StuderControl

Automatic control measurements directly on the machine

Key data

With TouchPositioning, TouchControl and Multi-Control STUDER offers three tools for increasing productivity. Workpieces are controlled directly on the machine, the results are recorded and corrections are transferred to the control system.
**TouchPositioning**

**Prerequisite:** Machine with a touch probe.

- **Length positioning** for the correction of deviations in the Z-direction (e.g. due to different centerdepths).
- **Circumferential positioning** for circumferential positioning of the workpiece or determination of a contour.
  - For machines with a touch probe parallel to the machining plane.
- **Length control measurement**
  - For machines with StuderSIM operating system.

**External grinding machines** Touch probe perpendicular to the workpiece axis and at an angle or parallel to the machining plane.

**Internal grinding machines** Touch probe parallel to the workpiece axis and parallel to the machining plane.

**TouchControl**

**Prerequisite:** TouchPositioning and touch probe parallel to the machining plane.

- **Flexible diameter and length control measurement**
  - For machines with StuderSIM operating system the length control measurement is already standard in the TouchPositioning.
- **Calculation of dimensional deviations**
  - Seat and tool specific on machines with StuderWIN operating system.
  - Only tool specific on machines with StuderSIM operating system.
- **Logging of post-process control data**
  - (absolute control values).
  - For machines with StuderWIN operating system.
- **Programmable cycle for automatic calibration of the touch probe to reference diameter or length**
  - For machines with StuderWIN operating system.
MultiControl

For post-process control measurements including active positioning functions.

**Prerequisite:** S33 with external grinding wheel in tool position T2 right and workhead MT4 or ISO50.

The following functions are possible, depending on the probe configuration:

- **Length positioning** for the correction of deviations in the Z-direction (e.g. due to different centers).
- **Circumferential positioning** for circumferential positioning of the workpiece.
- **Flexible external or internal diameter and length control measurement**
- **Cylindricity control measurement**

**Probe configuration A**
- for workpiece dia. up to 70 mm (2.75”)
- Length positioning
- Circumferential positioning
- External diameter
- Cylindricity

**Probe configuration B**
- for workpiece dia. 50 to 100mm (1.95 – 3.9”)
- Length positioning
- External diameter
- Cylindricity

**Probe configuration C**
- for workpiece dia. up to 280 mm (11”)
- Length positioning
- Circumferential positioning
- External diameter

**Probe configuration D**
- for workpiece dia. up to 340 mm (13.4”)
- Length positioning
- Circumferential positioning
- Internal diameter (bore depth max. 8 mm [0.31”])

Probes can be easily converted by the operator.

**Repetition accuracy:**
- +/-0.001 mm (0.000,04”) for diameter and cylindricity control measurements with probe configuration A or B or internal diameter with probe configuration D.
- +/-0.005 mm (0.000,2”) for other functions and external diameter with probe configuration C.

Additional functions:
- Calculation of dimensional deviations seat or tool specifically.
- Logging of post-process control data (absolute control values).
- Programmable cycle for automatic calibration of the touch probe to a reference diameter or length.
- MultiControl touch probe can also be used for QuickSet.