

Innokeg Spear Tightener

electronically controlled modular-design spear tightener

 **KHS** Till





Design

The modular-design spear tightener may comprise up to four height adjustable tightening heads placed after another. This allows a nominal output of up to 1.050 kegs/h.



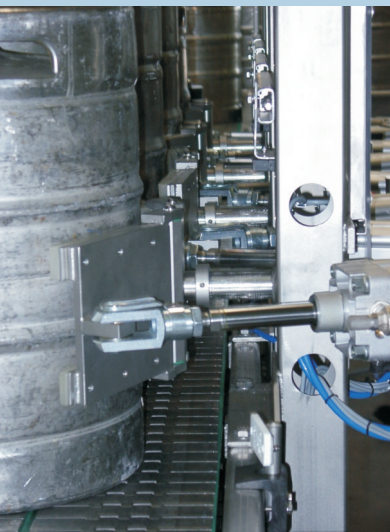
As a standard, the machine is equipped with one driven flat top chain conveyor, one keg singelizer and with a pneumatically driven clamping unit.

How does the Spear Tightener work?

The kegs will be transported to the spear tightener from a singelizer. The kegs are automatically centralized in each treatment station.

Each tightening head, carrying the all new servomotor will lower down to the fitting and will reproducibly fasten it by a two-stage programme to an optimized, pre-specified torque.

Then the tightening unit will lift automatically to release the keg for further processing.



Advantages through electronic control

The electronic control makes tightening reproducible - independent of mechanical devices or human repeating inaccuracies.

Accuracies of ± 5 Nm are possible.

The tightening strategy

So-called two-stage tightening is programmed to tighten the fittings:

Very high operating speed in the first stage and a lower speed in the second stage.

The tool stops for approximately 50 msec to relieve the pressure on the screw joint (setting).

The speed is then re-accelerated to the speed of the second stage and the tool is then slowly lowered to the so-called "zoom area" at the end of the tightening process.

This means that the tool automatically decreases the speed shortly before reaching the pre-specified torque to thus achieve maximum precision.