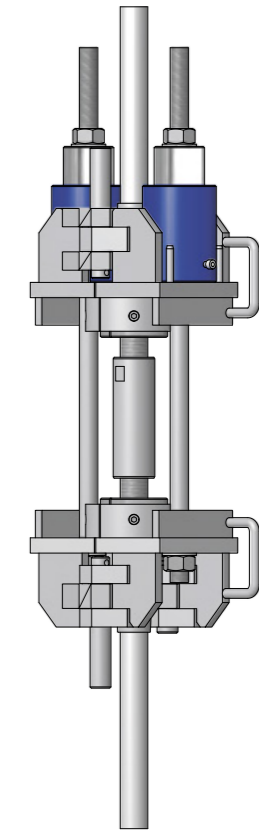
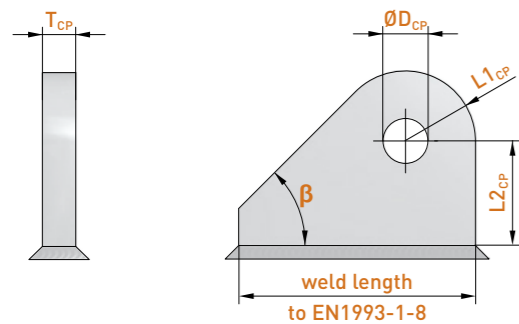
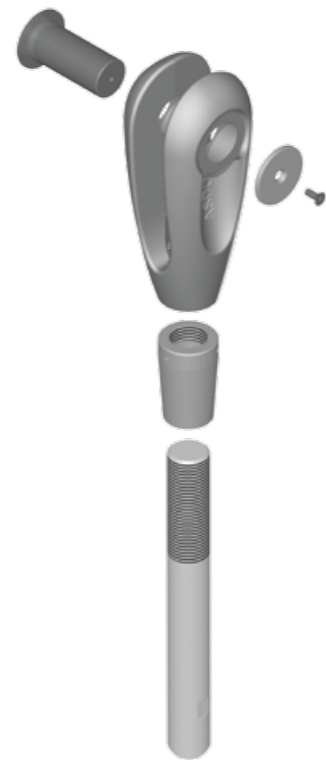
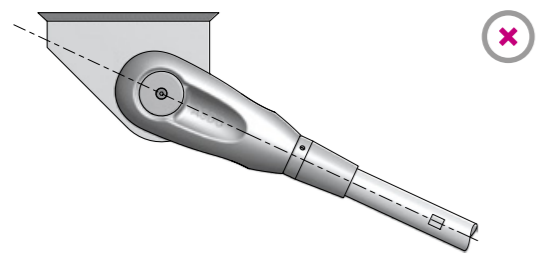
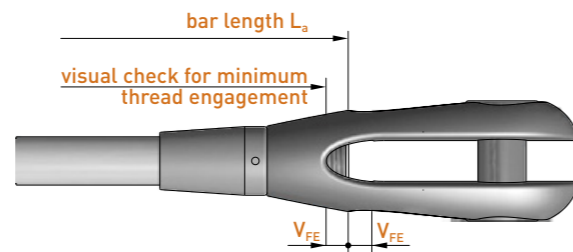
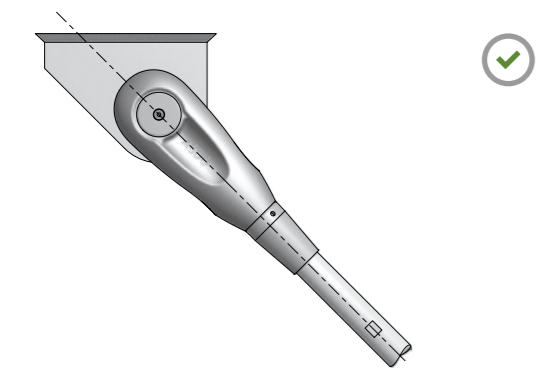


INSTALLATION

GENERAL INFORMATION



Connection plates

The shape of the connection plate is dependent on the load transfer to the supporting structure as shown above. It should be ensured that the correct load path is followed back to the structure.

The plate should be fabricated in S355J2 grade material according to EN10025 with minimum dimensions as per Table 5. Minimum plate thickness can be built up using welded bosses if required. Stainless steel connection plates should have a min. 0.2% proof stress equivalent or greater than grade S355 of the same thickness.

Pin holes must be produced mechanically.

Weld lengths and sizes should be designed appropriately to EN1993-1-8.

Assembly

The ASDO system is simple to assemble. Generally tie bars less than 6m will be delivered fully assembled (pins are packed separately), longer lengths may be split into transportable lengths. On receipt of goods please check that all components are present and no damage has occurred to any part of the system, please contact our technical department if you suspect damage has occurred.

Prior to installation assemble full lengths and adjust to the correct pin-to-pin length. To install simply place the fork over the connection plates, insert pins and secure and hand tighten the system by either rotating the turnbuckle (if present) or the bar (if no turnbuckle).

The pin design varies depending on the nominal size and steel grade but typically are as shown above. End caps should be screwed tight using Loctite or similar.

Installation

When installing the ASDO system ensure that the maximum misalignment does not exceed 0.5° from the plane of line of force as shown above. This prevents bending in the fork connectors and connection plates.

ASDO tie-rod system should be installed with fork ends in the same orientation and not twisted as shown above.

The bar thread end should be visible through the fork to ensure full thread engagement

For detailed information on the installation of our tie rods and the required tools please contact our technical department.

In-Situ stressing and load measurement

ASDO tie bars can be stressed or have their tensile load measured once installed. Specially designed hydraulic rigs can be hired which allow tie bars to be stressed or have the tensile load they are carrying measured, contact our technical department for more detail.

ASDO tie bars can also be supplied with Strainsonic load measuring pins. Using a portable hand-held device ultrasonic signals are passed through the pin and the time-of-flight is measured using sophisticated on-board electronics. From instant measurements of the changes in the ultrasonic signal due to stress in the pin the 'acoustoelastic' effect of materials is utilised to determine the load in the pin.

This provides a robust and accurate (+/-2.5%) method of load measurement and is self-compensating for temperature effects.