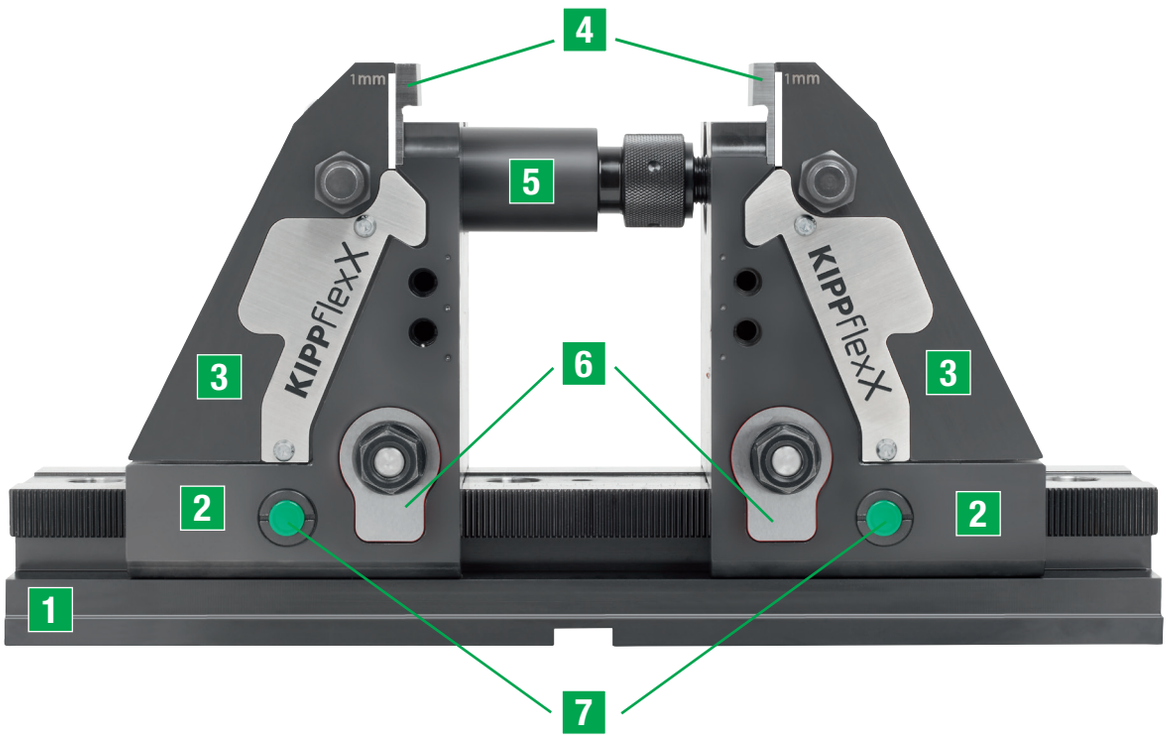
5-axis vice

Function

This 5-axis clamping system is now the 3rd generation of ratchet levers for 5-axis milling machines.
The new generation convinces by being much more user-friendly through the use of a crank handle and the proven clamping physics from the 5-axis vice compact series.
The 5-axis clamping system can be used as a vice for clamping raw parts and as a centric vice for pull-down clamping -> 2 in 1.
Enormous retaining force for all requirements, optimum accessibility for short tools, and high rigidity are further advantages for milling machine operators.



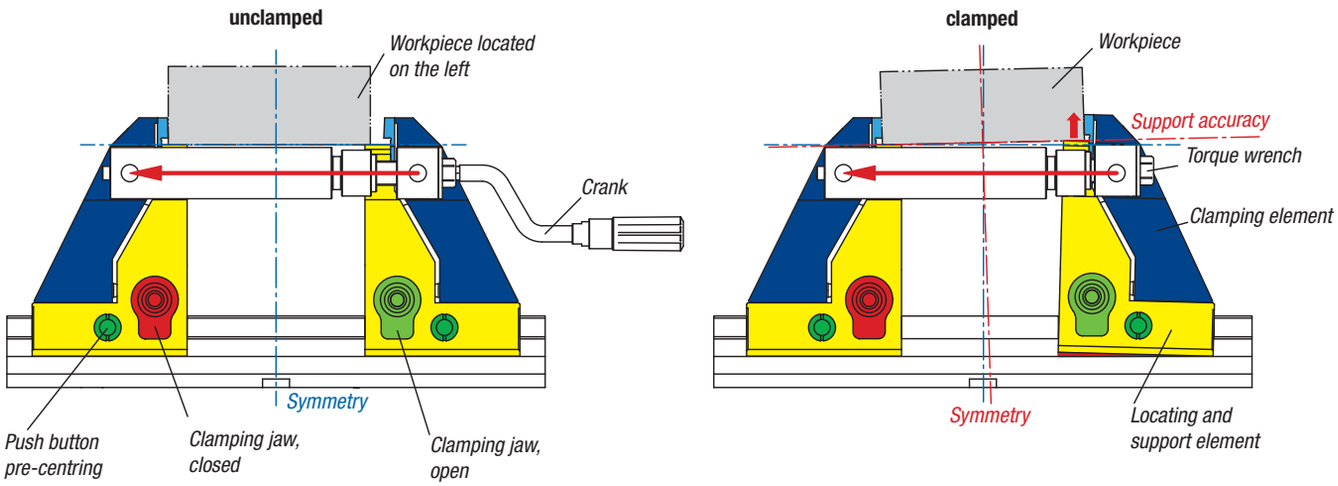
1 Base plate
2 Positioning elements
3 Vice jaws
4 Jaw plates
5 Extension shafts and threaded spindle
6 Clamping element with nut
7 Thrust pin for pre-centring

ADVANTAGES:

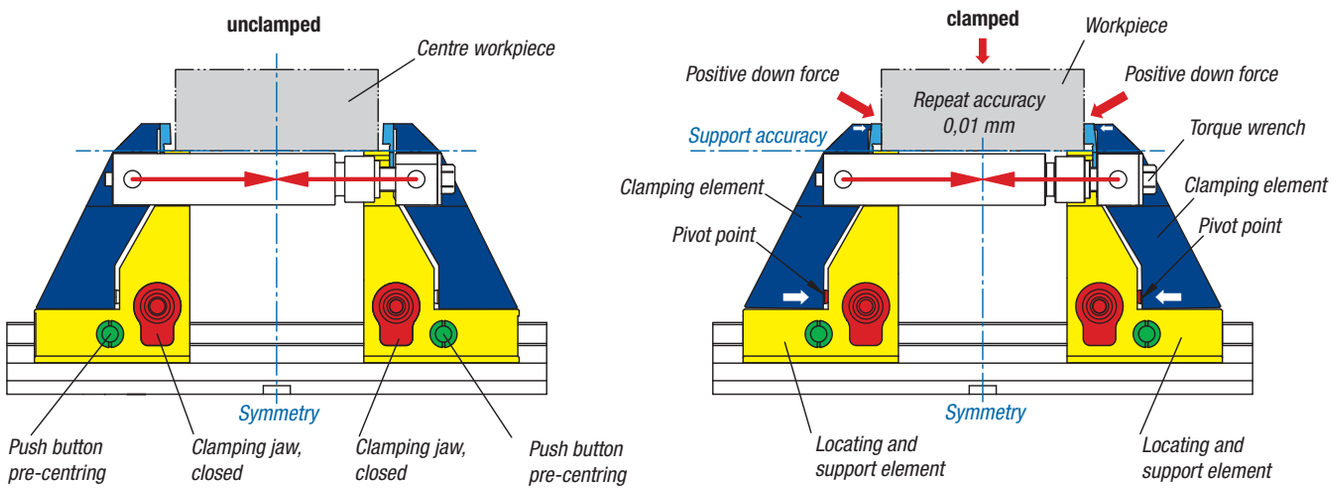
- Normal vice and centric vice 2 in 1
- Clamping with integrated positive- down effect
- Quick adjustment with the crank function
- Very high clamping force directly on the workpiece
- Highest rigidity in the system
- Best tool accessibility from all sides

Technical explanation
The difference between a standard vice and pull-down effect

Blank clamping / Vice principle



Downthrust clamping



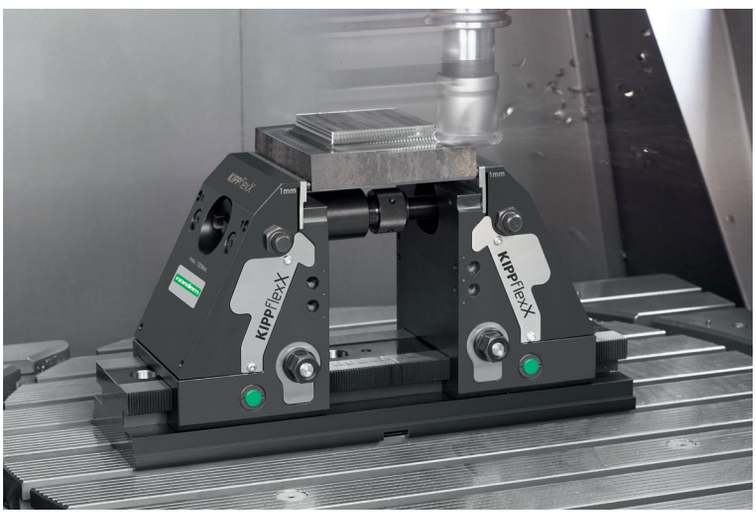
Clamping jaw (red) open on one side -> used as a standard vice

Clamping jaw closed on both sides -> used as a centric vice with pull-down effect

Example

5-axis clamping system used as a vice for clamping raw parts. The left red jaw is open. Quick adjustment with the crank handle. Force is applied by a torque wrench.

Pull-down clamping in centric vice function.
Both jaws are closed, so that when force is applied - by deflection of the clamping jaws - a pull-down effect is generated towards the workpiece support.



5-side machining on a 5-axis milling machine.
Optimum accessibility for the tool for direct machining on the the 5-axis clamping system.