

Requirements for JibFlex Anchoring

This document describes the requirements for mounting points of the JibFlex as well as an inspiration to anchoring solutions. It includes illustrations of previously designed anchoring structures and recommendations for redesigns.

It is crucial that the JibFlex is correctly mounted on the supporting structure. The geometric and structural requirements of the mounting points can be seen on the illustration below:

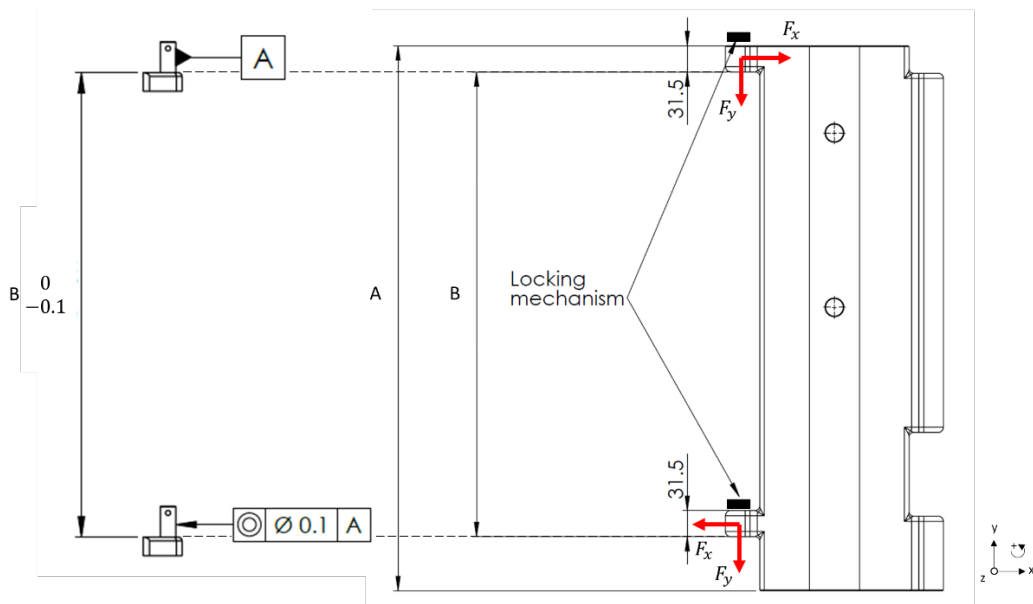


Figure 1 left: Two mounting points and their tolerances. Figure 1 right: Generic JibFlex module. A locking mechanism must secure the module from a vertical displacement

The distances, A and B, is related as shown in the following table. Tolerances and further details can be seen on page 2.

Table 1: Relation between A and B.

A [mm]	400	425	450	475	500	525	550	575	600	625	650	675	700	725	750	775	800	825	850	875	900	925
B [mm]	308	333	358	383	408	433	458	483	508	533	558	583	608	633	658	683	708	733	758	783	808	833

The first module of any JibFlex configuration must be mounted to a structure and secured from a snatch load potentially causing a vertical displacement. This is usually done by attaching a nut or linchpin in the upper lifting point as illustrated above.

Both hinges of the JibFlex module must be supported to resist the forces F_x and F_y . F_x is omnidirectional in the xz-plane. The magnitude of these forces varies depending on the JibFlex configuration and can be found in the respective user manual and datasheet.

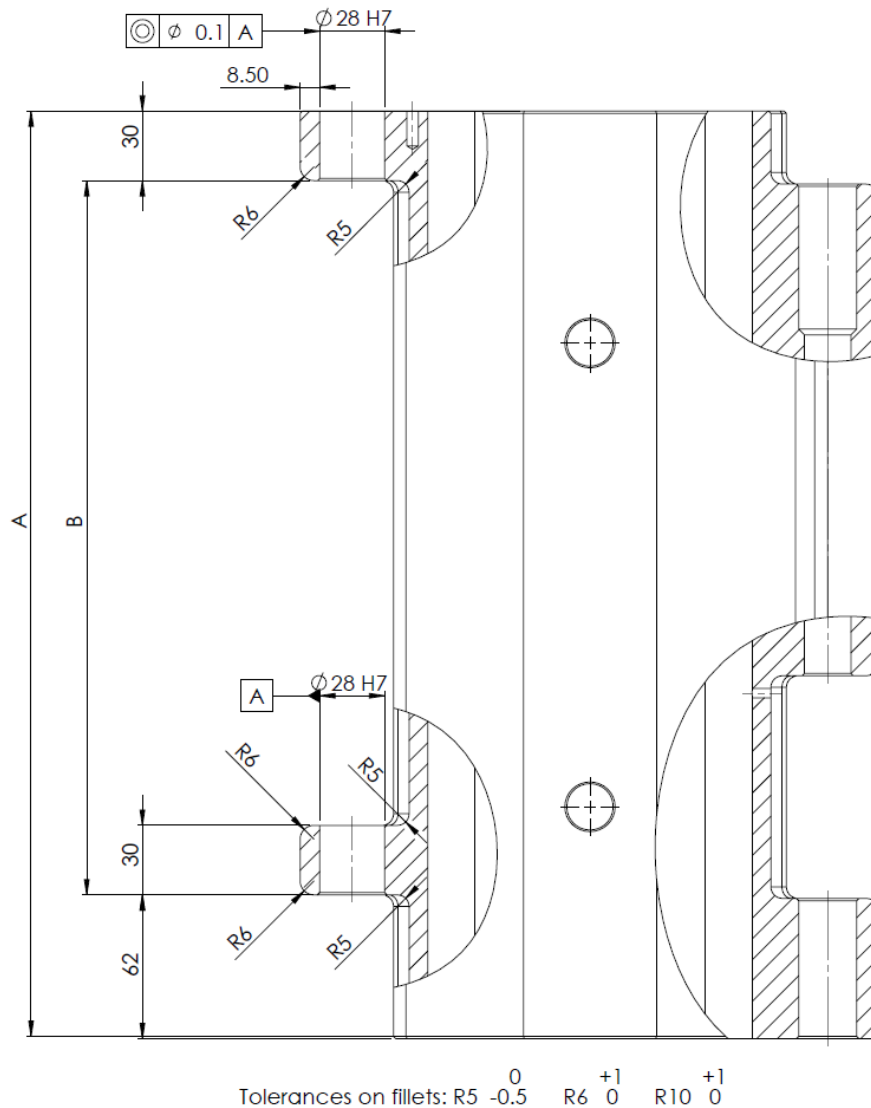


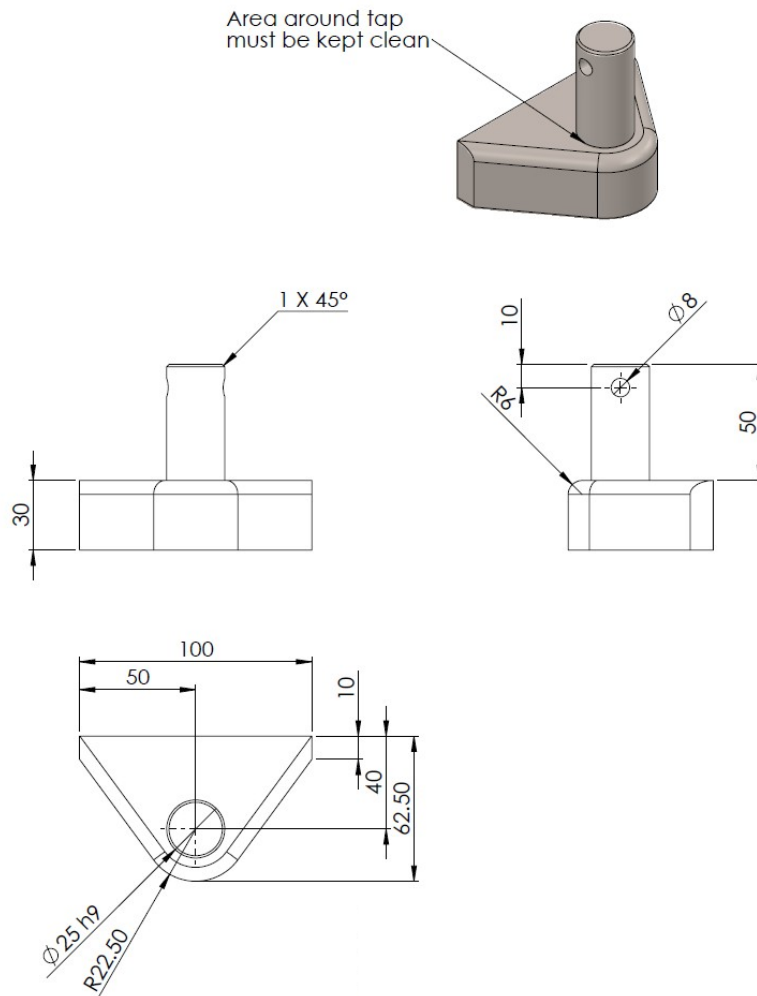
Figure 2: Manufacturing tolerances of a JibFlex module without bushings or taps.

Notice that the module above is missing bushings and taps. The bushings are press fitted from the bottom into each hinge, reducing the holes to $\text{Ø}25 \text{ F10}$.

It is crucial that the mounting points are concentric as it allows for an effortless mounting and demounting process. **A good practice** is to attach/weld one of the mounting points, then attach a module/template of a module, and finally attach/weld the second mounting point. This secures a proper concentricity.

It is also important that the anchoring solution is plumb and level in order to avoid any undesirable movement of the JibFlex.

A standard mounting point have been used for most existing anchoring solutions, see the image below.



Please see the following pages for examples of anchoring solutions.

Beam for floor attachment

Circular or rectangular profile with two or more standard mounting points welded on the side. Flange welded to the bottom of the beam can be mounted with bolts to any structure.



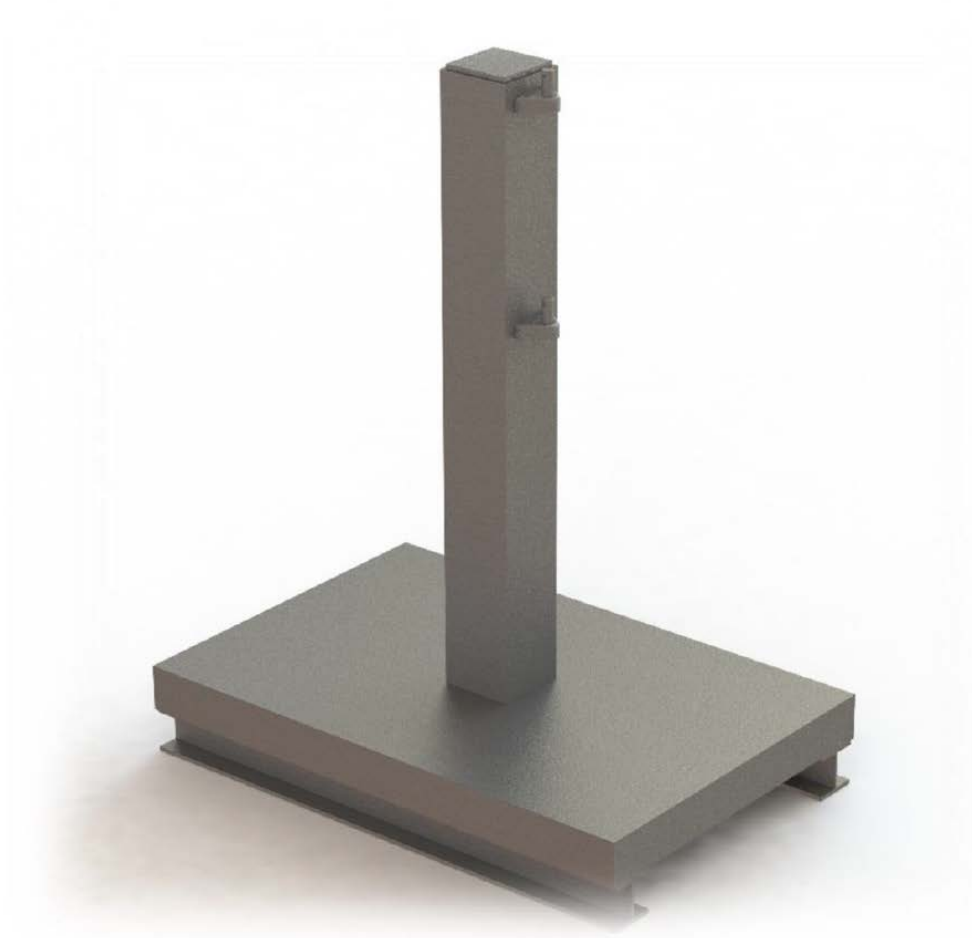
Beam with variable lifting points

Identical to above, however the lower mounting point is attached with threaded rods allowing different positions and thus different modules.



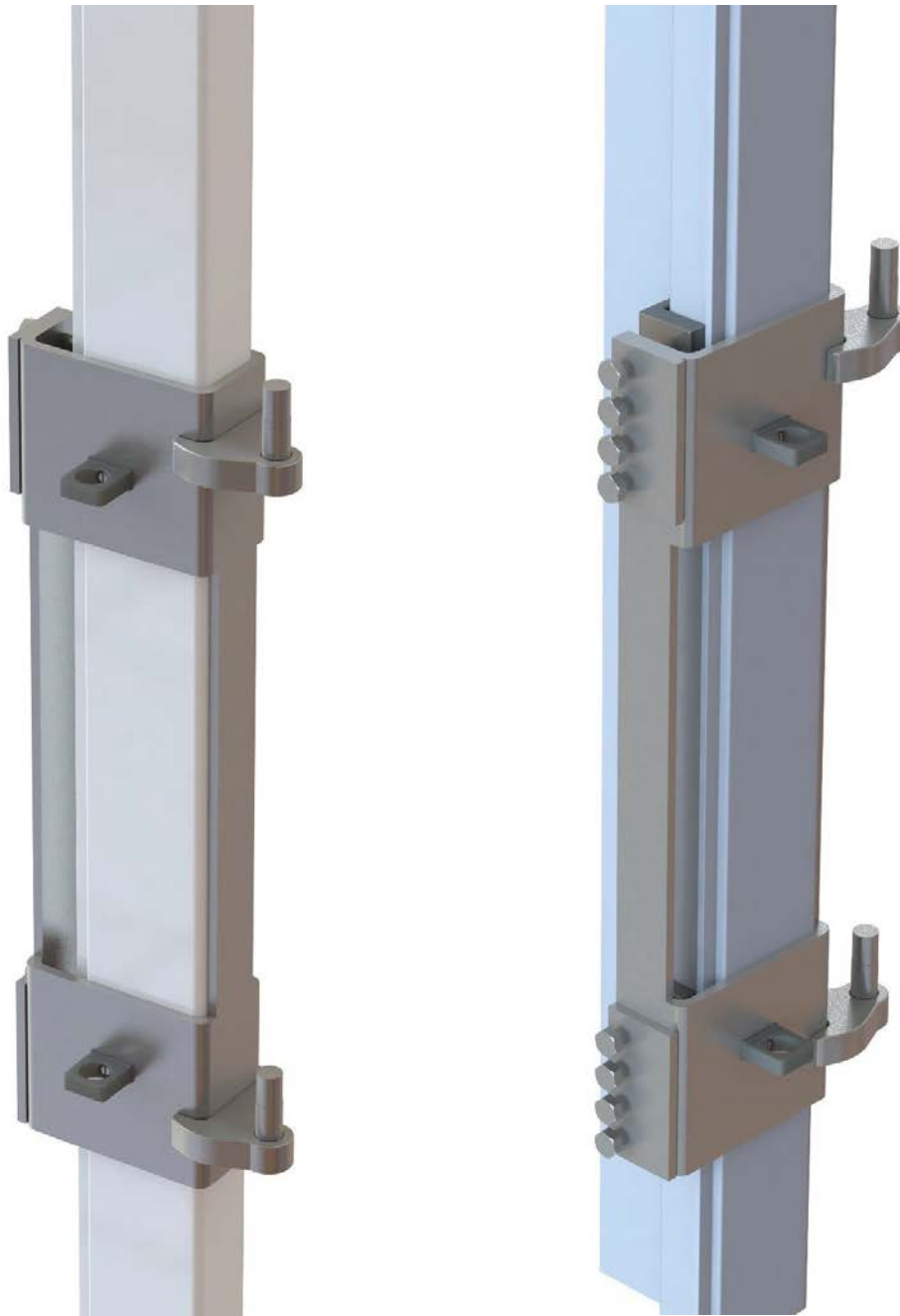
Mobile platform

One of the previous columns welded to a mobile platform. This is mainly used for lighter loads.



Bracket for wind-turbine doorframe

Bracket that can be attached to existing structures such as door frames or support beams.



General Bracket

A general bracket that can be attached to existing structures using different methods:

- Welding the bracket to the structure
- Welding a clamping solution to the bracket that attaches to existing structure
- Have a clamping solution on the existing structure and attaching the bracket

