



HEIDENHAIN TS 460

WORKPIECE TOUCH PROBE

ID 1178530-xx

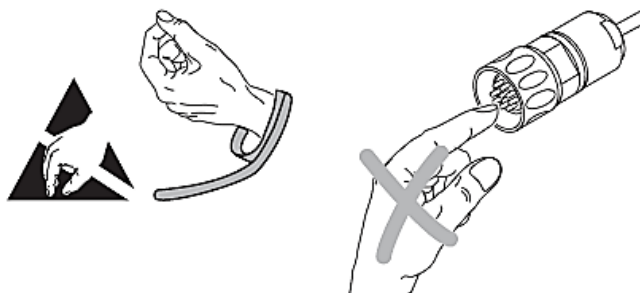
ID 1354411-xx

MOUNTING INSTRUCTIONS

TARTALOMJEGYZÉK

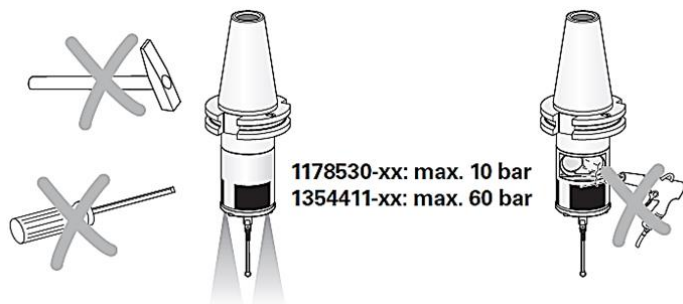
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WARNINGS



Note: Mounting and commissioning is to be conducted by a qualified specialist under compliance with local safety regulations. Use the blowing feature only when the working space is closed..

Calibrate the touch probe with the calibration cycle of the control before commissioning.



Do not drop the touch probe.

APPROVAL FOR RADIO TRANSMISSION

For operation in radio mode (see page 6).

General information

Transceiver unit characteristics Operation frequency: 2400~2483,5 MHz

Modulation:: O-QPSK

DR. JOHANNES HEIDENHAIN GmbH hereby declares that the TS460 touch probe system is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

The EC Declaration of Conformity can be requested from:

DR. JOHANNES HEIDENHAIN GmbH

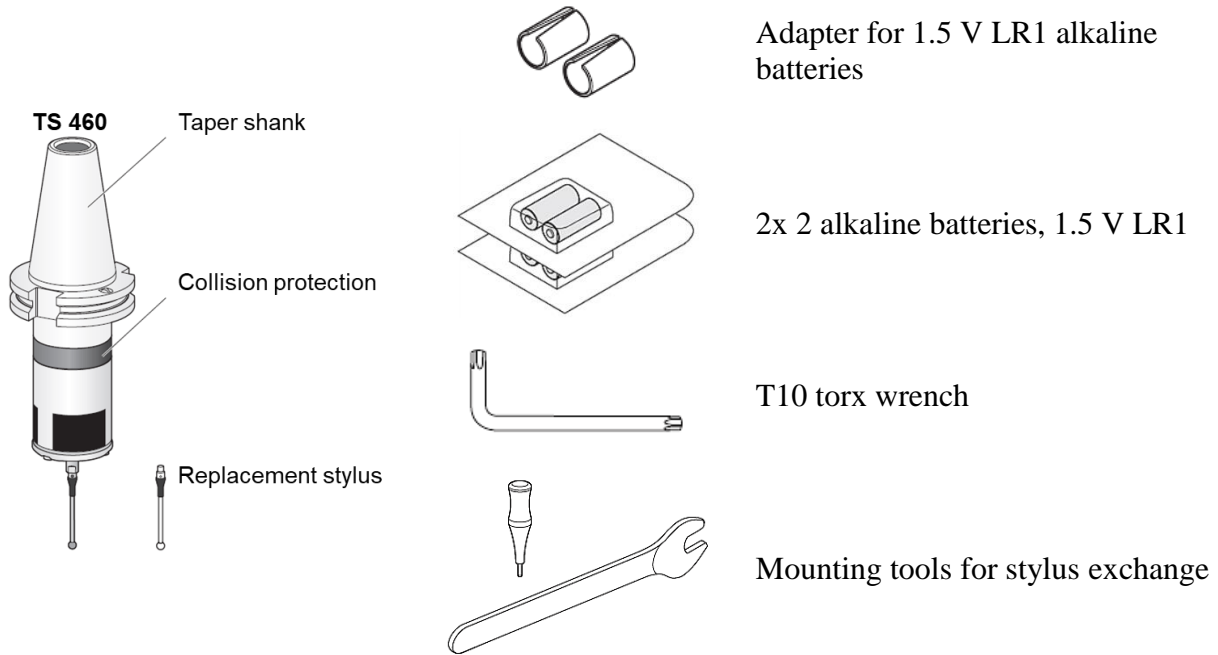
Dr.-Johannes-Heidenhain-Straße 5

83301 Traunreut, Germany

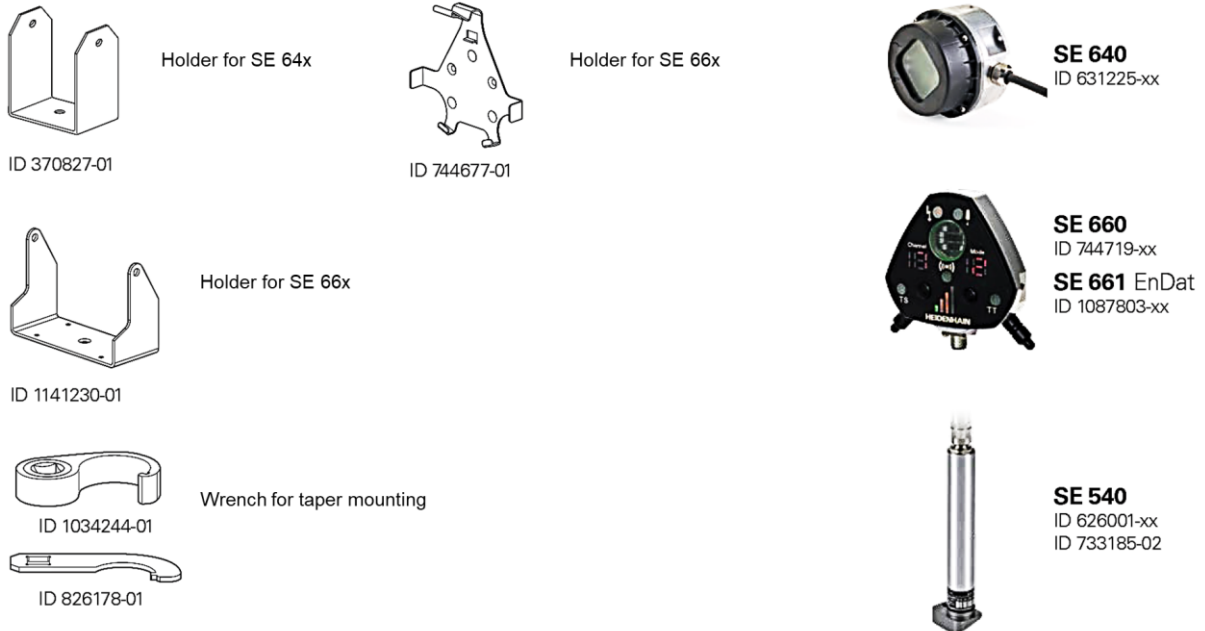
or www.heidenhain.de

ITEMS SUPPLIED

Items supplied depend on product variant.



To be ordered separately:

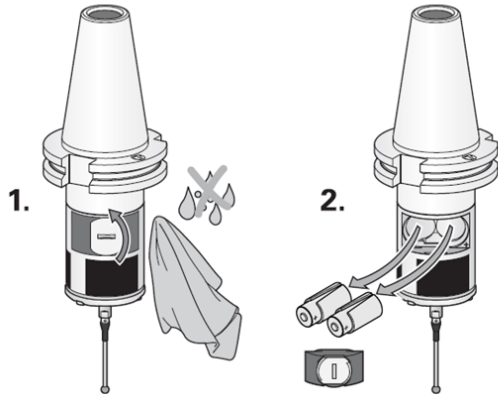


BATTERY EXCHANGE



Please dispose of the batteries properly. Adhere to the legal regulations of your country.

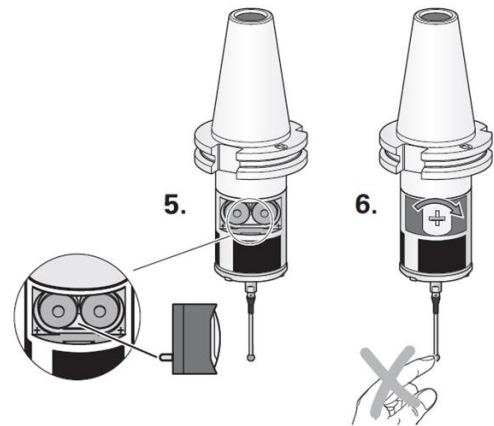
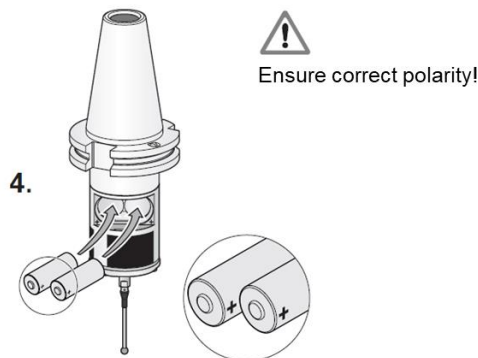
Use a coin to open the battery compartment.



3. Then perform any other necessary actions.

For max. operating time, HEIDENHAIN recommends 3.6 V lithium batteries, 1/2 AA.

Alkaline batteries or NiMH accumulators with 1 to 4 V can also be used.

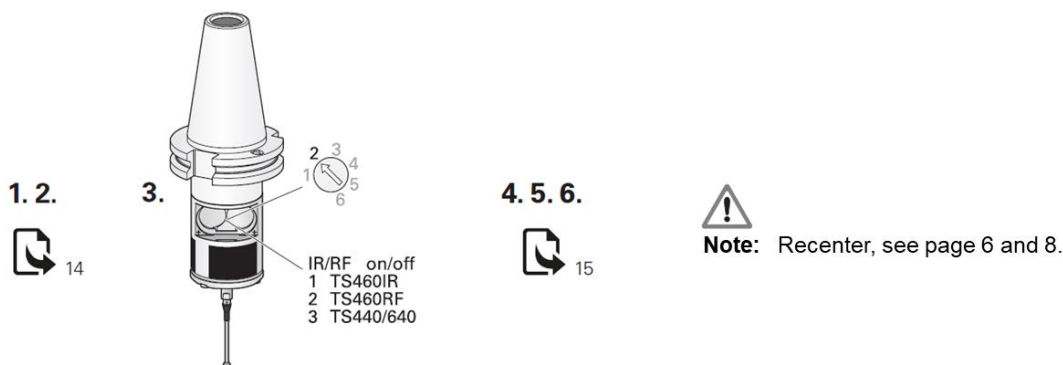


The stylus must hang loose for the self-calibration.

SETTING THE OPERATING MODE

For operation in radio transmission mode, please refer to the SE 66x Mounting Instructions.

Only for commissioning in radio transmission mode. Set rotary switch to position 2, insert batteries. The device is ready for pairing for 15 sec.

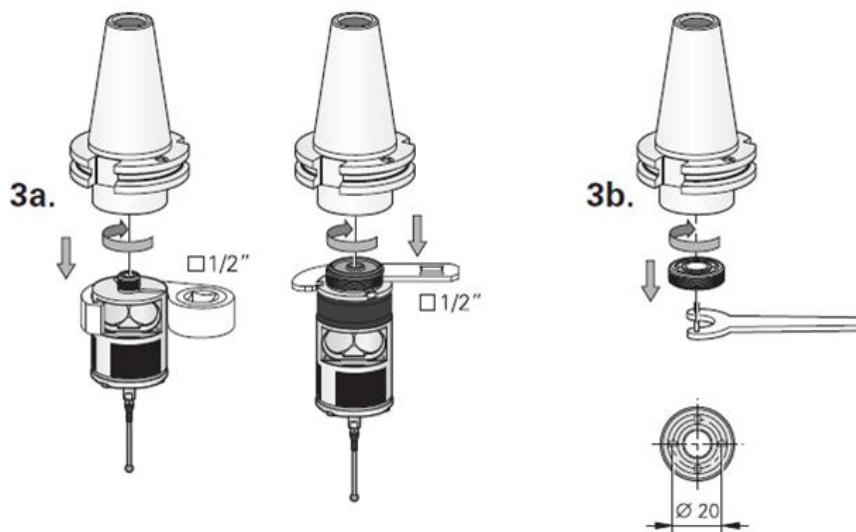


| Switch position | Activation | Transmission | Transmission unit |
|-------------------|-----------------|--------------|---|
| 1* | IR ¹ | IR | SE 540 ³ , SE 64x ³ , SE 660 ⁴ , SE 661 ⁴ |
| 2** | RF ² | IR, RF | SE 660 ⁴ , SE 661 ⁴ |
| 3 | IR | IR | SE 540 ⁵ , SE 640 ⁵ |
| 4~6 Not assigned. | | | |

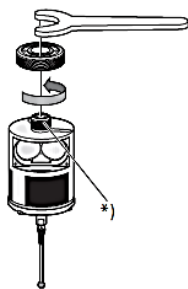
| | |
|----|---|
| * | Shipping condition |
| ** | EnDat transmission with SE 661 |
| 1 | Infrared (IR) |
| 2 | Radio (RF) |
| 3 | SE 540: ID 626001-xx SE 640: ID 631225-xx SE 642: ID 652792-01 |
| 4 | For transmission unit settings, please refer to the corresponding operating instructions. |
| 5 | SE 540: earlier than 3 |
| 5 | SE 640: earlier than 3 |

TAPER EXCHANGE

1. 2.

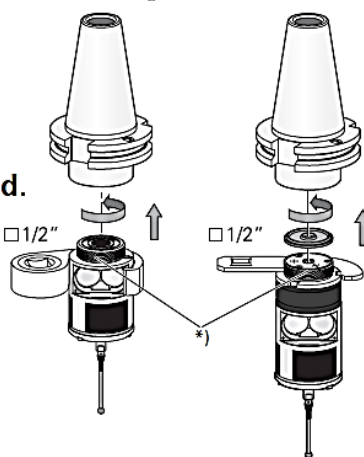


3c.



$M_d = 20 \pm 5 \text{ Nm}$

3d.



$M_d = 30 \text{ Nm}$

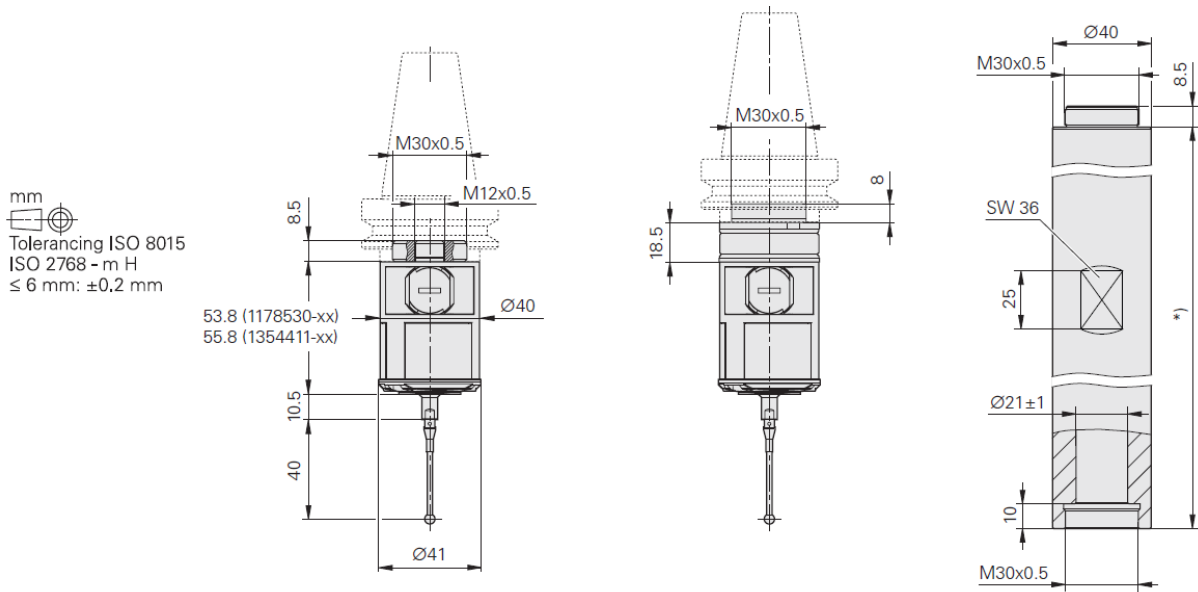
4. 5. 6.



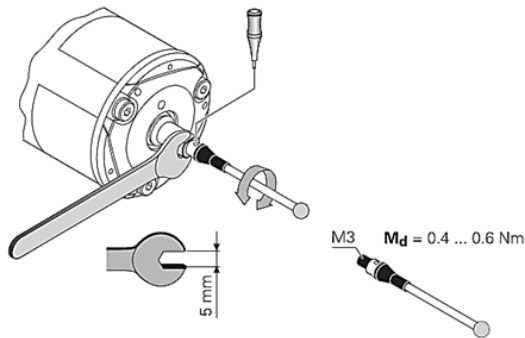
* Secure the thread with Loctite 222/S8.

DIMENSIONS

* Depends on the application.

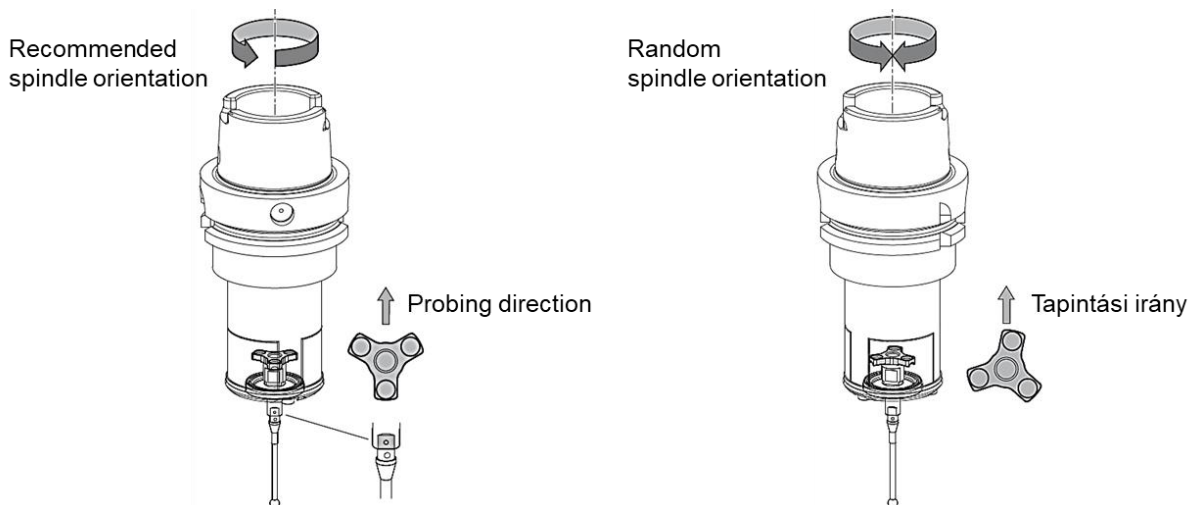


STYLUS EXCHANGE



Note: Re-center.
See page 9.

OPTIMIZED PROBING

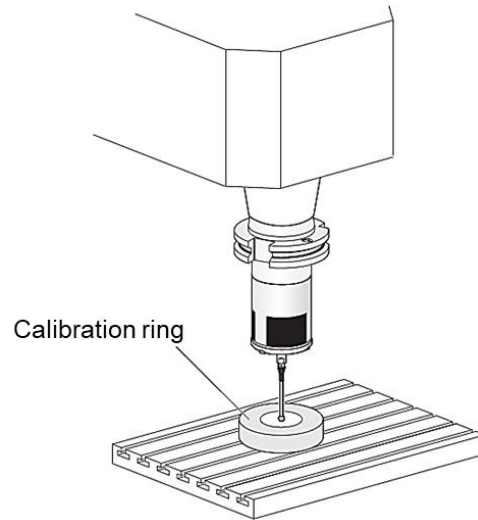


ELECTRONIC CENTERING

With automatic calibration cycle of the control.

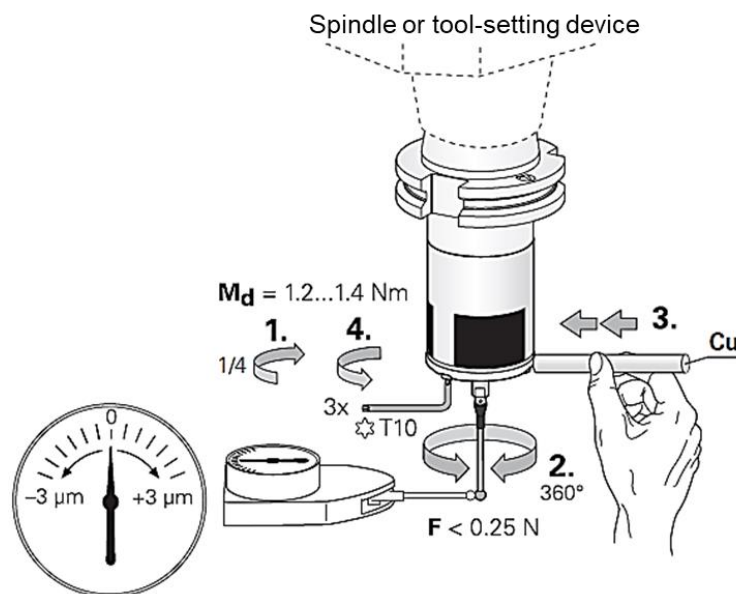
Required for:

- new touch probe;
- after stylus exchange;
- after collision with collision protection.



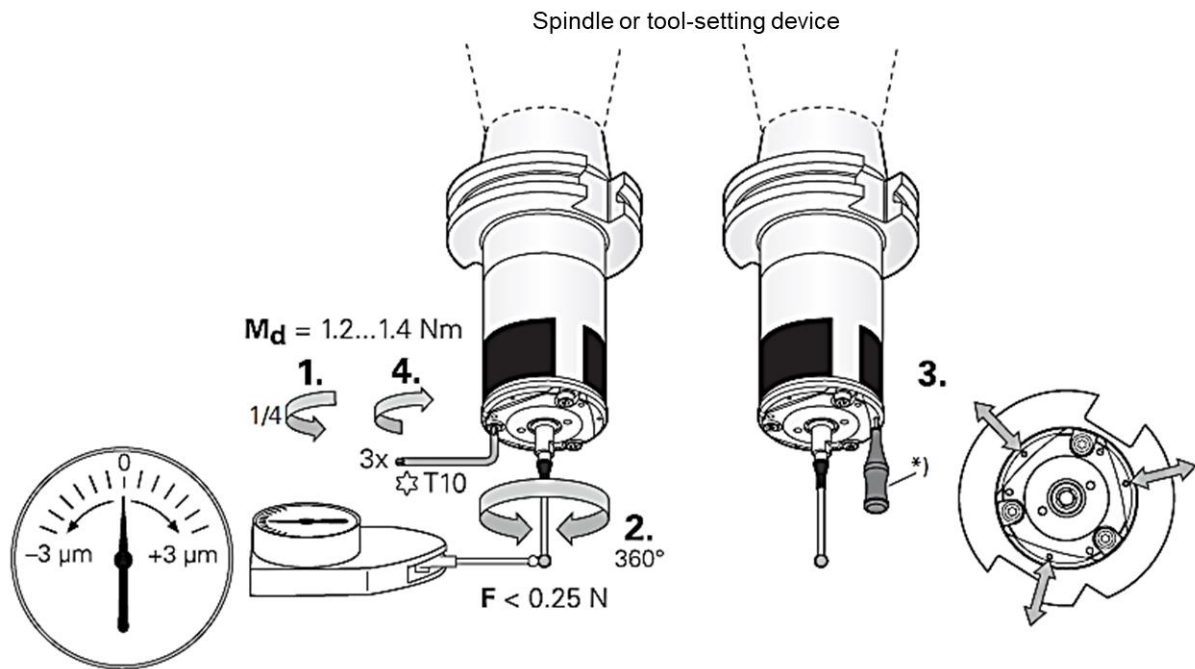
MECHANICAL CENTERING

Centering option 1, with copper stick



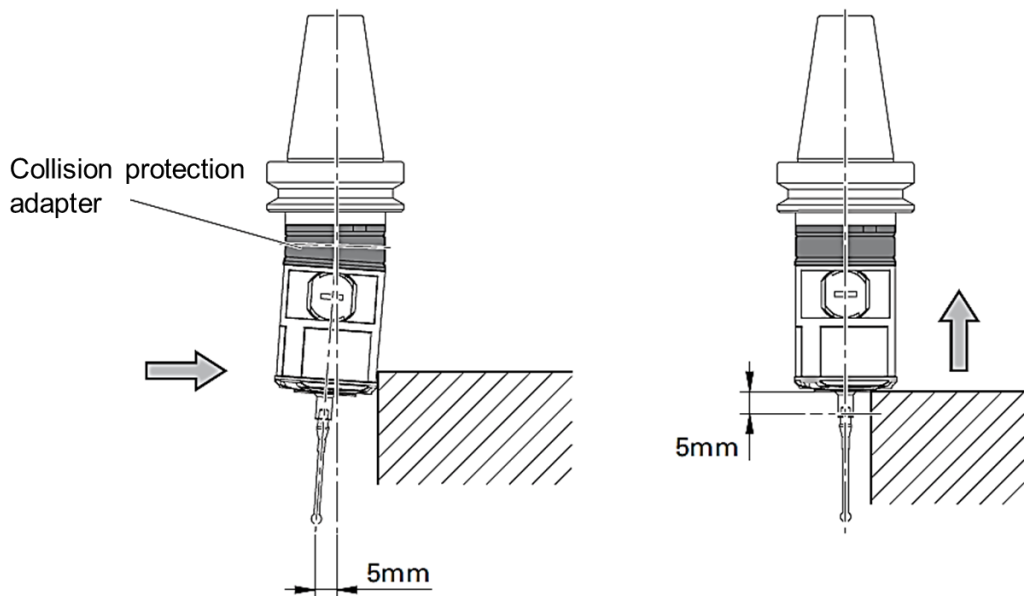
Only necessary if electronic centering is not possible.

Centering option 2, with pin wrench*



Only necessary if electronic centering is not possible.

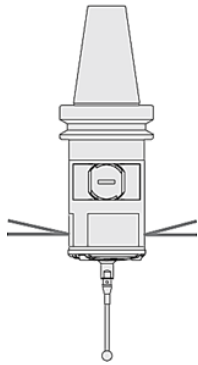
FUNCTIONAL PRINCIPLE OF COLLISION PROTECTION






The ready signal ceases after approx. 1 mm of deflection; the NC stops (the NC must request readiness!).

After collision, perform automatic touch probe calibration cycle of the NC, see p. 9

STATUS OF THE TOUCH PROBE



| | | |
|---|------------------------|--------------------------------------|
|  | Blue blinking | Touch probe ready, stylus at rest. |
|  | Blue continuous | Touch probe ready, stylus deflected. |
|  | Red LED, fast blinking | Possible error. Contact NCT Zrt. |