

Product note

Base holder for boring slide

INDEX MS16

Base holder 10156937

Note on applicability

Illustrations in this publication may deviate from the product supplied. Errors and omissions due to technical progress expected.

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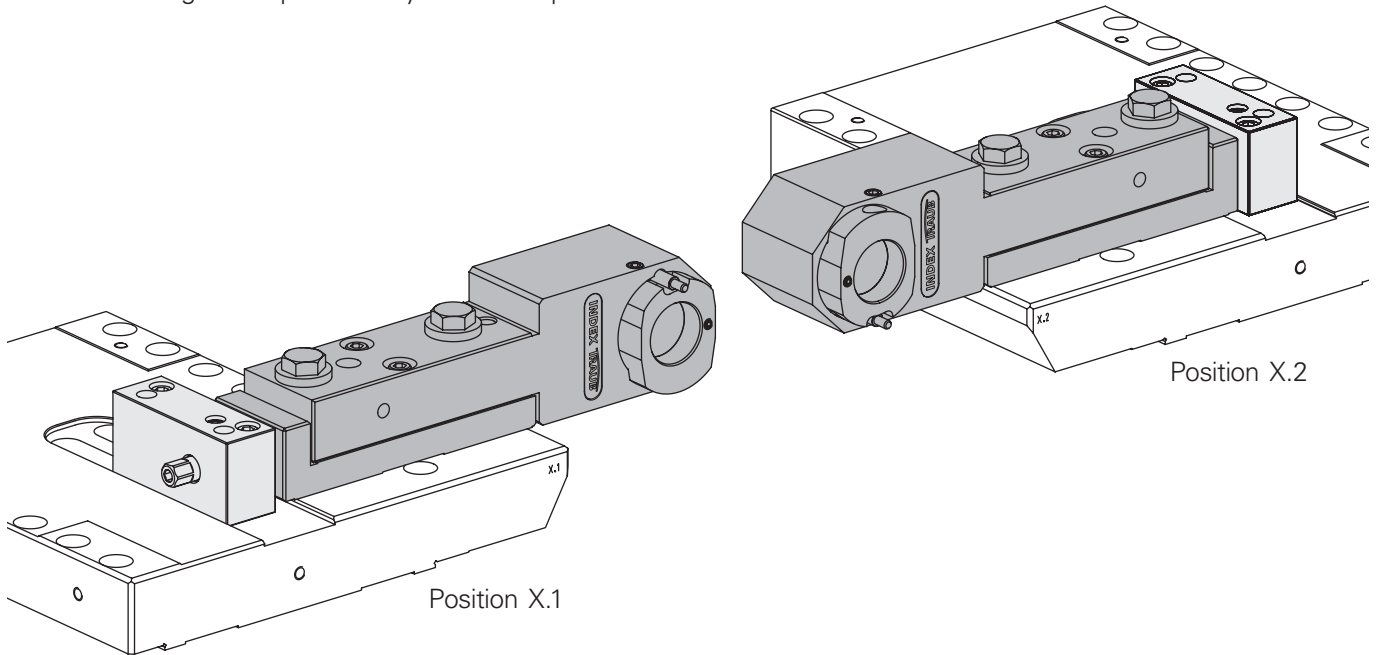
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Setup options on boring slide

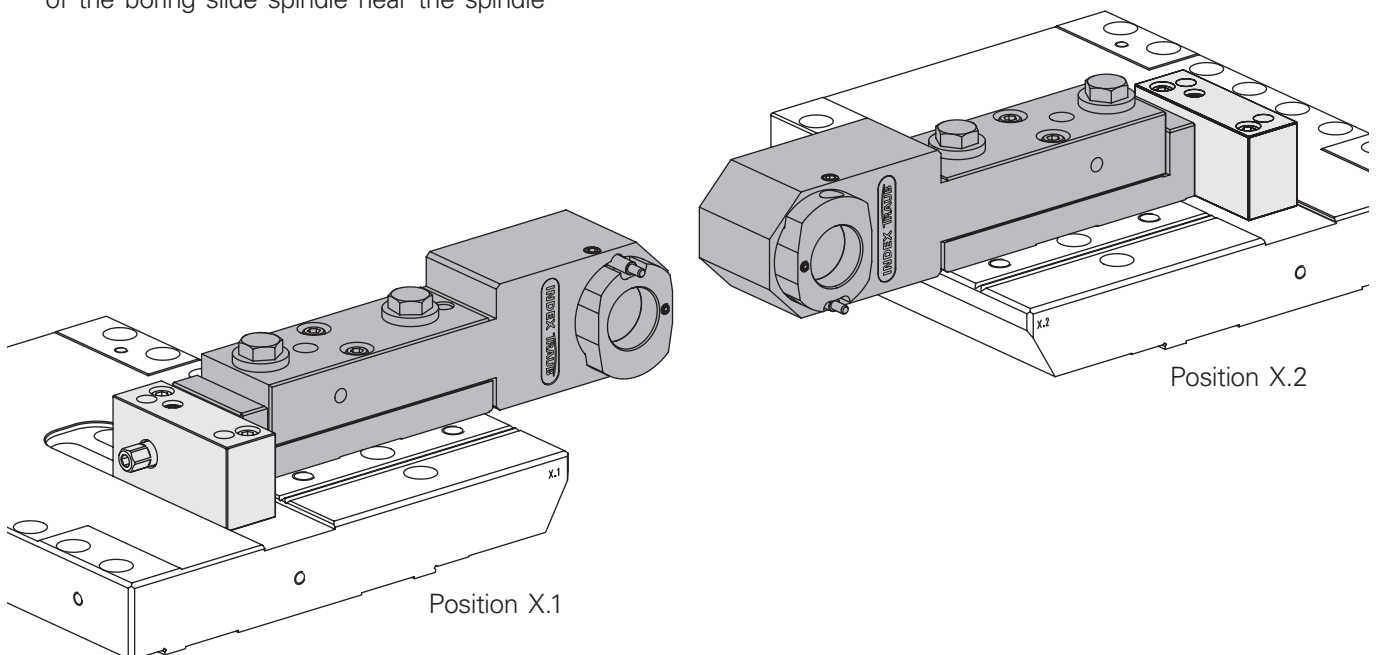
Z+ orientation

- Base holder 10156937 can be mounted on the W-serration of the boring slide spindle away from the spindle



Z- orientation

- Base holder 10156937 can be mounted on the W-serration of the boring slide spindle near the spindle



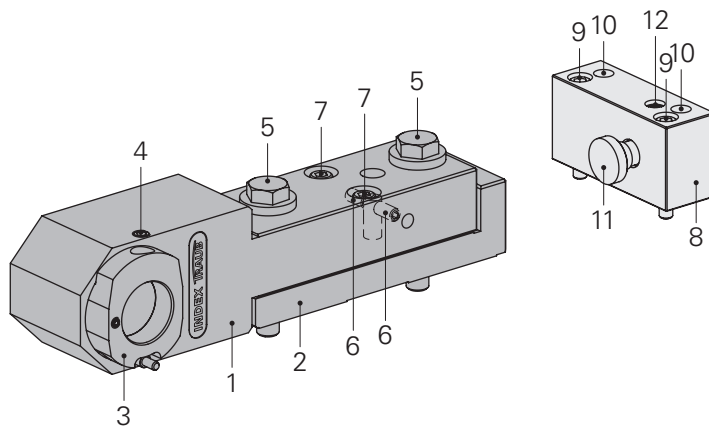
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Position X.2, delivery state

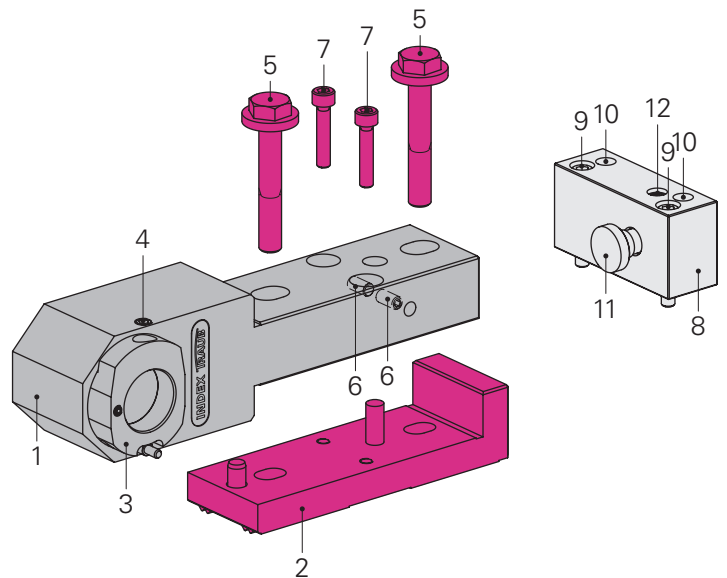
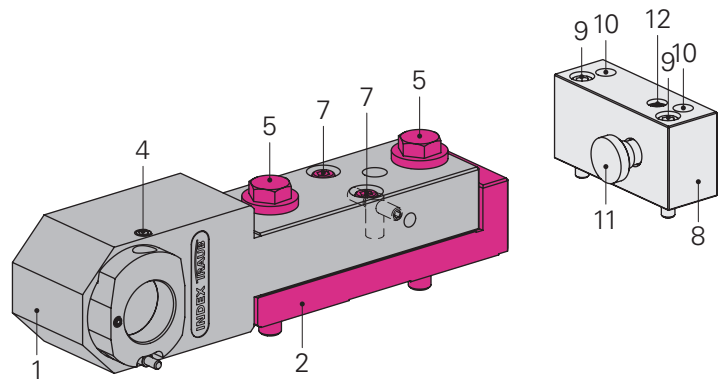
- Base holder with base body (1) and base plate (2)
- Hydraulic expansion clamping sleeve (3) for adjustment in the Y-direction
- Ball-ended thrust screws (4) for hydraulic expansion clamping sleeve (3)
- Mounting screws (5) on the boring sleeve
- Jack screws (6) to adjust the angle
- Screws (7) to fix the angle adjustment
- Stop (8), prepared for
position X.2, Z+ orientation
position X.1, Z- orientation
- Mounting screws (9) for stop (8), loosely attached
- Set screws (10) for stop (8)
- Adjusting screw (11) for adjustment in the X-direction



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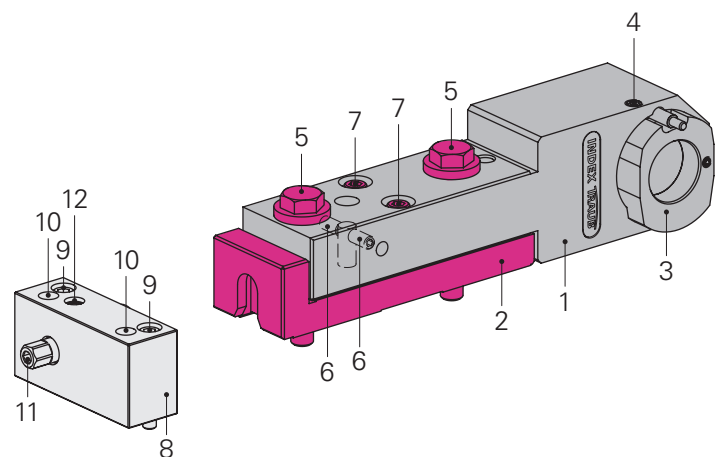
Position X.1, conversion

- Delivery status (position X.2) disassemble into individual parts
- or
- remove base holder from boring slide X.2 and disassemble into individual parts



reassemble for position X.1:

- Base holder with base body (1) and base plate (2)
- Hydraulic expansion clamping sleeve (3) for adjustment in the Y-direction
- Ball-ended thrust screws (4) for hydraulic expansion clamping sleeve (3)
- Mounting screws (5) on the boring sleeve
- Jack screws (6) to adjust the angle
- Screws (7) to fix the angle adjustment
- Stop (8), prepared for
position X.2, Z+ orientation
position x.1, Z- orientation
- Mounting screws (9) for stop (8),
loosely attached
- Set screws (10) for stop (8)
- Adjusting screw (11)
for adjustment in the X-direction
- Clamp (12) for adjusting screw (11)



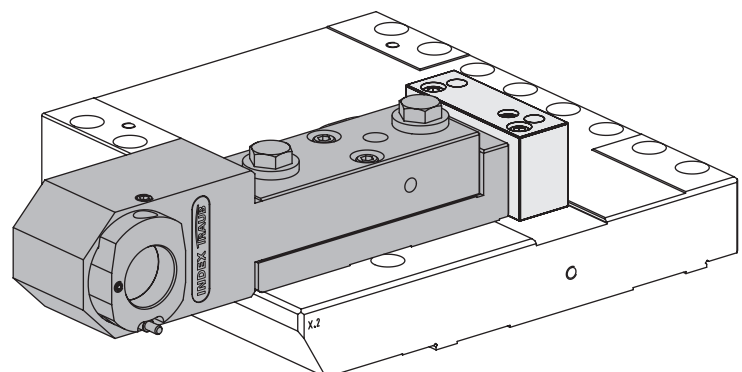
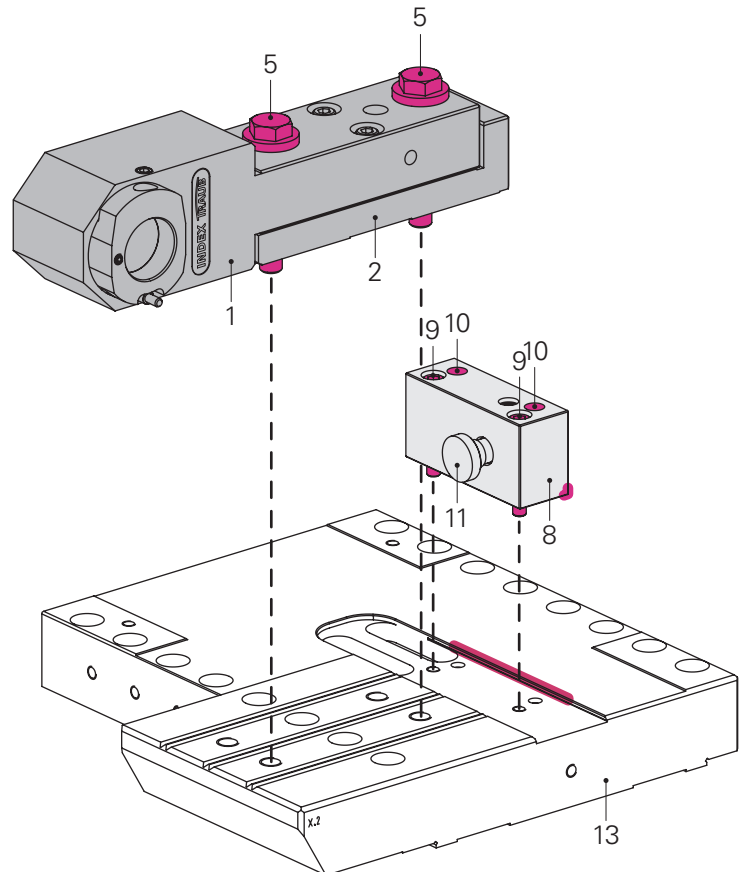
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Setup on boring slide

Position X.2, Z+ orientation

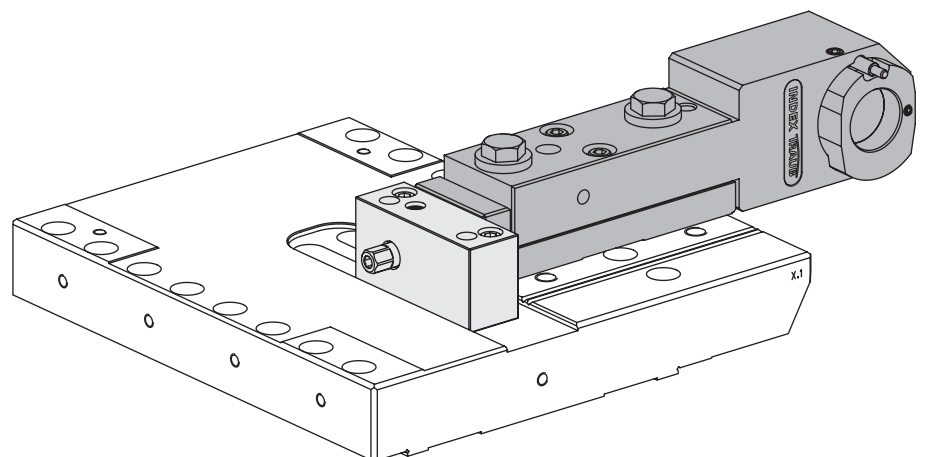
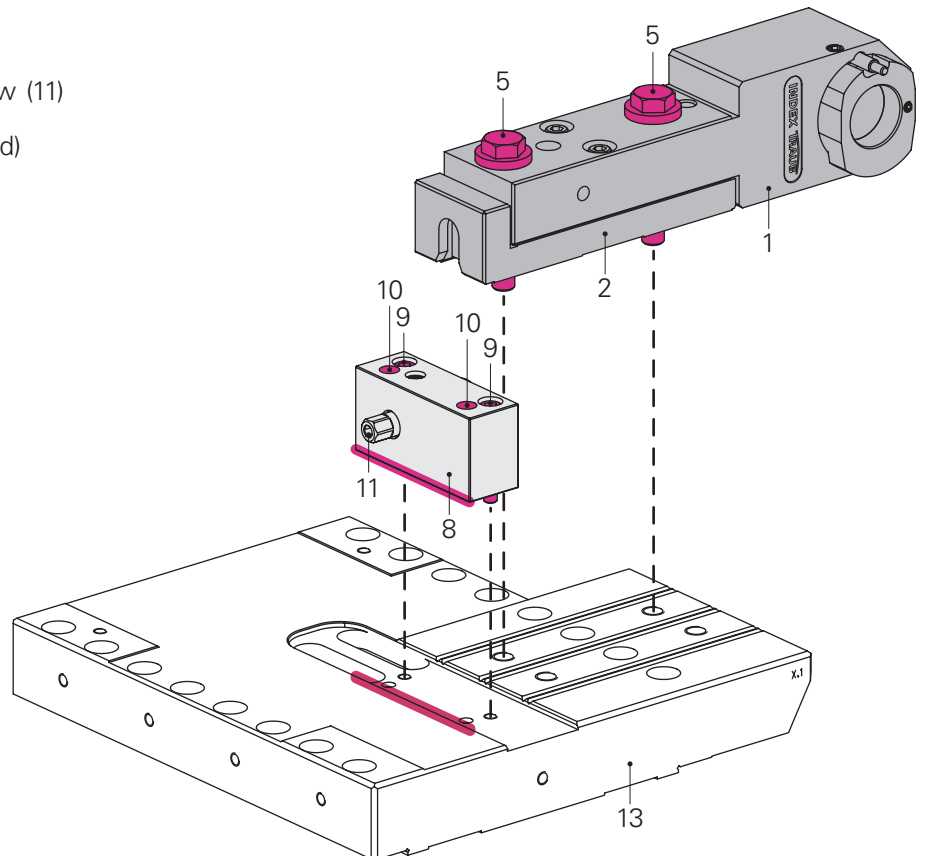
- Position stop (8) (delivery state) on contact surface
- Insert mounting screws (9) in the boring slide (13)
- Turn in set screws (10) until stop (8) sits tight
- Tighten mounting screws (9)
- If necessary, turn in adjusting screw (11)
- Secure base holder (1+2) (delivery state) with mounting screws (5)



Setup on boring slide

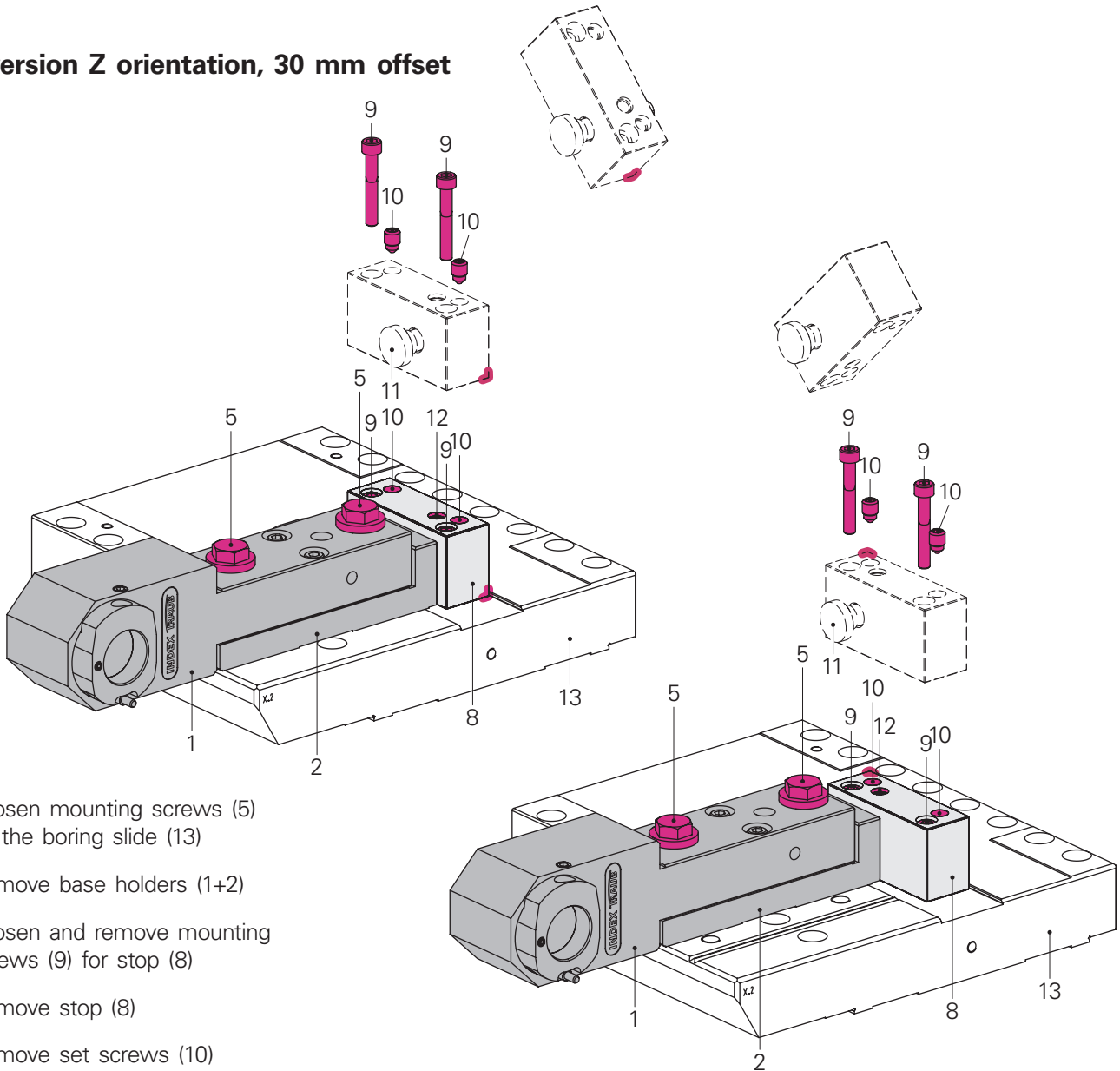
Position X.1, Z- orientation

- Position stop (8) (delivery state) on contact surface
- Insert mounting screws (9) in the boring slide (13)
- Turn in set screws (10) until stop (8) sits tight
- Tighten mounting screws (9)
- If necessary, turn in adjusting screw (11)
- Secure base holder (1+2) (converted) with mounting screws (5)



Setup on boring slide

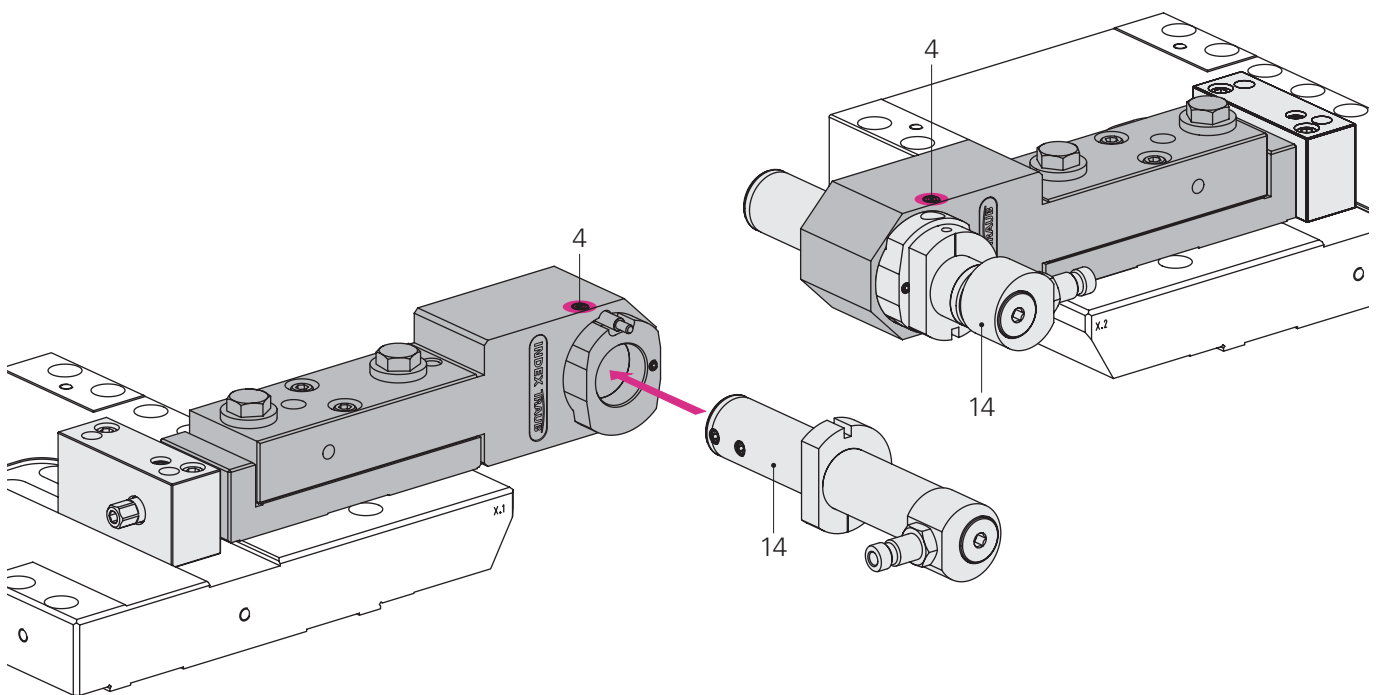
Conversion Z orientation, 30 mm offset



- Loosen mounting screws (5) on the boring slide (13)
- Remove base holders (1+2)
- Loosen and remove mounting screws (9) for stop (8)
- Remove stop (8)
- Remove set screws (10)
- Loosen clamp (12) for adjusting screw (11)
- Turn stop (8) 180° around the short side
- Install set screws (10)
- Position stop (8) on contact surface
- Insert mounting screws (9) for stop (8) on boring slide (13)
- Turn in set screws (10) until stop (8) sits tight
- Tighten mounting screws (9)
- Attach base holders (1+2) with mounting screws (5) at 30 mm offset
- Realign if necessary

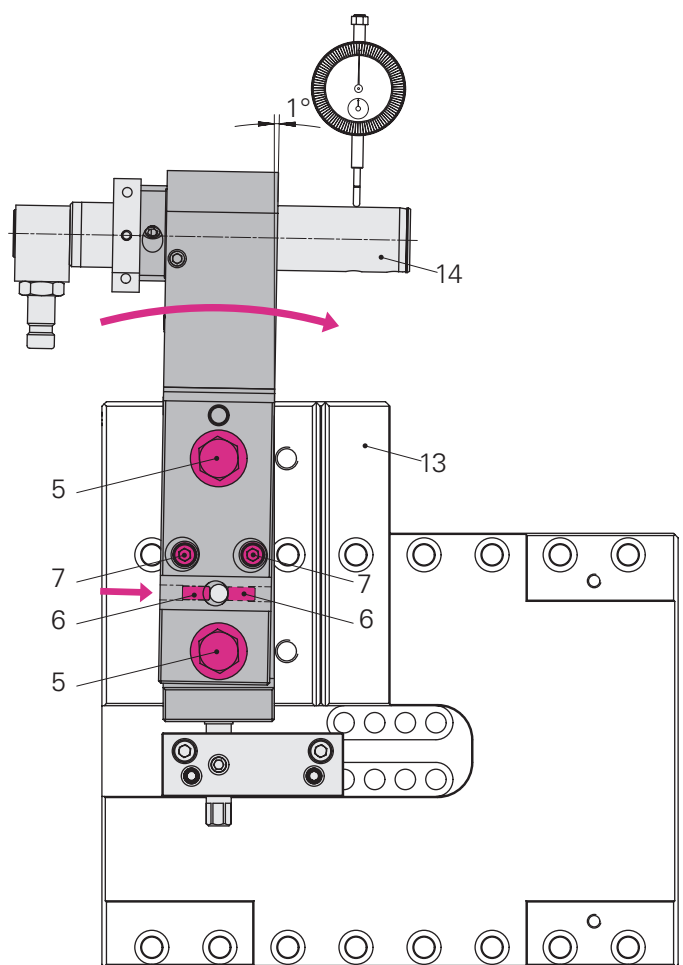
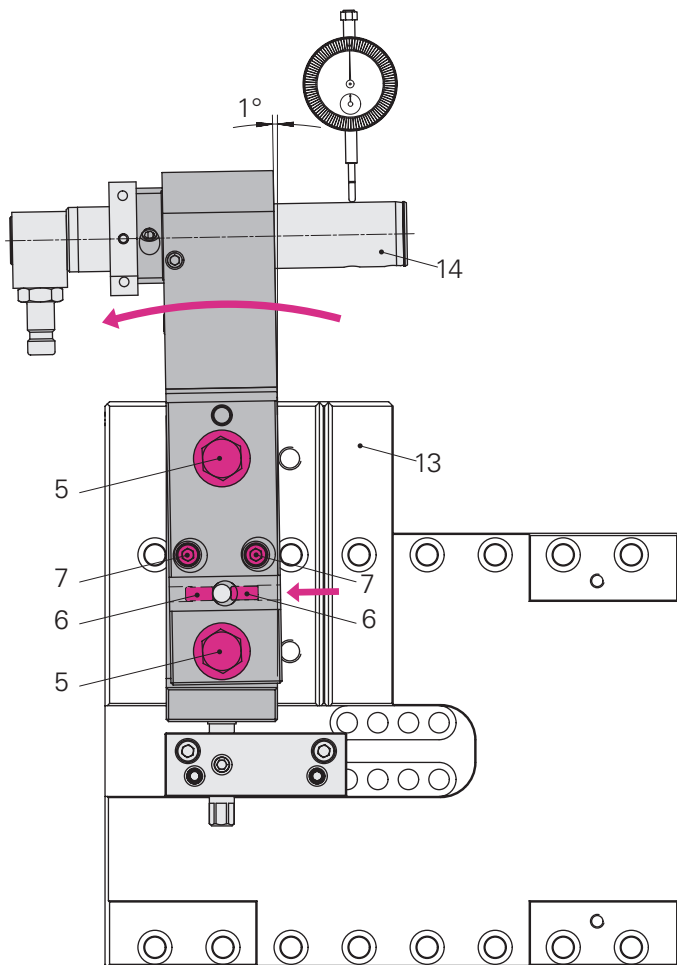
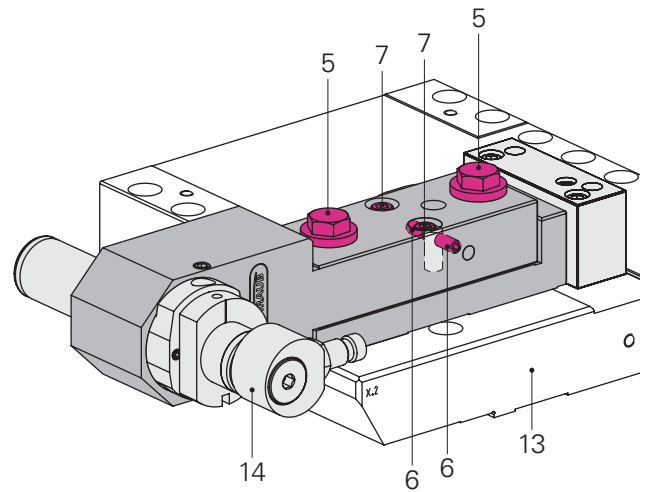
Inserting the drill holder

- Insert the ball-ended thrust screws (4) to prevent the hydraulic expansion clamping sleeves (3) from falling out
- Insert the drill holder (14)



Axis orientation

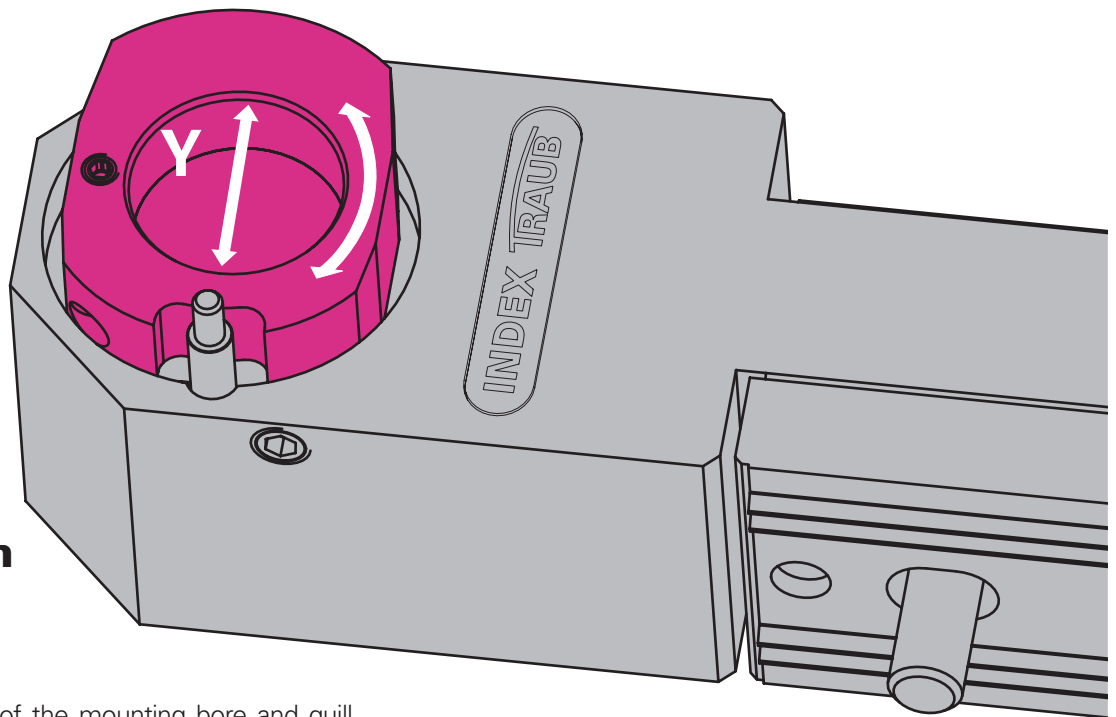
- Drill holder (14) should be already mounted
- Insert mounting screws (5) in the boring slide (13)
- Insert screws (7) to fix the angle adjustment
- Attach dial gauge to drill holder (14) and measure
- +/- 1° setting range possible
- Adjust angle using jack screws (6)
- Tighten screws (7) to fix the angle adjustment
- Check once more with dial gauge on drill holder (14)
- Tighten the mounting screws (5)
- Check once more with dial gauge on drill holder (14)



Y orientation by hydraulic expansion clamping sleeve

Optimum conditions

- Easy and quick adjustment of the tool's Y-orientation by means of the eccentric bush (+/- 0.2 mm)



Y ± 0.2 mm

Cleaning

- Check cleanliness of the mounting bore and quill

Clamping

- The quill/drill holder is clamped by turning the clamping screw up to its stop
- Do not clamp without a part
- Use only original INDEX drill holders
- Clamp only over the entire length of sleeve

Temperature

- Optimal temperature range between 10° and 50°
- Do not use at temperatures above 80°

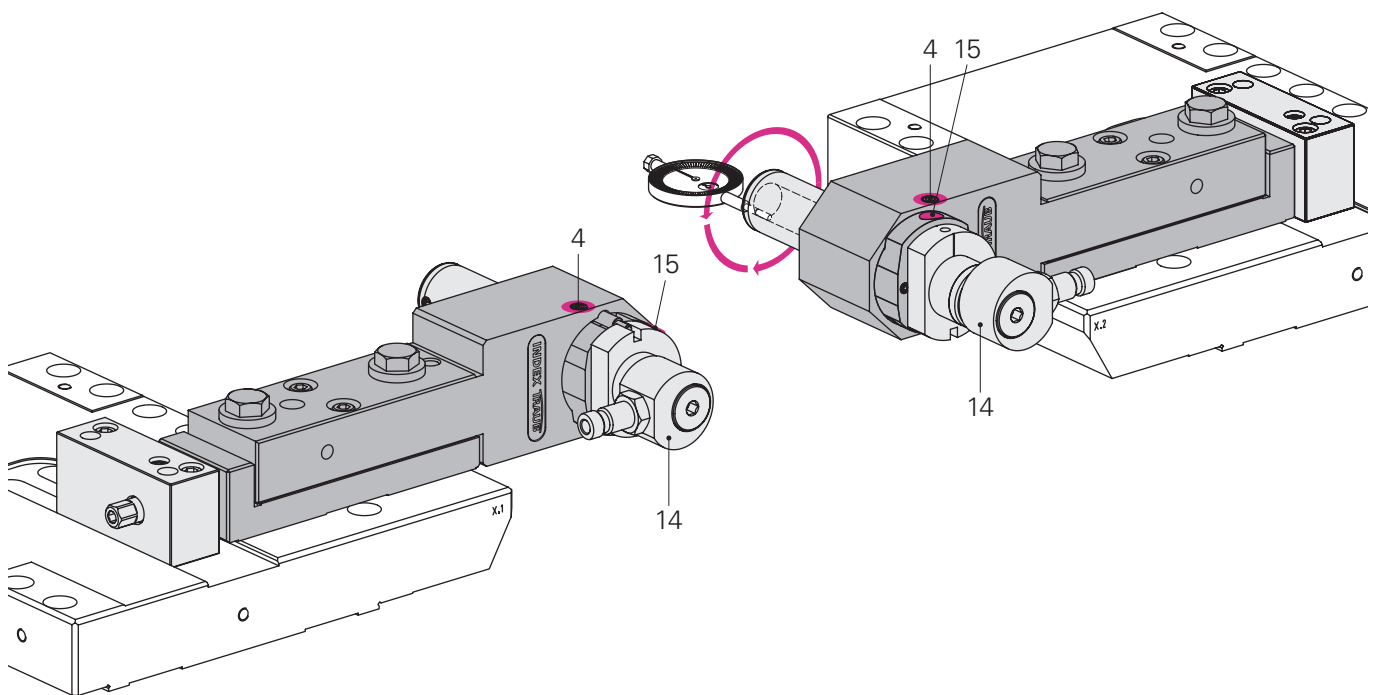
Storage

- Store hydraulic expansion chucks unclamped, cleaned and lightly oiled

Y orientation by hydraulic expansion clamping sleeve

Adjustment

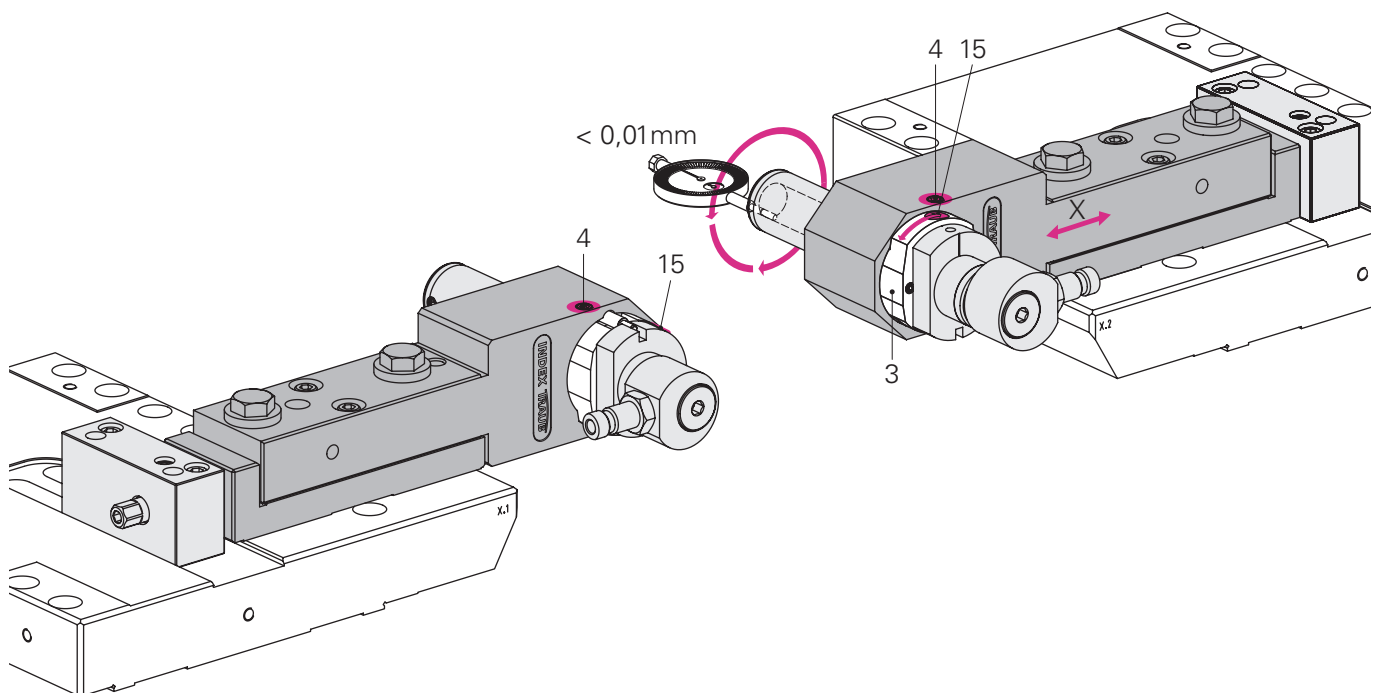
- Attach dial gauge
- Center drill holder (14)
- Screw in hydraulic expansion clamping screw (15) until it stops
- Check runout



Y orientation by hydraulic expansion clamping sleeve

Adjusting concentricity

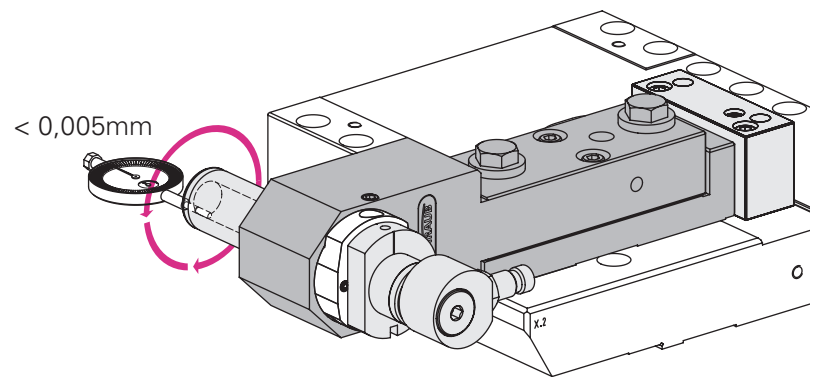
- Loosen hydraulic expansion clamping screw (15)
- Adjust the concentricity
 - by turning the hydraulic expansion clamping sleeve (3) using the ball-ended thrust screws (4)
 - by moving base holders (1+2) in X, see page 17
- Repeat the steps until the runout is $< 0,01\text{ mm}$
- Tighten the hydraulic expansion clamping screw (15)
- Tighten ball-ended thrust screws (4) to max. 3 Nm



Y orientation by hydraulic expansion clamping sleeve

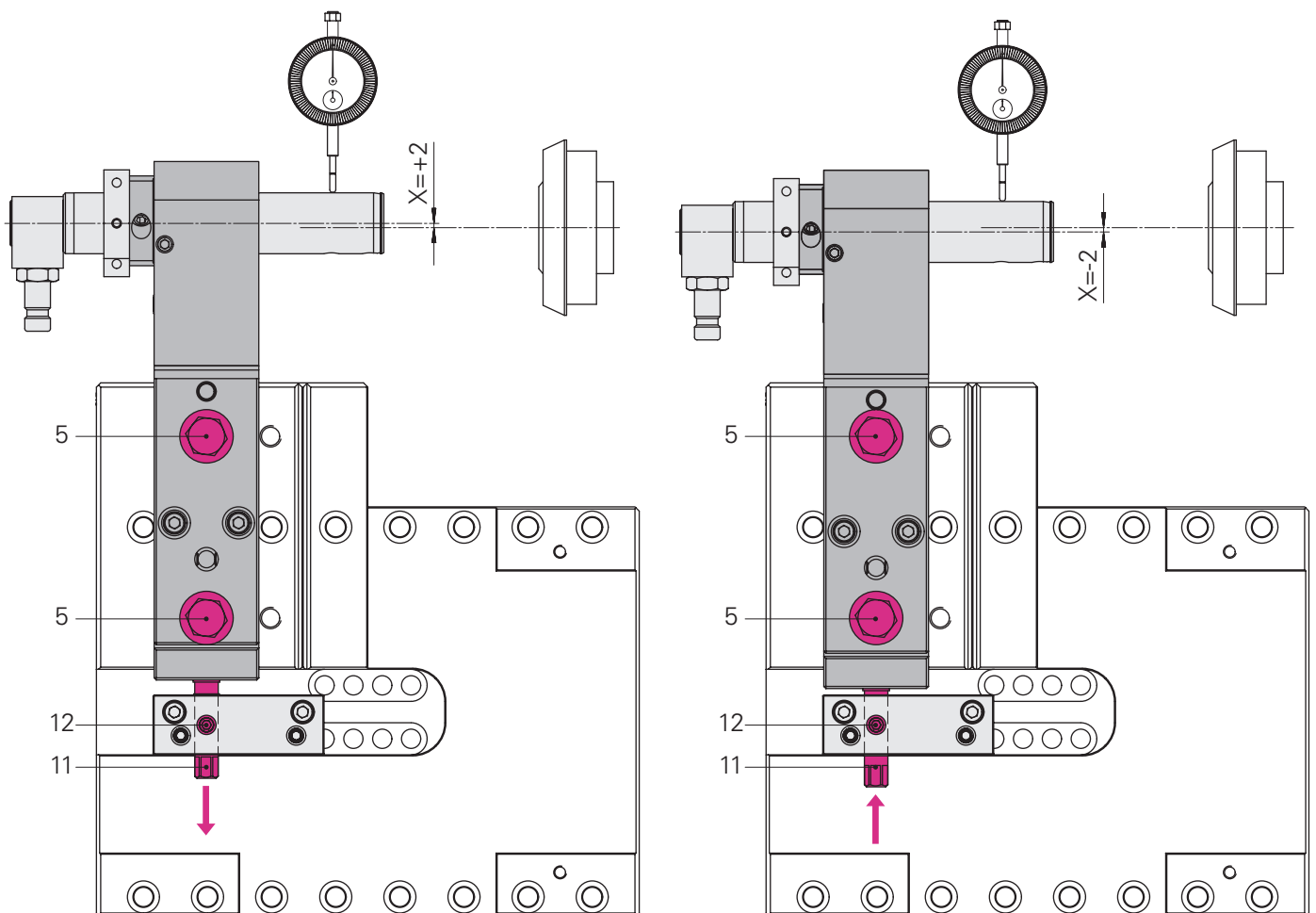
Adjustment to below 0.005 mm

- Check the adjustment after warm-up of the machine



Alignment in X- spindle center

- Axis alignment and Y alignment should be done already
- Insert mounting screws (5)
- Loosen clamp (12) for adjusting screw (11)
- Adjust spindle center in the X-direction with adjusting screw (11)
- Measure drill holder with dial gauge
- +/- 2 mm setting range possible
- Tighten clamp (12) for adjusting screw (11)
- Tighten mounting screws (5)



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