

GENERAL INFORMATION

SAFETY COUPLINGS

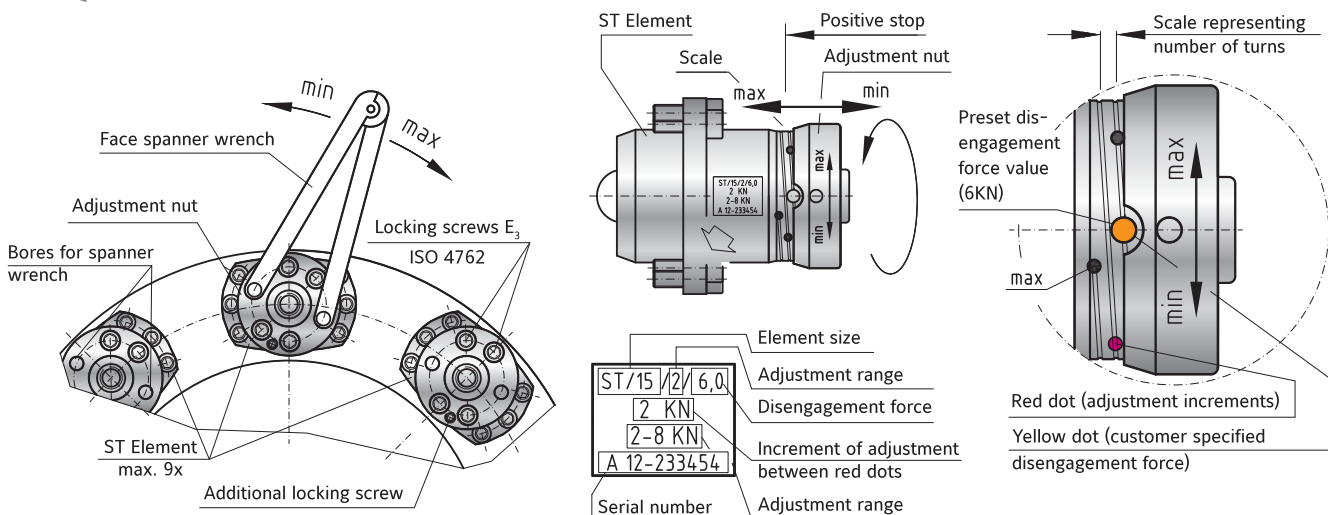
ST1

STN

ST2

ST4

TORQUE ADJUSTMENT



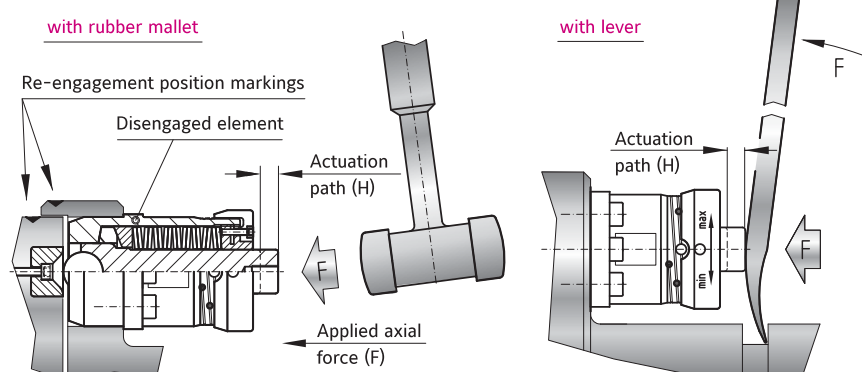
After loosening (approx. 1 rotation) the locking screws (E₃), the adjustment nut can be turned to adjust the disengagement setting. Incremental values are marked on the adjustment scale. After adjustment, the torque setting is secured by tightening the locking screws (E₃).

► Note

All safety elements must be set to the same value.

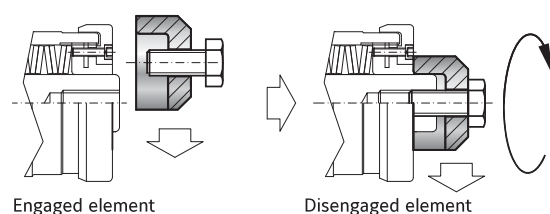
RE-ENGAGEMENT OF THE SAFETY ELEMENTS

After the overload has been cleared, the drive or driven side must be rotated until the re-engagement position markings are lined up. The elements can only be re-engaged in this position. The element is re-engaged through applying an axial force to the plunger. Re-engagement is audible. Once this is complete, the torque limiter is ready for operation.



MANUAL DISENGAGEMENT OF ELEMENTS

Prior to machine start-up, the individual elements can be manually disengaged. A manual disengagement tool is available from R+W (see page 13).



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RELIABLE TORQUE OVERLOAD PROTECTION

ST series safety couplings are designed to decouple machine drives in the event of torque overload, preventing damage and downtime.

A series of ball bearings are spring loaded into detents on an otherwise freely spinning output plate. In the case of the ST series, these ball bearings are mounted onto plungers which are individually loaded in order to generate high clutching forces while maintaining a relatively small profile.

The transmittable torque is determined by the number and force setting of the safety elements and their distance from the center of the rotational axis. In the event of an overload, the force applied by the detents causes the plungers to overcome the spring loading and retract into the housings, resulting in a complete separation of the driving and driven hubs.

They will not re-engage automatically. After the overload condition has passed, an axial force must be applied in order to re-engage the safety elements into the detents of the output plate.

This is normally accomplished without any special tools, simply requiring a mallet or pry bar.



The safety elements consist of two components: the detent receptacle and the adjustable plunger mechanism.

The force setting is clearly marked on an adjusting scale.



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OPTION: HYDRAULIC ACTUATED RE-ENGAGEMENT

With a new combination of hydraulic and mechanical components, the special SH version is available for automatic re-engagement.

The SH system is available to be incorporated into all of the standard ST series safety couplings, from 2,000 - 165,000 Nm.

After an overload the coupling can be slowly rotated in reverse to cause the safety elements to automatically engage upon reaching the next set of detent receptacles.

This reduces downtime in heavy equipment by allowing for remote re-engagement of the safety coupling.

Incorporation of the SH system into any standard ST model has no impact on the overall space envelope requirements.

