The GF-Multi Jib may only be set-up or operated by trained and experienced personnel. To avoid misuse by untrained personnel, the jib should be dismantled when not in use or under supervision.

For further information on the qualifications required for test personnel please refer to BGV 1, § 33 and §34.

The jib may not be assembled or operated under the influence of alcohol, drugs or any other intoxicating substances. The respective protective clothing e.g. gloves, should be worn.

The manufacturer accepts no liability for damages or injuries for incidents or accidents occurring due to negligence by the jib operator or misuse of the jib or disregarding the instruction manual..

The base dolly must be level at all times. If necessary, level the base dolly with levelling legs or operate it on the tripod base. Whether operating or moving the jib on track or on a solid ground surface it is essential that the track or surface is completely level, stable and free from obstructions.

When operating the jib on track, ensure that the track is level, properly laid and constructed. The correct underlay must be used to ensure that the track and underlay are secured against moving, slipping and collapse. Ensure that the underlay meets the specified support and stability requirements.

Extreme caution must be used if tracking on curved track (no faster than a slow walking pace).

Use of the jib on insert vehicles, camera cars or any motorised vehicle is not allowed. The manufacturer accepts no liability for damages or injuries for incidents or accidents occurring due to use of the jib on insert vehicles, camera cars or any other motorised vehicles.

Changing weather conditions should be taken into consideration. The jib must be taken out of operation before the operational wind speed reaches 35kmh. / 22mph.

The complete lift and panning range of the jib must be kept clear of obstructions at all times. A safety clearance of 0.5m / 19" to surrounding objects and 1m /39" to persons must be observed on all sides of the jib during operation.

The jib may not be used in the direct vicinity of high voltage power cables. To avoid accidents due to misuse in the vicinity of high voltage power cables, Safety Guidelines (especially VBG 1 and 4) as well as VDE regulations (especially 0105 part 100) must be adhered to. If the nominal voltage cannot be determined, a minimum clearance of 5m / 16ft must be kept at all times. Failing to do so can cause fatalities.

No loose objects may be stored or placed on the crane.

Before the counterweights are removed from the bucket, ensure that the remote bracket is resting on the ground or alternatively supported by an appropriate stable underlay. Gradually remove the counterweights before the remote head or camera is removed.

In the interest of safe jib operation abrupt, sudden, abrupt movement of the jib should be avoided.

Only original accessories manufactured by GFM may be used with the jib.

The GF-Multi Jib is a modular jib arm consisting of:

- 2 x 150cm sections plus respective rigging and parallelogram rods
- 1 x 100cm section plus respective rigging and parallelogram rods
- 1 x 50cm section plus respective rigging and parallelogram rods
- 1 x 30cm section plus respective rigging and parallelogram rods
- 1 x Rigging harness
- 2 x Rigging rod connectors
- 1 x Angle adjuster
- 1 x Counterweight bucket
- 1 x Remote bracket with angle adjuster
- 1 x Pivot section
- 1 x Pan bearing
- 1 x Mitchell adapter for pan bearing (or Euro-adapter for pan bearing)

In general the 2 x 150cm sections are to be used as front extensions whereas the 100, 50, and 30cm sections can be used as rear or front sections.

Please refer to the technical drawings for all set-up configurations.

GF- Multi Jib assembly procedure on base dolly

Before and during assembly observe the Safety Guidelines.

1. Secure the base dolly so that it cannot move or roll. Lock all wheel brakes. Move the steering rod towards the centre of the dolly or remove it so that the set-up personnel do not trip over it.



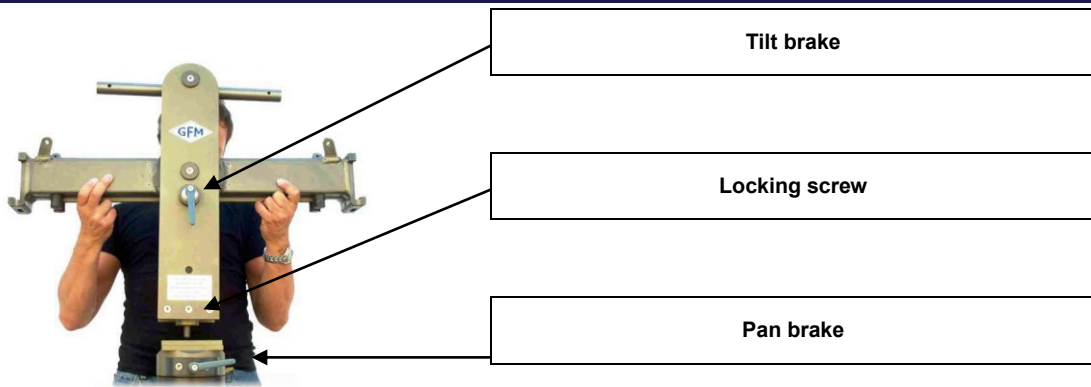
Locked wheel brake on Base Dolly



Base Dolly with mounting column and middle section

2. Bolt the crane mounting column to the base dolly. Make sure that the 4 locking bolts are locked securely. (Tip: the carrying handle on the bazooka should point away from the steering end of dolly).
3. Located on the middle section are 2 tilt friction locks which may be used to lock the tilt during set-up. Set the pivot arm at 90° to the centre post and lock these friction locks which can be found on the left and right hand side of the middle section.
4. Mount the middle section on the mounting column. Lock the locking screw tightly.

Tip: A 12mm Allen key can be found in the mounting column's handle to be used as a lever



Attention : Pinch point – both tilt brakes should be locked during transport and assembly!

5. Connect the 2 sections of the rigging harness to the middle section of the GF-9 and lock securely with the 4 locking levers..



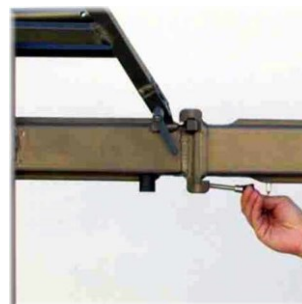
Rigging harness assembly

6. Connect the cross bar to stabilize the rigging harness. Ensure that the 2 locking pins are inserted fully.
7. Depending on the version being assembled, connect the rear section to the middle section. Slip the connection flanges into each other and secure with the provided safety pin.

Tip: To avoid the sections jamming or getting stuck make sure that the sections are joined parallel. Using a small amount of silicon spray also helps.



Mounting an extension arm

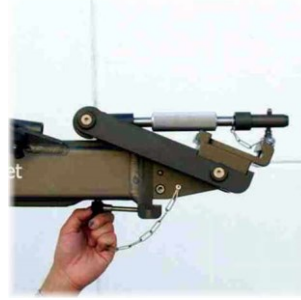


Securing the arm with a safety pin

8. Connect the angle adjuster to the end of the respective section and secure it from the inner side of the angle adjuster with the provided safety pin.



Mounting the angle adjuster



Securing it with a safety pin

9. Connect the turnbuckles to the rigging harness. Depending on the rear length being used, now connect the 2 rigging rods to the turnbuckles and in turn to the rigging rod connections on the rear extension securing with the safety pins. Hand tighten the rods by turning the turnbuckles until the rods are taut.



Connecting the rigging rod to extension arm

10. Connect the respective parallelogram rod to the middle section and the angle adjuster and secure it with a safety pin at each end.

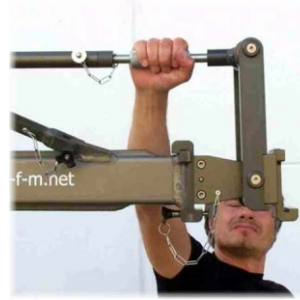
Tip: The angle adjuster has an integrated leveller. By turning it, the vertical plate on the angle adjuster can be set to a perfect right angle. Correct setting of the angle adjuster enhances the crane's balance.



Connecting the parallelogram rod



Securing the parallelogram rod



Levelling the angle adjuster

To assist the set-up procedure and to reduce the risk of accidents it is recommended to use set-up support stands or rostrums to support the crane arm during set-up and breakdown.

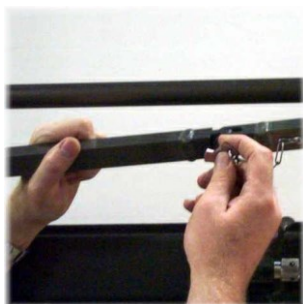
The rigging system

To enhance the rigidity and reduce the strain to the GF-Multi Jib arm, a rigging system consisting of various rods and a V shaped harness is required. The rigging system must be used for all versions.

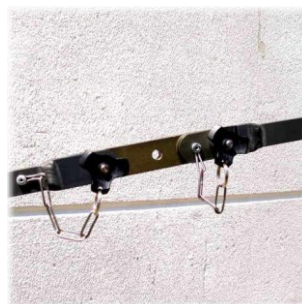
The length of the rigging depends on the number of extensions to be used. As a rule, the rigging runs from the rigging harness mounted on the pivot section to the last section at the front or end of the crane. Detailed drawings can be found in the following pages.

General instructions for assembling the rigging:

1. After connecting the turnbuckles to the rigging harness, connect the required rigging rod and secure the rods with the provided safety pin.
2. Depending on the version, attach the required number of rods and secure them with the provided safety pins.
3. When the rods are connected together and secured with the respective safety pins, connect the front rods to the connections for rigging rods on the respective section.



Connecting the rigging rods



Rigging rod connector



Connection for rigging rod

Attention: for certain versions it is necessary to use a rigging rod connector between the rods.

When all the required rods are in place and connected, the turnbuckles on the rigging harness can be hand turned until the rods are taut. The turnbuckles should adjust the run of both sets of rods equally so that the arm is not bent or pulled to one side. Over adjusting of the rods should be avoided.

Parallelogram supports:

1. For certain versions it is recommended to use the parallelogram supports. To see the correct positioning, please refer to the drawing of the individual version. The supports are bolted to both sides of the respective extension and connected to the parallelogram with the locking pin from above as shown below.



Connecting the parallelogram support

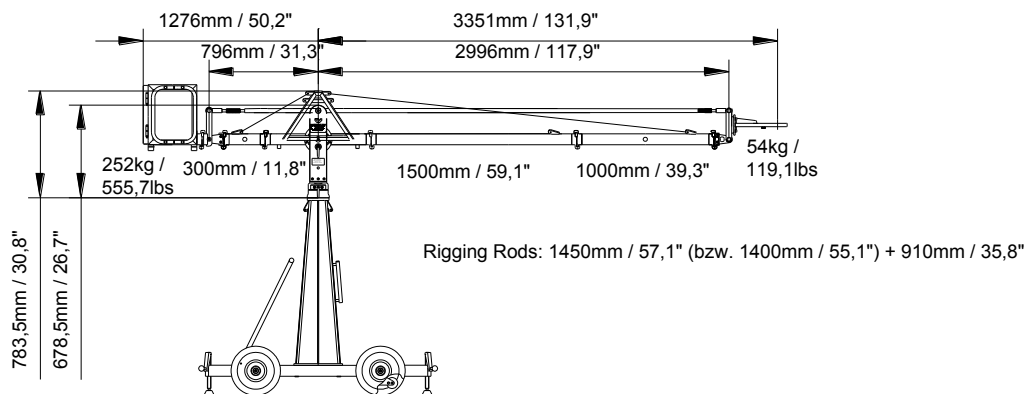


Connecting the safety pin

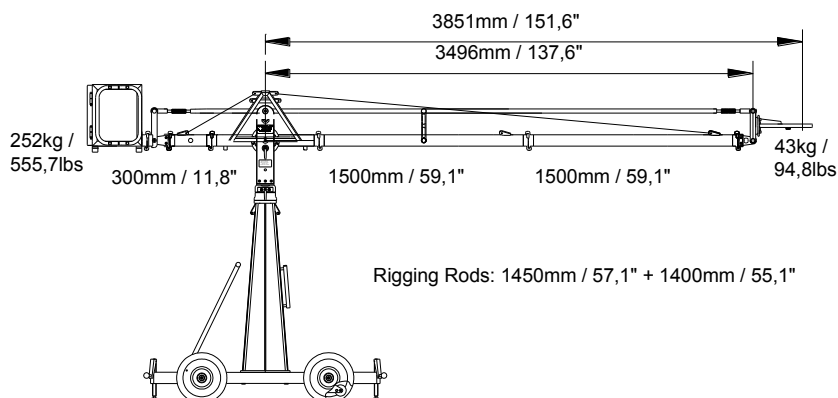
Technical Specifications

GF-Multi Jib

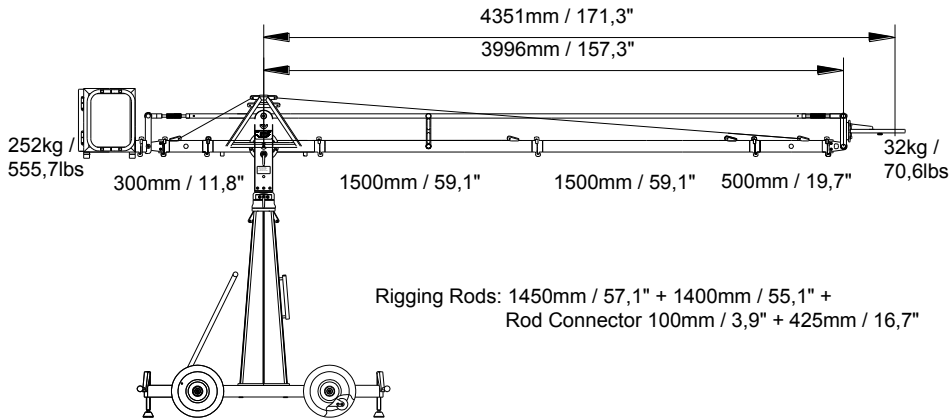
Version 1-300



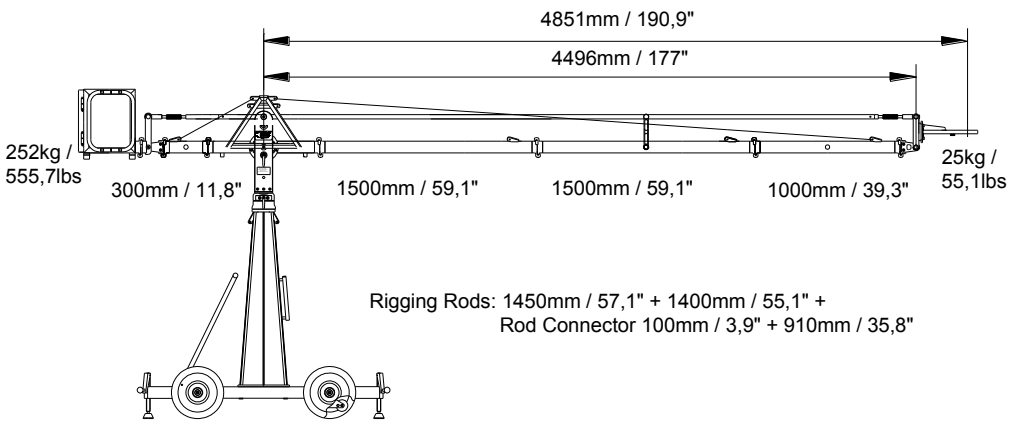
Version 2-300



Version 3-300

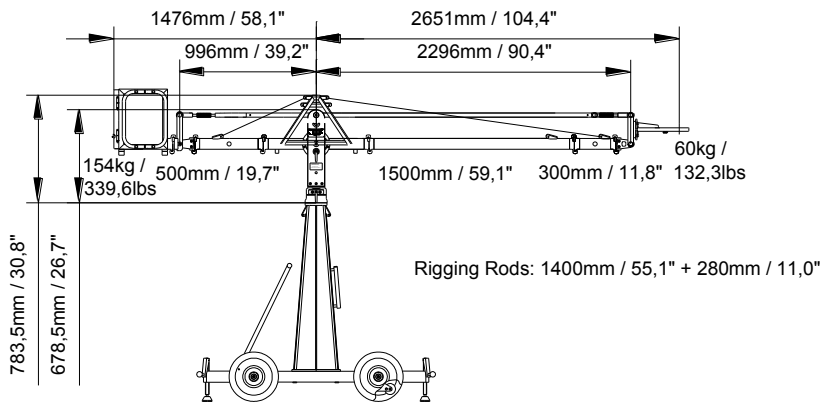


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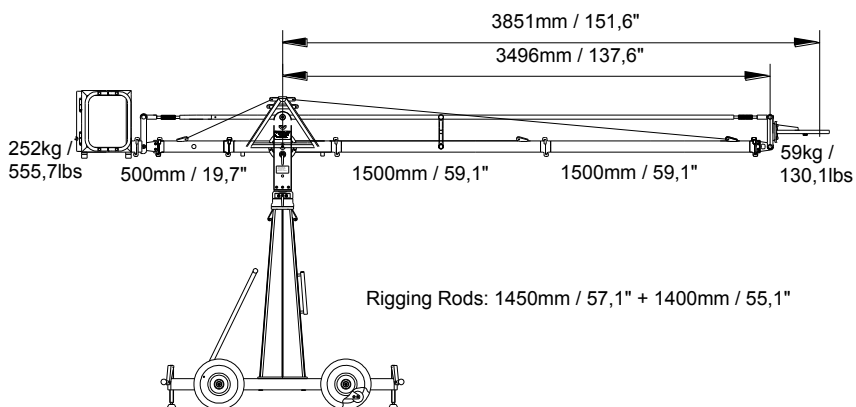


GF-Multi Jib

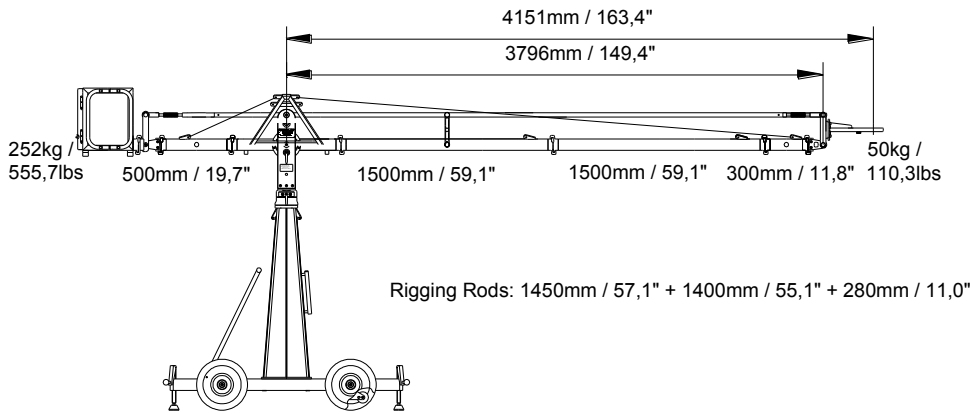
Version 1-500



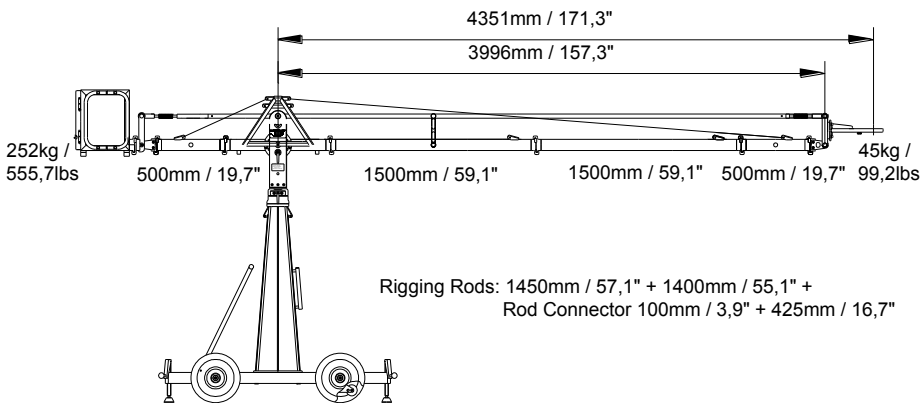
Version 2-500



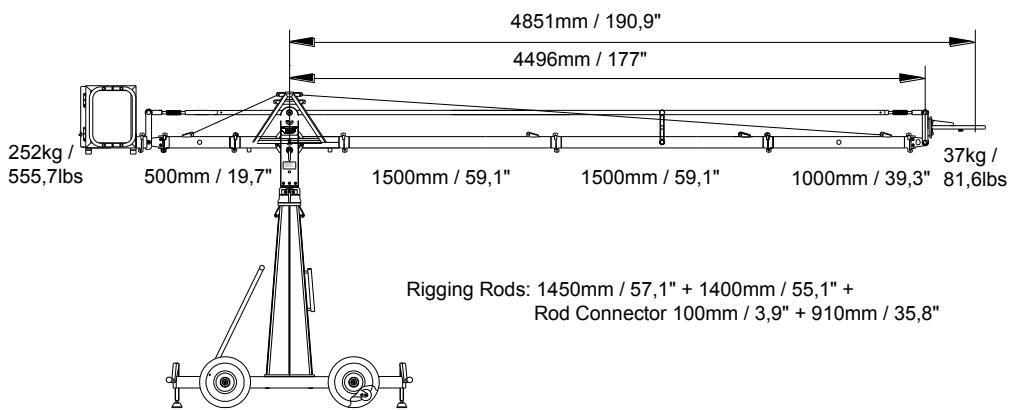
Version 3-500



Version 4-500

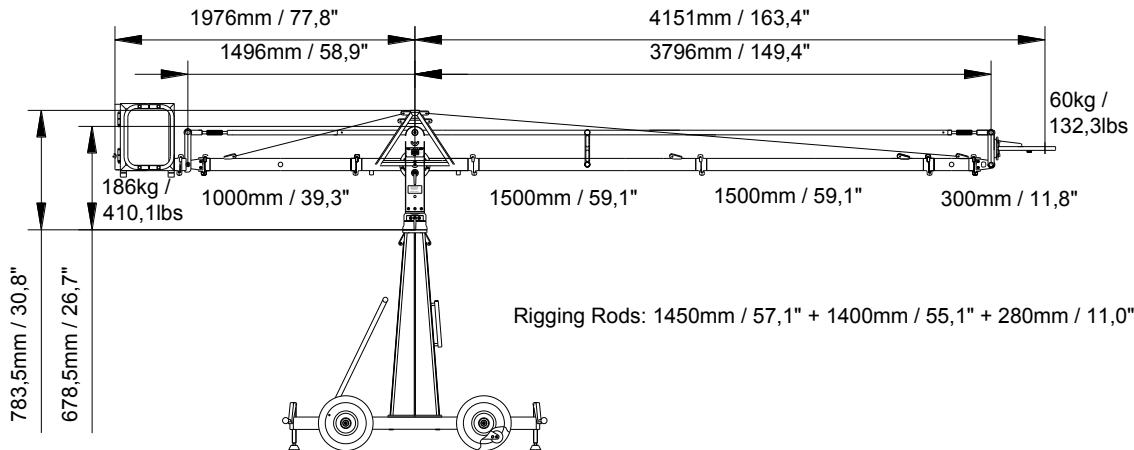


Version 5-500

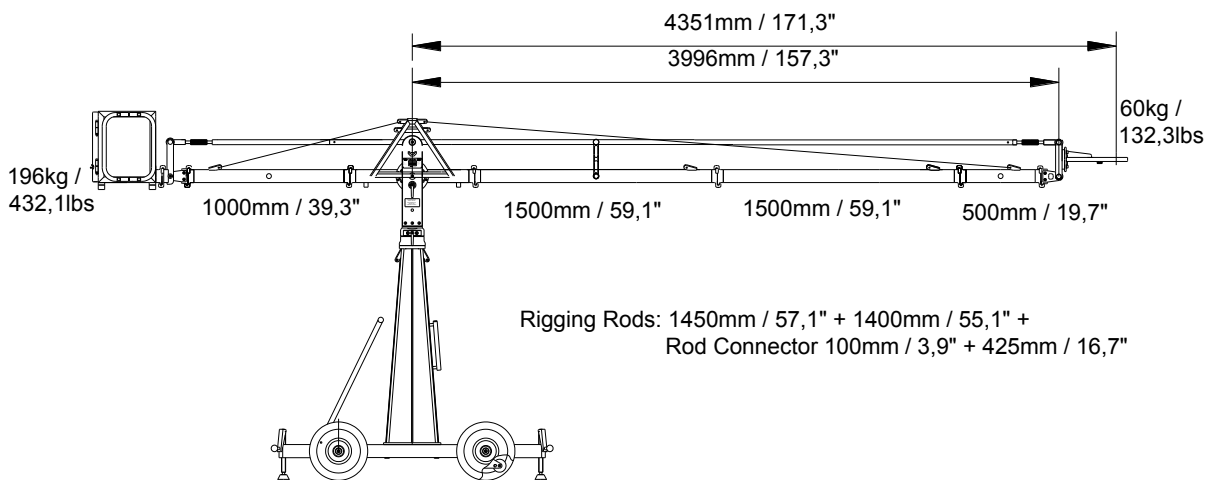


GF-Multi Jib

Version 1-1000



Version 2-1000



Balancing the crane arm

Attention: When loading the jib the maximum working load capacities / payloads must never be exceeded.

As a rule, no more than 252kg / 554lbs of counterweight may be used in the counterweight bucket or 260kg / 572lbs when using the counterweight rod.!

After the assembly procedure has been completed, the remote head and camera etc may now be assembled. Place the correct amount of counterweight in the weight bucket to balance the load.

Attention: we recommend that the camera and remote head are additionally secured to the remote head mount with a safety chain or cable.

Place the required amount of counterweights in the weight bucket so that the jib arm becomes balanced and remains in the horizontal position. If necessary, the jib can be fine balanced by adjusting the sliding weight on the rear parallelogram at the weight bucket. Do not forget to lock the sliding weight in position before tilting the arm.

The counterweight bucket door must be locked when operating the jib.

Deloading:

Attention: The counterweights must always be gradually removed from the counterweight bucket before removing the camera or remote head. Extreme caution must be given to the shifting payload at all times. When dismantling the jib it is essential that the whole arm is supported fully by a stable underlay i.e. rostrum or ground surface. In any case the remote bracket should not be in the air without support.

Attention: all necessary precautions should be taken so that unauthorized third parties cannot use the jib.

General Safety

Operational conditions:

At a wind speed of 35km/h 22mph crane operation must be stopped and the crane secured, dismounted and the necessary safety precautions taken.

If, for example, it takes 2 mins. to unload the counterweights and take the necessary precautions to secure the crane, one must commence with the procedure at a wind speed of 30km/h / 19mph. DIN15019, part 1, section 6.13.

The crane may not be used in a lightning storm as there is the danger of electrocution.

Notice:

When operating the crane with the **push bar** mounted on the dolly, pay attention that the crane arm at no time collides with the push bar.