# JibFlex Anchoring solutions

# Content

# 1. Introduction

This document sets out the mounting-point requirements for the JibFlex product family, covering both standard configurations and JibFlex XL configurations. In addition to the mandatory geometric and structural criteria, it provides example anchoring solutions and recommendations for redesign where relevant. Correct installation on the supporting structure is essential. The key geometric and structural requirements for the mounting points are illustrated below.

# 2. Standard JibFlex – Mounting Requirements

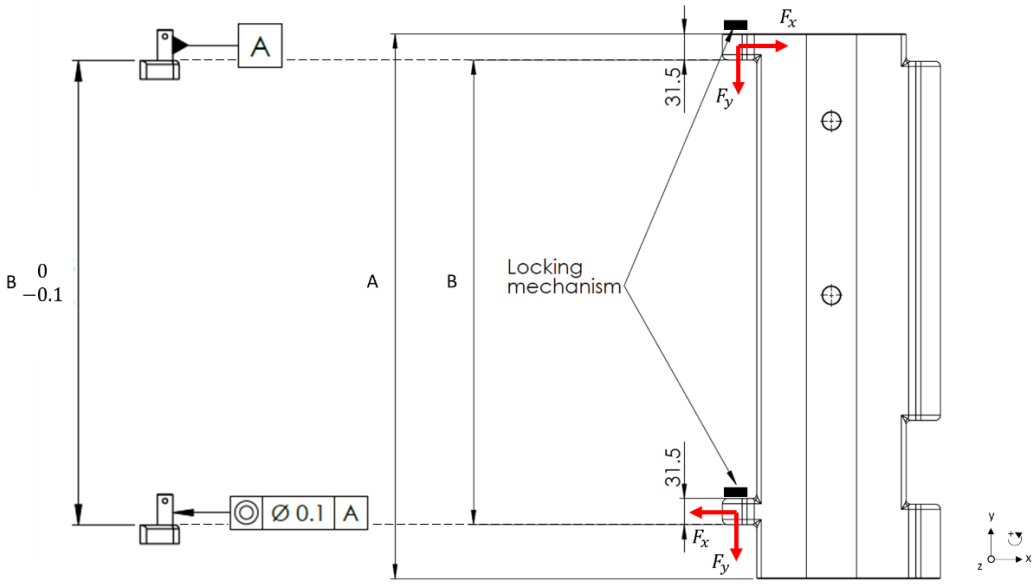


*Figure 1: JibFlex module anchor interface, tolerances and reactions.*

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 linchpin in both lifting points as illustrated in figure 2.

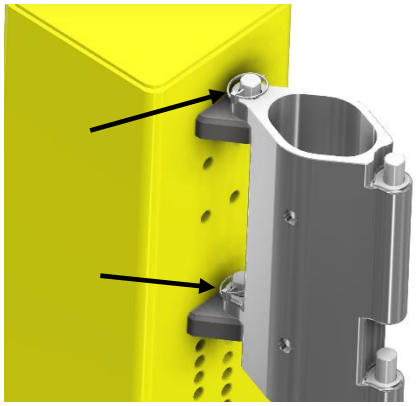

*Figure 2: Linchpins correctly installed.*

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.



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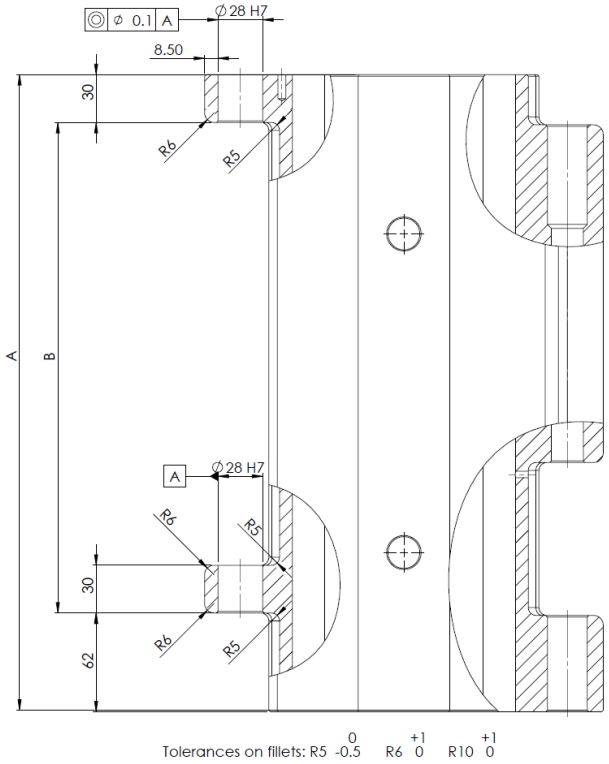


*Figure 3: Manufacturing tolerances of a JibFlex module without bushings or taps.*

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 Ø25 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 figure 4 below.

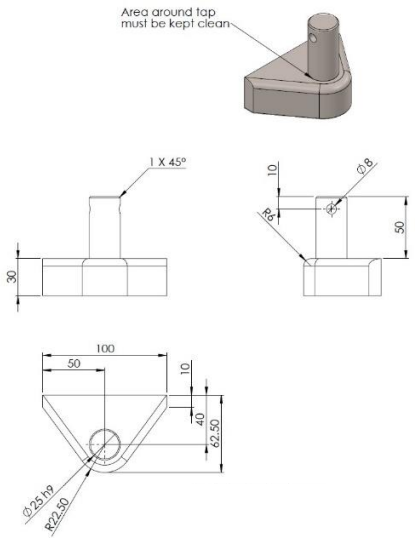


*Figure 4: Standard JibFlex mounting point.*

# 3. XL JibFlex – Mounting Requirements

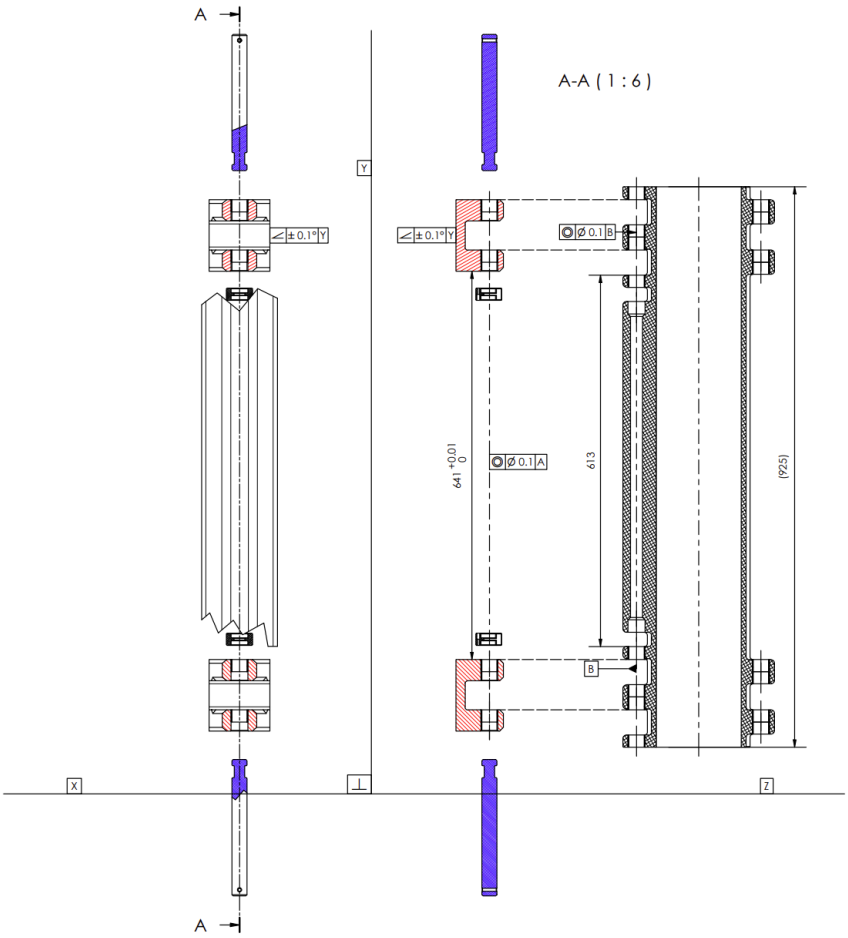


*Figure 5: JibFlex XL mounting interface and tolerances.*

Use this drawing above (figure 5) as the controlling reference for locating and inspecting the two anchoring points for JibFlex XL. During assembly the module must hang perfectly vertical in both planes; contact pads shall be coplanar and parallel so the XL pins insert by hand without binding and allow free rotation.

As good practice, temporarily fit a JibFlex XL module as a jig, adjust the brackets until verticality is achieved, tack the brackets to the column wall or structural member, then remove the module and complete the welds per the WPS. After cooling, verify position and spacing and confirm smooth pin insertion and free motion.

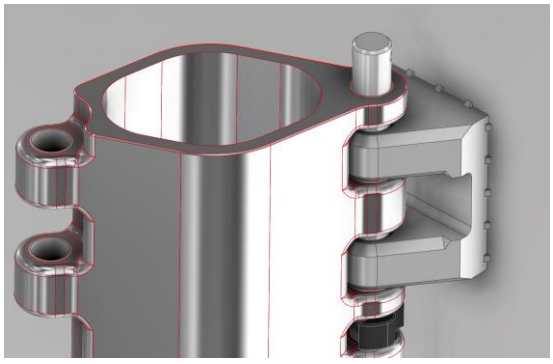

*Figure 6: Tack-welding for alignment.*



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Both anchoring points should fully support the JibFlex XL module when installed. The load must be divided to both anchoring points.

*Figure 7: JibFlex XL module with anchoring points tacked onto structure.*

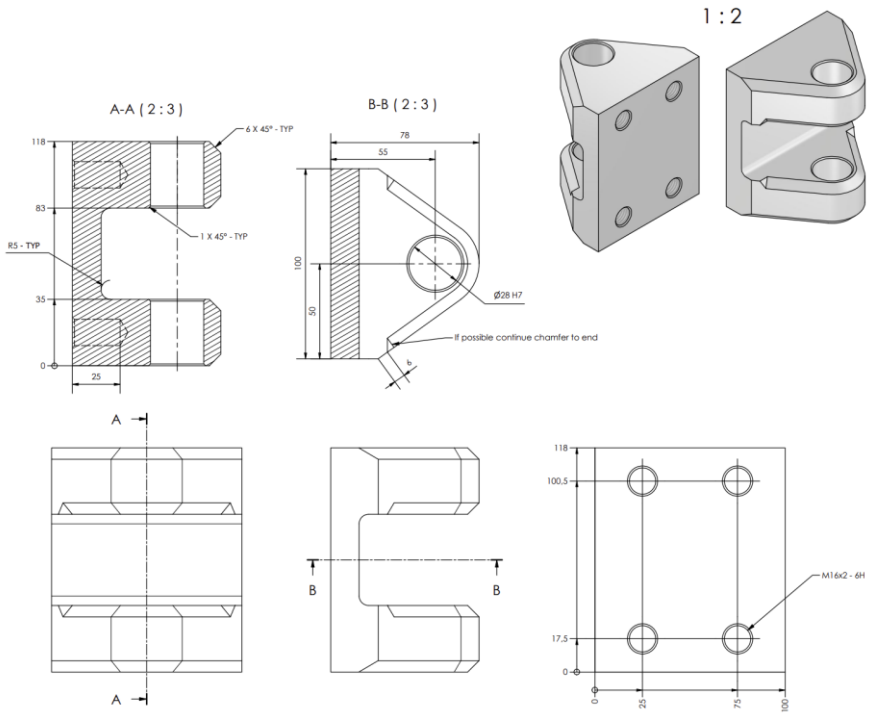


*Figure 8: JibFlex XL anchoring point.*

# 4. Various anchoring options

## 4.1 Beam/column 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.



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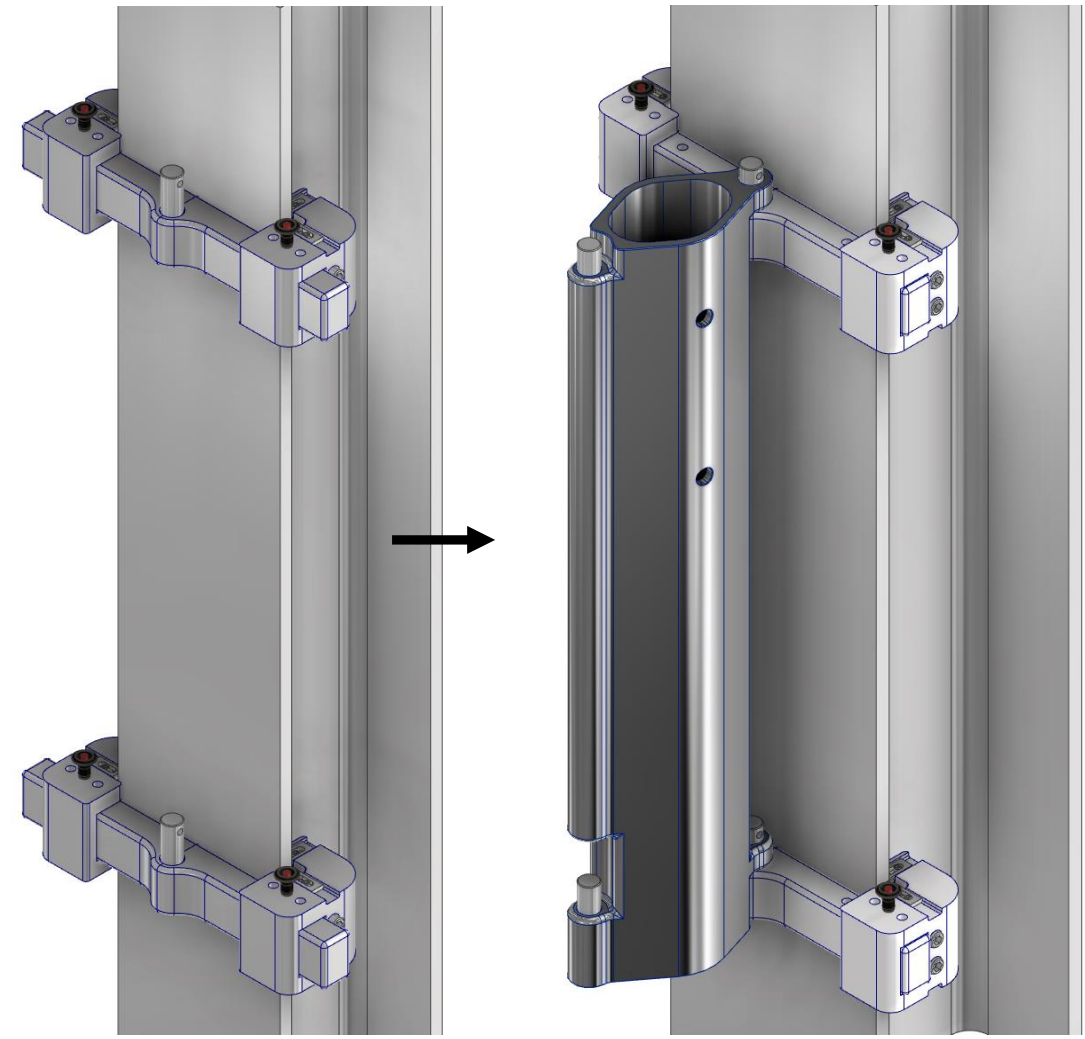
## 4.2 H-Beam brackets

The H-beam bracket system is an option for mounting the JibFlex. Each bracket clamps securely onto the flange of an H- or I-beam using bolted connections, eliminating the need for welding or drilling.



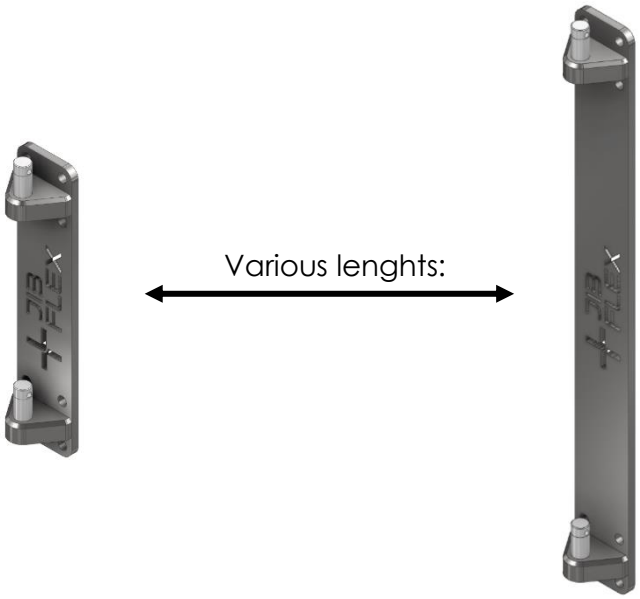
## 4.3 General Bracket

A general bracket can be used for installing the JibFlex onto existing structures. The bracket can be mounted using several methods depending on the site conditions and structural design:

- Welding the bracket directly to a structure.
- Bolting the bracket onto a structure.

**Bracket size chart:**

| Bracket size | Length (mm) | JibFlex size |
|---|---|---|
| FB-400 | 413 | JF 050-2 + JF 050-3 + JF 050-4 + JF 100-2 + JF 100-3 + JF 150-2 + JF 150-3 + JF 200-2 + JF 250-2 |
| FB-450 | 463 | JF 050-5 + JF 100-4 + JF 300-2 |
| FB-475 | 488 | JF 200-3 |
| FB-500 | 513 | JF 350-2 |
| FB-525 | 538 | JF 400-2 |
| FB-550 | 563 | JF 150-4 + JF 250-3 |
| FB-575 | 588 | JF 050-6 + JF 100-5 + 450-2 |
| FB-600 | 613 | JF 300-3 + JF 500-2 |
| FB-625 | 638 | JF 200-4 |
| FB-675 | 688 | JF 150-5 + JF 350-3 |
| FB-700 | 713 | JF 050-7 + JF 100-6 + JF 250-4 |
| FB-750 | 763 | JF 400-3 |
| FB-775 | 788 | JF 200-5 |
| FB-825 | 838 | JF 100-7 + JF 150-6 + JF 300-4 + JF 450-3 |
| FB-850 | 863 | JF 200-6 |
| FB-900 | 913 | JF 150-7 + JF 500-3 |
| FB-925 | 938 | JF 250-5 + JF 300-5 + JF 350-4 + JF 400-4 |



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